

A DEFINED BENEFIT ACTUARIAL VALUATION

For:

City of Woonsocket, Rhode Island Policemen's Pension Fund Firemen's Pension Fund

As of: July 1, 2015

Prepared by: USI Consulting Group



CONSULTING GROUP

October 26, 2015

CONFIDENTIAL

Ms. Chris Chamberlain City of Woonsocket 169 Main Street Woonsocket, RI 02895

City of Woonsocket, Rhode Island Firemen's Pension Fund and Policemen's Pension Fund

USI Consulting Group 95 Glastonbury Blvd., Suite 102 Glastonbury, CT 06033

www.usi.biz Phone: 860.633.5283 Fax: 860.368.2112

Dear Chris:

We are pleased to present our Actuarial Valuation Report for the Plan Year beginning July 1, 2015. A summary of the principal results of the valuation is provided for your convenience on pages 1 through 4. Details supporting GASB cost calculations will be provided in a separate report.

We have reflected the cost of living adjustment (COLA) pattern and contribution schedule approved by the Budget Commission, outlined in Exhibit I. The scheduled employer contribution for the year ending June 30, 2016 is \$3,633,000. As outlined on page 8, the approved contribution schedule will no longer fully fund the plan within the targeted 22 year period. Furthermore, this schedule is no longer expected to allow for attainment of an 80% funded status during the projection period and therefore the 3% COLA is not expected to take effect.

As an alternative to the approved contribution schedule, we also present the schedule outlined in Exhibit II. This schedule is based on a 5.0% return on assets assumption, an assumption that we feel is more appropriate than the 7.5% currently in use. This schedule also reflects the adverse plan experience since the original schedule was developed. The contribution schedule illustrates the fixed annual deposit of \$5,815,000 needed to fully fund the plan in the targeted 22 year period (22 years starting with the 7/1/2012 plan year). However, please note that annual asset and liability gains and losses will continue to impact the funded status of the plan and the estimated \$5,815,000 may need to be adjusted in future years to capture these fluctuations.

A second alternative contribution of \$10,278,983, illustrated on page 8, assumes a 5-year amortization of the Unfunded Accrued Liability. Please note this amount still assumes a 7.5% discount rate.

The Accumulated Benefit Obligation, valued using 7.5%, as of July 1, 2015 is \$88,000,585. For comparison, the same liability valued at 5.0% is \$110,914,943. We strongly recommend a decrease to the current discount rate assumption. Based on the plan's current asset allocation and the experience study just released, 5.0% appears to be a more appropriate assumption.

I look forward to meeting at your convenience to answer any questions you may have regarding this report.

Sincerely,

USI Consulting Group

Jaime Packer, ASA, EA, MAAA Associate Vice President and Actuary

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VALUATION AS OF JULY 1, 2015

PRINCIPAL RESULTS OF THE VALUATION

Below is a summary of the principal results of this year's valuation compared with the previous year's valuation. Amounts for the previous year reflect the actuarial cost method, assumptions and plan benefits in effect at that time.

CONTRIBUTION LIMITATIONS	As of <u>July 1, 2014</u>	As of July 1, 2015
Actuarially Determined Contribution (Exhibit II)	N/A	\$5,825,000
Approved Budgetary Contribution (Exhibit I)	\$3,527,000	\$3,633,000
Covered Payroll	\$79,438	N/A
Alternate Employer Contribution	\$7,696,550	\$10,278,983
SUPPORTING INFORMATION		
Market Value of Assets	\$47,108,903	\$42,483,175
Actuarial Value of Assets	\$48,567,118	\$46,413,001
Present Value of Accumulated Benefits	\$79,706,472	\$88,000,585
Accrued Benefit Funding Ratio – Market Value of Assets as a Percentage of Present Value of Accumulated Benefits	59.10%	48.28%
Present Value of Future Benefits	\$79,706,472	\$88,000,585
Projected Benefit Funding Ratio – Market Value of Assets as a Percentage of Present Value of Future Benefits	59.10%	48.28%
Number of Lives Included in the Valuation	245	236
Discount Rate	7.50%	7.50% *

^{*}As detailed in the experience study, we strongly recommend a decrease to the current discount rate assumption. A 5.0% assumption appears to be more supportable based on the plan's current asset allocation, however, please discuss this in more detail with the plan's investment advisor. For comparison, the Present Value of Accumulated Benefits valued at 5.0% is \$110,914,943.

