City of St. Albans, West Virginia
Firemen's Pension and Relief Fund

GASB Statement Nos. 67 and 68 Plan Reporting and Accounting Schedules

June 30, 2018

GRS Retirement Consulting
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October 19, 2018

Ms. Barbara Hughes, City Treasurer
City of St. Albans
1499 MacCorkle Avenue, P.O. Box 1488
St. Albans, WV 25177

Firefighter Brandon Price
Pension Board Secretary
City of St. Albans Firemen's Pension and Relief Fund

Dear Ms. Hughes and Firefighter Price:

This report provides accounting and financial information that is intended to comply with the Governmental Accounting Standards Board (GASB) Statements No. 67 and 68 for the City of St. Albans, West Virginia Firemen's Pension and Relief Fund ("Plan"). These calculations have been made on a basis that is consistent with our understanding of these accounting standards.

GASB Statement No. 67 is the accounting standard that applies to the stand-alone financial reports issued by retirement systems, on behalf of fiscal years beginning after June 15, 2013. GASB Statement No. 68 establishes accounting and financial reporting for State and local government employers who provide their employees (including former employees) pension benefits through a trust, and applies to fiscal years beginning after June 15, 2014.

This report contains GASB Statement Nos. 67 and 68 reporting information applicable to the plan year ending June 30, 2018, and the sponsor's fiscal year ending June 30, 2018.

Our calculation of the liability associated with the benefits described in this report was performed for the purpose of satisfying the requirements of GASB Statement Nos. 67 and 68. The calculation of the Plan's liability for this report may not be applicable for funding purposes of the Plan. A calculation of the Plan's liability for purposes other than satisfying the requirements of GASB Statement Nos. 67 and 68 may produce significantly different results. This report may be provided to parties other than the City of St. Albans, West Virginia Firemen's Pension and Relief Fund ("Plan") only in its entirety and only with the permission of the Plan. GRS is not responsible for unauthorized use of this report.

West Virginia Code §8-22-20 (c)(4), requires a review of the actuarial assumptions and methods at least once every five years and that the Actuary shall provide a report to the Oversight Board with recommendations on any changes to the actuarial process. Consequently, an experience review was performed for the period July 1, 2009, through June 30, 2014. The actuarial assumptions and methods were recommended by the Actuary in the report *2016 Experience Review for the Years July 1, 2009, to July 1, 2014*, and approved by the Municipal Pensions Oversight Board, and were first applied beginning with the actuarial valuation for the plan year ending June 30, 2016.

Our actuarial valuation and projections assume the sponsor will make the contributions required by State statute. To the extent the sponsor does not make the statutory required contribution the results contained in this report could be significantly different. This report does not evaluate the plan sponsor's ability or willingness to make contributions to the Pension and Relief Fund.

This report is based upon information, furnished to us by the Plan, concerning retirement and ancillary benefits, active members, deferred vested members, retirees and beneficiaries, and financial data. If your understanding of this information is different, please let us know. This information was checked for internal consistency, but it was not audited.

To the best of our knowledge, the information contained in this report is accurate and fairly represents the actuarial position of the City of St. Albans, West Virginia Firemen's Pension and Relief Fund for GASB Statement Nos. 67 and 68 accounting purposes. All calculations have been made in conformity with generally accepted actuarial principles and practices as well as with the Actuarial Standards of Practice issued by the Actuarial Standards Board.

This report complements the actuarial valuation report that was provided to the plan sponsor and should be considered in conjunction with that report. Please see the actuarial valuation report as of June 30, 2017, for additional discussion of the nature of actuarial calculations and additional information related to participant data, economic and demographic assumptions and benefit provisions.

Heidi G. Barry and Judith A. Kermans are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

The signing individuals are independent of the plan sponsor.

Respectfully submitted,

Heidi G Barry

Heidi G. Barry, ASA, MAAA, FCA

Judith A. Kermans

Judith A. Kermans, EA, MAAA, FCA

Auditor's Note – This information is presented in draft form for review by the Plan's auditor. Please let us know if there are any items that the auditor changes so that we may maintain consistency with the Plan's financial statements.

