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Westerly Police Pension Fund

Actuarial Valuation Report as of July 1, 2012

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Cathleen Falconer Pension Analyst

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Section I

Valuation Balance Sheet

The results of the valuation are presented in the following table:

Valuation Balance Sheet

	June 30, 2012	June 30, 2011
Sources of Funds		
Actuarial Value of Assets	\$ 25,613,803	\$ 24,617,344
Present Value of Future Amortization Payments	23,455,107	19,693,479
Present Value of Future Contributions	10,801,575	7,741,212
Total Sources of Funds	59,870,485	52,052,035
Actuarial Liabilities		
Present Value of Future Pensions (Active Members)	\$ 23,739,007	\$ 19,328,532
Reserve for Retired Members, Widows and Terminated Vesteds	36,131,478	32,723,503
Total Actuarial Liabilities	\$ 59,870,485	\$ 52,052,035

The value of the fund (cash and securities) as of June 30, 2012 was determined as of that date from the Town's Audited Financial Statements.

The actuarial liability item "Present Value of Future Pensions (Active Members)" takes into account all such pensions which currently active members are expected to receive at normal retirement date, not merely the portions thereof accrued to date. The item "Reserve for Retired Members and Widows" represents the Plan's actuarial liability for pension benefits which are expected to be paid to presently retired members and their beneficiaries.

The "Present Value of Future Contributions" is the balancing item and represents the actuarial present value of future service (Normal Cost) contributions (employer and employee) anticipated with respect to presently active members.

Section II Development of Asset Values

Summary of Fund Activity		
	Market Value	Actuarial Value**
1. Beginning value 7/1/2011		
a. Trust assets	\$ 24,492,968	\$ 24,617,344
b. Accrued contribution	0	0
c. Benefits payable	0	0
d. Administrative expenses payable	0	24,617,344
e. Net: (a)+(b)-(c)-(d)	24,492,968	24,617,344
2. Contributions		
a. Contributions during year	2,252,111	2,252,111
b. Change in accrued contribution	0	0
c. Total for plan year	2,252,111	2,252,111
3. Disbursements *		
a. Benefit payments during year	2,413,237	2,413,237
b. Administrative expenses during year	14,800	14,800
c. Change in benefits payable	0	0
d. Change in administrative expenses payable	0	0
e. Total for plan year	2,428,037	2,428,037
4. Net investment return		
a. Interest and dividends	867,148	N/A
b. Change in accrued income	2,087	N/A
c. Realized gain (loss)	(203,205)	N/A
d. Unrealized gain (loss)	308,237	N/A
e. Expected return	N/A	2,033,706
f. Recognized gain (loss)	N/A	(861,321)
g. Required adjustment due to corridor	N/A	0
h. Reversal of prior year required adjustment	N/A	0
i. Investment-related expenses	(50,021)	N/A
j. Total	924,246	1,172,385
5. Ending value 7/1/2012 **		
a. Trust assets: $(1a)+(2a)-(3a)-(3b)+(4j)$	25,241,288	25,613,803
b. Accrued contribution	0	0
c. Benefits payable	0	0
d. Administrative expenses payable	0	0_
e. Net: (a)+(b)-(c)-(d)	25,241,288	25,613,803
6. Approximate rate of return 2011-2012	3.6%	4.6%

^{*}Includes \$686,774 in net retiree medical costs.