VALUATION AS OF JULY 1, 2015

EXECUTIVE SUMMARY

Purpose and Scope

The principal purposes of this actuarial valuation report are:

- 1. To present our calculations of the minimum suggested contribution and the accrued liability for the plan year beginning July 1, 2015 and
- 2. To review plan experience during the plan year ending June 30, 2015 and the funded status of the plan as of June 30, 2015.

The valuation is based upon employee data provided as of June 30, 2015 and financial information provided by the City of Woonsocket as of June 30, 2015. This data was not audited or otherwise verified by us other than for tests of reasonable consistency with prior year data.

Future measurements may differ significantly from the information contained within this report. These measurements will be based on the market value of assets, which varies based on the underlying portfolio experience, as well as plan sponsor contributions, benefit payments and expenses paid from plan assets. Liability calculations will be produced in accordance with current census data, as well as the interest rates and mortality tables in effect at that time. There has been no analysis of potential future impacts associated with this report.

Actuarial Methods and Assumptions

The assumptions reflect those used in the projection scenario completed January 30, 2015 shown in Exhibit I. The COLA has been reinstated retroactively to July 1, 2014 for a select group of retirees, and prospectively to all retired participants. In this report, the amortization period to fully fund the plan now reflects a twenty-two year period beginning with the 2012-2013 plan year. This is consistent with the schedule approved by the Budget Commission.

Similar to last year, the asset smoothing method results in an actuarial value of assets that is greater than the market value of assets. This is caused by the investment losses in three of the last four plan years. Please note that the smoothing method serves only to mitigate the volatility of year-to-year investment performance. The method recognizes each year's investment gain or loss over a five year period; it does not ignore the current market value, but only adjusts the timing of its recognition.

Plan Experience

As of July 1, 2015, there are no active participants. There are 236 pensioners.

On a market value basis, the investment loss was \$2,947,508. This loss will be recognized over five years. See page 6 for details.

As discussed above, the actuarial value of assets includes recognition of investment gains/losses over five years. There is also a 20% corridor around the market value of assets. As a result, the actuarial value of assets decreased from \$48,567,118 last year to \$46,413,001 as of July 1, 2015. This reflects an investment loss of about \$585,000 on the actuarial value of assets.

VALUATION AS OF JULY 1, 2015

EXECUTIVE SUMMARY (continued)

Plan Experience (continued)

There was a liability loss of approximately \$1,970,000 due to benefit data clean-up, the one-time retroactive COLA provided to certain participants and mortality. In the aggregate, the Plan experienced an actuarial loss of about \$2,555,000. The following is a history of the Funds' Market and Actuarial Value of Assets over the last several years:

	Market Value of Assets	Actuarial Value of Assets
7/1/2015	\$42,483,175	\$46,413,001
7/1/2014	\$47,108,903	\$48,567,118
7/1/2013	\$47,825,978	\$48,760,303
7/1/2012	\$52,780,570	\$55,902,219
7/1/2011	\$61,980,287	\$65,313,250

A comparison of the actual Actuarial Value of Assets as of 7/1/2015 (\$46,413,001) to the anticipated Actuarial Value of Assets as of 7/1/2015 as projected in Exhibit I (\$47,194,000) illustrates a deficit of \$781,000. The Budget Commission approved schedule in Exhibit I assumes an investment return of 7.5% annually on the market value of assets. The market value of assets for the past plan year actually returned 0.9%. The full impact of this loss is mitigated by the asset smoothing methodology.

Plan Contributions

The expected employer contribution for the plan year commencing on July 1, 2015 is \$3,633,000, based on the Budget Commission's approved contribution schedule. Exhibit I outlines the original cost of living adjustment (COLA) pattern and contribution schedule approved by the Budget Commission. Page 8 updates this schedule based on current assets and liabilities. Based on this update, the approved contribution schedule will no longer fully fund the plan within the targeted 22 year period. Furthermore, this schedule is no longer expected to allow for attainment of an 80% funded status during the projection period and therefore the 3% COLA is not expected to take effect. This result is mainly due to the less than anticipated asset performance during the last plan year.

The current investment return assumption (and discount rate) is 7.5%. The historical returns for the plan as well as the current investment allocation may not support this rate. This is further explored in the recent experience study for the Plan. In Exhibit II, we present results using an alternative investment return/discount rate of 5.0%, which is more consistent with expectations discussed in the experience study. The level fixed contribution of \$5,815,000 shown meets the state's requirements to fully fund the Plan within twenty-two years (22 years starting with the 7/1/2012 plan year). However, please note that annual asset and liability gains and losses will continue to impact the funded status of the plan and the estimated \$5,815,000 may need to be adjusted in future years to capture these fluctuations.