This actuarial valuation report assumes the following:

- The Plan Sponsor first adopted GASB Statement No. 68 effective for the fiscal year end June 30, 2015.
- The Net Pension Liability as of the first year of adoption, i.e., fiscal year end June 30, 2015, was based on a projection of actuarial liabilities from July 1, 2014, to June 30, 2015, and the market value of assets as of June 30, 2015.
- The Pension Expense for fiscal year end June 30, 2015, recognizes deferred inflows and outflows for the fiscal year end June 30, 2015.
- The Pension Expense for fiscal years after June 30, 2015, recognizes deferred inflows and outflows beginning with the fiscal year end June 30, 2015.

The Plan Sponsor may need to adjust the results in this report if a different policy is implemented. Examples of different policies include:

- Adopting GASB Statement No. 68 effective for fiscal years ending prior to June 30, 2015.
- Using an earlier measurement date, such as using a measurement date of June 30, 2014, for purposes of completing financial reporting for the fiscal year end June 30, 2015.
- Recognizing deferred inflows and outflows prior to the initial year of adoption, such as recognizing deferred inflows and outflows starting with the fiscal year end June 30, 2014.

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SECTION A

EXECUTIVE SUMMARY

Executive Summary
as of June 30, 2018

Actuarial Valuation Date		June 30, 2017
Pension Plan's Fiscal Year Ending Date (Measurement Date & Reporting Date)		June 30, 2018
Membership[a]		
Number of		
- Retirees and Beneficiaries		26
- Inactive, Nonretired Members		-
- Active Members		20
- Total		46
Expected Payroll	$	914,121
Net Pension Liability		
Total Pension Liability[b]	$	21,637,355
Plan Fiduciary Net Position		2,647,869
Net Pension Liability	$	18,989,486
Plan Fiduciary Net Position as a Percentage of Total Pension Liability		12.24%
Net Pension Liability as a Percentage of Covered Payroll		2,077.35%
Development of the Single Discount Rate		
Single Discount Beginning of Year		3.6317%
Single Discount Rate End of Year		3.6901%
Long-Term Expected Rate of Return		4.00%
Long-Term Municipal Bond Rate Beginning of Year[c]		3.56%
Long-Term Municipal Bond Rate End of Year[c]		3.62%
Year Plan is projected to be fully funded		2069
Year assets are expected to be depleted for closed plan		**2028**
GASB No. 68 Pension Expense	$	1,810,304

Deferred Outflows and Deferred Inflows of Resources to be recognized in Future Pension Expenses

	Deferred Outflows of Resources	Deferred (Inflows) of Resources
Difference between expected and actual non-investment experience	$ 63,896	$ (108,107)
Changes in assumptions	1,929,266	(1,425,865)
Net difference between projected and actual earnings on pension plan investments	98,405	(66,764)
Total	$ 2,091,566	$ (1,600,737)

[a] *Census data measured as of June 30, 2017.*

[b] *Total pension liability projected from July 1, 2017, to June 30, 2018, based on the results of July 1, 2017, actuarial valuation.*

[c] *Based on the 20-Year Municipal GO Index of mixed maturity general obligation municipal bonds as of the weekly rate closest to but not later than the Measurement Date.*

Discussion

Accounting Standard

For pension plans that are administered through trusts or equivalent arrangements, Governmental Accounting Standards Board (GASB) Statement No. 67 establishes standards of financial reporting for separately issued financial reports and specifies the required approach for measuring the pension liability. Similarly, GASB Statement No. 68 establishes standards for State and local government employers (as well as non-employer contributing entities) to account for and disclose the net pension liability, pension expense and other information associated with providing retirement benefits to their employees (and former employees) on their basic financial statements.