**Asset split as of July 1, 2012:	Market Value	Actuarial Value
Pension	\$21,818,154	\$22,140,150
OPEB	\$3,423,134	\$3,473,653

Section II

Development of Asset Values (continued)

Relationship of Actuarial Value to Market Value		
1. Market value 7/1/2012	\$	25,241,288
2. Gain / (loss) not recognized in actuarial value 7/1/2012		(372,515)
3. Preliminary actuarial value 7/1/2012: (1)-(2)		25,613,803
4. Preliminary actuarial value as a percentage of market value: (3)÷(1)		101.5%
5. Gain / (loss) recognized for corridor min/max		N/A
6. Actuarial value 7/1/2012 after corridor min/max: (3)+(5)		25,613,803
7. Actuarial value as a percentage of market value: (6)÷(1)		101.5%

Development of Market Value Gain / (Loss) for 2011-2012 Plan Year		
1. Market value 7/1/2011	\$	24,492,968
2. Contributions		2,252,111
3. Benefit payments		2,413,237
4. Administrative expenses		14,800
5. Expected return at 8.00%		2,033,706
6. Expected value 7/1/2012: (1)+(2)-(3)-(4)+(5)		26,350,748
7. Market value 7/1/2012		25,241,288
8. Market value gain / (loss) for -1 Plan Year: (7)-(6)	,	(1,109,460)

Recognition of Gain / (Loss) in Actuarial Value					
Year	(a) Gain / (loss)	(b) Recognized as of 7/1/2011	(c) Recognized in current year: 20% of (a)	(d) Total recognized as of 7/1/2012: (b)+(c)	(e) Not recognized as of 7/1/2012: (a)–(d)
2007-2008	\$ (1,911,233)	\$ (1,528,988)	\$ (382,245)	\$ (1,911,233)	\$ 0
2008-2009	(3,546,249)	(2,127,750)	(709,250)	(2,837,000)	(709,249)
2009-2010	659,491	263,796	131,898	395,694	263,797
2010-2011	1,600,841	320,168	320,168	640,336	960,505
2011-2012	(1,109,460)	0	(221,892)	(221,892)	(887,568)
Total			(861,321)		(372,515)

Section III

Normal Cost for Plan Year

The Normal Cost is the portion of the Actuarial Present Value of Future Benefits that a cost method allocates to the current plan year.

Under the Entry Age Actuarial Cost Method, the Normal Cost for plan benefits is the total of the individual Normal Costs for active participants. The cost method derives the Normal Cost for each active participant by distributing the individual's Actuarial Present Value of Future Benefits over expected salary-weighted service from Entry Age. Each year of expected service is weighted by the expected salary in that year in order to produce an individual annual Normal Cost that will remain level as a percentage of salary.

Normal Cost					
		July 1, 2012		July 1, 2011	
		Pension	OPEB	Pension	OPEB
1.	Total normal cost for benefits	\$1,104,428	\$ 100,225	\$ 768,553	\$ 91,033
2.	Administrative expenses	13,569	1,231	0	0
3.	Total normal cost	1,117,997	101,456	768,553	91,033
4.	Employee contributions	333,429	0	313,788	0
5.	Employer Normal Cost: (3) – (4) (rounded to nearest \$100)	784,600	100,500	454,800	91,000
6.	Total salary	3,133,733	3,133,733	3,010,489	3,010,489
7.	Total employer cost as a percentage of plan salaries: $(5) \div (6)$	25.04%	3.24%	15.11%	3.02%
8.	Expected ARC Year* Payroll: (6) x 1.04	3,306,088	3,306,088	3,176,066	3,176,066
9.	ARC Year* Normal cost: (7) x (8) (rounded to nearest \$100)	827,800	107,100	479,900	95,900

^{*} $ARC = GASB\ 25/27\ Annual\ Required\ Contribution,\ 2012\ valuation$ is used to determine the 2013-2014 ARC.