A second alternative contribution of \$10,278,983, illustrated on page 8, assumes a five-year amortization of the Unfunded Accrued Liability.

Funded Status

Market value of assets, as a percentage of the present value of accrued benefits, decreased from 59.10% as of July 1, 2014 to 48.28% as of July 1, 2015. This decrease is due to both the asset under performance and reflecting the COLA, which was approved after the 2014 valuation. The funded ratio is appropriate for assessing the need for or the amount of future contributions, based on the assumptions stated in this report. The funded ratio will be different if measuring actuarial value of assets.

VALUATION AS OF JULY 1, 2015

EXECUTIVE SUMMARY (continued)

Pension Benefit Obligation

The Accumulated Benefit Obligation as of July 1, 2015 is \$88,000,585 as compared to \$79,706,472 last year. This information, including a reconciliation from the prior year, is located on page 13 of this report. For comparison, the same liability valued at 5.0% is \$110,914,943. As discussed, we strongly recommend a decrease to the current discount rate assumption. Based on the plan's current asset allocation and the experience study just released, 5.0% appears to be a more appropriate assumption.

Actuarial Certification

This report has been prepared in accordance with generally accepted actuarial standards and procedures and conforms to the Guidelines for Professional Conduct of the American Academy of Actuaries. It is based on the employee and financial data submitted to USI Consulting Group by the plan sponsor and the retirement plan provisions outlined herein.

There exists no relationship with the plan or the plan sponsor that would impair the objectivity of our work.

We, Jaime Packer and Michelle Rubin, are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

USI Consulting Group

Jaime Packer, ASA, EA, MAAA

Associate Vice President and Actuary

Michelle L. Rubin, FSA, EA, MAAA

Senior Consultant and Actuary

Mare Ridernacht

Diane Padernacht

Assistant Vice President and Actuarial Manager

FINANCIAL STATEMENT AS OF JULY 1, 2015

	,	
SECTION I: STATEMENT OF ASSETS		
Assets	July 1, 2014	July 1, 2015
Receivables	0	0
DAA Account #1061636	5,204,726	5,534,967
Hartford Account #1061100201	14,731,953	13,289,636
State Street Account #1061100117	8,146,348	9,301,779
Liquidity Account #1061580	10,332,564	5,734,185
Robeco Boston Account #1061101	6,247,231	6,283,422
Vanguard Fund Account #1061112	2,446,081	2,339,186
Other Assets	<u>0</u>	<u>0</u>
Total Assets	47,108,903	42,483,175
Liabilities and Net Assets		
Payables	0	0
Acquisition Indebtedness	0	0
Other Liabilities	<u>0</u>	0
Total Liabilities	0	$\frac{0}{0}$.
Net Assets	47,108,903	42,483,175
Statement of Receipts and Disbursements		
Net Assets at Beginning of Year		47,108,903
Contributions Received or Receivable		
Employer	3,550,035	
Employee	3,256	
Noncash Contributions	$\underline{0}$	3,553,292
Net Investment Return		<u>672,654</u>
Total Income		4,225,946
Distribution of Benefits		
Directly to Participants or Beneficiaries	8,574,752	
Other	<u>0</u>	8,574,752
Investment Expenses		139,614
Administrative Expenses		<u>137,308</u>
Total Expenses		8,851,674
Net Increase (Decrease)		(4,625,728)

Net Assets at Year End

42,483,175

FINANCIAL STATEMENT AS OF JULY 1, 2015

SECTION II: DEVELOPMENT OF ASSET GAIN/(LOSS)

A. Market Value assets prior year:	47,108,903
B. Interest at prior valuation interest rate on A to current date:	3,533,168
C. Contributions for prior year:	3,553,292
D. Interest at prior valuation interest rate on C to current date:	125,812
E. Benefits Paid:	(8,574,752)
F. Interest at prior valuation interest rate on E to current date:	(315,740)
G. Expected Assets (Sum A through F):	45,430,683
H. Actual Assets:	42,483,175
I. Asset Gain/(Loss) (H - G):	(2,947,508)

SECTION III: DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS

Adjustment to recognize investment gain/(loss) over 5-year period:

Year Ending	Investment	Adjustment	
June 30	Gain/(Loss)	<u>Factor</u>	Adjustment
2012	(6,176,168)	1/5	(1,235,234)
2013	(1,205,729)	2/5	(482,292)
2014	242,844	3/5	145,706
2015	(2,947,508)	4/5	(2,358,006)
		Total Adjustment	(3,929,826)

Valuation Assets as of July, 1, 2015:

A. Market Value:	42,483,175
B. Total Adjustment [A - B]:	(3,929,826)
C. Actuarial Value of Assets (Unlimited):	46,413,001
D. 80% of Market Value:	33,986,540
E. 120% of Market Value:	<u>50,979,810</u>
F. Actuarial Value of Assets, not less than D or more than E:	46,413,001

VALUATION RESULTS AS OF JULY 1, 2015

1. PRESENT VALUE OF FUTURE BENEFITS*

The value of all projected retirement, death and disability benefits projected to be paid to current plan participants, discounted to the valuation date with interest and mortality rates.

