



Town of Lincoln Retirement Plan

JANUARY 1, 2018 ACTUARIAL VALUATION

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At the request of the plan sponsor, this report summarizes the Town of Lincoln Retirement Plan as of January 1, 2018. The purpose of this report is to communicate the following results of the valuation:

- Funded Status; and
- Determine Actuarial Recommended Contribution for the calendar year ending December 31, 2018 and December 31, 2019.

This report has been prepared in accordance with the applicable Federal and State laws. Consequently, it may not be appropriate for other purposes. Please contact Nyhart prior to disclosing this report to any other party or relying on its content for any purpose other than that explained above. Failure to do so may result in misrepresentation or misinterpretation of this report.

The results in this report were prepared using information provided to us by other parties. The census and asset information has been provided to us by the employer. We have reviewed the provided data for reasonableness when compared to prior information provided, but have not audited the data. Where relevant data may be missing, we have made assumptions we believe to be reasonable. We are not aware of any significant issues with and have relied on the data provided. Any errors in the data provided may result in a different result than those provided in this report. A summary of the data used in the valuation is included in this report.

The actuarial assumptions and methods were chosen by the Board. In our opinion, all actuarial assumptions and methods are individually reasonable and in combination represent our best estimate of anticipated experience of the plan. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following:

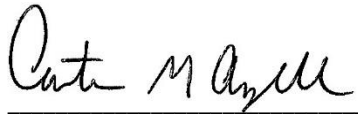
- plan experience differing from that anticipated by the economic or demographic assumptions;
- changes in economic or demographic assumptions;
- increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and
- changes in plan provisions or applicable law.

We did not perform an analysis of the potential range of future measurements due to the limited scope of our engagement. This report has been prepared in accordance with generally accepted actuarial principles and practice.

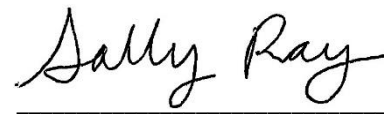
Neither Nyhart nor any of its employees have any relationship with the plan or its sponsor which could impair or appear to impair the objectivity of this report. To the extent that this report or any attachment concerns tax matters, it is not intended to be used and cannot be used by a taxpayer for the purpose of avoiding penalties that may be imposed by law.

The undersigned are compliant with the continuing education requirements of the Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States and are available for any questions.

Nyhart



Carter M. Angell, FSA, EA, MAAA



Sally Ray, ASA, EA

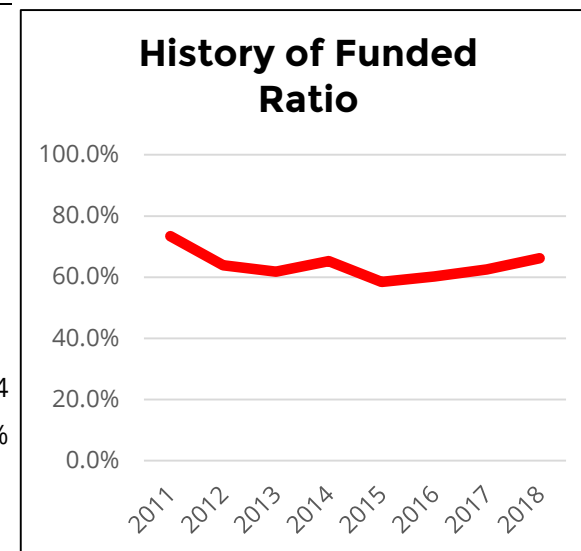
June 8, 2018

Date

Summary Results

The actuarial valuation's primary purpose is to produce a scorecard measure displaying the funding progress of the plan toward the ultimate goal of paying benefits at retirement. The accrued liability is based on an entry age level percentage of pay.

	January 1, 2017	January 1, 2018	January 1, 2019
Funded Status Measures			
Accrued Liability	\$38,383,370	\$40,011,582	
Actuarial Value of Assets	24,022,939	\$26,476,508	
Unfunded Actuarial Accrued Liability (UAAL)	\$14,360,431	\$13,535,074	
Funded Percentage (AVA)	62.6%	66.2%	
Funded Percentage (MVA)	61.1%	68.9%	
Cost Measures			
Recommended Contribution	\$1,812,602	\$1,851,899	\$1,928,844
As a percentage of payroll	32.2%	31.9%	33.6%
Asset Performance			
Market Value of Assets (MVA)	\$23,466,310	\$27,567,174	
Actuarial Value of Assets (AVA)	\$24,022,939	\$26,476,508	
Actuarial Value/Market Value	102.4%	96.0%	
Market Value Rate of Return	7.13%	15.76%	
Actuarial Value Rate of Return	7.40%	8.51%	
Participant Information			
Active Participants	114	120	
Terminated Vested Participants	22	25	
Retirees and Beneficiaries	98	101	
Total	234	246	
Expected Payroll	\$5,623,140	\$5,810,106	\$5,743,370