Section III (continued)

Unfunded Actuarial Accrued Liability (Entry Age Normal Method)

	Actuarial Balance Sheet			
		Pension	ОРЕВ	Total
1.	Liabilities – Present Value of Future Benefits			
	a. Actuarial accrued liability			
	i. Active participants	\$ 10,626,395	\$2,311,037	\$12,937,432
	ii. Terminated vested participants	186,521	0	186,521
	iii. Retired participants	23,873,173	12,071,784	35,944,957
	iv. Total	34,686,089	14,382,821	49,068,910
2.	Actuarial Value of Assets	\$22,140,150	\$ 3,473,653	\$25,613,910
3.	Funded Ratio*: [2 ÷ 1(iv)]	63.8%	24.2%	52.2%
4.	Unfunded actuarial accrued liability: $[1(iv)-2]$	12,545,939	10,909,168	23,455,107
5.	30-year amortization (rounded to nearest \$100)	988,200	859,200	1,847,400

^{*}Note: If OPEB liabilities were unfunded, the pension liabilities would be 73.8% funded.

Section IV

Town Contribution for 2012-2013 and 2013-2014

The Town's rate of contribution for future service (Normal Cost) for the fiscal year 2012-2013 was calculated as 18.13% of valuation payroll. For the fiscal year 2013-2014 it is 28.28% of valuation payroll. The term "payroll" is intended to mean the same basis as that on which members' employee deductions are computed. The percentage of contribution by the Town is, of course, in addition to contributions from members.

In addition to the Normal Cost the Town should also contribute a specified amount of amortization of the so-called "unfunded actuarial liability" (Present Value of Future Amortization Payments), as indicated below.

Based on the payroll figures furnished, the Town's contribution on this basis should be as follows:

Town's 2012-2013 Contribution:

	Amortization Period		
	30 Years		
	Pension	OPEB	Total
Normal Cost (18.13% of \$3,176,066)	\$ 479,900	\$ 95,900	\$ 575,800
Amortization Payment	792,800	826,900	_1,619,700
Total Town Contribution	\$1,272,700	\$922,800	\$2,195,500

Town's 2013-2014 Contribution:

	Amortization Period		
	30 Years		
	Pension	OPEB	Total
Normal Cost (28.28% of \$3,306,088)	\$ 827,800	\$ 107,100	\$ 934,900
Amortization Payment	988,200	859,200	1,847,400
Total Town Contribution	\$1,816,000	\$ 966,300	\$2,782,300

Section V

Description of Actuarial Methods

Actuarial Cost Method

- A. Changes in Actuarial Cost Method as of July 1, 2012: None
- B. Description of Current Actuarial Cost Method.

In calculating recommended contributions and valuing your Plan, the actuarial valuation method used is the Entry Age Normal method (level percentage of salary). Under this method, the normal cost is the sum of the individual normal costs for all active participants. The normal cost is the normal cost accrual rate (equal to the present value of future benefits of the participant at entry age divided by the present value of compensation expected to be paid each year) multiplied by the participant's current compensation.

A participant's accrued liability equals the present value of future benefits less the present value of the individual normal costs payable in the future.

The entry age used for each active participant is the participant's age at the time they would have commenced participation in the plan had the plan always been in existence or the age which they first earn credited service for benefit accrual.

The unfunded accrued liability equals the total accrued liability less the actuarial value of assets. This unfunded liability is amortized over 30 years.

All of the above calculations are based on the assumptions shown on the following page.

Asset Valuation Method

The Actuarial Value of assets used in development of plan contributions phases in recognition of the difference between the actual return on Market Value and the expected return on Market Value over a five-year period at 20% per year. It was first being used with the 2009 valuation.

Section VI

Outline of Actuarial Assumptions

The actuarial assumptions used in computing costs and liabilities under the Plan are as follows:

Interest:

Current: 7.5% net of expenses (bank fees)

compounded annually.

Prior: 8% net of expenses (bank fees) compounded

annually.

Mortality:

Current: RP-2000 Mortality Table with separate male and female rates, with no collar adjustment, combined table for non-annuitants and annuitants, projected to the valuation date with Scale AA.

Unprojected disabled table.

Prior: RP-2000 Combined Blue Collar Fully Generational, non-annuitant table for participants, annuitant table for retirees and inactives and no collar adjustment for beneficiaries. Unprojected

disabled table.

Mortality Improvement:

Projected to date of decrement using Scale AA

(generational mortality).

