# Jamestown, RI School <br> Department Postretirement Medical \& Life Insurance Plan <br> Financial Disclosure Information in accordance with Statement of Governmental Accounting Standards <br> Board No. 45 <br> for the period beginning July 1, 2011 and ending June 30, 2012 

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## I. INTRODUCTION

The purpose of this report is to present certain financial information relative to the Jamestown, RI School Department Postretirement Medical \& Life Insurance Plan in accordance with the Statement of Governmental Accounting Standards Board No. 45 (GASB45).

The report presents information regarding the Jamestown, RI School Department Postretirement Medical \& Life Insurance Plan for the period beginning July 1, 2011 and ending June 30, 2012. This information includes the determination of Annual Required Contribution (ARC) and OPEB cost, disclosure of the Net OPEB Obligation and Funding Progress as well as other Required Supplementary Information. Sensitivity analysis on various financial and demographic assumptions is also provided.

This report was based on information submitted to our firm in the form of census data, medical insurance premiums and rates, and other plan claims information and descriptions of Plan benefits as provided by the Jamestown, RI School Department. Although the data has been reviewed for reasonableness, an audit of the data was not performed. We have relied on the information provided, including plan provisions and participant data, as complete and accurate.

Actuarial computations under GASB45 are for purposes of fulfilling employer accounting requirements and require assumptions about future events. We believe that the calculations and assumptions reported herein have been made on a basis consistent with our understanding of GASB45 and are reasonable for this purpose and should not be used for any other purposes than financial disclosures. In addition, no relationship exists with the plan or plan sponsor that impairs the objectivity of our work.

I meet the GASB No. 45 Qualification Standards of the American Academy of Actuaries, based upon my education, experience and continuing education.


David Pratt Ward, A.S.A., E.A., M.A.A.A.
Director of Actuarial Services

December 21, 2012
Date

## II. DESCRIPTIVE INFORMATION

Plan Description: $\quad$ Single-employer, defined benefit postretirement health and life insurance program.

Groups Covered: Retiring union employees from the Jamestown, RI School Department after attaining age 50 and 15 years of service. Administrative employees are eligible at age 50 with 10 years of service and non-exempt employees are not eligible. Teaching assistants and support staff are not eligible for postretirement benefits.

## Benefit Formula:

Eligible employees hired prior to $8 / 31 / 1985$ receive either individual or family medical coverage under Blue Cross Blue Shield Classic Plan or Healthmate Coast to Coast until the retiree becomes Medicare eligible. When the retiree becomes eligible for Medicare, he/she, and an eligible spouse, will be covered under the Plan 65. Retirees also receive individual or family Delta Dental coverage. Eligible employees hired prior to 8/31/1985 contribute 5\% of their premium. Effective July 1, 2012, all current and future retirees are required to be enrolled in Medicare Part A and Part B to continue post-65 medical coverage under this Plan.

Eligible employees hired between 8/31/1985 and 7/1/1997 will receive 2 years of individual medical coverage under Blue Cross Blue Shield Classic Plan or Healthmate Coast to Coast until age 65. Retirees also receive individual Delta Dental coverage. Eligible employees hired in this period also contribute $5 \%$ of their premium. In addition, it is our understanding that eligible employees hired between 7/1/1997 and 8/31/2000 will be treated similarly.

Eligible employees hired after 8/31/2000 may continue medical and dental coverage with the entire premium paid by the retiree.

Surviving spouses are not eligible to continue receiving benefits.

## II. DESCRIPTIVE INFORMATION (cont'd)

Significant Events: It was passed in the August 25, 2011 School Committee meeting that, effective July 1, 2012, retirees that were hired prior to August 31, 1995 would be required to enroll in Medicare Part A and Part B coverage. The School will then provide supplemental coverage, in this Plan, under Plan 65 for the retiree's lifetime. This event significantly decreases the projected liability for retirees that were previously valued under a lifetime of full medical coverage by the School.

## III. ACTUARIAL METHODS

Measurement Date: July 1, 2011 for all purposes.
$\begin{array}{ll}\text { Actuarial Cost Method: } & \begin{array}{l}\text { The Annual Required Contribution ("ARC") has been } \\ \text { determined utilizing the projected unit credit funding } \\ \\ \text { method (with service proration). Under this funding } \\ \\ \text { method, projected benefits are assumed to accrue on a } \\ \text { straight line basis from date of hire to expected }\end{array} \\ \text { retirement date for each participant. Normal cost for a } \\ \text { participant is the present value of the projected benefit } \\ \text { which accrues in the current plan year. Normal cost for } \\ \text { the Plan is the sum of the normal costs for all } \\ \text { participants. }\end{array}$

Asset Valuation Method: Not applicable as plan is currently unfunded. Plan benefits are paid out of the Jamestown, RI School Department's general assets.

## Amortization of Unfunded

Liabilities: The portion of unfunded actuarial liabilities included in the ARC is determined using the level dollar thirty year open amortization basis.

Census Information: Census data and premium information as of July 1, 2011 were used to calculate the ARC, OPEB cost and Net OPEB Obligation.

Net OPEB Obligation at
Fiscal Year End: Based on actual benefit payments, actual contributions to the Plan trust (if applicable), and estimated implicit rate subsidy, for the fiscal year ending June 30, 2012.

## IV. ACTUARIAL ASSUMPTIONS

Actuarial assumptions are estimates as to the occurrence of future events impacting the costs of the plan such as mortality rates, withdrawal rates, medical trend rates, retirement ages, rates of investment earnings, etc. The assumptions have been chosen to anticipate the long-term experience of the plan.

