Town of East Greenwich, Rhode Island Postretirement Health Insurance Program

Financial Disclosure Information in accordance with Statement of Governmental Accounting Standards<br>Board No. 45<br>for the period beginning July 1, 2014 and ending June 30, 2015

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## I. INTRODUCTION

The purpose of this report is to present certain financial information relative to the Town of East Greenwich, Rhode Island Postretirement Health Insurance Program in accordance with the Statement of Governmental Accounting Standards Board No. 45 (GASB45).

The report presents information regarding the Town of East Greenwich, Rhode Island Postretirement Health Insurance Program for the period beginning July 1, 2014 and ending June 30, 2015. 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. 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. 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.


Certified by: David Pratt Ward, A.S.A., E.A., M.A.A.A.
Consulting Actuary


Date

## II. DESCRIPTIVE INFORMATION

Plan Description: Single-employer, defined benefit postretirement health insurance program

Groups Covered: The Town of East Greenwich, Rhode Island can be separated under five groups of employees. Each group is covered under a separate contract with the Town. The groups are:

Police Department<br>Fire Department<br>Nat'l Education Association of RI (NEARI)<br>Department of Public Works (DPW)<br>Other groups including Non-Union, Town Council, Department Heads, and Non-Police Union (Other)

Seasonal employees and temporary police are excluded from the Plan.

Benefit Formula: Police and Fire: Upon retirement, Police Officers and Fire Fighters receive fully covered medical coverage (single or family) under Blue Cross Blue Shield (or equivalent) until the retiree becomes Medicare eligible. At the time the retiree becomes eligible for Medicare they will become covered under the Group Plan 65 (single or single +1 overage).

Police Officers and Fire Fighters are participants in the Municipal Employee Retirement System (MERS) and are eligible for retirement at age 55 with 10 years of service or any time after attaining 20 years of service. Effective July 1, 2012, retirement age under MERS changed to age 55 and 25 years of service (or Social Security Normal Retirement Age and 5 years of service) for police officers and fire fighters that were not retirement eligible as of June 30, 2012.

DPW, NEARI, and Other divisions: Employees who retire after age 65 and after earning 10 or more years of credited service are eligible for full coverage under the Group Plan 65 (single coverage only). If an employee retires prior to age 65, the retiree is partially covered under the Blue Cross Blue Shield Plan (single coverage only) with the Town contributing

## II. DESCRIPTIVE INFORMATION (cont'd)

Benefit Formula (cont'd):
$3.3 \%$ of the premium per year of service at retirement. Retirees contribute the remaining amount of the required premium which is not funded by the Town.

Employees under this group are participants in the MERS and are eligible for retirement at age 58 with 10 years of service. Effective July 1, 2012, retirement age under MERS changed to Social Security Normal Retirement Age and 5 years of service (early retirement as early as age 59) that were not retirement eligible as of June 30, 2012.

Effective for all individuals retiring after July 1, 1993, the Town's obligation to provide health care coverage for a retiree shall continue until the retiree or his/her spouse is enjoying accident and health coverage from another employer. If the coverage under the new employer provides coverage in an amount less than that provided by the Town plan, the Town shall pay to the accident and health care provider the additional premium required to provide medical benefits not less than provided by the Town plan. If the accidental and health care program under the new employer ceases to be provided at any time before the retiree becomes eligible for Medicare, the Town's obligation to pay for medical coverage shall resume.

Dental coverage is not provided to retirees.
Life Insurance coverage of $\$ 25,000$ is provided only to police officers that retire with 20 or more years of service. Some current retirees have life insurance coverage at a lower rate, applicable at the time of retirement.

Significant Events: The town added in Fire Department group into the plan. This had a large impact on liability and number of participants included in the plan. This additional information is reported later in the report.

## III. ACTUARIAL METHODS

Measurement Date: July 1, 2014 for all purposes.
Actuarial Cost Method: The Annual Required Contribution has been determined utilizing the projected unit credit funding method (with service proration). Under this funding method, projected benefits are assumed to accrue on a straight line basis from date of hire to the date of retirement for each participant. Normal cost for a participant is the present value of the projected benefit which accrues in the current plan year. Normal cost for the Plan is the sum of the normal costs for all participants.

Asset Valuation Method: Not applicable as plan is currently unfunded. Plan benefits are paid out of Town of East Greenwich, Rhode Island'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, 2014 were used to calculate the ARC, OPEB cost and Net Obligation.