Turnover:

Current: Based on Years of Service.

<u>Service</u>	<u>Rate</u>
0	7.00%
1	5.50%
2	5.00%
3	4.50%
4	4.00%
5	3.50%
6	3.00%
7	2.50%
8	2.25%
9	2.00%
10	1.75%
11	1.50%
12	1.25%
13	1.00%
14	0.75%
15	0.50%
16+	0.00%

Outline of Actuarial Assumptions (continued)

Prior: 10% Vaughn Select & Ultimate.

Sample termination rates are as follows:

$\underline{\text{Age}}$	<u>Ultimate Rates</u>
25	1.36%
30	1.01
35	0.79
40	0.65
45	0.55
50	0.45
55	0.00

Retirement Age:

Current: Based on Years of Service. For those hired on or before July 1, 2010:

<u>Service</u>	<u>Rate</u>
20	25.00%
21	40.00%
22	30.00%
23	20.00%
24	50.00%
25	100.00%

For those hired after July 1, 2010:

<u>Service</u>	Rate
25	25.00%
26	40.00%
27	30.00%
28	20.00%
29	50.00%
30	100.00%

Prior: Based on years of service.

Years of Service	<u>Rate</u>
20	15.0%
21	17.5%
22	25.0%
23	35.0%
24	50.0%
25	66.7%
26	75.0%
27+	100.0%

Outline of Actuarial Assumptions (continued)

Salary Scale:

Current: Service based table as follows:

Service	Rate
0	14.50%
1	12.50%
2	11.00%
3	9.50%
4	8.00%
5	7.00%
6	6.50%
7	6.00%
8-9	5.50%
10-11	5.25%
12-13	5.00%
14-15	4.75%
16	4.50%
17	4.25%
18	4.00%
19	3.75%
20+	3.50%

Prior: Based on years of service.

Years of Service	Percent Increase
0	16.0%
1	14.0%
2	12.0%
3	10.0%
4	8.0%
5 - 9	6.5%
10 - 14	4.0%
15 - 19	3.5%
20 & above	3.0%

Expense Loading:

Current: Estimated annual actuarial fees.

Prior: None. Expenses other than "bank fees" are assumed to be paid directly by the Town.

Disability Benefits:

Costed directly. 75% of disabilities considered occupational.

Outline of Actuarial Assumptions (continued)

Rate of Disablement:

33% of the 1985 Pension Disability Table Class 4

rates for males and females.

Line of Duty Death:

Costed directly. 75% of deaths considered "in-line

of duty".

COLA:

Valued explicitly.

Normal Form:

Valued explicitly. 70% of males and 60% of females assumed married with wives 3 years younger. 100% of those assumed married expected

to select the 67.5% Joint & Survivor form.

Severance:

Valued explicitly.

Assumed Claim Rates:

Annual Amount	
<u>Current</u>	<u>Prior</u>
\$9,132.60	\$8,909.88
7,680.48	8,133.48
672.72	672.72
1,198.80	1,158.00
	Current \$9,132.60 7,680.48 672.72

Morbidity:

Pre-65 medical claim rates are adjusted for age using the following table:

<u>Age</u>	Increase in Costs
To age 45	2.7%
46 - 50	3.0%
51 - 54	3.3%
55 – 59	3.6%
60 - 64	4.2%
65 - 69	3.0%
70 - 74	2.5%
75 – 79	2.0%
80 - 84	1.0%
85 - 89	0.5%
90+	0.0%

Average age of the insured group is assumed to be 51.

Outline of Actuarial Assumptions (continued)

Trend:

Healthcare cost trend rates for medical.