## Assumptions for the Current Valuation

Discount Rate: $\quad 4.00 \%$

Long Term Rate of Return on Assets: Not applicable - there are no plan assets

Healthy Mortality: IRS 2011 P.V. Optional Combined Table for males and females (1.430(h)(3)-1). This optional table is a combination of annuitant and non-annuitant mortality tables. Mortality improvements for the annuitant table are projected 7 years beyond the valuation date. Mortality improvements for the non-annuitant table are projected 15 years beyond the valuation date.

Turnover: Sarason Crocker Straight Table T-1. Sample rates below:

| Age | Rate |
| :---: | :---: |
| 25 | $4.9 \%$ |
| 35 | $2.3 \%$ |
| 45 | $0.2 \%$ |

Retirement: Rates of retirement by age are:

| Age | Rate |
| :---: | :---: |
| 50 | $10 \%$ |
| $51-54$ | $5 \%$ |
| 55 | $15 \%$ |
| $56-59$ | $10 \%$ |
| 60 | $25 \%$ |
| 61 | $10 \%$ |
| 62 | $25 \%$ |
| $63-64$ | $15 \%$ |
| 65 | $100 \%$ |

## IV. ACTUARIAL ASSUMPTIONS (cont'd)

Participation: It is assumed that $95 \%$ of future retirees elect medical and dental coverage and $5 \%$ waive their benefits. All current retirees are assumed to continue coverage.

## Plan Election:

Prior to age 65, it is assumed that $90 \%$ of all future retirees and their families elect Healthmate Coast to Coast medical coverage and $10 \%$ elect Blue Classic medical coverage.

At age 65, when the employee become eligible for Medicare, $100 \%$ of future retirees are assumed to be covered under Medicare and will elect coverage under Plan 65. Please note that only participants hired prior to $8 / 31 / 1985$ are eligible for medical benefits past 65 .

Current retirees over age 65 are valued under their elected plan until July 1, 2012, at which point all retirees are valued under Plan 65. Current retirees under age 65 are also valued under their elected Plan until age 65 when they will become Medicare eligible and enter Plan 65.

| Current Health Care <br> Monthly Premium Rates | Plan - Single Rate / Family Rate per month |  |  |
| ---: | :--- | ---: | :--- |
| $(7 / 1 / 2011):$ | Healthmate - | $\$ 622.28 /$ | $\$ 1,556.54$ |
|  | Classic - | $\$ 712.23 /$ | $\$ 1,758.59$ |
|  | Plan 65 and Rx - | $\$ 336.45 /$ | N/A |
|  | Dental - | $\$ 30.65 /$ | $\$ 91.86$ |

Health Care Cost Trend Rates: Medical: $8.5 \%$ per year graded off $0.5 \%$ per year to an ultimate rate of $4.5 \%$ per year after ten years.

Dental: $7.5 \%$ per year graded off $0.5 \%$ per year to an ultimate rate of $4.5 \%$ per year after eight years.

## IV. ACTUARIAL ASSUMPTIONS (cont'd)

Marital Status: $\quad 75 \%$ of future retirees are assumed to be married and elect family medical coverage. Female spouses are assumed to be 3 years younger than males. Actual spousal information is used for current retirees if available.

Aging Assumption: Claim costs are assumed to increase by the following chart to reflect higher healthcare costs for older individuals:

| Age | Rate |
| :---: | :---: |
| $45-69$ | $3.0 \%$ |
| $70-74$ | $2.5 \%$ |
| $75-79$ | $2.0 \%$ |
| $80-84$ | $1.0 \%$ |
| $85-89$ | $0.5 \%$ |
| $90+$ | $0 \%$ |

Dental claim are not assumed to be effected by aging assumptions past age 70. In addition, Plan 65 premiums are community rated and do not include aging assumptions.

## V. CHANGES IN ACTUARIAL ASSUMPTIONS \& METHODS

The table below indicates which assumptions, other than the Health Care Working Rates, have changed from the prior Fiscal Year. In the opinion of the actuary, these changes were made to provide that the assumption used is consistent with our expectations of future plan experience.


## VI. CALCULATION OF ANNUAL REQUIRED CONTRIBUTION

The Annual Required Contribution (ARC) of the employer is the portion of the present value of future benefits that is to be recognized in the current fiscal year. It is made of the following components (See VIII.A and Glossary for definitions of terms):
A. Normal cost, or the portion of the APV attributable to service in the current year
B. Amortization of the unfunded AAL-PUC resulting from plan amendments, actuarial (gains)/losses or initial adoption(s) of the plan
C. Interest Cost, or the expected increase in the AAL attributable to the passage of time (during the year)
D. Expected return on OPEB liability/asset, if any, (may reduce the other costs)
A. Normal cost as of July 1, 2011
\$ 107,843
B. Amortization of Unfunded Liability

1. Amortization of initial unfunded liability \$ 361,216
2. Amortization of UAAL: plan amendments 0
3. Amortization of UAAL: (gains)/losses 0
4. Amortization of UAAL, $[(1)+(2)+(3)] \$ 361,216$
C. Interest on Normal Cost and Unfunded Liability
5. Normal Cost + Amortization of UAAL, [(A) + (B.4)] \$ 469,059
6. Interest to end of period at $4.000 \%$ \$ 18,761
D. Interest Cost on OPEB liability/(asset)
7. OPEB liability/(asset) $\$$
8. Interest to end of period at $4.000 \%$ \$ 0
E. Annual Required Contribution [(A) + (B.4) + (C.2) + (D.2)] \$ 487,820
F. Expected Benefit Payments \$ 585,569
G. Increase in ARC over Pay-as-you-go [(E) - (F)] \$
$(97,749)$
H. Covered Payroll
$\$ 3,882,728$
I. ARC as a Percent of Covered Payroll [(E)/(H)] 12.56\%

