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ACTUARIAL REPORT

FOR

TOWN OF ESSEX POLICE RETIREMENT FUND

AS OF JULY 1, 2012

AS APPLICABLE TO THE TOWN'S FISCAL YEAR ENDING JUNE 30, 2014

Prepared by The Pension Service, Inc.
May 16, 2013

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INTRODUCTION

This actuarial valuation report of the Town of Essex Police Retirement Fund is based upon the actuarial valuation of the Plan as of July 1, 2012, and is applicable to the Town's fiscal year ending June 30, 2014.

The valuation has been based on the employee census data provided by the Town, and the trust fund data provided by the Trustee, Bank of America.

This section of the report presents a comparative summary of the valuation results. It also highlights any changes in actuarial assumptions or plan provisions, and other changes, from last year. Also, we have discussed the Plan experience for the year ended June 30, 2012.

	Valuation as of July 1, 2012	Valuation as of July 1, 2011
Applicable to Fiscal Year Ending	**6/30/2014**	**6/30/2013**
Actuarially Determined Contribution*	$ *	$ *
Actuarial Value of Plan Assets	$577,476	$ 512,278
Number of Active Participants	2	3
Total Number of Participants	6	5
Covered Payroll	$175,947	$ 255,273
Average Compensation	$ 58,649	$ 85,091

* See Page 3.

Changes Since Last Year

The assumed rate of return (interest rate assumption) has been reduced from 8.0% to 7.75%, effective beginning July 1, 2012, applicable to the Plan Year ending June 30, 2013. The 8.0% rate was used to determine the contributions and to measure the asset gain / (loss) for the Plan Year ended June 30, 2012.

Plan Experience

As is detailed on page 6, the Plan realized a net (loss) of $(188,275) during the year ended June 30, 2012.

CERTIFICATION

We certify that this actuarial valuation was performed in accordance with accepted actuarial practices and the results presented herein represent an appropriate measure of the actuarial costs and liabilities of the plan. In our opinion, the actuarial assumptions used herein are reasonably related to the experience of the plan and to reasonable expectations, and represent our best estimate of anticipated future experience under the plan.

THE PENSION SERVICE, INC.

Jeffrey D. Poland, MSPA, MAAA
Enrolled Actuary No. 11-00361
May 16, 2013

ACTUARIALLY DETERMINED CONTRIBUTION

A)	Normal Cost	$ 16,251
B)	9-year Amortization of Unfunded Accrued Liability (20 Years from July 1, 1997)	$ 73,090
C)	Estimated Employee Contributions*	$ 5,490
D)	Actuarially Determined Contribution, June 30, 2013 [(A) + (B) – (C)]	$ 83,851
E)	19-Year Amortization of Unfunded Accrued Liability	$ 47,181
F)	[(A) – (C) + (E)]	$ 57,942

* 3.0% multiplied by prior year's pay increased with salary scale.

DEVELOPMENT OF ASSETS AND LIABILITIES

I) ASSETS

A)	Market Value, June 30, 2012	$ 499,297
B)	Book Value, June 30, 2012*	$ 498,132
C)	Average of Book and Market Values	$ 498,715
D)	Plus Accrued Town Contribution (for Plan Year ended June 30, 2012)	$ 78,761
E)	Actuarial Value of Assets	$ 577,476

II) LIABILITIES

Accrued Liability at July 1, 2012 for:

A)	Active Participants	$ 187,383
B)	Vested Terminated Participants	$ 66,615
C)	Retired Participants and Beneficiaries	$ 784,851
D)	Total	$1,038,849

III) Unfunded Accrued Liability [II(D) – I(E)] $ 461,373

* Original purchase price of securities.

DETERMINATION OF THE ACTUARIAL GAIN / (LOSS)

Under the projected unit credit cost method, changes in the plan's liabilities and assets different from those anticipated by the actuarial assumptions result in actuarial gains and losses, which are identified annually. Their magnitude indicates the extent to which actual plan experience has deviated from that assumed by the actuarial assumptions.

The determination of the actuarial gain/(loss) for the plan year ended June 30, 2012 is as follows:

1)	Unfunded Actuarial Accrued Liability, July 1, 2011	$ 342,449
2)	Normal Cost, June 30, 2012	$ 35,729
3)	8% Interest on (1)*	$ 27,396
4)	Contributions for Plan Year Beginning July 1, 2011**	$ 132,476
5)	Interest on (4), prorated from dates made	$ 0
6)	Expected Unfunded Actuarial Accrued Liability July 1, 2012 = [(1) + (2) + (3) – (4) – (5)]	$ 273,098
7)	Actuarial Accrued Liability, July 1, 2012	$ 1,038,849
8)	Actuarial Value of Assets, July 1, 2012	$ 577,476
9)	Actual Unfunded Actuarial Accrued Liability July 1, 2012 = [(7) – (8)]	$ 461,373
10)	Net Experience Gain / (Loss) = [(6) – (9)]	$ (188,275)

* 8% was used for the year ended June 30, 2012. Effective July 1, 2012 7.75% has been assumed.

** Includes employee contributions during the year of $53,715 and accrued Town contribution of $78,761 for the Plan Year ended June 30, 2012.

BREAKDOWN OF ACTUARIAL GAIN / (LOSS)

The net experience loss of ($188,275) is comprised of the following components:

1)	Asset / (Loss)*	$ (42,599)
2)	New participants gain / (loss)	$ (1,871)
3)	Actuarial Experience and increase in the Accrued Liability from the reduction in the assumed interest rate.	$ (143,805)
	Total (loss)	$ (188,275)

This loss is automatically reflected in the Unfunded Actuarial Accrued Liability.

