

**Town of Barrington, Rhode Island  
Postretirement Health Insurance Program**

**Financial Disclosure Information  
in accordance with Statement of  
Governmental Accounting Standards  
Board No. 45**

**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 Barrington, Rhode Island Postretirement Health Insurance Program in accordance with the Statement of Governmental Accounting Standards Board No. 45 (GASB45).

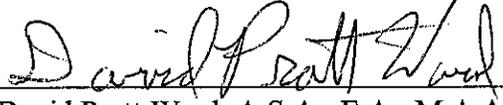
The report presents information regarding the Town of Barrington, Rhode Island Postretirement Health Insurance Program for the period beginning July 1, 2014 and ending June 30, 2015. This information includes the determination of Annual Required Contribution (ARC) and OPEB cost, disclosure of the Net OPEB Obligation and Funding Progress as well as other Required Supplementary Information. Sensitivity analysis on various financial and demographic assumptions is also provided.

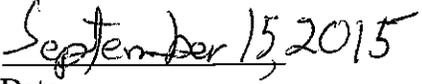
This report was based on information submitted to our firm in the form of census data, medical insurance premiums and rates, and other plan claims information and descriptions of Plan benefits. Although the data has been reviewed for reasonableness, an audit of the data was not performed. We have relied 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 our education, experience and continuing education.

Reviewed by:

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

  
Date

## II. DESCRIPTIVE INFORMATION

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

*Groups Covered & Eligibility:* The Town of Barrington, 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
- Fire Department
- Department of Public Works (DPW)
- Dispatchers
- Non-Union Town Employees (Town)

Each member of the groups above is a participant in the Municipal Employee Retirement System (MERS) and eligible for coverage under this Postretirement Health Insurance Program upon retirement. Retirement provisions for Police and Firefighters is age 55 with 10 years of service or any time after attaining 20 years of service. Retirement provisions for the remaining groups is age 58 with 10 years of service or any time after attaining 30 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 firefighters that were not retirement eligible as of June 30, 2012.

Effective July 1, 2012, retirement age under MERS for the other members (DPW, dispatcher, and non-union town employees) 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.

## II. DESCRIPTIVE INFORMATION (cont'd)

*Benefit Formula:*

**Police:** Upon retirement, Police Officers receive fully covered medical coverage (single or family) for the remainder of the fiscal year of retirement plus five (5) additional years or until Medicare eligible or the retiree secures employment with equivalent coverage.

Effective 7/1/2012: no new hires are eligible for postretirement medical coverage.

Police Officers may continue coverage for up to four (4) additional years with the entire cost paid for by the retiree.

**Fire:** Upon retirement, Firefighters receive fully covered medical coverage (single or family) for the remainder of the fiscal year of retirement plus five (5) additional years or until Medicare eligible or the retiree secures employment with equivalent coverage. In no event does coverage continue past age 65. Firefighters that retire after 7/1/1999 must contribute 20% of the premium towards their coverage.

Effective 7/1/2012: no new hires are eligible for postretirement medical coverage.

Full disability coverage is available to firefighters for the lifetime of the retiree while that retiree is deemed disabled.

**DPW:** Upon retirement, DPW members receive fully covered medical coverage (single or family) for five (5) years after retirement. Members that are hired after 7/1/1991 must contribute 20% of the premium towards their coverage.

Members that are hired after 7/1/1995 are not eligible for postretirement medical coverage.

## II. DESCRIPTIVE INFORMATION (cont'd)

*Benefit Formula  
(cont'd):*

**Dispatchers:** Upon retirement, Dispatchers receive fully covered medical coverage (single or family) for two (2) years after retirement. Members hired after 7/1/1995 receive coverage for one (1) year after retirement. Members that are hired after 7/1/1993 must contribute 20% of the premium towards their coverage.

Effective 7/1/2012: no new hires are eligible for postretirement medical coverage.

**Town:** Upon retirement with 20 years of service, non-union town employees receive fully covered medical coverage (single or family) for the remainder of the fiscal year of retirement plus five (5) additional years or until Medicare eligible or the retiree secures employment with equivalent coverage. If the town employee retires with between 10 and 19 years of service, coverage is extended for only three (3) additional years past the fiscal year of retirement. Members that are hired after 7/1/1991 must contribute 20% of the premium towards their coverage.

Effective 9/1/1994: no new hires are eligible for postretirement medical coverage.

Dental coverage is not provided to retirees.

Life Insurance coverage is not provided to retirees.

*Significant Events:* None.