## VII. DEVELOPMENT OF NET OPEB OBLIGATION

A. Fiscal Year Ending June 30, 2012

1. Annual Required Contribution \$ 487,820
2. Interest on net OPEB obligation as of July 1,2011 48,125
3. Adjustment to ARC (amortization of OPEB obligation)
4. Annual OPEB cost $[(1)+(2)+(3)]$ 466,368
5. Actual Plan Contributions During Fiscal Year
a. Contributions for Actual Benefit Payments
b. Additional Contribuions to Plan Trust: 0
c. Allocation for Expected Benefit Payments (implicit subsidy) 180,687
d. Total Plan Contributions 564,767
6. Increase/(Decrease) in net OPEB obligation [(4) - (5.d)]
7. Net OPEB obligation as of July 1, 2011

1,203,125
8. Net OPEB obligation as of June 30, 2012 [(6) + (7)]
\$ 1,104,726
B. Recent Net OPEB Obligation History

| Fiscal Year End | Annual OPEB Cost | Percentage of Annual OPEB |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Plan <br> Contributions | Cost <br> Contributed | Net OPEB <br> Obligation |
| 6/30/2009 | 905,779 | 485,397 | 53.6\% | 420,382 |
| 6/30/2010 | 917,793 | 494,411 | 53.9\% | 843,764 |
| 6/30/2011 | 910,245 | 550,884 | 60.5\% | 1,203,125 |
| 6/30/2012 | 466,368 | 564,767 | 121.1\% | 1,104,726 |

## VIII. SCHEDULE OF FUNDING PROGRESS

## A. Actuarial Present Value of Total Projected Benefits

Actuarial Present Value of Total Projected Benefits (APV) is the actuarial present value of the cost to finance benefits payable in the future, discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment. Set forth below are the results of the valuation of the present value of future benefits as of the valuation date, July 1, 2011.

1. Actuarial Present Value of total projected benefits
a. APV Active participants total
\$ 2,519,483
b. APV Retirees
5,274,799
c. Total APV, $[(a)+(b)]$
\$ 7,794,282

## B. Actuarial Accrued Liability

Actuarial Accrued Liability (AAL-PUC) is defined as the actuarial present value of benefits allocated to all periods prior to the valuation date. The Projected Unit Credit (PUC) Actuarial Cost Method was used to allocate costs to various years. Set forth below are the results of the valuation of the AAL-PUC as of the valuation date, July 1, 2011.
2. Actuarial Accrued Liability
a. AAL-PUC Active participants total
\$ 1,221,206
b. AAL-PUC Retirees
c. Total AAL-PUC, $[(a)+(b)]$
\$ 6,496,005
3. Fair Value of Assets as of July 1, 2011
\$
4. Statement of Funded Status as of July 1, 2011
$\begin{array}{lll}\text { a. Actuarial Present Value - total projected benefits, [(1.c)] } & \$, 794,282 \\ \text { b. Future accruals for active participants } & \$ 1,298,277\end{array}$
c. Actuarial Accrued Liability, [(2.c)]

6,496,005
d. Fair Value of Assets, [(3)]
e. Funded status, [(d) - (c)]
$\$ \quad(6,496,005)$
f. Unfunded Actuarial Accrued Liability (UAAL)

6,496,005
5. Funding Percentageas of July 1, 2011 [(3)/(2.c)]
0.00\%

## VIII. SCHEDULE OF FUNDING PROGRESS (cont'd)

C. Reconciliation of Actuarial Accrued Liability and Development of (Gain)/Loss

1. Actuarial Accrued Liability as of July 1, 2009 \$ 14,153,205
2. Normal Cost plus Interest at $4.00 \%$ (2009 and 2010) 210,749
3. Interest Cost $1,114,894$
4. Actual Benefit Payments plus Implicit Subsidy $(1,045,295)$
5. Projected Actuarial Accrued Liability \$ 14,433,553
6. (Gain)/Loss due to Plan Experience $(1,026,181)$
7. (Gain)/Loss due to Actuarial Method Change
a. Change in Mortality Assumption (Before Post-65 Change)
391,990
b. Change in Post-65 Benefits for Grandfathered Retirees
$(7,303,357)$
8. Actuarial Accrued Liability as of July 1, 2011
\$ 6,496,005

## D. Fair Value of Assets - Projected Reconciliation of Plan Assets through June 30, 2012

The following table projects the reconciliation of the change in the market value of assets over the upcoming plan year based upon financial information provided by Jamestown, RI School Department:

1. Market Value of Assets July 1, 2011
2. Additions during the year
a. Town's contributions to fund $\$ 0$
b. Actual Town payments $\$ 564,767$
c. Actual retiree contributions $\$ 5,582$
d. Interest earned \$0
e. Total additions \$570,349
3. Disbursements during the year
a. Actual benefit payments N/A
b. Allocation for expected benefit payments $\quad(\$ 389,662)$
c. Allocation for expected benefit payments (implicit subsidy) (\$180,687)
d. Other disbursements from fund $\$ 0$
e. Total disbursements
$(\$ 570,349)$
4. Market Value of Assets June 30, 2012
5. Estimated investment rate of return (net of expenses)

