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ACTUARIAL REPORT

FOR

TOWN OF ESSEX
MERIT SERVICE RETIREMENT PLAN

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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TABLE OF CONTENTS

INTRODUCTION

This actuarial valuation report of the Town of Essex Merit Service Retirement Plan 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.

	Valuation as of July 1,	
	2012	2011
Applicable to Fiscal Year Ending	**6/30/2014**	**6/30/2013**
Actuarially Determined Contribution	$ *	$ *
Actuarial Value of Plan Assets	$ 678,656	$ 682,217
Number of Active Participants**	55	54
Total Number of All Participants	76	74

* See page 3.

** Includes those who had less than the point minimum in the prior year but had previously – accrued pensions.

Changes Since Last Year

The benefit formula is now $16.75 for each Year of Credited Service. In addition, the assumed rate of return (interest rate assumption) has 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 $65,614 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	$	22,884
B)	5-year Amortization of Unfunded Accrued Liability (20 Years from July 1, 1997)	$	79,674
C)	Actuarially Determined Contribution, June 30, 2013 [(A) + (B)]	$	102,558
D)	15-Year Amortization of Unfunded Accrued Liability (30 Years from July 1, 1997)	$	36,842
E)	[(A) + (D)]	$	59,726

DEVELOPMENT OF ASSETS AND LIABILITIES

I) ASSETS

A)	Market Value, June 30, 2012	$ 610,461
B)	Actuarial Value of Assets	$ 678,656

II) LIABILITIES

Accrued Liability at July 1, 2012 for:

A)	Active Participants	$ 473,476
B)	Vested Terminated Participants	$ 56,827
C)	Retired Participants and Beneficiaries	$ 468,574
D)	Total	$ 998,877

III) Unfunded Accrued Liability [II (D) – I (B)] $ 320,221

DETERMINATION OF THE ACTUARIAL GAIN/ (LOSS)

Under the 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	$ 215,833
2)	Normal Cost	$ 21,507
3)	8% Interest on (1)*	$ 17,267
4)	Contributions for Plan Year beginning July 1, 2011	$ 68,195
5)	Interest on (4), prorated from date made	$ 0
6)	Expected Unfunded Actuarial Accrued Liability July 1, 2012 = [(1) + (2) + (3) – (4) – (5)]	$ 186,872
7)	Actuarial Accrued Liability, July 1, 2012	$ 998,877
8)	Actuarial Value of Assets, July 1, 2012	$ 678,656
9)	Unfunded Actuarial Accrued Liability July 1, 2012 = [(7) – (8)]	$ 320,221
10)	Net Experience Gain/ (Loss) = [(6) – (9)]	$ (133,349)

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

BREAKDOWN OF ACTUARIAL GAIN/ (LOSS)

The net actuarial loss of $(133,349) is comprised of the following components:

1)	Asset gain/ (loss)*	$	(69,623)
2)	New participants gain/ (loss)	$	(3,044)
3)	Actuarial experience and increase in the accrued liability from the reduction in the assumed interest rate.	$	(60,682)
	Total	$	(133,349)

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 Accrued Benefits as of July 1, 2012 is as follows:

Retirees	$ 468,574
Vested Terminated	$ 56,827
Actives	$ 458,400
Total	$ 983,801
Actuarially computed Value of Non-Vested Accrued Benefits:	$ 26,168
Total actuarially computed Value of Accrued Benefits	$1,009,969
Actuarial Value of Plan Assets	$ 678,656

Note: The above actuarial values have been determined using the actuarial assumptions for interest and mortality stated on page 13, 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	54	5	15	74
2. Terminated				
(A) With Vested Benefits	0	--	--	0
(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	2	0	1	3
8. Data Adjustments	0	0	0	0
9. As Reported in July 1, 2012 Valuation **(1+2+3+4+5+6+7+8)**	**55**	**5**	**16**	**76**

RATE OF RETURN ON PLAN ASSETS

FOR PLAN YEAR ENDED JUNE 30, 2012

(AT ACTUARIAL VALUE)

1)	Assets as of June 30, 2011	$ 682,217
2)	Accrued contribution for plan year ended June 30, 2012	$ 68,195
3)	Pension Payments	$ 54,529
4)	Assets as of June 30, 2012	$ 678,656
5)	Net Increase in Assets [(4) - (1) – (2) + (3)]	$ (17,227)
6)	Approximate Annual Yield (5) ÷ {(1) - [1/2 x (2)] + [1/2 X (3)]}	(2.6)%

SUMMARY OF PLAN PROVISIONS

Effective Date:	July 1, 1993
Eligibility:	Each member will become a participant as of the July 1st next following the first calendar year during which the member is credited with at least 50 points.
Credited Service:	Prior to July 1, 1993: The number of calendar years prior to July 1, 1993 that are credited by the participant's Company. After July 1, 1993: Each calendar year after July 1, 1993 during which the participant satisfies the point requirement specified in Appendix A.
Normal Retirement:	
Eligibility:	Attainment of age 65, two years of plan participation and completion of 10 years of Vesting Service.
Benefit:	Service Prior to July 1, 1993: $15.00 per month for each year of Credited Service up to a maximum of 15 years (See attached Appendix B for exceptions). Service After July 1, 1993: $15.00 per month for each year of Credited Service. Effective in September 2012 the benefit has increased to $16.65 per month for each Year of Credited Service. Considering all Years of Credited Service. Maximum total Credited Service is 30 years.
Early Retirement:	
Eligibility:	Attainment of Age 55 and 10 years of Credited Service (must also have completed two years of participation).
Benefit:	Benefit accrued to date of termination of service, reduced for earlier commencement.
Vesting Service:	All years of Credited Service, except that the member must also be a volunteer on the last day of the Calendar Year.

SUMMARY OF PLAN PROVISIONS (CONT'D)

Vesting:

A participant who terminates membership shall be vested in his accrued benefits under the following schedule:

Years of Credited Service	Vested Percentage
Less than 10 years	0%
10 or more years	100%

A participant must have completed two years of participation to be eligible for any benefits.

Pre-Retirement Death Benefit:

Married Participant: If a married participant dies with 10 years of Credited Service, a benefit shall be paid to the spouse as though the participant had retired early and elected a Joint & 100% Survivor Annuity. The benefit will commence on the earliest date that the deceased member could have received a benefit, which is not before the age 55.

Unmarried Participant: If an unmarried participant dies with 10 years of Credited Service, the designated beneficiary shall receive a pension guaranteed for 10 years, in the same amount as the participant would have received if he had retired early and elected the Lifetime Pension with 120 Payments Guaranteed Option. The benefit will commence on the earliest date that the deceased participant could have received a benefit, which is not before age 55.

Disability Retirement: If a participant is totally and permanently disabled, is receiving disability Social Security benefits, and has attained age 55 and completed at least ten years of Credited Service, the participant shall be eligible to receive a disability benefit equal to his unreduced accrued pension. The benefit is reduced for any payments received under the Workers Compensation Act.

SUMMARY OF PLAN PROVISIONS (CONT'D)

Normal Form Of Annuity: Life Only.

Actuarially Reduced Optional Forms Of Annuity:

1) Life with 10 years certain

2) Joint and 100% Survivor 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:	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 at Market, 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:	65