Net OPEB Obligation at Based on actual benefit payments, contributions to the Fiscal Year End: Plan trust, and implicit rate subsidy, if any, for the fiscal year ending June 30, 2015.

## 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: $4.25 \%$

Long Term Rate of Return
on Assets: $\quad$ N/A - the Plan is unfunded.

Healthy Mortality: IRS 2014 annuitant and non-annuitant mortality tables for males and females. 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: $\quad$ Sarason Crocker Straight Table T-1. Sample rates below:

| Age | Rate |
| :---: | :---: |
| 20 | $5.4 \%$ |
| 25 | $4.9 \%$ |
| 35 | $2.3 \%$ |
| 45 | $0.3 \%$ |
| 50 | $0.0 \%$ |

Health Care Monthly
Premium Rates: $\quad$ See Per Capita Medical Costs in Section XIII.

Health Care Cost Trend Rates - $6.50 \%$ per year graded off $0.50 \%$ per year to an
Medical Costs: ultimate rate of $4.50 \%$ per year.
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.

## IV. ACTUARIAL ASSUMPTIONS (cont'd)

Participation: $\quad 90 \%$ of eligible future retirees are assumed to elect medical coverage under the Plan. $100 \%$ of current retirees are assumed to participate.

Retirement Rates: Police and Fire:

|  | Grandfathered <br> Retirement | New <br> Retirement |
| :---: | :---: | :---: |
| Age | Rates | Rates |
| $46-49$ | $10 \%$ | $0 \%$ |
| 50 | $10 \%$ | $20 \%$ |
| $51-54$ | $10 \%$ | $10 \%$ |
| $55-59$ | $50 \%$ | $50 \%$ |
| 60 | $100 \%$ | $100 \%$ |

DPW, NEARI, and other divisions:

|  | Grandfathered <br> Retirement | New <br> Retirement |
| :---: | :---: | :---: |
| Age | Rates | Rates |
| 58 | $25 \%$ | $0 \%$ |
| 59 | $10 \%$ | $10 \%$ |
| 60 | $25 \%$ | $20 \%$ |
| 61 | $10 \%$ | $20 \%$ |
| 62 | $20 \%$ | $20 \%$ |
| $63-64$ | $10 \%$ | $10 \%$ |
| 65 | $75 \%$ | $50 \%$ |
| 66 | $50 \%$ | $50 \%$ |
| $67-69$ | $50 \%$ | $75 \%$ |
| 70 | $100 \%$ | $100 \%$ |

Aging Assumption: Claims costs under Blue Cross Blue Shield are assumed to increase by $3.0 \%$ per year to reflect higher healthcare costs for older individuals resulting in an implicit rate subsidy. Claims Costs for coverage under Plan 65 are community rated and do not include an implicit rate subsidy.

## V. CHANGES IN ACTUARIAL ASSUMPTIONS

The table below indicates which assumptions, other than the Health Care Premium Rates, have changed from the prior Fiscal Year. In the opinion of the actuary, these changes were made to better reflect current expectations of future experience.

| July 1, 2012 | July 1, 2014 |
| :---: | :---: |
|  | IRS 2014 annuitant and <br> non-annuitant mortality <br> tables for males and <br> females. Mortality <br> RP-2000 Male/Female <br> improvements for the <br> annuitant table are <br> Combined Healthy Table. <br> No mortality improvement <br> has been assumed in future <br> years. <br> projected 7 years beyond <br> the valuation date. <br> Mortality improvements <br> for the non-annuitant table <br> are projected 15 years <br> beyond the valuation date. |

## 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:
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, 2014
B. Amortization of Unfunded Liability

1. Amortization of initial unfunded liability
\$ 1,476,873
2. Amortization of UAAL: plan amendments
3. Amortization of UAAL: (gains)/losses
4. Amortization of UAAL, $[(1)+(2)+(3)]$
C. Interest on Normal Cost and Unfunded Liability
5. Normal Cost + Amortization of UAAL, $[(A)+(B .4)] \quad \$ 2,350,745$
6. Interest to end of period at $4.25 \%$ 99,907
D. Interest Cost on OPEB liability/(asset)
7. OPEB liability/(asset)
$\$ \quad 0$
8. Interest to end of period at $4.25 \%$
E. Annual Required Contribution [(A) + (B.4) + (C.2) + (D.2)] \$ 2,450,653
F. Expected Benefit Payments
\$ 854,228
G. Increase in ARC over Pay-as-you-go [(E)-(F)]
\$ 1,596,425