## VIII. SCHEDULE OF FUNDING PROGRESS (cont'd)

E. Funded Ratio and UAAL as a Percentage of Covered Payroll

| Actuarial <br> Valuation <br> Date | Actuarial Value of Assets (a) | Actuarial Accrued Liability (b) | Unfunded <br> AAL <br> (b-a) | Funded <br> Ratio <br> (a/b) | Covered Payroll <br> (c) | UAAL as a <br> Percentage <br> of Covered <br> Payroll <br> $((b-a) / c)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1/1/2008 | N/A | 13,129,596 | 13,129,596 | 0.0\% | 3,944,077 | 332.9\% |
| 7/1/2009 | N/A | 14,153,205 | 14,153,205 | 0.0\% | 3,479,423 | 406.8\% |
| 7/1/2011 | N/A | 6,496,005 | 6,496,005 | 0.0\% | 3,882,728 | 167.3\% |

## IX. AMORTIZATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY

Actuarial Accrued Liability is amortized over 30 or fewer years. The 30 year level dollar amortization is presumed to be established on an open amortization basis. This means that the period of amortization is reset each year to be 30 years.

|  | Base Amount | Date of First Charge or (Credit) | Amort. <br> Period (years) | Amort. Interest Rate | Amort. <br> Factor | Outstanding Balance | Amort. <br> Charge or (Credit) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. Initial UAAL | 6,496,005 | 7/1/2011 | 30.00 | 4.000\% | 17.98 | 6,496,005 | 361,216 |
| 2. UAAL from amendments | 0 | N/A | N/A | N/A | N/A | 0 | 0 |
| 3. UAAL (gain)/loss | 0 | N/A | N/A | N/A | N/A | 0 | 0 |
| 4. Total | 6,496,005 |  |  |  |  | 6,496,005 | 361,216 |

## X. CASH FLOW PROJECTIONS

The Plan liability will be satisfied through the payment of benefits for current and future retirees. Using the same assumptions for retirement, mortality, and increases in claims costs that were used to perform the valuation, the cash requirements are projected for each of the next fifteen years. The cash requirements are based on projected claims costs, less retiree contributions, if applicable, for both current and future retirees.

The cash flow projections show costs under the current funding (Pay-as-You-Go), compared to the Annual Required Contribution (ARC). The Total ARC equals the sum of the Normal Cost, Interest Cost, and Amortization Payment. The projections show total cash flows for the thirty year open amortization method. This means that the period of amortization is reset each year to be 30 years. Amortization may also be allowed as a percent of payroll under the GASB standards, or may be on a closed basis amortization. This means that the period of amortization decreases each year by one year. The first year amortization period being 30 years, the second being 29 years and so forth until in the thirtieth year the amortization period is 1 year.

The projections below are prepared on a closed group basis, meaning no new employees are added to the existing population for future years.

The cost projection in subsection A below, Projection with Partial Prefunding, applies only if the plan is not prefunded and contributions are only the Pay-As-You-Go (PAYGO) costs. However, if the OPEB Trust Fund has an initial balance, plan assets continue to grow with investment return.

The cost projection in subsection B below, Projection with Prefunding, applies only if the Plan is prefunded and the employer makes annual contributions to the plan equal to the ARC. If the employer does not make annual contributions, as shown, or makes only partial annual contributions, the ARC for years after June 30, 2012 will be higher than those shown in subsection B. Please note that if the Town contributes to the OPEB Trust Fund an amount equal to the ARC that is less than the PAYGO amount, benefit payments reduce the plan's assets resulting in a lower funded position than if the Town continued to contribute the PAYGO amount.

## XI. CASH FLOW PROJECTIONS (cont'd)

## A. Projection with Partial Prefunding (4.00\% discount rate)

| Plan Year Ending | $\begin{gathered} \text { Contribution } \\ \text { (PAYGO) } \\ \hline \end{gathered}$ | Annual Required Contribution | Annual OPEB Cost | Net OPEB Obligation | Projected <br> Actuarial <br> Liability | $\begin{gathered} \text { Plan } \\ \text { Assets } \\ \text { (beg. yr.) } \end{gathered}$ | Funding Percentage (beg. yr.) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6/30/2012 | \$564,767 | \$487,820 | \$466,368 | \$1,104,726 | \$6,496,005 | \$0 | 0.00\% |
| 6/30/2013 | 384,000 | 473,000 | 453,000 | 1,174,000 | 6,291,000 | 0 | 0.00\% |
| 6/30/2014 | 366,000 | 470,000 | 449,000 | 1,257,000 | 6,259,000 | 0 | 0.00\% |
| 6/30/2015 | 371,000 | 469,000 | 447,000 | 1,333,000 | 6,244,000 | 0 | 0.00\% |
| 6/30/2016 | 374,000 | 460,000 | 436,000 | 1,395,000 | 6,222,000 | 0 | 0.00\% |
| 6/30/2017 | 376,000 | 499,000 | 474,000 | 1,493,000 | 6,189,000 | 0 | 0.00\% |
| 6/30/2018 | 341,000 | 502,000 | 475,000 | 1,627,000 | 6,194,000 | 0 | 0.00\% |
| 6/30/2019 | 358,000 | 508,000 | 479,000 | 1,748,000 | 6,237,000 | 0 | 0.00\% |
| 6/30/2020 | 347,000 | 514,000 | 483,000 | 1,884,000 | 6,268,000 | 0 | 0.00\% |
| 6/30/2021 | 344,000 | 521,000 | 487,000 | 2,027,000 | 6,316,000 | 0 | 0.00\% |
| 6/30/2022 | 350,000 | 528,000 | 492,000 | 2,169,000 | 6,372,000 | 0 | 0.00\% |
| 6/30/2023 | 345,000 | 536,000 | 497,000 | 2,321,000 | 6,429,000 | 0 | 0.00\% |
| 6/30/2024 | 351,000 | 544,000 | 503,000 | 2,473,000 | 6,498,000 | 0 | 0.00\% |
| 6/30/2025 | 364,000 | 553,000 | 509,000 | 2,618,000 | 6,568,000 | 0 | 0.00\% |
| 6/30/2026 | 374,000 | 561,000 | 514,000 | 2,758,000 | 6,632,000 | 0 | 0.00\% |

Results show the impact of the funding projections assuming the Annual Required Contribution is recalculated each year. Projections are based on the closed population as of July 1, 2011.