The following discussion provides a summary of the information that is required to be disclosed under these accounting standards. A number of these disclosure items are provided in this report. However, certain additional non-actuarial required information, such as notes regarding accounting policies and investments, is not included in this report and the retirement system and/or plan sponsor will be responsible for preparing and disclosing that information to comply with these accounting standards.

Financial Statements

GASB Statement No. 68 requires State or local governments to recognize the net pension liability and the pension expense on their financial statements. The net pension liability is the difference between the total pension liability and the plan's fiduciary net position. In traditional actuarial terms, this is analogous to the accrued liability less the market value of assets.

The pension expense recognized each fiscal year is equal to the change in the net pension liability from the beginning of the year to the end of the year, adjusted for deferred recognition of the liability and investment experience.

Pension plans that prepare their own, stand-alone financial statements, are required to present two financial statements – a statement of fiduciary net position and a statement of changes in fiduciary net position in accordance with GASB Statement No. 67. The *statement of fiduciary net position* presents the assets and liabilities of the pension plan at the end of the pension plan's reporting period. The *statement of changes in fiduciary net position* presents additions, such as contributions and investment income, and deductions, such as benefit payments and expenses and net increase or decrease in the fiduciary net position.

Notes to Financial Statements

GASB Statement No. 68 requires, in the notes of the employer's financial statements, a disclosure of the total pension expense, the pension plan's liabilities and assets and deferred outflows and inflows of resources related to pensions.

Both GASB Statement Nos. 67 and 68, require the notes of the financial statements for the employers and pension plans, to include certain additional information. The list of additional disclosure items should include:

- A description of benefits provided by the plan;
- The type of employees and number of members covered by the pension plan;
- A description of the plan's funding policy, which includes member and employer contribution requirements;
- The pension plan's investment policies;
- The pension plan's fiduciary net position, net pension liability and the pension plan's fiduciary net position as a percentage of the total pension liability;
- The net pension liability using a discount rate that is 1% higher and 1% lower than used to calculate the total pension liability and net pension liability for financial reporting purposes;
- Significant assumptions and methods used to calculate the total pension liability;
- Inputs to the discount rates; and
- Certain information about mortality assumptions and the dates of experience studies.

Retirement systems that issue stand-alone financial statements are required to disclose additional information in accordance with GASB Statement No. 67. This information includes:

- The composition of the pension plan's board and the authority under which benefit terms may be amended;
- A description of how fair value is determined;
- Information regarding certain reserves and investments, which include concentrations of investments greater than or equal to 5%, receivables, and insurance contracts excluded from plan assets; and
- Annual money-weighted rate of return.

Required Supplementary Information

Statement No. 67 requires a 10-year fiscal history of:

- Sources of changes in the net pension liability;
- Information about the components of the net pension liability and related ratios, including the pension plan's fiduciary net position as a percentage of the total pension liability and the net pension liability as a percent of covered-employee payroll;
- Comparison of the actual employer contributions to the actuarially determined contributions based on the plan's funding policy; and
- The annual money-weighted rate of return on pension plan investments for each year.

These tables may be built prospectively as the information becomes available.

Measurement of the Net Pension Liability

The net pension liability is to be measured as the total pension liability, less the amount of the pension plan's fiduciary net position. In traditional actuarial terms, this will be the accrued liability less the market value of assets.

Timing of the Valuation

An actuarial valuation to determine the total pension liability is required to be performed at least once every two years. If the actuarial valuation is not calculated as of the plan's fiscal year end, the total pension liability is required to be rolled forward from the actuarial valuation date to the pension plan's fiscal year end.

The total pension liability shown in this report is based on an actuarial valuation performed as of July 1, 2017, and projected to the measurement date of June 30, 2018.