### 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:* The Town of Barrington, RI has established a fund, separate and apart from the general revenues of the Town, known as the OPEB Trust Fund. Pursuant to Section 33-47 of the Town's legislation, the OPEB Trust Fund shall consist of:

- (a) All funds appropriated or otherwise made available by the Town for the purposes of meeting the current and future OPEB costs payable by the Town;
- (b) Amounts contributed or otherwise made available by employees of the Town for the purpose of meeting future OPEB costs payable by the Town;
- (c) All interest, dividends and other income derived from the above; and
- (d) Any surplus derived from the Town's medical internal service fund, as measured by the Finance Director.

The Town does not have a certain contribution schedule maintained, however it is the Town's intention to gradually fund the Plan.

For purposes of determining the unfunded actuarial liability, the actuarial value of assets is equal to the fair market value.

### III. ACTUARIAL METHODS (cont'd)

*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*

*Fiscal Year End:* Based on actual benefit payments, contributions to the 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:* 4.00%

The Town's OPEB Trust Fund is currently partially prefunded. As a result, the discount rate selected reflects the estimated proportionate amounts of the Town and Trust's assets expected to be used to fund benefits under this Plan. It is assumed, based on the conservative investments of the Town's OPEB Trust, that the long term discount rate is 4.00%. If the Trust was not partially prefunded the long-term rate of return assumption would also be 4.00%.

*Long Term Rate of Return  
on Assets:* 4.00%

*Healthy Mortality:* RP-2000 Male/Female Combined Healthy Table. No future mortality improvement is assumed.

*Disabled Mortality:* RP-2000 Male/Female Disability Table

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

Age	Rate
25	4.9%
35	2.3%
45	0.3%
50	0.0%

*Disability:* SOA 1978 Disability. Sample rates below:

Age	Rate
25	0.1%
35	0.1%
45	0.4%

## IV. ACTUARIAL ASSUMPTIONS (cont'd)

<i>Retirement Rates:</i>	Police and Fire:		
	Grandfathered	New	
	Retirement	Retirement	
	Age	Rates	Rates
	40-44	2%	0%
	45	5%	0%
	46-49	10%	0%
	50	25%	0%
	51-54	15%	0%
	55-59	100%	50%
	60	100%	100%

DPW, Dispatcher, and Town:

	Grandfathered	New	
	Retirement	Retirement	
	Age	Rates	Rates
	50-54	2%	0%
	55	15%	0%
	56-57	5%	0%
	58	15%	0%
	59	10%	25%
	60-61	10%	10%
	62-64	50%	50%
	65-66	100%	50%
	67	100%	100%

*Health Care Monthly*

*Premium Rates:* See Per Capita Medical Costs in Section XII.

*Health Care Cost Trend Rates - Medical Costs:* 6.00% per year graded off 0.50% per year to an ultimate rate of 4.50% per year.

*Plan Election:* All eligible retirees are assumed to elect medical coverage under the Healthmate Coast to Coast plan.

#### IV. ACTUARIAL ASSUMPTIONS (cont'd)

*Participation:* 100% of eligible future retirees are assumed to elect medical coverage under the Plan. 100% of current retirees are assumed to participate. Coverage is assumed to stop once a retiree reaches their maximum years of benefit coverage, coverage where Town of Barrington contributes toward the cost, as described in Section II.

*Marital Status:* 80% 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.

*Aging Assumption:* Claims costs under Healthmate Coast to Coast are assumed to increase by the following rates per year of age 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%

## V. 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)	
<b>A.</b>	<b>Normal cost as of July 1, 2014</b>	<b>\$ 177,652</b>
<b>B.</b>	<b>Amortization of Unfunded Liability</b>	
1.	Amortization of initial unfunded liability	\$ 207,631
2.	Amortization of UAAL: plan amendments	0
3.	Amortization of UAAL: (gains)/losses	0
4.	Amortization of UAAL, [(1) + (2) + (3)]	\$ 207,631
<b>C.</b>	<b>Interest on Normal Cost and Unfunded Liability</b>	
1.	Normal Cost + Amortization of UAAL, [(A) + (B.4)]	\$ 385,283
2.	Interest to end of period at 4.00%	\$ 15,411
<b>D.</b>	<b>Annual Required Contribution [(A) + (B.4) + (C.2)]</b>	<b>\$ 400,694</b>
<b>E.</b>	<b>Expected Benefit Payments</b>	<b>\$ 540,333</b>
<b>F.</b>	<b>Increase/(Decrease) in ARC over/(under) Pay-as-you-go [(D) - (E)]</b>	<b>\$ (139,639)</b>