## XI. CASH FLOW PROJECTIONS (cont'd)

B. Projection with Full Prefunding ( $7.00 \%$ discount rate)

| Plan Year Ending | $\begin{gathered} \text { Contribution } \\ \text { (ARC) } \\ \hline \end{gathered}$ | $\begin{gathered} \text { Annual } \\ \text { Required } \\ \text { Contribution } \\ \hline \end{gathered}$ | Annual OPEB Cost | Net <br> OPEB <br> Obligation | Projected <br> Actuarial <br> Liability | $\begin{gathered} \text { Plan } \\ \text { Assets } \\ \text { (beg. yr.) } \end{gathered}$ | Funding Percentage (beg. yr.) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6/30/2012 | \$564,767 | \$487,820 | \$466,368 | \$1,104,726 | \$6,496,005 | \$0 | 0.00\% |
| 6/30/2013 | 440,000 | 440,000 | 428,000 | 1,093,000 | 4,645,000 | 0 | 0.00\% |
| 6/30/2014 | 435,000 | 435,000 | 423,000 | 1,081,000 | 4,637,000 | 60,000 | 1.29\% |
| 6/30/2015 | 430,000 | 430,000 | 419,000 | 1,070,000 | 4,648,000 | 138,000 | 2.97\% |
| 6/30/2016 | 421,000 | 421,000 | 410,000 | 1,059,000 | 4,654,000 | 210,000 | 4.52\% |
| 6/30/2017 | 415,000 | 415,000 | 404,000 | 1,048,000 | 4,654,000 | 275,000 | 5.92\% |
| 6/30/2018 | 410,000 | 410,000 | 399,000 | 1,037,000 | 4,653,000 | 337,000 | 7.24\% |
| 6/30/2019 | 405,000 | 405,000 | 394,000 | 1,026,000 | 4,687,000 | 434,000 | 9.25\% |
| 6/30/2020 | 401,000 | 401,000 | 390,000 | 1,015,000 | 4,706,000 | 515,000 | 10.93\% |
| 6/30/2021 | 395,000 | 395,000 | 384,000 | 1,004,000 | 4,738,000 | 609,000 | 12.85\% |
| 6/30/2022 | 391,000 | 391,000 | 380,000 | 993,000 | 4,775,000 | 706,000 | 14.78\% |
| 6/30/2023 | 385,000 | 385,000 | 374,000 | 982,000 | 4,810,000 | 799,000 | 16.61\% |
| 6/30/2024 | 379,000 | 379,000 | 369,000 | 972,000 | 4,850,000 | 898,000 | 18.51\% |
| 6/30/2025 | 371,000 | 371,000 | 361,000 | 962,000 | 4,885,000 | 990,000 | 20.27\% |
| 6/30/2026 | 363,000 | 363,000 | 353,000 | 952,000 | 4,906,000 | 1,067,000 | 21.75\% |

Results for $6 / 30 / 2012$ are based on actual no prefunding ( $4.00 \%$ discount rate). Results show the impact of the funding projections assuming the Annual Required Contribution is recalculated each year. Projections are based on the closed population as of July 1, 2011.

## XI. ASSUMPTION SENSITIVITY ANALYSIS

A. Discount Rate of $\mathbf{4 . 0 0 \%}$ (ARC Not Contributed to Trust)
Normal Cost ..... \$107,843
Actuarial Accrued Liability ..... \$6,496,005
Annual Required Contribution ..... \$487,820
Covered Payroll ..... \$3,882,728
ARC as a Percent of Payroll ..... $12.56 \%$
B. Discount Rate of $\mathbf{7 . 0 0 \%}$ (ARC Fully Contributed to Trust)
Normal Cost ..... \$62,142
Actuarial Accrued Liability ..... \$4,827,032
Annual Required Contribution ..... \$455,484
Increase/(Decrease) to ARC in Section VI ..... $(32,336)$
ARC as a Percent of Payroll11.73\%
C. Increase Medical Trend by $\mathbf{1 \%}$
Normal Cost ..... \$131,470
Actuarial Accrued Liability ..... \$7,211,343
Annual Required Contribution ..... \$553,762
Increase/(Decrease) to ARC in Section VI ..... 65,942
ARC as a Percent of Payroll ..... $14.26 \%$
D. Decrease Medical Trend by $\mathbf{1 \%}$
Normal Cost ..... \$89,328
Actuarial Accrued Liability ..... \$5,896,143
Annual Required Contribution ..... \$433,876
Increase/(Decrease) to ARC in Section VI ..... $(53,944)$
ARC as a Percent of Payroll ..... $11.17 \%$

## XII. PER CAPITA MEDICAL COSTS

## A. Under Age 65 Per Capita Medical Costs, July 1, 2011

1. Fiscal 2012 premium cost - Single Coverage
a. Annual cost for single coverage - Healthmate Coast to Coast

7,467.36
b. Annual cost for single coverage - BC \& BS Classic 8,546.76
c. Average annual per participant cost [ $90 \% \times(1 . a)+10 \% \times(1 . b)]$