	Lives	<u>Police</u>	<u>Fire</u>	<u>Total</u>
Active	0	0	0	0
Disabled	43	7,299,832	10,732,898	18,032,730
Retired	<u>193</u>	22,148,358	47,819,497	69,967,855
Totals	236	29,448,190	58,552,395	88,000,585

2. ENTRY AGE ACCRUED LIABILITY*

The portion of the present value of future benefits attributable to prior normal costs.

	<u>Police</u>	<u>Fire</u>	<u>Total</u>
Active	0	0	0
Disabled	7,299,832	10,732,898	18,032,730
Retired	<u>22,148,358</u>	47,819,497	69,967,855
Total	29,448,190	58,552,395	88,000,585
3. ACTUARIAL VALUE OF ASSETS			46,413,001
4. UNFUNDED ACCRUED LIABILITY (2 - 3)			41,587,584

5. ENTRY AGE NORMAL COST

The amount required to fund the present value of benefits as a level percent of pay from entry age to retirement age.

A. Employer Normal Cost	0
B. Expected Employee Contributions	<u>0</u>
C. Total Normal Cost	0

^{*}Liabilities reflect the annual cost of living adjustments illustrated on page 8.

CURRENT VALUATION - SCHEDULED CONTRIBUTIONS

COLA for retirees: Alternate 0% and 2% until FYE 2023, then 2% unless attain 80% funded (then 3%)

Investment Return: 7.50%

				Budget			
Fiscal	Estimated			Commission			
Year	Accrued	Estimated		Approved			
Ending	Liability	Actuarial	Unfunded	Contribution	Benefit		
6/30	(AL)	Assets	AL	Schedule*	Payments	Funded %	Compound COLA
2016	88,001,000	46,413,000	41,588,000	3,633,000	8,059,000	53%	0%
2017	86,212,000	42,782,000	43,430,000	3,721,000	8,064,000	50%	2%
2018	85,761,000	40,352,000	45,409,000	3,810,000	7,926,000	47%	0%
2019	83,753,000	38,284,000	45,469,000	3,901,000	7,914,000	46%	2%
2020	81,614,000	36,170,000	45,444,000	3,995,000	7,760,000	44%	0%
2021	79,484,000	34,797,000	44,687,000	4,091,000	7,731,000	44%	2%
2022	77,232,000	33,459,000	43,773,000	4,189,000	7,560,000	43%	0%
2023	74,998,000	32,309,000	42,689,000	4,289,000	7,510,000	43%	2%
2024	72,655,000	31,236,000	41,419,000	4,392,000	7,449,000	43%	2%
2025	70,206,000	30,260,000	39,946,000	4,498,000	7,375,000	43%	2%
2026	67,658,000	29,404,000	38,254,000	4,606,000	7,288,000	43%	2%
2027	65,015,000	28,693,000	36,322,000	4,716,000	7,186,000	44%	2%
2028	62,287,000	28,155,000	34,132,000	4,830,000	7,068,000	45%	2%
2029	59,640,000	27,823,000	31,817,000	4,945,000	6,934,000	47%	2%
2030	56,781,000	27,731,000	29,050,000	5,064,000	6,784,000	49%	2%
2031	53,869,000	27,917,000	25,952,000	5,186,000	6,615,000	52%	2%
2032	50,918,000	28,423,000	22,495,000	5,310,000	6,430,000	56%	2%
2033	47,944,000	29,293,000	18,651,000	5,438,000	6,227,000	61%	2%
2034	44,962,000	30,575,000	14,387,000	5,500,000	6,008,000	68%	2%
2035	41,988,000	32,251,000	9,737,000	0	5,773,000	77%	2%
2036	39,040,000	28,594,000	10,446,000	0	5,524,000	73%	2%

Note: The Accrued Liability, Assets, Unfunded AL, and Funded Percentages are all determined as of the beginning of the fiscal year and the Contributions assume a mid-year deposit.