Single Discount Rate

Projected benefit payments are required to be discounted to their actuarial present values using a single discount rate that reflects (1) a long-term expected rate of return on pension plan investments (to the extent that the plan's fiduciary net position is projected to be available and sufficient to pay benefits) and (2) a tax-exempt municipal bond rate based on an index of 20-year mixed maturity general obligation bonds with an average AA credit rating (which is published by Fidelity) as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

For the purpose of this valuation, the expected rate of return on pension plan investments is 4.00%, the municipal bond rate is 3.62% (based on the weekly rate closest to but not later than the measurement date of the "20-Year Municipal GO Index" as published by Fidelity), and the resulting single discount rate is 3.6901%.

Please see important comments about the Alternative Funding Policy in the actuarial valuation report (used for funding) including its inability to fund for expected benefit payments in an already severely underfunded plan.

Effective Date and Transition

GASB Statement No. 67 is effective for a pension plan's fiscal years beginning after June 15, 2013, and GASB Statement No. 68 is effective for a pension plan's fiscal years beginning after June 15, 2014; however, earlier application is encouraged by the GASB.

Assumption Changes

The actuarial assumptions and methods were recommended by the Actuary, in the report *2016 Experience Review for the Years July 1, 2009, to July 1, 2014,* approved by the Municipal Pension Oversight Board and became effective beginning with the actuarial valuation applicable to plan year end June 30, 2016. Since the last valuation as of June 30, 2017, and for purposes of the accounting actuarial valuation, the blended interest rate used to discount liabilities was changed from 3.6317% to 3.6901%. The actuarial assumptions are disclosed in Section G of the report.

DROP Provisions

The Plan provides Deferred Retirement Option Program ("DROP") benefits to members who were eligible to retire from July 1, 2011, through June 30, 2016. The DROP provisions include:

- The member's benefit at retirement is based on service and final average salary as of the DROP election date,
- During the DROP period, the member may defer commencement of retirement for no more than five years before attaining age 65,
- During the DROP period, benefits accumulate in the member's DROP account without interest,
- During the DROP period, the member is required to contribute 9.5% of compensation, and
- During the DROP period, the member is considered a retired member for purposes of the premium tax allocation and eligibility to earn supplemental pension benefits.

As of June 30, 2017, two members are participating in the DROP. The two DROP members were valued as retirees in the actuarial valuation. The DROP provisions accelerated the plan member's expected retirement date but reduced the member's projected benefit. Under the DROP, DROP members make additional contributions which are projected to reduce potential losses due to the DROP. Changes in unfunded actuarial liability due to accelerated retirements, reduced projected retirement benefits and additional contributions are recognized as a gain or loss in the actuarial valuation.

SECTION B

FINANCIAL STATEMENTS

Statement of Fiduciary Net Position
as of June 30, 2018

Assets		
Cash and Deposits	$	517,991
Receivables		
Contributions		-
Investment Income		-
Total Receivables	**$**	**-**
Investment		
Government Securities	$	-
Corporate Bonds		556,897
Corporate Stocks		1,234,434
Alternative Investments		338,547
Other		-
Total Investments	**$**	**2,129,878**
Total Assets	**$**	**2,647,869**
Liabilities		
Payables		-
Total Liabilities	**$**	**-**
Net Position Restricted for Pensions*	**$**	**2,647,869**

**Totals may not add due to rounding*

Statement of Changes in Fiduciary Net Position for Year Ended June 30, 2018

Additions		
Contributions		
Employer	$	307,391
State		219,396
Employee		101,008
Receivable Employer		-
Receivable State		-
Receivable Employee		-
Other		-
Total Contributions	**$**	**627,795**
Net investment gain (loss) from		
Net Appreciation (Depreciation)	$	(36,584)
Net Realized Gain (Loss) on Sale or Exchange		77,117
Interest and Dividends		57,155
Other income		-
Investment Expense		(18,349)
Receivable Investment Income		-
Payable Investment Expenses		-
Net Investment Income	**$**	**79,339**
Other Revenue	$	1,730
Total Additions	**$**	**708,864**
Deductions		
Benefit payments	$	615,338
Refunds		21,437
Pension Plan Administrative Expense		750
Other		-
Payable Benefits and Withdrawals		-
Payable Administrative Expenses		-
Total Deductions	**$**	**637,525**
Net Increase in Net Position	$	71,339
Net Position Restricted for Pensions *		
Beginning of Year	**$**	**2,576,530**
End of Year	**$**	**2,647,869**

**Totals may not add due to rounding*

Long-Term Expected Return on Plan Assets

The investment policy covering the allocation of invested assets for the City of St. Albans, West Virginia Firemen's Pension and Relief Fund is established by the Board of Trustees and is subject to the limitations defined in West Virginia Code §8-22-22 and §8-22-22a.