7,575.30
2. Fiscal 2012 premium cost - Family Coverage
a. Annual cost for family coverage - Healthmate Coast to Coast 18,798.48
b. Annual cost for family coverage - BC \& BS Classic 21,103.08
c. Average annual per participant cost $[90 \%$ x (1.a) $+10 \% \times(1 . b)] \quad 19,028.94$
3. Fiscal 2012 premium cost - Spousal Coverage, [(2.c) - (1.c)]
4. Estimate fiscal 2012 premium cost adjusted to age 65 basis
a. Average age of covered participants
b. Factor to adjust to age 65 per assumptions

$$
[1.030 \wedge(65.00-(a))]
$$

152.52\%
c. Annual cost adjsuted to fiscal 2012 age 65 basis, Employee [(1.c) x (4.b)]
d. Annual cost adjsuted to fiscal 2012 age 65 basis, Spouse [(3) x (4.b)]

## B. Per Capita Dental Costs, July 1, 2011

1. Fiscal 2012 premium cost
a. Annual cost for single coverage
367.80
b. Annual cost for family coverage

1,102.32
c. Annual cost for spouse coverage, [(1.b) - (1.a)]
734.52
2. Estimate fiscal 2012 premium cost adjusted to age 65 basis
a. Average age of covered participants
b. Factor to adjust to age 65 per assumptions

$$
[1.030 \wedge(65.00-(a))]
$$

149.66\%
c. Annual cost adjsuted to fiscal 2012 age 65 basis, Employee [(1.a) x (2.b)]
550.44
d. Annual cost adjsuted to fiscal 2012 age 65 basis, Spouse [(1.c) x (2.b)]

## XII. PER CAPITA MEDICAL COSTS (cont'd)

C. Historical Medical Premiums

1. Healthmate Coast to Coast
a. Single Coverage
517.59
566.74
622.28
b. Family Coverage
1,276.63
1,426.72
1,566.54
2. BC \& BS Classic
a. Single Coverage
590.86
648.66
712.23
b. Family Coverage
1,433.09 1,601.63
1,758.59
3. Dental

| a. Single Coverage | 32.58 | 34.05 | 30.65 |
| :--- | ---: | ---: | ---: |
| b. Family Coverage | 97.66 | 102.07 | 91.86 |

4. Plan 65
163.97
169.15
177.45

Medicare Rx
122.00
137.00
159.00

## XII. PER CAPITA MEDICAL COSTS (cont'd)

## D. Projected Per Capita Medical Costs - Single Coverage

1. Annual single premium cost, July 1, 2011:

Medical
2. Annual single claim
cost at 65, July 1, 2011:
11,553.55
Plan 65
Dental
50.72

4,037.40
550.44
3. Average age of participants :

| $7,575.30$ | $4,037.40$ | 367.80 |
| ---: | ---: | ---: |
| $11,553.55$ | $4,037.40$ | 550.44 |
| 50.72 |  | 51.36 |

4. Expected annual claims costs by age:

Aging

| Age | Assumption |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 50 | 3.00\% | 7,415.78 | N/A | 353.31 |
| 51 | 3.00\% | 7,638.26 | N/A | 363.91 |
| 52 | 3.00\% | 7,867.40 | N/A | 374.82 |
| 53 | 3.00\% | 8,103.43 | N/A | 386.07 |
| 54 | 3.00\% | 8,346.53 | N/A | 397.65 |
| 55 | 3.00\% | 8,596.93 | N/A | 409.58 |
| 56 | 3.00\% | 8,854.83 | N/A | 421.87 |
| 57 | 3.00\% | 9,120.48 | N/A | 434.52 |
| 58 | 3.00\% | 9,394.09 | N/A | 447.56 |
| 59 | 3.00\% | 9,675.92 | N/A | 460.99 |
| 60 | 3.00\% | 9,966.19 | N/A | 474.82 |
| 61 | 3.00\% | 10,265.18 | N/A | 489.06 |
| 62 | 3.00\% | 10,573.13 | N/A | 503.73 |
| 63 | 3.00\% | 10,890.33 | N/A | 518.84 |
| 64 | 3.00\% | 11,217.04 | N/A | 534.41 |
| 65 | 3.00\% | 11,553.55 | 4,037.40 | 550.44 |
| 66 | 3.00\% | 11,900.16 | 4,037.40 | 566.96 |
| 67 | 3.00\% | 12,257.16 | 4,037.40 | 583.96 |
| 68 | 3.00\% | 12,624.87 | 4,037.40 | 601.48 |
| 69 | 3.00\% | 13,003.62 | 4,037.40 | 619.53 |
| 70 | 2.50\% | 13,393.73 | 4,037.40 | 638.11 |
| 75 | 2.00\% | 15,153.78 | 4,037.40 | 638.11 |
| $\stackrel{80}{\ldots}$ | 1.00\% | 16,730.99 | 4,037.40 | 638.11 |
| 85 | 0.50\% | 17,584.44 | 4,037.40 | 638.11 |
| 90+ | 0.00\% | 18,028.47 | 4,037.40 | 638.11 |

## XIII. PARTICIPANT DATA

## A. Reconciliation of Participant Data

|  | Actives | Retirees | Total |
| :--- | :---: | :---: | :---: |
| Total as of July 1, 2009 | 52 | 26 | 78 |
| New Entrants | 8 | $\mathrm{n} / \mathrm{a}$ | 8 |
| Terminations | $(2)$ | $\mathrm{n} / \mathrm{a}$ | $(2)$ |
| Active deaths | - | $\mathrm{n} / \mathrm{a}$ | 0 |
| New retirees | $(1)$ | 1 | 0 |
| Retiree/beneficiary deaths | $\mathrm{n} / \mathrm{a}$ | - | 0 |
| Dropped coverage | $\mathrm{n} / \mathrm{a}$ | $(2)$ | $(2)$ |
| Data adjustments | - |  | 0 |
| Total as of July 1, 2011* | 57 | 25 | 82 |

Total active members as of July 1, 2011 do not include 28 ineligible employees.