ALTERNATIVE SCHEDULED CONTRIBUTION

(1) Employer Normal Cost	0
(2) 5 Year Amortization of \$41,587,584	9,561,845
(3) Maximum Recommended Contribution at beginning of Plan	9,561,845
Year = (1) + (2), not less than zero	
(4) Interest Charge on (1) and (2) to Plan Year End	717,138
(5) Total Recommended Contribution at Plan Year End = $(3) + (4)$	10,278,983

^{*}See Exhibit I for development. Note that based on current assets and liabilities, the current funding schedule is no longer expected to fully fund the plan within the projection period. The 3% COLA is not expected to take effect as the plan is not projected to achieve an 80% funded status.

EXHIBIT - 7/1/2015 VALUATION REPORT ADDENDUM

ALTERNATIVE SCHEDULED CONTRIBUTIONS FOR FULLY FUNDING PLAN

COLA for retirees: Alternate 0% and 2% until FYE 2023, then 2% unless attain 80% funded (then 3%)

Investment Return: 7.50%

Fiscal	Estimated						
Year	Accrued	Estimated					
Ending	Liability	Actuarial	Unfunded	Contribution	Benefit		•
6/30	(AL)	Assets	AL	Schedule	Payments	Funded %	Compound COLA
2016	88,779,000	46,413,000	42,366,000	3,633,000	8,059,000	52%	0%
2017	87,048,000	42,782,000	44,266,000		8,064,000	49%	2%
2018	86,661,000	40,387,000	46,274,000	3,880,000		47%	0%
2019	84,719,000	38,395,000	46,324,000	4,010,000	7,914,000	45%	2%
2020	82,653,000	36,402,000	46,251,000	4,144,000	7,760,000	44%	0%
2021	80,601,000	35,201,000	45,400,000	4,282,000	7,731,000	44%	2%
2022	78,433,000	34,091,000	44,342,000	4,425,000	7,560,000	43%	0%
2023	76,289,000	33,233,000	43,056,000	4,573,000	7,510,000	44%	2%
2024	74,043,000	32,524,000	41,519,000	4,726,000	7,449,000	44%	2%
2025	71,698,000	31,990,000	39,708,000	4,883,000	7,375,000	45%	2%
2026	69,261,000	31,663,000	37,598,000	5,046,000	7,288,000	46%	2%
2027	66,739,000	31,579,000	35,160,000	5,215,000	7,186,000	47%	2%
2028	64,140,000	31,776,000	32,364,000	5,389,000	7,068,000	50%	2%
2029	61,632,000	32,296,000	29,336,000	5,569,000	6,934,000	52%	2%
2030	58,923,000	33,186,000	25,737,000	5,755,000	6,784,000	56%	2%
2031	56,171,000	34,498,000	21,673,000	5,947,000	6,615,000	61%	2%
2032	53,393,000	36,288,000	17,105,000	6,146,000	6,430,000	68%	2%
2033	50,605,000	38,615,000	11,990,000	6,351,000	6,227,000	76%	2%
2034	47,822,000	41,545,000	6,277,000	6,563,000	6,063,000	87%	3%
2035	45,006,000	45,090,000	(84,000)		5,879,000	100%	3%
2036	42,174,000	42,286,000	(112,000)		5,677,000	100%	3%

Note: The Accrued Liability, Assets, Unfunded AL, and Funded Percentages are all determined as of the beginning of the fiscal year and the Contributions assume a mid-year deposit.

PARTICIPANT DATA AS OF JULY 1, 2015

Retired participants, beneficiaries, contingent annuitants and disabled participants

Number 236
Average monthly benefit \$2,866.33
Average attained age 72.29

RECONCILIATION OF PARTICIPANT STATUS

		Deferred			
	Active	Vested	<u>Disabled</u>	<u>Retired</u>	<u>Total</u>
Prior Valuation	1	0	43	201	245
Terminated - vested	0	0	0	0	0
Terminated - not vested	0	0	0	0	0
Retired	(1)	0	0	1	0
Survivor Annuitant	0	0	0	3	3
Deaths	0	0	(1)	(10)	(11)
Data Corrections	0	0	1	(1)	0
QDRO	<u>0</u>	<u>0</u>	<u>0</u>	<u>(1)</u>	<u>(1)</u>
Current Valuation	0	0	43	193	236
Fire	0	0	23	114	137
Police	0	0	20	79	99

CITY OF WOONSOCKET, RHODE ISLAND FIREMEN'S PENSION FUND

SUMMARY OF PLAN PROVISIONS

Effective Date

January 1, 1960

Plan Year Beginning

July 1, 2015

Pensioner's Benefits

All remaining participants in the plan are currently in payment status. Benefits were determined by the plan sponsor, upon commencement, in accordance with the terms of the plan.