## VII. DEVELOPMENT OF NET OPEB OBLIGATION/(ASSET)

### A. Annual OPEB Cost - Fiscal Year Ending June 30, 2015

1. Annual Required Contribution	\$ 400,694
2. Interest on net OPEB obligation	(48,745)
3. Adjustment to ARC (amortization of OPEB obligation)	70,473
4. Annual OPEB cost [(1) + (2) + (3)]	422,422
5. Actual Plan Contributions During Fiscal Year	
a. Contributions for Actual Benefit Payment	308,850
b. Allocation for Expected Benefit Payments (implicit subsidy)	148,932
c. Additional contributions to OPEB Trust Fund	0
d. Total Plan Contributions	<u>457,782</u>
6. Increase in net OPEB obligation [(4) - (5.d)]	(35,360)
7. Net OPEB obligation/(asset) as of July 1, 2014	(1,218,622)
8. Net OPEB obligation/(asset) as of June 30, 2015 [(6) + (7)]	\$ (1,253,982)

### B. Recent OPEB Obligation History

Fiscal Year End	Annual OPEB Cost	Plan Contributions	Percentage of Annual OPEB Cost Contributed	Net OPEB Obligation
6/30/2009	454,647	627,945	138.1%	(173,298)
6/30/2010	457,255	524,262	114.7%	(240,305)
6/30/2011	510,785	684,865	134.1%	(414,385)
6/30/2012	513,405	584,680	113.9%	(485,660)
6/30/2013	530,102	829,383	156.5%	(784,941)
6/30/2014	535,437	969,118	181.0%	(1,218,622)
6/30/2015	422,422	457,782	108.4%	(1,253,982)

## 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		\$	6,153,147
b. APV, Retirees			1,818,860
c. Total APV, [(a) + (b)]		\$	7,972,007

### 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		\$	3,928,767
b. AAL-PUC, Retirees			1,818,860
c. Total AAL-PUC, [(a) + (b)]		\$	5,747,627
3. Fair Value of Assets as of July 1, 2014		\$	2,013,657
4. Statement of Funded Status as of July 1, 2014			
a. Actuarial Present Value - total projected benefits, [(1.c)]		\$	7,972,007
b. Future accruals for active participants			2,224,380
c. Actuarial Accrued Liability, [(2.c)]			5,747,627
d. Fair Value of Assets, [(3)]			2,013,657
e. Funded status, [(d) - (c)]		\$	(3,733,970)
f. Unfunded Actuarial Accrued Liability (UAAL)			3,733,970
5. Funding Percentage as of July 1, 2014			35.03%

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

### C. 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 Barrington, Rhode Island:

1. Market Value of Assets July 1, 2014			\$ 2,013,657
2. Additions during the year			
a. Town's contributions expected to fund	\$	308,850	
b. Town's allocation for implicit rate subsidy		148,932	
c. Retiree contributions		15,011	
d. Interest earned		2,882	
e. Total additions			\$ 475,675
3. Disbursements during the year			
a. Actual benefit payments		N/A	
b. Allocation for expected benefit payments	\$	(323,861)	
c. Allocation for implicit rate subsidy		(148,932)	
d. Other disbursements from fund		0	
e. Total disbursements			\$ (472,793)
4. Market Value of Assets June 30, 2015			\$ 2,016,539
5. Estimated investment rate of return (net of expenses)			0.14%

### D. Funded Ratio and UAAL as a Percentage of Covered Payroll

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (b)	Unfunded AAL (b - a)	Funded Ratio (a / b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b - a) / c)
7/1/2008	840,598	5,180,015	4,339,417	16.23%	3,650,570	118.9%
7/1/2010	1,217,573	5,992,513	4,774,940	20.32%	4,391,185	108.7%
7/1/2012	1,690,977	6,833,615	5,142,638	24.74%	4,941,313	104.1%
7/1/2014	2,013,657	5,747,627	3,733,970	35.03%	6,613,397	56.5%

## 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 Amount	Date of First Charge or (Credit)	Amort. Period (years)	Amort. Interest Rate	Outstanding Balance (boy)	Amort. Charge or (Credit)
Initial UAAL	3,733,970	7/1/2014	30.00	4.00%	3,733,970	207,631
UAAL from amendments	0	N/A	N/A	N/A	0	0
UAAL (gain)/loss	0	N/A	N/A	N/A	0	0