## B. Age and Service Distribution of Members

1. Eligible Active Members:

Complete Years of Service as of July 1, 2011

| Attained |  |  |  | $\underline{10-14}$ | $\underline{15-19}$ | $\underline{20-29}$ | $\underline{30+}$ | $\underline{\text { Total }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | $\underline{0-1}$ | $\underline{1-4}$ | $\underline{5-9}$ | $\underline{10-14}$ |  |  |  |  |
| Under 25 | - | - | - | - | - | - | - | 0 |
| $25-29$ | - | 2 | 1 | - | - | - | - | 3 |
| $30-34$ | 1 | 3 | 3 | - | - | - | - | 7 |
| $35-39$ | - | 6 | 5 | 4 | - | - | - | 15 |
| $40-44$ | - | 3 | 1 | 3 | 1 | - | - | 8 |
| $45-49$ | - | - | 3 | 2 | - | 1 | - | 6 |
| $50-54$ | - | 1 | 1 | 4 | - | - | - | 6 |
| $55-59$ | - | - | 1 | 1 | 3 | 2 | - | 7 |
| $60-64$ | - | - | - | 1 | - | 4 | - | 5 |
| $65+$ | - | - | - | - | - | - | - | 0 |
| Total | 1 | 15 | 15 | 15 | 4 | 7 | 0 | 57 |

## XIII. PARTICIPANT DATA (cont'd)

2. Retired Members:

| Attained <br> Age | Single <br> Coverage | Family <br> Coverage | $\underline{\text { Total }}$ |
| :---: | :---: | :---: | :---: |
| Under 55 | - | 1 | 1 |
| $55-59$ | 1 | 2 | 3 |
| $60-64$ | 1 | 10 | 11 |
| $65-69$ | 5 | 1 | 6 |
| $70-74$ | 1 | 2 | 3 |
| $75-79$ | - | - | 0 |
| $80-84$ | - | - | 1 |
| $85+$ | - | 17 | 0 |
| Total | 8 |  | 25 |

## C. Participant Statistics

1. Eligible Active Members:

7/1/2011
7/1/2009

Average age of active members: 44.643 .5
Average past service of active members: 10.5
Average future service until retirement: 14.7
14.7

Average age of retirement for active members: 59.2
58.2
2. Retired Members and Spouses:

Average age of all retired members: 64.9
65.2

Average age of retired members - Plan 65:
68.5

Average age of other retired members:
64.2
74.1
63.1
3. Average Age of All Members not on Plan 65
50.7
used to determine medical claims costs
(see Section XII.A.2)
Average Age of All Members - used
51.4

## XIV. GLOSSARY FOR OPEB AND GASB 45

Actuarial Accrued Liability (AAL) - That portion, as determined by a particular Actuarial Cost Method, of the Actuarial Present Value (APV) of plan benefits and expenses allocated to all periods prior to the valuation date. This is the amount of the APV not provided by future Normal Costs. For example, AAL-PUC references the fact that the Projected Unit Credit Actuarial Cost Method was used to allocate costs to various years.
a) $100 \%$ of the actuarial present value of benefits expected to be paid (APV) to:
i) Retirees and their dependants
ii) Active employees who have attained their expected retirement date and their dependants
b) Proportionate amount, based on employee service recognized up to the valuation date, of the actuarial present value of benefits expected to be paid (AAL) for active employees who have not yet attained their expected retirement date.

The AAL is the benefit obligation disclosed in the financial statements representing current plan liability.

Active Plan Participant - Any active employee who has rendered service during the credited service period and is expected to receive benefits, including benefits to or for any beneficiaries and covered dependents, under the Postemployment benefit plan.

Actuarial Cost Method or Funding Method - A procedure for determining the Actuarial Present Value of OPEB plan benefits and expenses and for developing an actuarial equivalent allocation of such value to time periods, usually in the form of a Normal Cost and an Actuarial Accrued Liability.

Actuarial Present Value of Total Projected Benefits (APV) - The actuarial present value of the cost to finance, as of a specified date, all future benefit costs or a series of benefit costs, with each amount adjusted to reflect (a) the time value of money (through discounts for interest) and (b) the probability of payment (for example, by means of decrements for events such as death, disability, withdrawal or retirement) between the specified date and the expected date of payment. This includes benefits to current active members, terminated employees entitled to benefits but not yet receiving them, if any, retirees, their beneficiaries and any covered dependents pursuant to the terms of the OPEB plan. Expressed another way, 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.

Amortization Payment - That portion of the plan contribution which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability (UAAL).

Annual Required Contribution of the Employer (ARC) - The amount recognized in an employer's financial statement as the required annual contribution to a defined benefit OPEB plan. Components include normal cost, interest cost, actual return on OPEB liability/asset, gain and loss, amortization of gains and losses.

Attribution Period - The period of an employee's service to which the actuarial present value of total projected benefits for that employee is assigned. The beginning of that period is generally the employee's date of hire and the end of the attribution period is the full eligibility date.