<u>Year</u>	<u>Increase</u>
2007	10%
2008	9%
2009	8%
2010	7%
2011	6%
2012 & after	5%

Dental: 4%

Section VII

Certification

This report presents the results of the July 1, 2012 Actuarial Valuation for the Town of Westerly Police Pension Fund (the Plan) for the purpose of estimating the funded status of the Plan and determining the Annual Required Contribution (ARC) for the fiscal year ending June 30, 2014. It is intended to satisfy the requirements of § 45-65-6 of the Rhode Island Retirement Security Act. This report may not be appropriate for any other purpose.

The valuation results present in this report have been calculated in accordance with generally accepted actuarial principles and practices. I certify that the actuarial assumptions and methods were selected by me and represent my best estimate of anticipated actuarial experience under the plan.

In preparing all related valuation results, I have relied on employee data provided by the Town, and on asset and contribution information also provided by the Town & its financial advisors. I have not audited the employee data or the financial information, although I have reviewed them for reasonableness.

The results in this report are based on the Plan as summarized in the *Plan Provisions* section of this report and actuarial assumptions and methods detailed in the *Description of Actuarial Methods and Assumptions* section of this report.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of this report, an analysis of the potential range of such future measurements has not been performed.

I am a member of the American Academy of Actuaries and meet its Qualification Standards to render the actuarial opinion contained herein.

I am independent of the Town of Westerly, Rhode Island in accordance with *Government Auditing Standards*.

Timothy A. Ryor, FSPA, FCA, MAAA, EA Senior Vice President and Consulting Actuary

January 2, 2013

Outline of Principal Plan Provisions

Effective Date:

March 1, 1949.

Arbitration Award dated July 8, 1985. Master Agreement dated July 1, 1990. Arbitration Award dated August 26, 1993.

Rhode Island Supreme Court dated June 22, 1995. Master Agreement dated April 25, 1997 (effective 7/1/95).

Master Agreement effective July 1, 1998 to June 30, 2001.

Master Agreement effective July 1, 2001 to June 30, 2004.

Master Agreement effective July 1, 2004 to June 30, 2007.

Master Agreement effective July 1, 2007 to June 30, 2010.

Master Agreement effective July 1, 2010 to

June 30, 2013.

All regular police officers are eligible to

participate.

Period of employment as police officer of Town.

Effective July 1, 1987, a policeman may retire upon completion of 20 years of service.

Effective July 1, 2010, hired after July 1, 2010, a policeman may retire upon completion of 25 years

of service.

A pension for life computed as 50% of annual pay for 20 years service plus 2% times annual pay for each year of service over 20 years (maximum service equals 25 years). For those hired after July 1, 2010, a pension for life computed as 50% of annual pay for 25 years service plus 2% times annual pay for each year of service over 25 years (maximum service equals 30 years). "Annual Pay at Retirement" shall mean a sum equal to the base salary received by the individual retiree for the twelve (12) months immediately preceding his

retirement date.

67.5% Joint & Survivor

Directive Date

Eligibility:

Credited Service:

Normal Retirement:

Normal Retirement Benefit:

Normal Form of Benefit

Outline of Principal Plan Provisions (continued)

Disability Retirement:

Non-Occupational Causes - A pension computed as follows:

Years of	Percent of
Service	Final Annual Pay
10 or less	10%
10 to 15	18
15 to 20	27

Occupational Causes - A monthly income equal to 50% of annual rate of pay at time of disability.

Vesting:

Effective June 30, 1985, 100% vested after 10 years of service - a deferred monthly income equal to accrued benefit commencing at normal retirement. Terminating police with less than 10 years receive a return of employee contributions with interest.

Death Benefits:

(A) Pre-Retirement:

Return of member's contributions with interest.

(B) Post-Retirement:

Continuation of 67-1/2% of deceased retired member's pension to spouse until death or remarriage. If no eligible spouse, then benefit payable to dependent children under age 18. Insurance continuation until death or remarriage or failure to qualify as a dependent child.

Death in Line of Duty: (Effective July 1, 1990):

In the event a member of bargaining unit is killed in the line of duty, their heirs shall receive whatever benefits the member would have been entitled to as though they had been members of the bargaining unit for 20 years.