## X. BREAKOUT OF LIABILITY BY GROUP

A. Headcounts	Police	Fire	DPW	Dispatcher	Town	Total
1. Actives	22	18	7	4	14	65
2. Retirees	3	9	5	0	2	19
3. Total	25	27	12	4	16	84
4. Payroll for Actives	\$ 1,499,572	\$ 1,378,115	\$ 1,330,330	\$ 252,278	\$ 2,153,102	\$ 6,613,397
<b>B. Actuarial Accrued Liability (AAL)</b>						
1. Actives' AAL	\$ 1,085,254	\$ 739,843	\$ 568,274	\$ 53,703	\$ 1,481,693	\$ 3,928,767
2. Retirees' AAL	\$ 89,946	\$ 1,317,434	\$ 369,110	\$ 0	\$ 42,370	\$ 1,818,860
3. Total AAL	\$ 1,175,200	\$ 2,057,277	\$ 937,384	\$ 53,703	\$ 1,524,063	\$ 5,747,627
4. Normal Cost	\$ 70,258	\$ 43,655	\$ 19,330	\$ 3,942	\$ 40,467	\$ 177,652
<b>C. Market Value of Assets (MVA) and Unfunded Actuarial Accrued Liability (UAAL)</b>						
1. Estimated MVA*	\$ 411,726	\$ 720,758	\$ 328,409	\$ 18,815	\$ 533,949	\$ 2,013,657
2. Total UAAL	\$ 763,474	\$ 1,336,519	\$ 608,975	\$ 34,888	\$ 990,114	\$ 3,733,970
<b>D. Annual Required Contribution</b>						
1. NC w/ interest	\$ 73,068	\$ 45,401	\$ 20,103	\$ 4,100	\$ 42,086	\$ 184,758
2. Amort. of UAAL	\$ 44,152	\$ 77,291	\$ 35,218	\$ 2,018	\$ 57,258	\$ 215,937
3. Total ARC	\$ 117,220	\$ 122,691	\$ 55,321	\$ 6,118	\$ 99,344	\$ 400,694
4. ARC as a Percent of Payroll	7.82%	8.90%	4.16%	2.43%	4.61%	6.06%
<b>E. Exp. Benefit Payments</b>	\$ 51,432	\$ 229,772	\$ 129,437	\$ 0	\$ 129,692	\$ 540,333
<b>F. AAL as a Percent of Payroll</b>	78.4%	149.3%	70.5%	21.3%	70.8%	86.9%

\* The Town's OPEB Fund balance as of July 1, 2012 was \$1,690,977. This estimated value for each group is determined by a proration of AAL at July 1, 2012.

## **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 Partial Prefunding, applies only if the plan is not prefunded and contributions are only the Pay-As-You-Go (PAYGO) costs.

The cost projection in subsection B below, Projection with Full 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 may be higher than those projected in subsection B.

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

### A. Projection with Partial Prefunding (4.00% discount rate) - Contributing the Expected Benefit Payments

Plan Year Ending	Expected Benefit Payments	Annual Required Contribution	Contribution to Trust (PAYGO)	Annual OPEB Cost	Net OPEB Obligation (end of yr.)	Projected Actuarial Liability (beg. yr.)	Plan Assets (beg. yr.)	Funding Percentage (beg. yr.)
6/30/2015	\$457,782	\$400,694	\$457,782	\$422,422	(\$1,253,982)	\$5,747,627	\$2,013,657	35.03%
6/30/2016	554,000	392,000	554,000	414,000	(1,394,000)	5,695,000	2,016,539	35.41%
6/30/2017	577,000	375,000	577,000	400,000	(1,571,000)	5,536,000	2,097,000	37.88%
6/30/2018	524,000	358,000	524,000	386,000	(1,709,000)	5,345,000	2,181,000	40.81%
6/30/2019	484,000	344,000	484,000	374,000	(1,819,000)	5,198,000	2,268,000	43.64%
6/30/2020	355,000	332,000	355,000	364,000	(1,810,000)	5,087,000	2,359,000	46.38%
6/30/2021	328,000	324,000	328,000	356,000	(1,782,000)	5,102,000	2,453,000	48.09%
6/30/2022	305,000	321,000	305,000	353,000	(1,734,000)	5,141,000	2,552,000	49.63%
6/30/2023	312,000	315,000	312,000	346,000	(1,700,000)	5,206,000	2,654,000	50.97%
6/30/2024	327,000	309,000	327,000	339,000	(1,688,000)	5,264,000	2,760,000	52.43%
6/30/2025	343,000	301,000	343,000	331,000	(1,700,000)	5,305,000	2,870,000	54.11%
6/30/2026	379,000	288,000	379,000	318,000	(1,761,000)	5,327,000	2,985,000	56.03%
6/30/2027	439,000	270,000	439,000	301,000	(1,899,000)	5,306,000	3,104,000	58.51%
6/30/2028	533,000	238,000	533,000	272,000	(2,160,000)	5,211,000	3,229,000	61.95%
6/30/2029	565,000	211,000	565,000	250,000	(2,475,000)	4,999,000	3,358,000	67.17%