## VII. DEVELOPMENT OF NET OPEB OBLIGATION

## A. Fiscal Year Ending June 30, 2015

1. Annual Required Contribution
\$ 2,450,653
2. Interest on net OPEB obligation

434,323
3. Adjustment to ARC (amortization of OPEB obligation)
$(609,057)$
4. Annual OPEB cost $[(1)+(2)+(3)]$
5. Actual Plan Contributions During Fiscal Year
a. Contributions for Actual Benefit Payments:

637,250
b. Additional Contributions to Plan Trust:

0
c. Allocation for Expected Benefit Payments (implicit subsidy):
d. Total Plan Contributions:

116,662
753,912
6. Increase in net OPEB obligation [(4) - (5.d)] 1,522,007
7. Net OPEB obligation as of July 1, $201410,219,366$
8. Net OPEB obligation as of June 30, 2015 [(6) + (7)]
\$ 11,741,373

## B. Recent OPEB Obligation History



## 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, 2014.

1. Actuarial Present Value of total projected benefits
a. APV, Active participants total
\$ 21,852,326
b. APV, Retirees
c. Total APV, $[(a)+(b)]$
\$ 37,776,678

## 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, 2014.
2. Actuarial Accrued Liability
a. AAL-PUC, Active participants total
\$ 9,909,263
b. AAL-PUC, Retirees
c. Total AAL-PUC, $[(a)+(b)]$
\$ 25,833,615
3. Fair Value of Assets as of July 1, 2014
4. Statement of Funded Status as of July 1, 2014
a. Actuarial Present Value - total projected benefits, [(1.c)]
\$ 37,776,678
b. Future accruals for active participants

11,943,063
c. Actuarial Accrued Liability, [(2.c)]

25,833,615
d. Fair Value of Assets, [(3)]
e. Funded status, [(d) - (c)]
f. Unfunded Actuarial Accrued Liability (UAAL)
\$ $(25,833,615)$
5. Funding Percentage as of July 1, 2014
$0.00 \%$

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

C. Summary Breakout of Actuarial Accrued Liability
Pre-65
Post-65
Total

1. Retired Participants - Medical
a. Retirees
\$4,942,777
\$3,167,775
\$8,110,552
b. Dependents
\$5,447,282
\$1,890,523
\$7,337,805
c. Total
\$10,390,059
\$5,058,298
\$15,448,357
2. Active Participants - Medical
a. Active Participants - Fully Eligible
i. Actives $\$ 560,899$

| $\$ 570,116$ | $\$ 1,131,015$ |
| :--- | ---: |
| $\$ 158,965$ | $\$ 543,626$ |
| $\$ 729,081$ | $\$ 1,674,641$ |

b. Active Participants - Not Fully Eligible

| i. Actives | $\$ 2,871,597$ | $\$ 2,251,902$ | $\$ 5,123,499$ |
| :--- | ---: | ---: | ---: |
| ii. Dependents | $\underline{\$ 2,134,380}$ | $\$ 842,597$ | $\$ 2,976,977$ |
| iii. Total | $\$ 5,005,977$ | $\$ 3,094,499$ | $\$ 8,100,476$ |

3. Total Medical Accrued Liability
a. Actives \& Retirees
\$8,375,273
\$5,989,793
\$14,365,066
b. Dependents
\$7,966,323
\$2,892,085
\$10,858,408
c. Total
\$16,341,596
\$8,881,878
\$25,223,474
4. Life Insurance
a. Retirees
\$30,094
\$445,902
\$475,995
b. Actives
c. Total
\$13,863
\$120,283
\$134,146
\$43,957
\$566,185
\$610,141

5 Total Accrued Liability
a. Retirees
\$10,420,153
\$5,504,200
\$15,924,352
b. Actives
\$5,965,400
\$3,943,863
\$9,909,263
c. Total
\$16,385,553
\$9,448,063
\$25,833,615

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

## D. Fair Value of Assets - Reconciliation of Plan Assets through June 30, 2015

The following table projects the reconciliation of the change in the market value of assets over the past plan year based upon financial information provided by the Town of East Greenwich, Rhode Island:

1. Market Value of Assets July 1, 2014
2. Additions during the year
a. Town's contributions expected to fund
\$ 637,250
b. Town's allocation for implicit rate subsidy
116,662
c. Retiree contributions
2,600
d. Interest earned
e. Total additions
3. Disbursements during the year
a. Actual benefit payments