Cost-of-Living Provision

All pensioners and alternate payees (but not beneficiaries) are eligible for a variable COLA depending on the pre-determined schedule and the plan's funding level. The COLA is described on page 8 and in Exhibits I and II.

Eligibility

There are no age or service requirements. All members of the Fire Department hired prior to July 1, 1985 are eligible.

Members hired after July 1, 1985 participate in the State Retirement System.

Employee Contributions

8% of annual salary during the plan year.

Normal Retirement Date

Upon completion of 20 years of service a member is eligible to retire.

Normal Retirement Benefit

Benefit Formula

50% of current annual salary plus 2.5% of salary for each year worked in excess of 20 years up to a maximum of 75% of salary.

Normal Form of Benefit

66.67% joint and survivor annuity.

Pre-Retirement Death Benefit

For a work related death, the member's beneficiary is entitled to receive a benefit of 50% of pay plus an additional 10% of pay for each minor child up to a maximum of 66.7% of pay.

For a non-work related death, the member's beneficiary is entitled to receive a benefit of 30% of pay plus an additional 10% of pay for each minor child up to a maximum of 50% of pay.

Disability Benefit

66.7% of current salary for a work related disablement and 50% of current salary for a non-work related disablement.

CITY OF WOONSOCKET, RHODE ISLAND POLICEMEN'S PENSION FUND

SUMMARY OF PLAN PROVISIONS

Plan Year Beginning

July 1, 2015

Pensioner's Benefits

All remaining participants in the plan are currently in payment status. Benefits were determined by the plan sponsor, upon commencement, in accordance with the terms of the plan.

Cost-of-Living Provision

All pensioners and alternate payees (but not beneficiaries) are eligible for a variable COLA depending on the pre-determined schedule and the plan's funding level. The COLA is described on page 8 and in Exhibits I and II.

Eligibility

There are no age or service requirements. All members of the Police Department hired prior to July 1, 1980 are eligible.

Members hired after July 1, 1980 participate in the State Retirement System.

Employee Contributions

7% of annual salary during the plan year.

Normal Retirement Date

Upon completion of 20 years of service a member is eligible to retire.

Maximum normal retirement age is 65.

Normal Retirement Benefit

Benefit Formula

60% of current annual salary plus 2.0% of salary for each year worked in excess of 20 years up to a maximum of 70% of salary.

Normal Form of Benefit

66.67% joint and survivor annuity.

Cost-of-Living Provision

Varying COLA depending on pre-determined schedule combined with the plan's funding level.

Pre-Retirement Death Benefit

For a work related death, the member's beneficiary is entitled to receive a benefit of 50% of pay plus an additional 10% of pay for each minor child up to a maximum of 66.7% of pay.

For a non-work related death, the member's beneficiary is entitled to receive a benefit of 30% of pay plus an additional 10% of pay for each minor child up to a maximum of 50% of pay.

Disability Benefit

66.7% of current salary for a work related disablement and 50% of current salary for a non-work related disablement.

SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS

ACTUARIAL COST METHOD

Individual entry age normal cost. Under this method, the annual cost is equal to the normal cost, plus amortization of unfunded accrued liabilities over a fixed period of years selected within the minimum (10 years) and maximum (5 to 30 years) periods permitted by law.

The normal cost is zero because all participants are retired.

The actuarial accrued liability is the accumulation, based on the actuarial assumptions, of all assumed prior normal costs. Thus, it represents the amount of reserves, which would be held by the plan, had it always been in effect for the present group of participants and had plan experience followed that predicted by the actuarial assumptions. The unfunded accrued liability is the excess, if any, of the accrued liability over the plan assets.

The actuarially determined contribution is calculated in accordance with the Funding Improvement Plan developed by the Pension Study Commission. The intent is to fully fund the plan in twenty-two years starting with the plan year ending 6/30/2013. However, as noted in this report, based on plan experience, this goal is not expected to be met using the current contribution schedule.

Attribution – Because all participants are in pay status, there is no further attribution and all benefits are included in the accrued liability as of the valuation date. All benefits are vested.

ACTUARIAL ASSUMPTIONS

Post-Retirement

Male and Female Mortality – RP-2000 Mortality Table, projected to 2010 using scale AA to form a new base table with fully generational projection at scale AA going forward. The mortality table is further modified to assume 115% of the male rates and 95% of the female rates.