* Based on an 8% assumed rate of return for the Plan Year ended June 30, 2012. A 7.75% rate of return will be assumed for the Plan Year ending June 30, 2013.

SUMMARY OF PRESENT VALUE OF ACCRUED BENEFITS

The actuarially computed Value of Vested Accrued Benefits as of July 1, 2012 is as follows:

Retirees	$ 784,851
Vested Terminated	$ 66,615
Actives	$ 126,011
Total	$ 977,477
Actuarially computed Value of Non-Vested Accrued Benefits:	$ 679
Total actuarially computed Value of Accrued Benefits	$ 978,156
Actuarial Value of Plan Assets	$ 577,476
Market Value of plan Assets	$ 499,297

Note: The above actuarial values have been determined using the actuarial assumptions for interest and mortality stated on page 12, and provides an indication of the level of funding of the pension benefits that have been accrued to the actuarial valuation date by the Plan participants.

RECONCILIATION OF PARTICIPANT DATA

	Active Participants	Terminated Vested Participants	Disabled Participants, Retired Participants And Beneficiaries	All Participants
1. As Reported in July 1, 2011 Valuation	3	1	1	5
2. Terminated				
(A) With Vested Benefits	(1)	--	--	(1)
(B) Without Vested Benefits	0	--	--	0
3. Died				
(A) With Eligible Spouse	0	0	0	0
(B) With Deferred Spouse	0	0	0	0
(C) Without Eligible Spouse	0	0	0	0
4. Disabled	0	--	--	0
5. Retired	(1)	0	--	(1)
6. Received Lump Sum Payment	0	0	0	0
7. New Entrants to Valuation Group	1	1	1	3
8. Data Adjustments	0	0	0	0
9. Transfers out of the Plan	0	0	0	0
10. As Reflected in July 1, 2012 Valuation (1+2+3+4+5+6+7+8-9)	2	2	2	6

RATE OF RETURN ON PLAN ASSETS

FOR PLAN YEAR ENDED JUNE 30, 2012

(AT ACTUARIAL VALUE)

1)	Assets as of June 30, 2011	$ 512,278
2)	Accrued Town and Actual Employees Contributions for Plan Year ended June 30, 2012	$ 132,476
3)	Pension Payments	$ 63,136
4)	Refund of Employee Contributions	$ 0
5)	Assets as of June 30, 2012	$ 577,476
6)	Net Increase in Assets [(5) – (1) – (2) + (3) + (4)]	$ (4,142)
7)	Approximate Annual Yield (6) ÷ {(1) + [1/2 x (2)] – [1/2 x (3)] – [1/2 x (4)]}	(0.8)%

SUMMARY OF PLAN PROVISIONS

Effective Date: July 1, 2001.

Eligibility: All regular full-time sworn employees of the Essex Police, excluding supernumeraries, school guards, dog wardens/animal control officers, auxiliary police, fire police and Police Boat drivers. An employee whose regular work week is less than thirty hours or whose regular period of employment is less than twelve months in the year shall not be considered a full-time employee. Employees are eligible to participate immediately, provided they agree to begin contributions to the Plan equal to 3% of Compensation.

Final Average Compensation: The average of total compensation (excluding Private Duty wages) over the last 48 consecutive months prior to retirement or other termination.

Credited Service: Total period of employment.

Normal Retirement:

Eligibility: Earlier of completion of 20 years of Credited Service or attainment of age 55 with 5 years of Credited Service, but no later than age 60.

Benefit: 2.5% of Final Average Compensation multiplied by years of Credited Service up to a maximum of 20 years,

plus

2.0% of Final Average Compensation multiplied by the number of additional years of Credited Service up to a maximum of 5 years.

Early Retirement:

Eligibility: 5 years of Credited Service.

Benefit: Benefit accrued to Early Retirement Date reduced 0.5% for each month the participant retires prior to Normal Retirement Date.

Disability Retirement:

Eligibility: Determined to be totally and permanently disabled.

Benefit: Accrued benefit to date of disability. If disabled in the line of duty, 75% of compensation. If earnings ability is partially restored, pension is proportionately reduced.

Vesting:

Years of Credited Service	Vested Percentage
Less than 5 years	0%
5 or more years	100%

Spouse's Benefit:

Eligibility: The surviving spouse of a participant is eligible for a death benefit.

Benefit: Equals the Disability Retirement benefit that would have been payable with a guarantee of the participant's contributions plus interest.

Normal Form Of Annuity: Life Annuity.

ACTUARIAL ASSUMPTIONS

The actuarial assumptions utilized in an actuarial valuation to determine costs and liabilities of a pension plan represent the actuary's estimate of anticipated future experience under the plan. Because they are estimates, the assumptions are reviewed annually and revised when appropriate.

The actuarial assumptions used in the valuing liabilities and calculating the contributions to the pension plan are as follows:

Actuarial Cost Method:	Projected Unit Credit. Under this method gains and losses are identified each year, and are automatically amortized as part of the Unfunded Accrued Liability.
Asset Valuation Method:	Assets are valued using the average of the Cost Basis and the Market Value, where the cost basis is the original price of the securities, including accrued contributions for the Plan Year ended June 30, 2011.
Mortality:	Pre- and Post-Retirement: 1983 Group Annuity Mortality Table; male rates for males, and female rates for females.
Interest:	A rate of return (net of investment expenses) of 7.75% per year has been assumed on the actuarial value of assets as defined above, beginning July 1, 2012 and ending June 30, 2013. An 8% per year rate of return was assumed for the year ended June 30, 2012.
Turnover:	T-3 withdrawal table by Sarason.
Retirement Age:	Completion of 25 years of Credited Service; not later than age 60.
Salary Scale:	Salaries for continuing participants have been assumed to increase at 4.5% per year.