N/A
b. Allocation for expected benefit payments
\$ $(639,850)$
c. Allocation for implicit rate subsidy
d. Other disbursements from fund
e. Total disbursements
4. Market Value of Assets June 30, 2015
\$
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 <br> Accrued <br> Liability <br> (b) | $\begin{gathered} \text { Unfunded } \\ \text { AAL } \\ (b-a) \\ \hline \end{gathered}$ | Funded <br> Ratio <br> (a/b) | Covered Payroll (c) | Percentage of Covered Payroll ( $(\mathrm{b}-\mathrm{a}) / \mathrm{c}$ ) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 7/1/2008 | N/A | 10,504,613 | 10,504,613 | N/A | 5,624,739 | 186.8\% |
| 7/1/2010 | N/A | 11,544,931 | 11,544,931 | N/A | 5,969,872 | 193.4\% |
| 7/1/2012 | N/A | 12,750,487 | 12,750,487 | N/A | 6,363,552 | 200.4\% |
| 7/1/2014 | N/A | 25,833,615 | 25,833,615 | N/A | 7,818,252 | 330.4\% |

* Includes Fire Department.


## 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.

|  | Initial <br> Amount | Date of First Charge or (Credit) | Amort. <br> Period <br> (years) | Amort. Interest Rate | Outstanding Balance (boy) | Amort. <br> Charge or (Credit) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Initial UAAL | 25,833,615 | 7/1/2014 | 30.00 | 4.25\% | 25,833,615 | 1,476,873 |
| UAAL from amendments | 0 | N/A | N/A | N/A | 0 | 0 |
| UAAL <br> (gain)/loss | 0 | N/A | N/A | N/A | 0 | 0 |

## X. BREAKOUT OF LIABILITY BY GROUP

| A. | Headcounts |  | Police |  | DPW |  | NEARI |  | Other |  | Fire |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | Actives |  | 34 |  | 23 |  | 31 |  | 22 |  | 36 |  | 146 |
| 2. | Retirees |  | 28 |  | 7 |  | 9 |  | 7 |  | 25 |  | 76 |
| 3. | Total |  | 62 |  | 30 |  | 40 |  | 29 |  | 61 |  | 222 |
| 4. | Payroll for Actives | \$ | 2,090,135 | \$ | 1,011,892 | \$ | 1,393,143 | \$ | 1,061,966 | \$ | 2,261,116 | \$ | 7,818,252 |

Medical:

1. Actives $\quad \$ 4,005,926$ \$ 737,582 \$ 989,497 \$ $\quad 591,155$ \$ $3,450,958 \quad \$ \quad 9,775,118$

2. Total
3. $\begin{array}{llllllllllllll}\text { Normal Cost } & \$ & 322,892 & \$ & 49,187 & \$ & 71,432 & \$ & 47,615 & \$ & 371,425 & \$ & 862,551\end{array}$

Life:
$\begin{array}{llllllllllll}\text { 1. } & \text { Actives } & \$ & 73,142 & \$ & 0 & \$ & 0 & \$ & 0 & \$ & 61,003\end{array}$
2. Retirees $\begin{array}{lllllllllllll} & \$ & 228,750 & \$ & 0 & \$ & 3,117 & \$ & 7,684 & \$ & 236,444 & \$ & 475,995\end{array}$
$\begin{array}{lllllllllllll}\text { 3. Total } & \$ & 301,892 & \$ & 0 & \$ & 3,117 & \$ & 7,684 & \$ & 297,447 & \$ & 610,140\end{array}$
$\begin{array}{lllllllllllll}\text { 4. } & \text { Normal Cost } & \$ & 5,124 & \$ & 0 & \$ & 0 & \$ & 0 & \$ & 6,197 & \$\end{array}$
Total:

1. Actives $\quad \$ 4,079,068$ \$ $\quad 737,582$ \$ $\quad 989,497$ \$ $\quad 591,155$ \$ $3,511,961 \quad \$ \quad 9,909,263$
2. Retirees $\quad \$ \quad 6,599,958 \quad \$ \quad 424,271 \quad \$ \quad 339,230 \quad \$ \quad 298,677 \quad \$ 8,262,216 \quad \$ 15,924,352$
3. Total
$\begin{array}{lllllllllllll}\text { 4. } & \text { Normal Cost } & \$ & 328,016 & \$ & 49,187 & \$ & 71,432 & \$ & 47,615 & \$ & 377,622 & \$\end{array} 873,872$
C. Annual Required Contribution
4. $\begin{array}{llllllllllll}\mathrm{NC} w / \text { interest } & \$ & 341,957 & \$ & 51,277 & \$ & 74,468 & \$ & 49,638 & \$ & 393,671 & \$\end{array} 911,011$