The generational projection and scaling of the male and female rates is consistent with the assumptions utilized for the Employees' Retirement System of Rhode Island. Furthermore, an experience study was completed in 2015 which provides support of continued use of this table for this population.

Investment Return – 7.50% per annum

The current investment return assumption (and discount rate) is 7.50%. The historical returns for the plan as well as the current investment allocation may not support this rate. This is further reviewed in the recent experience study for the Plan. We have proposed 5.00% as an alternative investment return assumption.

Expense Loading — \$200,000 per year for two years and then reduced by 5% per year, paid mid-year.

Assumed annual benefit increases (COLA) – Based on plan provisions; please refer to page 8 for a projected schedule.

Pre-Retirement Assumptions: N/A – All participants are in pay status.

ASSET VALUATION

Market value of plan assets adjusted to phase in asset gains and losses from July 1, 2012 over a five-year period at a rate of 20% per year. Valuation assets are further limited to a 20% corridor around market value.

ACCUMULATED PLAN BENEFITS

The actuarial assumptions are set forth in the Summary of Actuarial Methods and Assumptions section of this report.

Actuarial Present Values of Accumulated Plan		
Benefits (Accumulated Benefit Obligation):	<u>7/1/2014</u>	7/1/2015
Vested Benefits		
Participants currently receiving payments	78,968,780	88,000,585
Other Participants		
Active Employees	737,692	0
Deferred Vested Terminated Employees	<u>0</u>	$\frac{0}{0}$
Total-Other Participants	737,692	<u>0</u>
Total Vested Benefits	79,706,472	88,000,585
Nonvested Benefits	0	<u>0</u>
Total Actuarial Present Values of Accumulated Plan Benefits	79,706,472	88,000,585
Projected Benefit Obligation	79,706,472	88,000,585
Statement of Changes in Accumulated Plan Benefits		
Actuarial Present Value of Accumulated Plan Benefits at Beginn Increase (Decrease) Attributable to:	79,706,472	
Benefits Paid		(8,574,752)
Interest Due to Change in the Discount Period		5,662,245
Change in the Discount Rate		0
Plan Amendment		0
Assumption Change		9,236,274
Additional benefits earned, including experience gains and los	1,970,346	
Actuarial Present Value of Accumulated Plan Benefits at End of		88,000,585
Discount Assumption	7.50%	7.50%
Mortality Assumption	RP2000 adjusted	RP2000 adjusted
COLA Assumption	No COLA	Alternating 0%, 2% until FYE 2023, 2% then 3% when 80% funded

EXHIBIT I

BUDGET COMMISSION APPROVED FUNDING SCHEDULE

Scenario #2014-9-12 updated 2014-10-11 and 2015-1-30

Contribution Pattern: 2.4% annual increases; at least 100% funded in 22 years (starting with the 7/1/2012 plan year)

Investment Return: 7.50%; COLA applied to retirees only;

Compound COLA Pattern: Alternate 0% and 2% until FYE 2023 then 2% unless attain 80% funded (then 3%) RP2000 Mortality Table, projected to 2010 and then fully generational with 115% male and 95% female

Fiscal	Estimated			Annual and			
Year	Accrued	Estimated		Scheduled			
Ending	Liability	Actuarial	Unfunded	Required	Benefit		
6/30	(AL)	Assets	AL	Contribution	Payments	Funded %	Compound COLA
2015	90,478,000	48,567,000	41,911,000	3,548,000	8,187,000	54%	2%/0%*
2016	88,742,000	47,194,000	41,548,000	3,633,000	8,059,000	53%	0%
2017	87,009,000	44,389,000	42,620,000	3,721,000	8,062,000	51%	2%
2018	86,621,000	42,803,000	43,818,000	3,810,000	7,918,000	49%	0%
2019	84,685,000	41,605,000	43,080,000	3,901,000	7,904,000	49%	2%
2020	82,626,000	40,384,000	42,242,000	3,995,000	7,745,000	49%	0%
2021	80,588,000	39,344,000	41,244,000	4,091,000	7,714,000	49%	2%
2022	78,438,000	38,365,000	40,073,000	4,189,000	7,538,000	49%	0%
2023	76,317,000	37,606,000	38,711,000	4,289,000	7,487,000	49%	2%
2024	74,097,000	36,954,000	37,143,000	4,392,000	7,425,000	50%	2%
2025	71,781,000	36,431,000	35,350,000	4,498,000	7,352,000	51%	2%
2026	69,375,000	36,062,000	33,313,000	4,606,000	7,265,000	52%	2%
2027	66,885,000	35,875,000	31,010,000	4,716,000	7,163,000	54%	2%
2028	64,320,000	35,899,000	28,421,000	4,830,000	7,047,000	56%	2%
2029	61,688,000	36,169,000	25,519,000	4,945,000	6,915,000	59%	2%
2030	59,003,000	36,723,000	22,280,000	5,064,000	6,766,000	62%	2%
2031	56,276,000	37,601,000	18,675,000	5,186,000	6,600,000	67%	2%
2032	53,522,000	38,849,000	14,673,000	5,310,000	6,416,000	73%	2%
2033	50,757,000	40,515,000	10,242,000	5,438,000	6,272,000	80%	3%
2034	47,939,000	42,593,000	5,346,000	5,500,000	6,109,000	89%	3%
2035	45,083,000	45,065,000	18,000	0	5,926,000	100%	3%
2036	42,208,000	42,210,000	(2,000)	0	5,724,000	100%	3%
*COLA for	calcated man	horo					