Changes since Prior Valuation and Key Notes

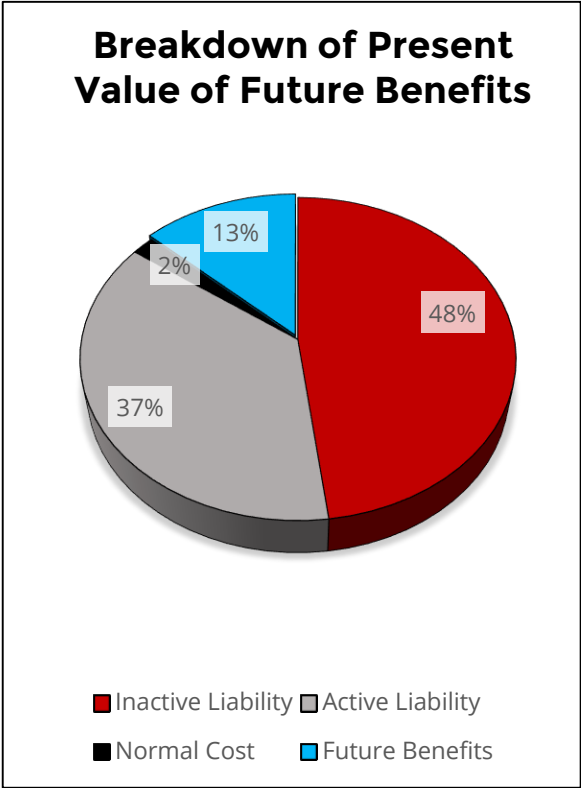
There have been no changes to the plan provisions since the last valuation.

To better reflect anticipated experience, the mortality improvement assumption has been updated from the Social Security improvement scale based on assumptions from the 2016 Trustees Report to the Social Security improvement scale based on assumptions from the 2017 Trustees Report. The base mortality table is unchanged. This change results in a small decrease in the actuarial accrued liability and a small decrease in the actuarial recommended funding contribution.

Present Value of Future Benefits

The Present Value of Future Benefits represents the future benefits payable to the existing participants.

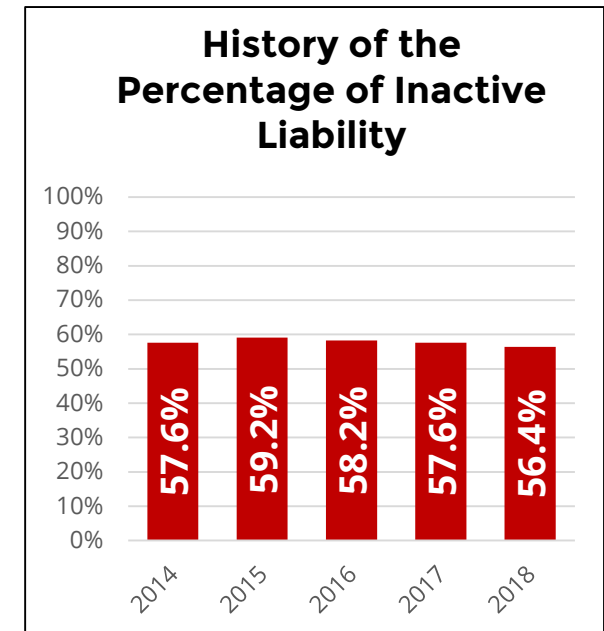
	January 1, 2018
Present Value of Future Benefits	
Active participants	
Retirement	\$23,942,122
Disability	0
Death	108,247
Termination	432,413
Refund of contributions	0
Total active	\$24,482,782
Inactive participants	
Retired participants	\$20,598,831
Beneficiaries	941,408
Disabled participants	0
Terminated vested participants	1,044,067
Total inactive	\$22,584,306
Total	\$47,067,088
 Present value of future payrolls	 \$43,040,505



Funding Liability

The Funding Liability measures the present value of benefits earned as of the valuation date, using a specified set of actuarial assumptions.

	January 1, 2018
Funding Liabilities	
Active participants	
Retirement	\$17,359,703
Disability	0
Death	62,439
Termination	5,134
Refund of contributions	0
Total Active	\$17,427,276
Inactive participants	
Retired participants	\$20,598,831
Beneficiaries	941,408
Disabled participants	0
Terminated vested participants	1,044,067
Total Inactive	\$22,584,306
Total	\$40,011,582
 Normal Cost	 \$896,286



Asset Information

The amount of assets backing the pension promise is the most significant driver of volatility and future costs within a pension plan. The investment performance of the assets directly offsets the ultimate cost.