## XIV. GLOSSARY FOR OPEB AND GASB 45

Discount Rate - The interest rate used in developing present values to reflect the time value of money. The discount rate is used to determine the present value, as of the valuation date, of future cash flows currently expected to be required to satisfy the OPEB obligation.

Determined as the rate of investment return used to discount future cash flows currently expected to be required to satisfy the Postemployment obligation. The discount rate assumption should be based on the rates of return on high quality, fixed-income investments currently available whose cash flows match the timing and amount of expected payments.

Full Eligibility Date - The date at which an employee has rendered all service necessary to receive full benefits under the plan.

Gains and Losses - Changes in the Unfunded Actuarial Accrued Liability (UAAL) that is the result of actual experience of the plan being different than what was expected.

Health Care Cost Trend Rate (HCCTR) - An assumption about the annual rate(s) of change in the cost of health care benefits which are currently provided by the Postemployment benefit plan, due to factors other than changes in the composition of the plan population by age and dependency status, for each year from the measurement date until the end of the period in which benefits are expected to be paid. The Health Care Cost Trend Rate implicitly considers estimates of health care inflation, changes in health care utilization or delivery patterns, technological advances, and changes in the health status of the plan participants.

Differing types of service, such as hospital care and dental care, may have different trend rates as may service for different portions of the plan population, such as Medicare eligible and non-Medicare eligible members.

Implicit Rate Subsidy - It is a common practice to permit retired employees to continue in the town's group health insurance plan at their own cost once eligibility for town paid benefits is exhausted. This practice creates an OPEB liability based on the theory that retirees have higher utilization of health care benefits than active employees. Therefore, unless the premium rate for retirees is set to fully recover their health costs, the premium for active employees is implicitly overstated to subsidize utilization by retirees. This is called implicit rate subsidy. This rate subsidy is considered a benefit subject to OPEB valuation, included in GASB45.

The OPEB liability normally includes the cost of the implicit rate subsidy for the years in which the retiree is paying the insurance costs for continued coverage. When the retiree is eligible for Medicare, the cost of coverage is generally much closer to the premium cost. Therefore, there is no OPEB liability assumed for Medicare-eligible retirees paying $100 \%$ of the premium.

Interest Cost (component of Annual Required Contribution (ARC)) - The accrual of interest on the Normal Cost and Amortization of UAAL for the year of the valuation. It is calculated by applying the beginning of year Discount Rate to the sum of the NC and UAAL as of the beginning of year.

Market Value (or Fair Value) of Plan Assets - The amount that a plan could reasonable expect to receive for an investment in a current sale between a willing buyer and a willing seller.

## XIV. GLOSSARY FOR OPEB AND GASB 45

Market-Related Value of Plan Assets - A balance used to calculate the Expected Return of Plan Assets. Market-related value can be either fair value or a calculated value that recognizes changes in fair value in a systematic and rational manner over not more than five years.

Normal Cost (component of Annual Required Contribution (ARC)) - The portion of the Actuarial Present Value of Total Projected Benefits (APV) attributed to employee service during a valuation year by the Actuarial Cost Method.

OPEB Assets - The amount recognized by an employer for contributions to an OPEB plan greater than the OPEB expense.

OPEB Expenditures - The amount recognized by an employer in each accounting period for contributions to an OPEB plan on the modified accrual basis of accounting.

OPEB Expense - The amount recognized by an employer in each accounting period for contributions to an OPEB plan on the accrual basis of accounting.

OPEB Liabilities - The amount recognized by an employer in each accounting period for contributions to an OPEB plan less than OPEB expense/expenditures.

Open Group/Closed Group - Terms used to distinguish between two classes of Actuarial Cost Methods. Under an Open Group Actuarial Cost Method, Actuarial Present Values associated with expected future entrants are considered; under a Closed Group Actuarial Cost Method, Actuarial Present Values associated with expected future entrants are not considered.

Pay-As-You-Go (PAYGO) - A method of expensing retiree medical benefits recognizing as an expense the cash currently paid as benefits to retirees, spouses and covered dependents. The minimum method of financing a plan, having no pre-funding until benefits actually become payable.

Per Capita Benefit Cost by Age - The current cost of providing OPEB health care benefits for one year at each age from the youngest age to the oldest age at which plan participants are expected to receive benefits under the plan.

Plan Assets - Assets which have been irrevocably dedicated to the payment of benefits under the plan.

Postemployment - The period between termination of employment and retirement as well as the period after retirement.

Postemployment Benefits - All forms of benefits, other than retirement income (pensions), provided by the employer to the retiree, including, but not limited to, health care, life insurance and legal assistance.

## XIV. GLOSSARY FOR OPEB AND GASB 45

Projected Unit Credit Actuarial Cost Method -- A method under which the projected benefits of each individual included in an Actuarial Valuation are allocated by a consistent formula to valuation years. The Actuarial Present Value of benefits allocated to a valuation year is called the Normal Cost. The Actuarial Present Value of benefits allocated to all periods prior to a valuation year is called the Actuarial Accrued Liability.

Substantive Plan - The terms of a postemployment benefit plan as understood by an employer and plan members that provides postemployment benefits to the employees who render services in exchange for those benefits. The substantive plan is the basis for the accounting for this transaction. In some situations an employer's cost-sharing policy, as evidenced by past practice or by communication of intended changes to a plan's cost-sharing provisions, or a past practice of regular increases in certain monetary benefits may indicate that the substantive plan differs from the existing written plan.

Unfunded Actuarial Accrued Liability (UAAL) -- The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets.

Valuation Date - The date as of which the plan assets and OPEB obligations are measured.