GASB Statement Nos. 67 and 68 require the disclosure of certain information contained in the investment policy including the target asset allocation by major asset class and the long-term expected real rate of return by major asset class. This information is generally available from the investment consultant, investment manager or plan trustee.

Information on the target asset allocation and long-term real return by major asset class was not provided to the actuary.

The discount rate used by the actuary for the purpose of developing the statutory contribution requirement, including the statutory solvency requirement, is shown in the Actuarial Assumptions Section of this report. This same discount rate is also used by the actuary to determine the GASB Statement Nos. 67 and 68 single discount rate.

Money-Weighted Rate of Return

GASB Statement Nos. 67 and 68 also require the disclosure of the money weighted rate of return, net of investment expenses, using monthly data. This information was not provided to the actuary, but should be available from the investment consultant, investment manager or plan trustee.

SECTION C

REQUIRED SUPPLEMENTARY INFORMATION

Schedules of Required Supplementary Information
Schedule of Changes in Net Pension Liability and Related Ratios Multiyear

Fiscal year ending June 30	2018	2017	2016	2015	2014
Total Pension Liability					
Service Cost	$ 611,643	$ 711,190	$ 395,160	$ 367,972	$ 433,486
Interest on the Total Pension Liability	765,755	686,769	714,082	704,105	717,437
Benefit Changes	-	-	-	-	-
Difference between Expected and Actual Experience	(97,774)	47,249	95,553	(258,366)	-
Assumption Changes	(201,141)	(2,169,156)	4,897,997	574,779	725,672
Benefit Payments	(615,338)	(617,725)	(646,025)	(578,970)	(538,173)
Refunds	(21,437)	-	-	-	-
Net Change in Total Pension Liability	441,708	(1,341,673)	5,456,767	809,520	1,338,422
Total Pension Liability - Beginning	21,195,647	22,537,320	17,080,553	16,271,033	14,932,611
Total Pension Liability - Ending (a)	$ 21,637,355	$ 21,195,647	$ 22,537,320	$ 17,080,553	$ 16,271,033
Plan Fiduciary Net Position					
Employer Contributions (Local and State)	$ 526,787	$ 449,321	$ 434,429	$ 423,731	$ 460,171
Employee Contributions	101,008	94,205	99,072	90,837	92,793
Pension Plan Net Investment Income	79,339	207,323	(53,069)	55,783	239,199
Benefit Payments	(615,338)	(617,725)	(646,025)	(578,970)	(538,173)
Refunds	(21,437)	-	-	-	-
Pension Plan Administrative Expense	(750)	(750)	(6,201)	(1,579)	(2,633)
Other	1,730	-	-	-	-
Net Change in Plan Fiduciary Net Position	71,339	132,374	(171,794)	(10,198)	251,357
Plan Fiduciary Net Position - Beginning	2,576,530	2,444,156	2,615,950	2,626,148	2,374,791
Plan Fiduciary Net Position - Ending* (b)	$ 2,647,869	$ 2,576,530	$ 2,444,156	$ 2,615,950	$ 2,626,148
Net Pension Liability - Ending (a) - (b)	18,989,486	18,619,117	20,093,164	14,464,603	13,644,885
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	12.24 %	12.16 %	10.84 %	15.32 %	16.14 %
Covered Employee Payroll	$ 914,121	$ 912,222	$ 818,360	$ 827,407	$ 1,044,493
Net Pension Liability as a Percentage of Covered Employee Payroll	2,077.35 %	2,041.07 %	2,455.30 %	1,748.18 %	1,306.36 %