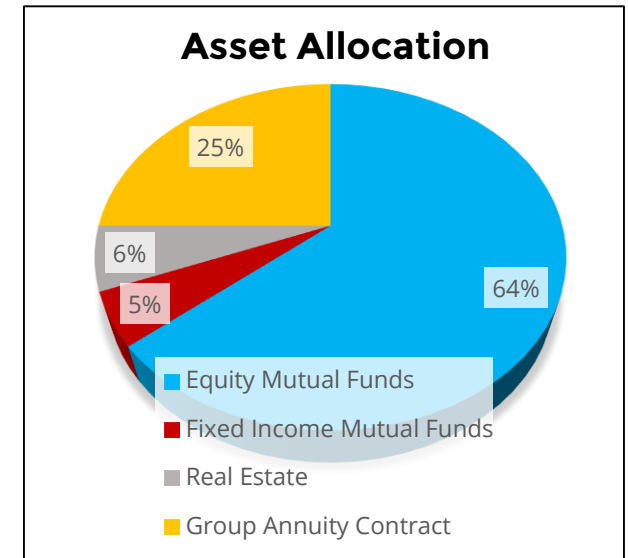
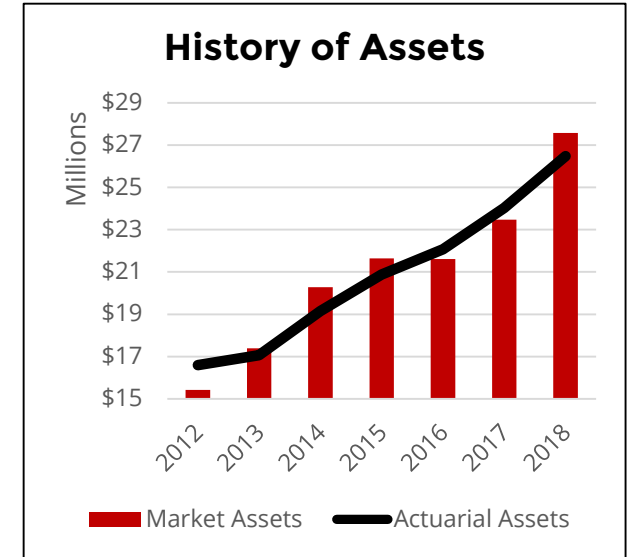
January 1, 2018

Market Value Reconciliation

Market value of assets, beginning of prior year	\$23,466,310
Contributions	
Employer contributions	\$1,812,602
Employee contributions	\$331,207
Total	\$2,143,809
Investment income	\$3,686,797
Benefit payments	\$(1,729,742)
Administrative expenses	\$0
Market value of asset, beginning of current year	\$27,567,174
Return on Market Value	15.76%
Market value of assets available for pension benefits	\$27,567,174

Actuarial Value of Assets

Value at beginning of current year	\$26,476,508
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Asset Information (continued) – 20% Phase in

Plan Assets are used to develop funded percentages and contribution recommendations.

	January 1, 2018
Investment Gain or (Loss)	
1. Prior year's market value of assets	\$23,466,310
2. Employer contributions for the prior plan year	1,812,602
3. Employee contributions for the prior plan year	331,207
4. Benefit payments during the prior plan year	(1,729,742)
5. Expected earnings at 7.00% to the end of the plan year on	
(a) Market value of assets	\$1,642,642
(b) Contributions	55,820
(c) Benefit payments	(59,517)
(d) Total expected earnings, (a) + (b) + (c)	\$1,638,945
6. Expected market value of assets, (1) + (2) + (3) + (4) + (5d)	\$25,519,322
7. Actual market value of assets	\$27,567,174
8. Investment Gain or (Loss), (7) – (6)	\$2,047,852
Actuarial Value of Assets	
9. Market value of assets	\$27,567,174
10. Deferred Investment gains or (losses)	
(a) Current year: 80% x \$2,047,852	\$1,638,282
(b) First prior year: 60% x \$27,253	16,352
(c) Second prior year: 40% x (\$1,348,080)	(539,232)
(d) Third prior year: 20% x (\$123,678)	(24,736)
(e) Total	\$1,090,666
11. Final actuarial value of assets, (9 – (10e))	\$26,476,508
12. Return on actuarial value of assets	8.51%

Reconciliation of Gain/Loss

January 1, 2018

Liability (gain)/loss

Actuarial liability, beginning of prior year	\$38,383,370
Normal cost	833,576
Benefit payments	(1,729,742)
Expected Interest	2,685,669
Change in Assumptions	<u>(62,680)</u>
Expected actuarial liability, beginning of current year	\$40,110,193
Actual actuarial liability	<u>\$40,011,582</u>
Liability (gain)/loss	(\$98,611)