The projections above assume Barrington continues to pay the healthcare benefits for retirees outside the OPEB Trust with the OPEB Trust balance earning 4.00% return.

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

### B. Projection with Full Prefunding (4.00% discount rate) - Contributing the ARC

Plan Year Ending	Expected Benefit Payments	Annual Required Contribution	Contribution to Trust (ARC)	Annual OPEB Cost	Net OPEB Obligation (end of yr.)	Projected Actuarial Liability (beg. yr.)	Plan Assets (beg. yr.)	Funding Percentage (beg. yr.)
6/30/2015	\$457,782	\$400,694	\$457,782	\$422,422	(\$1,253,982)	\$5,747,627	\$2,013,657	35.03%
6/30/2016	554,000	392,000	392,000	414,000	(1,232,000)	5,695,000	2,016,539	35.41%
6/30/2017	577,000	385,000	385,000	407,000	(1,210,000)	5,536,000	1,929,000	34.84%
6/30/2018	524,000	379,000	379,000	401,000	(1,188,000)	5,345,000	1,807,000	33.80%
6/30/2019	484,000	376,000	376,000	397,000	(1,167,000)	5,198,000	1,728,000	33.25%
6/30/2020	355,000	371,000	371,000	392,000	(1,146,000)	5,087,000	1,685,000	33.13%
6/30/2021	328,000	364,000	364,000	384,000	(1,126,000)	5,102,000	1,769,000	34.68%
6/30/2022	305,000	360,000	360,000	380,000	(1,106,000)	5,141,000	1,877,000	36.51%
6/30/2023	312,000	352,000	352,000	372,000	(1,086,000)	5,206,000	2,010,000	38.60%
6/30/2024	327,000	345,000	345,000	364,000	(1,067,000)	5,264,000	2,132,000	40.50%
6/30/2025	343,000	338,000	338,000	357,000	(1,048,000)	5,305,000	2,236,000	42.15%
6/30/2026	379,000	326,000	326,000	345,000	(1,029,000)	5,327,000	2,320,000	43.56%
6/30/2027	439,000	313,000	313,000	331,000	(1,011,000)	5,306,000	2,358,000	44.45%
6/30/2028	533,000	290,000	290,000	308,000	(993,000)	5,211,000	2,321,000	44.54%
6/30/2029	565,000	280,000	280,000	298,000	(975,000)	4,999,000	2,162,000	43.24%

The projections above assume Barrington contributes the ARC to the OPEB Trust and the Trust pays out the healthcare benefits for retirees.

## XII. ASSUMPTION SENSITIVITY ANALYSIS

### A. Discount Rate of 4.00% (ARC Partially Contributed to Trust)

Normal Cost	\$177,652
Actuarial Accrued Liability	\$5,747,627
Annual Required Contribution	\$400,694
Covered Payroll	\$6,613,397
ARC as a Percent of Payroll	6.06%

### B. Increase Medical Trend by 1%

Normal Cost	\$204,564
Actuarial Accrued Liability	\$6,237,658
Annual Required Contribution	\$457,021
Increase/(Decrease) to ARC in Section VI	56,327
ARC as a Percent of Payroll	6.91%

### C. Decrease Medical Trend by 1%

Normal Cost	\$154,962
Actuarial Accrued Liability	\$5,318,371
Annual Required Contribution	\$352,273
Increase/(Decrease) to ARC in Section VI	(48,421)
ARC as a Percent of Payroll	5.33%

### XIII. PER CAPITA MEDICAL COSTS

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

1.	Average annual premium for individual coverage	7,176.00
2.	Average annual premium for family coverage	18,588.00
3.	Average age of covered participants under 65:	48.74
4.	Factor to adjust to age 65 per assumptions [1.03 ^ (65.00 - (3))]	161.71%
5.	Estimate fiscal 2014 individual claims costs adjusted to age 65 basis:	11,604.21
6.	Estimate fiscal 2014 family claims costs adjusted to age 65 basis:	30,058.41
7.	Sample projected claims costs per age:	