Notes to Schedule:

**Totals may not add due to rounding*

Schedules of Required Supplementary Information
Schedule of the Net Pension Liability Multiyear

Last 10 Fiscal Years (which may be built prospectively)

FY Ending June 30	Total Pension Liability	Plan Net Position	Net Pension Liability	Plan Net Position as a % of Total Pension Liability	Covered Payroll	Net Pension Liability as a % of Covered Payroll
2009						
2010						
2011						
2012						
2013						
2014	$ 16,271,033	$ 2,626,148	$ 13,644,885	16.14%	$ 1,044,493	1,306.36 %
2015	$ 17,080,553	$ 2,615,950	$ 14,464,603	15.32%	$ 827,407	1,748.18 %
2016	$ 22,537,320	$ 2,444,156	$ 20,093,164	10.84%	$ 818,360	2,455.30 %
2017	$ 21,195,647	$ 2,576,530	$ 18,619,117	12.16%	$ 912,222	2,041.07 %
2018	$ 21,637,355	$ 2,647,869	$ 18,989,486	12.24%	$ 914,121	2,077.35 %

Schedule of Contributions Multiyear

Fiscal Year Ended	Actuarially Determined Contribution (a)	Employer Contribution (b)	State Contribution (c)	Percentage Contributed [(b)+(c)]/(a)	Covered Payroll (f)	Actual Contribution as a % of Covered Payroll [(b)+(c)]/(f)
6/30/2013	$ 743,600	$ 238,516	$ 191,580	58%	$ 913,506	47%
6/30/2014	$ 812,669	$ 238,863	$ 221,308	57%	$ 1,044,493	44%
6/30/2015	$ 767,287	$ 217,308	$ 206,423	55%	$ 827,407	51%
6/30/2016	$ 1,076,165	$ 224,816	$ 209,613	40%	$ 818,360	53%
6/30/2017	$ 1,179,277	$ 241,363	$ 207,958	38%	$ 912,222	49%
6/30/2018	$ 1,243,159	$ 307,391	$ 219,396	42%	$ 914,121	58%

Notes to Schedule of Contributions

The information requested in the required supplementary schedules was determined as part of the actuarial valuations at the dates indicated. Additional information as of the latest actuarial valuation follows:

Measurement Date	June 30, 2018, measurement date based on actuarial liabilities as of July 1, 2017
Actuarial Cost Method	Entry Age Normal, Level-Percentage-of-Pay
Actuarial Value of Assets	Market value used for GASB Statement Nos. 67 and 68 reporting
Contribution Policy and Amortization Method	The sponsor finances benefits using the Alternative funding policy as defined in state statute. Sponsor contributions are equal to 107 percent of the prior year contribution. The plan also receives state contributions based on an allocation of premium tax that depends on the number of active and retired members. This funding policy does not directly amortize the unfunded actuarial liability. **However, projected sponsor, state and member contributions along with projected investment earnings are not expected to fully fund the projected actuarial liability for current plan members, and assets for the closed plan are projected to be depleted by 2028.**
Actuarial Assumptions:	
Investment Rate of Return	4.00% per year
GASB 67/68 Discount Rate	3.6901% per year at June 30, 2018, and 3.6317% at June 30, 2017
Projected Salary Increases	Service-based increases: 20.00% in year 1, 6.50% in year 2, reducing over years of service down to 1.25% in years 30-34. 0% increases for service over 34
Cost of Living Increases	2.75% on first $15,000 of Annual Benefit and on the accumulated supplemental pension amounts for prior years. Assumed to be payable to all members receiving payments.