Asset (gain)/loss

Actuarial value of assets, beginning of prior year	\$24,022,939
Employer Contributions	1,812,602
Employee Contributions	331,207
Benefit payments	(1,729,742)
Expected Investment return	<u>1,677,909</u>
Expected actuarial value of assets, beginning of current year	\$26,114,915
Actual actuarial value of assets, beginning of current year	<u>\$26,476,508</u>
Asset (gain)/loss	<u>(\$361,593)</u>

Total (gain)/loss

(\$460,204)

Reconciliation of Unfunded Actuarial Accrued Liability (UAAL)

	January 1, 2018
1. UAAL beginning of prior year	\$14,360,431
2. Normal Cost	833,576
3. Expenses	0
4. Employer Contributions	(1,812,602)
5. Employee Contributions	(331,207)
6. Interest	1,007,760
7. Expected UAAL, beginning of current year	\$14,057,958
8. Changes due to:	
(a) Amendments	0
(b) Assumptions	(\$62,680)
(c) Funding Methods	0
(d) (Gain)/Loss	(460,204)
(e) Total	(\$522,884)
9. UAAL beginning of current year	\$13,535,074

Development of Actuarial Recommended Contribution

The actuarial recommended contribution is the annual amount necessary to fund the plan according to funding policies and/or applicable laws.

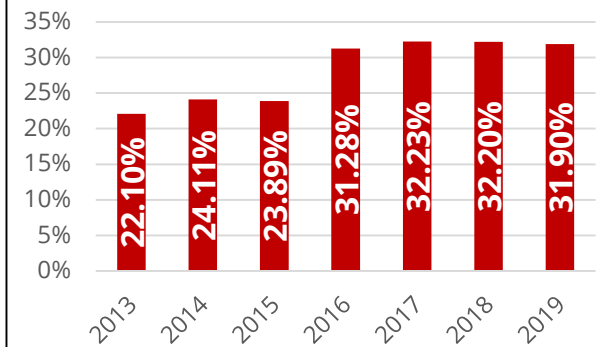
Funded Position

1. Entry age accrued liability	\$40,011,582
2. Actuarial value of assets	26,476,508
3. Unfunded actuarial accrued liability (UAAL)	\$13,535,074

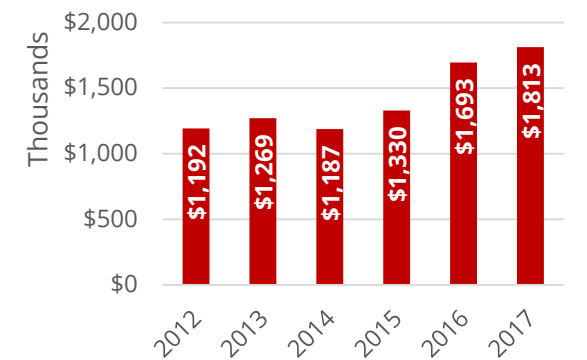
Employer Contributions

1. Normal Cost	
(a) Total normal cost	\$896,286
(b) Expected participant contributions	312,800
(c) Net normal cost	\$583,486
2. Net Amortization Payment (Exhibit 1)	1,205,932
3. Interest at Valuation Rate on (1) + (2)	61,570
4. Adjustment due to floor on individual divisions	911
5. Actuarial recommended funding contribution for valuation year	\$1,851,899
6. Valuation payroll	\$5,810,106
7. Calculated contribution as a percentage of payroll	31.9%

**History of Contributions
(% of Payroll)**



History of Contributions



Development of Actuarial Recommended Contribution - by Division

The actuarial recommended contribution is the annual amount necessary to fund the plan according to funding policies and/or applicable laws.