$\begin{array}{llllllll}\text { 4. } & \text { ARC as a Percent of Payroll } & 46.81 \% & 11.91 \% & 11.03 \% & 9.67 \% & 48.44 \% & 31.35 \%\end{array}$
D. $\begin{array}{llllllllllllll}\text { Exp. Benefit Payments } & \$ & 383,894 & \$ & 43,977 & \$ & 39,214 & \$ & 39,069 & \$ & 348,074 & \$ & 854,228\end{array}$
E. AAL as a Percent of $\begin{array}{lllllll}\text { Payroll } & 510.9 \% & 114.8 \% & 95.4 \% & 83.8 \% & 520.7 \% & 330.4 \%\end{array}$

## XI. 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 No Prefunding, applies only if the plan is not prefunded and contributions are only the Pay-As-You-Go (PAYGO) costs. The ARC for years after June 30, 2015 increases since the plan is not pre-funded.

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 contributions at least equal to or greater than the ARC (on an accumulated basis) for years subsequent to the current fiscal year then the ARC for those later years will be higher than those projected in subsection B.

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

| A. | Projection with No Prefunding (4.25\% discount rate) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Plan Year Ending | Expected Benefit Payments | Annual Required Contribution | $\qquad$ | Annual OPEB Cost | Net OPEB Obligation (end of yr.) | Projected Actuarial Liability (beg. yr.) | $\begin{gathered} \text { Plan } \\ \text { Assets } \\ \text { (beg. yr.) } \end{gathered}$ | Funding <br> Percentage (beg. yr.) |
| 6/30/2015 | \$854,228 | \$2,450,653 | \$854,228 | \$2,275,919 | \$11,467,000 | \$25,833,615 | \$0 | 0.00\% |
| 6/30/2016 | 924,000 | 2,530,000 | 924,000 | 2,334,000 | 12,877,000 | 26,969,000 | 0 | 0.00\% |
| 6/30/2017 | 972,000 | 2,617,000 | 972,000 | 2,397,000 | 14,302,000 | 28,092,000 | 0 | 0.00\% |
| 6/30/2018 | 1,044,000 | 2,698,000 | 1,044,000 | 2,453,000 | 15,711,000 | 29,235,000 | 0 | 0.00\% |
| 6/30/2019 | 1,115,000 | 2,776,000 | 1,115,000 | 2,507,000 | 17,103,000 | 30,365,000 | 0 | 0.00\% |
| 6/30/2020 | 1,150,000 | 2,860,000 | 1,150,000 | 2,568,000 | 18,521,000 | 31,482,000 | 0 | 0.00\% |
| 6/30/2021 | 1,185,000 | 2,946,000 | 1,185,000 | 2,629,000 | 19,965,000 | 32,627,000 | 0 | 0.00\% |
| 6/30/2022 | 1,257,000 | 3,028,000 | 1,257,000 | 2,687,000 | 21,395,000 | 33,803,000 | 0 | 0.00\% |
| 6/30/2023 | 1,287,000 | 3,102,000 | 1,287,000 | 2,736,000 | 22,844,000 | 34,967,000 | 0 | 0.00\% |
| 6/30/2024 | 1,404,000 | 3,128,000 | 1,404,000 | 2,737,000 | 24,177,000 | 36,154,000 | 0 | 0.00\% |
| 6/30/2025 | 1,531,000 | 3,139,000 | 1,531,000 | 2,726,000 | 25,372,000 | 37,228,000 | 0 | 0.00\% |
| 6/30/2026 | 1,644,000 | 3,137,000 | 1,644,000 | 2,703,000 | 26,431,000 | 38,164,000 | 0 | 0.00\% |
| 6/30/2027 | 1,803,000 | 3,127,000 | 1,803,000 | 2,675,000 | 27,303,000 | 38,966,000 | 0 | 0.00\% |
| 6/30/2028 | 1,976,000 | 3,106,000 | 1,976,000 | 2,639,000 | 27,966,000 | 39,583,000 | 0 | 0.00\% |
| 6/30/2029 | 2,136,000 | 3,033,000 | 2,136,000 | 2,555,000 | 28,385,000 | 39,990,000 | 0 | 0.00\% |