^{*}COLA for selected members

Note: The Accrued Liability, Assets, Unfunded AL, and Funded Percentages are all determined as of the beginning of the fiscal year and the Annual Contributions are determined assuming a mid-year deposit.

EXHIBIT II

ALTERNATIVE VALUATION - FULLY FUNDING PLAN IN 22 YEARS

COLA for retirees: Alternate 0% and 2% until FYE 2023, then 2% unless attain 80% funded (then 3%) Investment Return: 5.00%

Fiscal	Estimated						
Year	Accrued	Estimated		Alternative			
Ending	Liability	Actuarial	Unfunded	Contribution	Benefit		
6/30	(AL)	Assets	AL	Schedule	Payments	Funded %	Compound COLA
2016	112,691,000	46,413,000	66,278,000	5,815,000	8,059,000	41%	0%
2017	110,047,000	44,014,000	66,033,000	5,815,000	8,064,000	40%	2%
2018	109,046,000	42,827,000	66,219,000	5,815,000	7,926,000	39%	0%
2019	106,166,000	42,012,000	64,154,000	5,815,000	7,914,000	40%	2%
2020	103,162,000	41,156,000	62,006,000	5,815,000	7,760,000	40%	0%
2021	100,175,000	41,043,000	59,132,000	5,815,000	7,731,000	41%	2%
2022	97,076,000	40,962,000	56,114,000	5,815,000	7,560,000	42%	0%
2023	94,007,000	41,061,000	52,946,000	5,815,000	7,510,000	44%	2%
2024	90,842,000	41,224,000	49,618,000	5,815,000	7,449,000	45%	2%
2025	87,589,000	41,465,000	46,124,000	5,815,000	7,375,000	47%	2%
2026	84,256,000	41,800,000	42,456,000	5,815,000	7,288,000	50%	2%
2027	80,852,000	42,248,000	38,604,000	5,815,000	7,186,000	52%	2%
2028	77,388,000	42,830,000	34,558,000	5,815,000	7,068,000	55%	2%
2029	73,878,000	43,568,000	30,310,000	5,815,000	6,934,000	59%	2%
2030	70,336,000	44,485,000	25,851,000	5,815,000	6,784,000	63%	2%
2031	66,775,000	45,607,000	21,168,000	5,815,000	6,615,000	68%	2%
2032	63,215,000	46,964,000	16,251,000	5,815,000	6,430,000	74%	2%
2033	59,671,000	48,583,000	11,088,000	5,815,000	6,284,000	81%	3%
2034	56,105,000	50,438,000	5,667,000	5,815,000	6,118,000	90%	3%
2035	52,536,000	52,560,000	(24,000)	0	5,933,000	100%	3%
2036	48,981,000	49,021,000	(40,000)	0	5,729,000	100%	3%

Note: The Accrued Liability, Assets, Unfunded AL, and Funded Percentages are all determined as of the beginning of the fiscal year and the contributions are determined assuming a mid-year deposit.

ALTERNATIVE SCHEDULED CONTRIBUTION

(1) Employer Normal Cost	0
(2) 5 Year Amortization of \$66,278,000	14,579,569
(3) Maximum Recommended Contribution at beginning of Plan	14,579,569
Year = (1) + (2), not less than zero	
(4) Interest Charge on (1) and (2) to Plan Year End	1,093,468
(5) Total Recommended Contribution at Plan Year End = $(3) + (4)$	15,673,037

EXHIBIT III

Retired Employee Benefits as of July 1, 2015

Shown in this Exhibit are benefits in pay status for retired employees and beneficiaries of deceased employees.