	Police	School	Lonsdale Firefighters	Saylesville Firefighters	Firefighters	Town Hall	Water	Total
(1) Total Normal Cost	\$597,667	\$267,217	\$0	\$31,402	\$0	\$0	\$0	\$896,286
(2) Expected Employee Contributions	\$194,058	\$106,823	\$0	\$11,919	\$0	\$0	\$0	\$312,800
(3) Employer Normal Cost (1)-(2)	\$403,609	\$160,394	\$0	\$19,483	\$0	\$0	\$0	\$583,486
(4) Net Amortization Payment	\$891,636	\$203,416	\$23,107	\$45,812	(\$881)	\$25,372	\$17,470	\$1,205,932
(5) Interest at Valuation Rate on (3)+(4)	\$44,566	\$12,518	\$795	\$2,247	(\$30)	\$873	\$601	\$61,570
(6) Adjustment due to floor limit of \$0	\$0	\$0	\$0	\$0	\$911	\$0	\$0	\$911
(7) Actuarial Recommended Funding Contribution (3)+(4)+(5)+(6)	\$1,339,811	\$376,328	\$23,902	\$67,542	\$0	\$26,245	\$18,071	\$1,851,899
(8) Payroll	\$2,571,158	\$3,039,209	\$0	\$199,739	\$0	\$0	\$0	\$5,810,106
(9) Actuarial Recommended Funding Contribution as a % of Payroll (8)/(9)	52.1%	12.4%	0.0%	33.8%	0.0%	0.0%	0.0%	31.9%
Accrued Liability	\$28,788,014	\$7,902,303	\$1,005,628	\$1,702,065	\$9,737	\$333,345	\$270,490	\$40,011,582
Valuation Assets	\$18,708,790	\$5,687,590	\$756,537	\$1,191,117	\$30,567	\$35,728	\$66,179	\$26,476,508
Unfunded Accrued Liability	\$10,079,224	\$2,214,713	\$249,091	\$510,948	(\$20,830)	\$297,617	\$204,311	\$13,535,074

Demographic Information

The foundation of a reliable actuarial report is the participant information provided by the plan sponsor. Monitoring trends in demographic information is crucial for long-term pension planning.

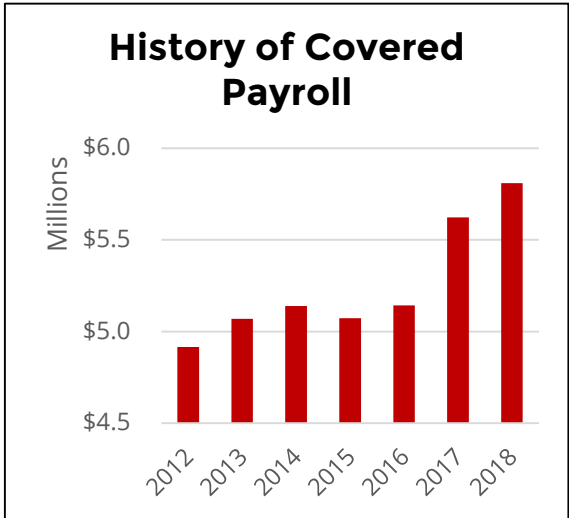
January 1, 2018

Participant Counts

Active Participants	120
Retired Participants	86
Beneficiaries	15
Disabled Participants	0
Terminated Vested Participants	<u>25</u>
Total Participants	246

Active Participant Demographics

Average Age	49.0
Average Service	11.8
Average Compensation	\$48,418
Covered Payroll	\$5,810,106
Total Payroll	\$5,810,106



Demographic Information (continued)

	January 1, 2018
Retiree Statistics	
Average Age	71.2
Average Monthly Benefit	\$1,548
Beneficiary Statistics	
Average Age	77.7
Average Monthly Benefit	\$728
Terminated Participants Statistics	
Average Age	61.5
Average Monthly Benefit	\$956
Terminated Participants Statistics - Return of Employee Contributions Only	
Average Age	43.5
Average Employee Contribution Balance Owed	\$6,964

Demographic Information (continued) - Participants by Division

	School	Police	Lonsdale Firefighters	Saylesville Firefighters	Firefighters	Water	Town Hall	Totals
Actives								
Eligible for normal retirement benefit	13	5	0	1	0	0	0	19
Non-vested benefit	36	15	0	2	0	0	0	53
Not yet eligible for retirement benefit	<u>32</u>	<u>16</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>48</u>
Total	81	36	0	3	0	0	0	120
Receiving								
Currently receiving benefit - retiree	32	39	2	2	1	2	8	86
Currently receiving benefit - beneficiary	<u>4</u>	<u>9</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>15</u>
Total	36	48	2	3	1	2	9	101
Terminated Vested								
Entitled to deferred benefit	20	2	2	0	0	0	1	25
Totals	137	86	4	6	1	2	10	246

Participant Reconciliation

	Active	Terminated Vested	Disabled	Retired	Beneficiaries	Totals
Prior Year	114	22	0	84	14	234
Active						
To Retired	(4)		0	4	0	0
To Terminated Vested	(1)	1	0	0	0	0
To Lump Sum Cash-Out	(1)					(1)
To Death	(1)					(1)
Terminated Vested						
To Retired	0	(1)	0	1	0	0
To Lump Sum Cash-Out	0	(1)	0	0	0	(1)
Retired						
To Death	0	0	0	(3)	0	(3)
Survivor						
To Death	0	0	0	0	0	0
Additions	13	4	0	0	1	18
Departures	0	0	0	0	0	0
Current Year	120	25	0	86	15	246

Active Participant Schedule

Active participant information grouped based on age and service.