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

| B. | jection wi | Il Prefunding | 50\% discoun |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Plan Year Ending | Expected <br> Benefit <br> Payments | Annual Required Contribution | Contribution to Trust | Annual OPEB Cost | Net OPEB Obligation | Projected <br> Actuarial Liability (beg. yr.) | $\begin{gathered} \text { Plan } \\ \text { Assets } \\ \text { (beg. yr.) } \end{gathered}$ | Funding Percentage (beg. yr.) |
| 6/30/2015 | \$854,228 | \$2,450,653 | \$854,228 | \$2,275,919 | \$11,467,000 | \$25,833,615 | \$0 | 0.00\% |
| 6/30/2016 | 924,000 | 1,973,000 | 1,973,000 | 1,862,000 | 11,356,000 | 17,580,000 | 0 | 0.00\% |
| 6/30/2017 | 972,000 | 1,974,000 | 1,974,000 | 1,864,000 | 11,246,000 | 18,421,000 | 1,093,000 | 5.94\% |
| 6/30/2018 | 1,044,000 | 1,973,000 | 1,973,000 | 1,864,000 | 11,137,000 | 19,298,000 | 2,184,000 | 11.32\% |
| 6/30/2019 | 1,115,000 | 1,974,000 | 1,974,000 | 1,866,000 | 11,029,000 | 20,182,000 | 3,246,000 | 16.08\% |
| 6/30/2020 | 1,150,000 | 1,985,000 | 1,985,000 | 1,878,000 | 10,922,000 | 21,076,000 | 4,279,000 | 20.30\% |
| 6/30/2021 | 1,185,000 | 1,999,000 | 1,999,000 | 1,893,000 | 10,816,000 | 22,023,000 | 5,331,000 | 24.21\% |
| 6/30/2022 | 1,257,000 | 2,014,000 | 2,014,000 | 1,909,000 | 10,711,000 | 23,027,000 | 6,406,000 | 27.82\% |
| 6/30/2023 | 1,287,000 | 2,027,000 | 2,027,000 | 1,923,000 | 10,607,000 | 24,053,000 | 7,467,000 | 31.05\% |
| 6/30/2024 | 1,404,000 | 2,006,000 | 2,006,000 | 1,903,000 | 10,504,000 | 25,139,000 | 8,556,000 | 34.03\% |
| 6/30/2025 | 1,531,000 | 1,981,000 | 1,981,000 | 1,879,000 | 10,402,000 | 26,166,000 | 9,548,000 | 36.49\% |
| 6/30/2026 | 1,644,000 | 1,956,000 | 1,956,000 | 1,855,000 | 10,301,000 | 27,110,000 | 10,423,000 | 38.45\% |
| 6/30/2027 | 1,803,000 | 1,932,000 | 1,932,000 | 1,832,000 | 10,201,000 | 27,975,000 | 11,191,000 | 40.00\% |
| 6/30/2028 | 1,976,000 | 1,910,000 | 1,910,000 | 1,811,000 | 10,102,000 | 28,708,000 | 11,802,000 | 41.11\% |
| 6/30/2029 | 2,136,000 | 1,858,000 | 1,858,000 | 1,760,000 | 10,004,000 | 29,283,000 | 12,234,000 | 41.78\% |

The projections above assume East Greenwich establishes an OPEB Trust effective July 1, 2015 and makes contributions to the OPEB Trust equal to the ARC.

## XII. ASSUMPTION SENSITIVITY ANALYSIS

A. Discount Rate of $\mathbf{4 . 2 5 \%}$ (ARC Not Contributed to Trust)
Normal Cost ..... \$873,872
Actuarial Accrued Liability ..... \$25,833,615
Annual Required Contribution ..... \$2,450,653
Covered Payroll ..... \$7,818,252
ARC as a Percent of Payroll ..... 31.35\%
B. Discount Rate of $\mathbf{7 . 5 0 \%}$ (ARC Contributed to Trust)
Normal Cost ..... \$436,710
Actuarial Accrued Liability ..... \$16,743,519
Annual Required Contribution ..... \$1,887,154
Increase/(Decrease) to ARC in Section VI ..... $(563,499)$ARC as a Percent of Payroll24.14\%

## XII. ASSUMPTION SENSITIVITY ANALYSIS (cont'd)

## C. Increase Medical Trend by $\mathbf{1 \%}$

| Normal Cost | $\$ 1,107,298$ |
| :--- | ---: |
| Actuarial Accrued Liability | $\$ 30,175,142$ |
|  |  |
| Annual Required Contribution | $\$ 2,952,746$ |
| Increase/(Decrease) to ARC in Section VI | 502,093 |
| ARC as a Percent of Payroll | $37.77 \%$ |

D. Decrease Medical Trend by $\mathbf{1 \%}$

Normal Cost
\$696,972
Actuarial Accrued Liability \$22,379,306

Annual Required Contribution \$2,060,363
Increase/(Decrease) to ARC in Section VI (390,290)
ARC as a Percent of Payroll

*Based on a closed census as of July 1, 2014.