SECTION D

NOTES TO FINANCIAL STATEMENTS

Single Discount Rate

A GASB Statement Nos. 67 and 68 single discount rate of 3.6901% was used to measure the total pension liability as of June 30, 2018. This single discount rate was based on the expected rate of return on pension plan investments of 4.00%, and the municipal bond rate 3.62%. The projection of cash flows used to determine this single discount rate assumed that the Plan sponsor would make the statutory required contribution as defined by the funding policy. Based on these assumptions, the pension plan's fiduciary net position was projected to be available to make projected future benefit payments, on behalf of current plan members until plan year end 2028. Therefore, the single discount rate of 3.6901% was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of Net Pension Liability to the Single Discount Rate Assumption

Regarding the sensitivity of the net pension liability to changes in the single discount rate, the following presents the plan's net pension liability, calculated using a single discount rate of 3.6901%, as well as what the plan's net pension liability would be if it were calculated using a single discount rate that is 1-percentage-point lower or 1-percentage-point higher:

1% Decrease	Current Single Discount Rate Assumption	1% Increase
2.6901%	3.6901%	4.6901%
$22,818,249	$18,989,486	$15,988,114

SECTION E

GASB STATEMENT NO. 68 PENSION EXPENSE

Net Pension Liability
For Fiscal Year Ending June 30, 2018

A. Total Pension Liability		
1. Service Cost	$	611,643
2. Interest on the Total Pension Liability		765,755
3. Changes of benefit terms		-
4. Difference between expected and actual experience of the Total Pension Liability		(97,774)
5. Changes of assumptions		(201,141)
6. Benefit payments, including refunds of employee contributions		(636,775)
7. Net change in total pension liability	$	441,708
8. Total pension liability – beginning (July 1, 2017)		21,195,647
9. Total pension liability – ending (June 30, 2018)	**$**	**21,637,355**
B. Plan Fiduciary Net Position		
1. Contributions – employer	$	526,787
2. Contributions – employee		101,008
3. Net investment income		79,339
4. Benefit payments, including refunds of employee contributions		(636,775)
5. Pension Plan Administrative Expense		(750)
6. Other		1,730
7. Net change in plan fiduciary net position	$	71,339
8. Plan fiduciary net position – beginning (July 1, 2017)		2,576,530
9. Plan fiduciary net position – ending (June 30, 2018)*	**$**	**2,647,869**
C. Net pension liability as of June 30, 2018	**$**	**18,989,486**
D. Plan Fiduciary Net Position as a Percentage of the Total Pension Liability		**12.24%**
E. Covered-employee Payroll	**$**	**914,121**
F. Net Pension Liability as a Percentage of Covered Employee Payroll		**2,077.35%**

**Totals may not add due to rounding*

Pension Expense
For Fiscal Year Ending June 30, 2018

A. Expense

1. Service Cost	$	611,643
2. Interest on the Total Pension Liability		765,755
3. Current-Period Benefit Changes		-
4. Employee Contributions (made negative for addition here)		(101,008)
5. Projected Earnings on Plan Investments (made negative for addition here)		(93,427)
6. Pension Plan Administrative Expense		750
7. Other Changes in Plan Fiduciary Net Position		(1,730)
8. Recognition of Outflow/(Inflow) due to Non-investment Experience		(48,315)
9. Recognition of Outflow/(Inflow) due to Assumption Changes		645,119
10. Recognition of Outflow/(Inflow) due to Investment Experience		31,517
11. Total Pension Expense	**$**	**1,810,304**

B. Reconciliation of Net Pension Liability

1. Net Pension Liability beginning of year	**$**	**18,619,117**
2. Pension Expense		1,810,304
3. Employer Contributions		(526,787)
4. Change in Outflow/(Inflow) due to Non-investment Experience		(49,459)
5. Change in Outflow/(Inflow) due to Assumption Changes		(846,260)
6. Change in Outflow/(Inflow) due to Investment Experience		(17,429)
7. Net Pension Liability End of year*	**$**	**18,989,486**