Age Group	Years of Service										Total
	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 & Up	
Under 25	1	1									2
25 to 29		4									4
30 to 34	1	5	6	2							14
35 to 39	3			2	2						7
40 to 44	1	3	3	2	2						11
45 to 49		2	6	4	5	2	1				20
50 to 54	2	3	1	10	1	2		1			20
55 to 59	2	1	3	7	5	4	2				24
60 to 64	1	1	3	2	5		1				13
65 to 69				1		3	1				5
70 & up											0
Total	11	20	22	30	20	11	5	1	0	0	120

Plan Effective Date:

The plan was originally effective September 1, 1970.

Plan Status:

The plan is closed to any new Saylesville Firefighter hired after January 1, 2016. Otherwise, the plan is open to new participants and all participants are eligible to accrue additional benefits.

Eligibility for Participation:

Employees who work 20 or more hours per week and more than five months per year are eligible to participate in the Plan.

Normal Retirement Benefit:

Police (hired on or before July 1, 2013)

- Eligibility: Earlier of attainment of age 58 and completion of 10 years of credited service or the completion of 20 years of credited service regardless of age
- Benefit: A monthly benefit equal to 2.5% of average monthly salary multiplied by credited service up to 20 years, plus 2% of average monthly salary multiplied by up to 5 additional years of credited service.

Police (hired after July 1, 2013)

- Eligibility: Earlier of attainment of age 58 and completion of 10 years of credited service or the completion of 25 years of credited service regardless of age
- Benefit: A monthly benefit equal to 2.0% of average monthly salary multiplied by credited service up to 30 years.

Saylesville Firefighters

- Eligibility: Earlier of attainment of age 55 and completion of 10 years of credited service or the completion of 30 years of credited service regardless of age
- Benefit: A monthly benefit equal to 2.5% of average monthly salary multiplied by credited service up to 20 years, plus 2% of average monthly salary multiplied by up to 10 additional years of credited service.

Lonsdale Firefighters

- Eligibility: Earlier of attainment of age 60 and completion of 10 years of credited service or the completion of 20 years of credited service regardless of age
- Benefit: A monthly benefit equal to 2.5% of average monthly salary multiplied by credited service up to 20 years, plus 2% of average monthly salary multiplied by up to 5 additional years of credited service.

All other participants

- Eligibility: Attainment of age 60 and completion of 10 years of credited service
- Benefit: A monthly benefit equal to 1.5% of average monthly salary multiplied by credited service, with a maximum benefit of 60% of average monthly salary.

Average Monthly Salary:

Average compensation during the highest 3 consecutive years out of the final 10 years of employment

Pre-Retirement Death Benefit:

The beneficiary of a participant who dies prior to retirement receives the participant's accumulated contributions. In lieu of this benefit, the surviving spouse of the participant who dies prior to retirement can elect to receive a monthly benefit equal to 50% of the participant's benefit accrued to the date of death, payable at the participant's normal retirement date.

Termination before 10 years of credited service:

Refunded employee contributions with annual interest credited at 5% after 1997 (3.5% before 1998).

Termination after 10 years of credited service:

100% vested after 10 years of credited service in accrued benefit deferred to Normal Retirement.

Compensation:

Annual base compensation plus holiday pay and longevity pay but excluding overtime pay

Credited Service:

Contributing employees will receive credit for all service rendered to the Town from their date of membership.

Cost of living adjustments:

Police Department employees who retire after June 30, 2004 receive an automatic 3% annual compounded Cost of Living Adjustment to their monthly pension benefit. Officers hired after July 1, 2015 will receive a 3% compounded COLA capped 18 years after the date of retirement.

Employee Contributions:

As a requirement for participation, employees are required to contribute the following to the plan:

Police	8% of compensation
Firefighters	6% of compensation
All Others	4% of compensation

Normal form of payment

For participants other than Police and Firefighters, the normal form of benefit is a monthly life annuity. For Police and Firefighters, the normal form of benefit is a monthly benefit payable for the participant's lifetime with 67.5% of such benefit continued to a surviving contingent annuitant following the participant's death.

Optional forms of payment

A participant may choose to receive distributable benefits in an actuarially equivalent alternative form of benefit as follows.

- a monthly benefit payable for the participant's lifetime; or
- a monthly benefit payable for the participant's lifetime with a guarantee that the remainder, if any, of 120 payments will be made to the participant's beneficiary following the participant's death; or
- a monthly benefit payable for the participant's lifetime with a percentage, 50%, 66 2/3%, 75%, or 100%, of such benefit continuing to a surviving spouse following the participant's death.