Automatic Cost-Of-Living:

Any Policeman retiring on or after June 30, 1990 shall be entitled to a 2½% cost-of-living escalator, not compounded, as of July 1, 1994, and each succeeding year.

Outline of Principal Plan Provisions (continued)

All members who retired prior to June 30, 1990 receive a 2½% non-compounded annual pension adjustment retroactive to July 1, 1993. Members retiring on or after July 1, 1998 receive a 3% non-compounded annual pension adjustment.

All members hired after July 1, 2010 shall be entitled to a 3% non-compounded adjustment after 5 years on pension or age 52, whichever comes first.

Member Contributions:

11% of pay (10% prior to July 1, 2005). Returnable on termination of employment, or to estate on death prior to 10 years of service. 9% of pay for the Fiscal Year beginning July 1, 2003.

Severance Pay:

Payment to retirees in accordance with terms of arbitrators award May 23, 1979.

Members who retire with 25 or more years of service shall receive severance pay based on 1 ½ days for each year of service at retirement.

Medical, Dental and Life Insurance Benefits:

Coverage to retirees in accordance with terms of arbitrators award of May 23, 1979 (revised July 8, 1985). Effective July 1, 1990 the Town shall pay for all the Blue Cross and health benefits for all employees who retire with at least twenty (20) years of service.

Employees hired prior to July 1, 1993, shall, upon retirement, contribute the same percentage of medical coverage as they contribute at the time of retirement.

Outline of Principal Plan Provisions (continued)

Employees hired on or after July 1, 1993 and retiring after at least twenty (20) years of active service will pay 15% of the cost of health care coverage at the full mature working rate or monthly premium cost and the Town will pay the balance up to a maximum of \$6,000 per year (\$500 per month) until the employee reaches age 65, after which time the employee will pay 15% of the premium cost or fully mature working rate of Plan 65 and the Town will pay the balance up to a maximum of \$6,000 per year (\$500 per month).

Any amounts in excess of \$6,000 shall be borne by the employee.

Coverage to retirees and spouses includes dental insurance for life and a reimbursement of Medicare Part B premium to retirees only after age 65.

Employee Participation: July 1, 2011 - June 30, 2012

Active Members

	11cul o madiliboli		
	Number	Payroll	Average Pay
Active Members, July 1, 2011	47	\$2,847,036	\$60,575
New Members During Year	+2		
Terminations During Year	-1		
Military Leave of Absence	+1		
Deaths During Year	0		
Retirements During Year	1		
Active Members, June 30, 2012	48	\$3,039,511	\$63,323
	Retired Members		
	Number	Annual Pension	
Retirees, July 1, 2011	39	\$1,497,880	
Adjustment	0		
·			

Widows

+1

\$1,588,760

	Number	Annual Pension
Widows, July 1, 2011	6	\$ 102,512
Adjustment	0	
Additions During Year	0	
Deaths During Year	0	
Widows, June 30, 2012	6	\$ 104,496

Terminated Vested

Number

Terminated Vesteds, July 1, 2011	3
Terminations During Year	-1
Leave of Absence (military)	<u>-1</u>
Terminated Vesteds, June 30, 2012	1

Retirements During Year

Deaths During Year

Retirees, June 30, 2012

Age/Service Chart

Schedule of Active Participant Data

Westerly Police Pension Fund July 1, 2012

Attained Age	Completed Years of Credited Service																			
	Under 1		1 to 4		5 to 9		10 to 14		15 to 19		20 to 24		25 to 29		30 to 34		35 to 39		40 and over	
	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg Comp
Under 25	1		3																	
25 to 29	1		5		2															
30 to 34			5		1															
35 to 39					3		6		1											
40 to 44					2		6		3		2									
45 to 49									2		3									
50 to 54							1													
55 to 59									1											
60 to 64																				
65 to 69																				
70 & over																				