<u>Age</u>	<u>Aging Assumption</u>	<u>Individual Cost</u>	<u>Family Cost</u>
40	3.00%	5,542.24	14,356.06
45	3.00%	6,424.97	16,642.61
50	3.00%	7,448.30	19,293.35
55	3.00%	8,634.62	22,366.28
60	3.00%	10,009.90	25,928.64
65	3.00%	11,604.21	30,058.41
70	2.50%	13,452.46	34,845.93
75	2.00%	15,220.23	39,424.97
80	1.00%	16,804.36	43,528.35
85	0.50%	17,661.55	45,748.74
90+	0.00%	18,107.53	46,903.95

#### B. Historical Medical Premiums - Monthly

	<u>7/1/2012</u>	<u>7/1/2013</u>	<u>7/1/2014</u>
1. Healthmate Coast to Coast - Police			
a. Single Coverage	607.74	607.74	607.74
b. Family Coverage	1,575.73	1,575.73	1,575.73
2. Healthmate Coast to Coast - DPW			
a. Single Coverage	558.00	558.00	558.00
b. Family Coverage	1,448.09	1,448.09	1,448.09
3. Healthmate Coast to Coast - Fire, Dispatcher, Non-Union			
a. Single Coverage	602.92	602.92	602.92
b. Family Coverage	1,563.68	1,563.68	1,563.68

## XIV. PARTICIPANT DATA

### A. Reconciliation of Participant Data

	<u>Actives</u>	<u>Retirees</u>	<u>Total</u>
Total as of July 1, 2012	73	19	92
New Entrants	-	n/a	0
Terminations	(4)	n/a	(4)
Active deaths	-	n/a	0
New retirees	(4)	4	0
New beneficiaries	-	-	0
Retiree/beneficiary deaths	n/a	-	0
Dropped coverage	n/a	(5)	(5)
Data adjustments	-	1	1
Total as of July 1, 2014	65	19	84

### B. Age and Service Distribution of Members

#### 1. Eligible Active Members:

Complete Years of Service as of July 1, 2014

<i>Attained</i>							
<u>Age</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-29</u>	<u>30+</u>	<u>Total</u>
Under 25	1	-	-	-	-	-	1
25-29	3	3	-	-	-	-	6
30-34	-	5	-	-	-	-	5
35-39	-	4	2	1	-	-	7
40-44	-	1	1	6	-	-	8
45-49	-	2	3	3	6	-	14
50-54	-	-	-	2	6	1	9
55-59	-	-	-	2	5	-	7
60-64	-	-	-	-	1	4	5
65+	-	-	1	-	2	-	3
Total	4	15	7	14	20	5	65

#### XIV. PARTICIPANT DATA (cont'd)

2. Retired Members:

<u>Attained Age</u>	<u>Individual Coverage</u>	<u>Family Coverage</u>	<u>Total</u>
Under 50	-	1	1
50-54	-	4	4
55-59	-	8	8
60-64	1	5	6
65-69	-	-	0
70-74	-	-	0
75+	-	-	0
Total	1	18	19

## XIV. PARTICIPANT DATA (cont'd)

### C. Participant Statistics

#### 1. Eligible Active Members:

	<i>Police</i>	<i>Fire</i>	<i>DPW</i>	<i>Dispatcher</i>	<i>Town</i>	<b>Total</b>
Count:	22	18	7	4	14	65
Average age:	41.3	42.1	52.9	37.9	59.1	46.4
Average past service:	14.8	12.7	26.6	12.2	27.2	18.0
Average future service until retirement:	13.8	14.4	9.0	22.8	4.1	11.9
Average age of retirement:	55.1	56.5	61.9	60.7	63.2	58.3

#### 2. Retired Members and Spouses:

	<i>Police</i>	<i>Fire</i>	<i>DPW</i>	<i>Dispatcher</i>	<i>Town</i>	<b>Total</b>
Count:	3	9	5	0	2	19
Average age under 65:	54.5	58.3	58.3	n/a	63.3	56.0
Average age over 65:	n/a	n/a	n/a	n/a	n/a	n/a
Average age all retirees:	54.5	58.3	58.3	n/a	63.3	56.0
Expected future lifetime:	26.8	21.7	23.2	n/a	21.4	22.8

#### 3. All Covered Members Under Age 65:

Average age: 48.74

## 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.