Actuarial Equivalence

Actuarial Equivalence will be computed using 8.5% interest and the mortality table is the UP-1984 Table.

Plan Provisions Not Included

We are not aware of any plan provisions not included in the report.

Adjustments Made for Subsequent Events

We are not aware of any event following the measurement date and prior to the date of this report that would materially impact the results of this report.

Changes Since Prior Report

Under the terms of the new Saylesville Fire Collective Bargaining Agreement covering the period from January 1, 2016 to December 1, 2018, the plan is closed to any new Saylesville Firefighter hired after January 1, 2016. Any new participant will be provided a pension plan through the State of Rhode Island MERS Plan (Police and Fire).

Except where otherwise indicated, the following assumptions were selected by the plan sponsor with the concurrence of the actuary. Prescribed assumptions are based on the requirements of the relevant law, the Internal Revenue Code, and applicable regulation. The actuary was not able to evaluate the prescribed assumptions for reasonableness for the purpose of the measurement.

Valuation Date: January 1, 2018

Participant and Asset Information as of: January 1, 2018

Retirement Rates (FE):

Police hired before July 1, 2013	100% retirement at the completion of 10 years of service and attainment of age 58 100% retirement at the completion of 20 years of service and attainment of age 55 20% retirement at the completion of 20 years of service and attainment of ages 40-49, 51-54 50% retirement at the completion of 20 years of service and attainment of age 50
Police hired after July 1, 2013	100% retirement at the completion of 10 years of service and attainment of age 58 100% retirement at the completion of 25 years of service and attainment of age 55 20% retirement at the completion of 25 years of service and attainment of ages 40-49, 51-54 50% retirement at the completion of 25 years of service and attainment of age 50
School	100% retirement at the completion of 10 years of service and attainment of age 63
Lonsdale Fire	100% retirement at the completion of 10 years of service and attainment of age 60 100% retirement at the completion of 20 years of service and attainment of age 55 20% retirement at the completion of 20 years of service and attainment of ages 40-49, 51-54 50% retirement at the completion of 20 years of service and attainment of age 50
Saylesville Fire	100% retirement at the completion of 10 years of service and attainment of age 55
All other participants	100% retirement at the completion of 10 years of service and attainment of age 63

The assumed retirement rates are based on a study of actual experience for the plan during January 1, 2010 – January 1, 2018 and are based on a combination of plan experience and expectation based upon current plan provisions. See the experience study report dated March 30, 2018.

Mortality (FE):

Healthy	
Police and Fire	RP-2014 Blue Collar Mortality with 2017 Social Security Generational Improvement Scale from 2006
Others and Beneficiaries	RP-2014 Total Mortality with 2017 Social Security Generational Improvement Scale from 2006
Disabled	
Police and Fire	RP-2014 Blue Collar Mortality with 2017 Social Security Generational Improvement Scale from 2006
Others and Beneficiaries	RP-2014 Total Mortality with 2017 Social Security Generational Improvement Scale from 2006

As the plan is not large enough to have credible experience, mortality assumptions are set to reflect general population trends.

Disability (FE): None

Withdrawal (FE): Sample Rates shown below

Police and Fire	Age	Male	Female
	25	5.00%	7.50%
	30	3.50%	5.00%
	35	2.50%	3.50%
	40	1.50%	2.50%
	45	1.00%	1.50%
	50	0.50%	1.00%
	55	0.00%	0.50%
	60	0.00%	0.00%
All other participants	Age	Male	Female
	25	10.00%	15.00%
	30	7.00%	10.00%
	35	5.00%	7.00%
	40	3.00%	5.00%
	45	2.00%	3.00%
	50	1.00%	2.00%
	55	0.00%	1.00%
	60	0.00%	0.00%

The assumed withdrawal rates are based on a study of actual experience for the plan during January 1, 2010 – January 1, 2018. As the plan is not large enough to have credible experience, termination rates are set to reflect general population trends. See the experience study report dated March 30, 2018.

Salary Projection Scale (FE):	Age	Increase
	<25	6.00%
	25-29	5.00%
	30-34	4.00%
	35-39	3.50%
	40-44	3.50%
	45-49	3.50%
	50-54	3.50%
	55-59	3.50%
	60+	3.00%

The salary projection scale is based on a study of actual experience for the plan during January 1, 2010 – January 1, 2018 and is based on a combination of plan experience and the scales outlined in the collective bargaining agreements for each division. See the experience study report dated March 30, 2018.

Interest Rate (CO): 7.0%. This assumption was evaluated as part of the experience study report dated March 30, 2018.