## XIII. PER CAPITA MEDICAL COSTS

## A. Under Age 65 Per Capita Medical Costs, July 1, 2014

1. Annual premium for participant coverage

6,750.12
2. Annual premium for participant coverage including spouse

16,371.84
3. Percentage of married participants electing family coverage $75.00 \%$
4. Average annual preium per person
[25\% x (1.) + 75\% x (2.)] / [1 + 0.75] 7,980.81
5. Average age of covered participants under 65: 48.37
6. Factor to adjust to age 65 per assumptions $163.49 \%$
[1.03 ^ (65.00-(5.))]
7. Estimate fiscal 2014 claims costs adjusted to age 65 basis per person:
8. Sample projected claims costs per age:

| $\underline{\text { Age }}$ | Aging <br> Assumption |  | Pre-65 <br> Cost |
| :--- | :--- | :--- | :--- |
| 45 |  | $3.00 \%$ |  |
| $6,231.59$ |  |  |  |
| 50 | $3.00 \%$ |  | $7,224.13$ |
| 55 | $3.00 \%$ |  | $8,374.74$ |
| 60 | $3.00 \%$ |  | $9,708.62$ |
| 65 | $3.00 \%$ |  | $11,254.95$ |
|  | $3.00 \%$ |  | $13,047.57$ |

B. Historical Medical Premiums - Monthly

1. Blue Cross Blue Shield
a. Single Coverage
561.59
577.25
562.51
b. Family Coverage

1,403.67 1,400.86 1,364.32
2. Plan 65
194.25
182.53
190.80

## XIV. PARTICIPANT DATA

A. Reconciliation of Participant Data

|  | Retirees/ <br> Surviving <br> Spouses | $\underline{\text { Tctives }}$ | $\underline{\text { Total }}$ |
| :--- | :---: | :---: | :---: |
| Total as of July 1, 2012 | 116 | 43 | 159 |
| New Entrants | 10 | $\mathrm{n} / \mathrm{a}$ | 10 |
| Terminations/Dropped | $(11)$ | $\mathrm{n} / \mathrm{a}$ | $(11)$ |
| Active deaths | - | $\mathrm{n} / \mathrm{a}$ | 0 |
| Fire Dept Additions | 36 | 25 | 61 |
| New retirees | $(5)$ | 5 | 0 |
| New beneficiaries | - | 0 | 2 |
| Retiree/beneficiary deaths | $\mathrm{n} / \mathrm{a}$ | $(3)$ | 0 |
| Dropped coverage | $\mathrm{n} / \mathrm{a}$ | 4 | $(3)$ |
| Data adjustments | - | 76 | 4 |
| Total as of July 1, 2014 |  |  | 222 |

B. Age and Service Distribution of Members

1. Eligible Active Members:

Complete Years of Service as of July 1, 2014

| Attained |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\underline{\text { Age }}$ | $\underline{0-4}$ | $\underline{5-9}$ | $\underline{10-14}$ | $\underline{15-19}$ | $\underline{20-24}$ | $\underline{25-29}$ | $\underline{30+}$ | $\underline{\text { Total }}$ |
| Under 25 | 1 | - | - | - | - | - | - | 1 |
| $25-29$ | 8 | 1 | - | - | - | - | - | 9 |
| $30-34$ | 4 | 5 | 1 | - | - | - | - | 10 |
| $35-39$ | 4 | 7 | 9 | - | - | - | - | 20 |
| $40-44$ | 2 | 11 | 4 | 4 | 1 | 1 | - | 23 |
| $45-49$ | 3 | 5 | 12 | 4 | 2 | 4 | - | 30 |
| $50-54$ | 7 | 2 | 4 | 4 | 1 | 4 | 1 | 23 |
| $55-59$ | 2 | 2 | 4 | 7 | 2 | 1 | 1 | 19 |
| $60-64$ | - | - | 4 | 2 | - | 1 | - | 7 |
| $65+$ | 1 | 2 | - | - | 1 | - | - | 4 |
| Total | 32 | 35 | 38 | 21 | 7 | 11 | 2 | 146 |