Expense and/or Contingency Loading (FE): None

Marital Status and Ages (FE): 85% of Participants assumed to be married with wives assumed to be 3 years younger than husbands.

Cost of Living Increases (FE): 3.00% increase is assumed for Police retiring after June 30, 2004. Officers hired after July 1, 2015 will receive a 3% compounded COLA capped 18 years after the date of retirement. This assumption is based on the terms of the collective bargaining agreement.

Funding method
Liabilities and contributions in the report are based on application of an Entry Age Normal cost method.

In determining the Actuarially Recommended Contribution, the excess of the entry age actuarial accrued liability over the actuarial value of plan assets is amortized over a closed 20-year period as a level percentage of pay. For this purpose, pay is assumed to grow at 3.0% annually.

Asset Valuation Method: Market value of assets with a five year phase in of gains and losses, subject to a 20% corridor.

Changes Since Prior Report:

To better reflect anticipated experience, the mortality improvement assumption has been updated from the Social Security improvement scaled based on assumptions from the 2016 Trustees Report to the Social Security improvement scale based on assumptions from the 2017 Trustees Report. The base mortality table is unchanged. This change results in a small decrease in the actuarial accrued liability and a small decrease in the actuarial recommended funding contribution.

FE indicates an assumption representing an estimate of future experience

MD indicates an assumption representing observations of estimates inherent in market data

CO indicates an assumption representing a combination of an estimate of future experience and observations of market data

The actuarial report also shows the necessary items required for plan reporting and any state requirements.

- ✓ Exhibit 1 - Schedule of amortizations
- ✓ Exhibit 2 - Development of 2019 Actuarial Recommended Contribution

Exhibit 1 - Schedule of Amortizations

<u>Date Established</u>	<u>Remaining Period (Years)</u>	<u>Outstanding Balance</u>	<u>Annual Payment</u>
01/01/2011	13	\$5,432,438	\$519,908
01/01/2012	14	\$3,202,107	\$289,568
01/01/2013	15	\$1,150,682	\$98,815
01/01/2014	16	(\$276,882)	(\$22,678)
01/01/2015	17	\$4,611,271	\$361,581
01/01/2016	18	(\$62,335)	(\$4,695)
01/01/2017	19	\$16,392	\$1,190
01/01/2018	20	(\$538,599)	(\$37,757)
		<u>\$13,535,074</u>	<u>\$1,205,932</u>

Exhibit 2 - Development of 2019 Actuarial Recommended Contribution - by Division

The actuarial recommended contribution is the annual amount necessary to fund the plan according to funding policies and/or applicable laws.

	Police	School	Lonsdale Firefighters	Saylesville Firefighters	Firefighters	Town Hall	Water	Total
(1) Total Normal Cost	\$640,877	\$299,163	\$0	\$16,645	\$0	\$0	\$0	\$956,685
(2) Expected Employee Contributions	\$192,532	\$121,017	\$0	\$8,357	\$0	\$0	\$0	\$321,906
(3) Employer Normal Cost (1)-(2)	\$448,345	\$178,146	\$0	\$8,288	\$0	\$0	\$0	\$634,779
(4) Net Amortization Payment	\$909,744	\$206,426	\$23,251	\$46,571	(\$1,000)	\$26,015	\$17,898	\$1,228,905
(5) Interest at the Valuation Rate on (3)+(4)	\$46,729	\$13,232	\$800	\$1,888	(\$34)	\$895	\$616	\$64,126
(6) Adjustment due to floor limit of \$0	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$1,034</u>	<u>\$0</u>	<u>\$0</u>	<u>\$1,034</u>
(7) Actuarial Recommended Funding Contribution (3)+(4)+(5)+(6)	\$1,404,818	\$397,804	\$24,051	\$56,747	\$0	\$26,910	\$18,514	\$1,928,844
(8) Payroll	\$2,473,435	\$3,065,167	\$0	\$204,768	\$0	\$0	\$0	\$5,743,370
(9) Actuarial Recommended Funding Contribution as a % of Payroll (8)/(9)	56.8%	13.0%	N/A	27.7%	N/A	N/A	N/A	33.6%
Accrued Liability	\$30,092,478	\$8,212,150	\$994,892	\$1,776,735	\$7,158	\$294,568	\$248,258	\$41,626,239
Valuation Assets	<u>\$20,385,033</u>	<u>\$6,104,189</u>	<u>\$760,912</u>	<u>\$1,287,795</u>	<u>\$29,808</u>	<u>\$4,948</u>	<u>\$49,743</u>	<u>\$28,622,428</u>
Unfunded Accrued Liability	\$9,707,445	\$2,107,961	\$233,980	\$488,940	(\$22,650)	\$289,620	\$198,515	\$13,003,811