## XIV. PARTICIPANT DATA (cont'd)

2. Retired Members:

| Attained Age | Individual <br> Coverage | Family <br> (or $E E+$ ) $)$ <br> Coverage | $\underline{\text { Total }}$ |
| :---: | :---: | :---: | :---: |
| ${50} }$ | - | 11 | 11 |
| $50-54$ | 1 | 9 | 10 |
| $55-59$ | 1 | 9 | 10 |
| $60-64$ | 7 | 7 | 14 |
| $65-69$ | 10 | - | 10 |
| $70-74$ | 9 | - | 9 |
| $75+$ | 12 | 36 | 12 |
| Total | 40 |  | 76 |

C. Participant Statistics

1. Eligible Active Members:

|  | $p^{j^{v}}$ | $0^{1}$ | $\hat{5}^{\boldsymbol{j}}$ | $00^{04}$ | - | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Count: | 34 | 23 | 31 | 22 | 36 | 146 |
| Average age: | 42.8 | 47.3 | 54.1 | 50.4 | 39.5 | 46.3 |
| Average past service: | 11.3 | 15.0 | 12.9 | 26.5 | 9.0 | 11.7 |
| Average future service until retirement: | 11.3 | 15.4 | 9.3 | 13.2 | 14.3 | 12.6 |
| Average age of retirement: | 54.2 | 62.7 | 63.4 | 63.6 | 53.8 | 58.8 |

2. Retired Members and Spouses:

| Count: | 28 | 7 | 9 | 7 | 25 | 76 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Average age for "under 65": | 56.1 | 61.8 | 64.7 | 38.7 | 52.1 | 55.2 |
| Average age for "over 65": | 74.5 | 73.8 | 75.2 | 77.3 | 76.1 | 75.4 |
| Average age all retirees: | 62.0 | 68.7 | 74.1 | 55.9 | 56.9 | 63.4 |
| Expected future lifetime: | 23.6 | 17.8 | 14.8 | 15.1 | 28.3 | 22.8 |

3. Average age of covered participants under 65:
4. Retired Members with Life Insurance:

|  |  |  | 㑆 | $00^{20}$ |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Count: | 19 | 0 | 1 | 3 | 0 | 23 |
| Life Amount: | 330,000 | 0 | 4,000 | 14,000 | 0 | 348,000 |

## XV. 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.

## XV. 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.

## XV. 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.

## XV. 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.

Town of East Greenwich, Rhode Island Postretirement Health Insurance Program
summary of Actuarial Assumptions as of July 1, 2014

| Assumption |  | Entity Who Selects Assumption | Basis for Assumption Selection | Change in Assumption |
| :---: | :---: | :---: | :---: | :---: |
| Discount Rate | 4.25\% | Town of East Greenwich, Rhode Island | "Chosen by plan sponsor." After consideration of internal rates of return the plan sponsor elected the rate. | None. |
| Pre-Retirement Mortality | 2014 IRS Optional Combined (Male/Female) tables | Town of East Greenwich, Rhode Island | Consistent with plan experience. | The mortality tables changed from the RP-2000 Combined Healthy (Male/Female) tables as of the prior measurement date, July 1, 2012. The change was made to reflect the best estimate of future experience under the plan. This change, together with the change in postretirement mortality, increased the Projected Benefit Obligation as of the current measurement date, July1, 2014, by 3.34\%. |
| Post-Retirement Mortality | 2014 IRS Optional Combined (Male/Female) tables | Town of East Greenwich, Rhode Island | Consistent with plan experience. | The mortality tables changed from the RP-2000 Combined Healthy (Male/Female) tables as of the prior measurement date, July 1, 2012. The change was made to reflect the best estimate of future experience under the plan. This change, together with the change in postretirement mortality, increased the Projected Benefit Obligation as of the current measurement date, July1, 2014, by $3.34 \%$. |
| Withdrawal Rates | Sarason Crocker Straight Table T-1. | The Angell Pension Group, Inc. | Consistent with plan experience. | None |
| Disability Rates | None | Town of East Greenwich, Rhode Island | "Chosen by plan sponsor." The incidence of disability under the Plan is negligible. | None |
| Retirement Rates | Police and Fire: | Town of East Greenwich, Rhode Island | "Chosen by plan sponsor." The Angell Pension Group Inc. reviewed the experience under the Plan and went over it with the plan sponsor. The plan sponsor then agreed to the assumption. | None |
| Health Care Cost Trend Rates | 6.5\% down by 0.5\% per year to 4.5\% | The Angell Pension Group, Inc. | Consistent with plan experience and market conditions. | None |