**Totals may not add due to rounding*

Schedule of Outflows and Inflows of Resources

Non-Investment Experience

Plan Year Beginning	7/1/2014	7/1/2015	7/1/2016	7/1/2017	
(Gain)/Loss	$ (258,366)	$ 95,553	$ 47,249	$ (97,774)	
Amortization Factor	4.555504	4.835426	4.815653	4.618084	
Amortization Amount	$ (56,715)	$ 19,761	$ 9,812	$ (21,172)	
Amortization for Plan Year End					**Total**
6/30/2014					
6/30/2015	$ (56,715)				$ (56,715)
6/30/2016	(56,715)	$ 19,761			(36,954)
6/30/2017	(56,715)	19,761	$ 9,812		(27,143)
6/30/2018	**(56,715)**	**19,761**	**9,812**	**$ (21,172)**	**(48,315)**
6/30/2019	(31,505)	19,761	9,812	(21,172)	(23,105)
6/30/2020	-	16,509	9,812	(21,172)	5,148
6/30/2021	-	-	8,003	(21,172)	(13,169)
6/30/2022	-	-	-	(13,086)	(13,086)
6/30/2023	-	-	-	-	-
6/30/2024	-	-	-	-	-
Total	**$ (258,366)**	**$ 95,553**	**$ 47,249**	**$ (97,774)**	

Assumption Changes

Plan Year Beginning	7/1/2014	7/1/2015	7/1/2016	7/1/2017	
(Gain)/Loss	$ 574,779	$ 4,897,997	$ (2,169,156)	$ (201,141)	
Amortization Factor	4.555504	4.835426	4.815653	4.618084	
Amortization Amount	$ 126,172	$ 1,012,940	$ (450,439)	$ (43,555)	
Amortization for Plan Year End					**Total**
6/30/2014					
6/30/2015	126,172				$ 126,172
6/30/2016	126,172	$ 1,012,940			1,139,113
6/30/2017	126,172	1,012,940	$ (450,439)		688,674
6/30/2018	**126,172**	**1,012,940**	**(450,439)**	**$ (43,555)**	**645,119**
6/30/2019	70,089	1,012,940	(450,439)	(43,555)	589,036
6/30/2020	-	846,237	(450,439)	(43,555)	352,243
6/30/2021	-	-	(367,402)	(43,555)	(410,957)
6/30/2022	-	-	-	(26,921)	(26,921)
6/30/2023	-	-	-	-	-
6/30/2024	-	-	-	-	-
Total	**$ 574,779**	**$ 4,897,997**	**$ (2,169,156)**	**$ (201,141)**	

Investment Experience

Plan Year Beginning	7/1/2014	7/1/2015	7/1/2016	7/1/2017	
(Gain)/Loss	$ 73,875	$ 180,898	$ (111,274)	$ 14,088	
Amortization Factor	5.000000	5.000000	5.000000	5.000000	
Amortization Amount	$ 14,775	$ 36,180	$ (22,255)	$ 2,818	
Amortization for Plan Year End					**Total**
6/30/2014					
6/30/2015	14,775				$ 14,775
6/30/2016	14,775	$ 36,180			50,955
6/30/2017	14,775	36,180	$ (22,255)		28,700
6/30/2018	**14,775**	**36,180**	**(22,255)**	**$ 2,818**	**31,517**
6/30/2019	14,775	36,180	(22,255)	2,818	31,517
6/30/2020	-	36,180	(22,255)	2,818	16,742
6/30/2021	-	-	(22,255)	2,818	(19,437)
6/30/2022	-	-	-	2,818	2,818
6/30/2023	-	-	-	-	-
6/30/2024	-	-	-	-	-
Total	**$ 73,875**	**$ 180,898**	**$ (111,274)**	**$ 14,088**	

	Non-Investment Experience			Assumption Changes			Investment Experience		
Deferred Outflows/(Inflows) Recognized in Pension Expense for Current Plan Year End	**Outflows**	**(Inflows)**	**Net**	**Outflows**	**(Inflows)**	**Net**	**Outflows**	**(Inflows)**	**Net**
6/30/2018	$ 29,573	$ (77,887)	$ (48,315)	$ 1,139,113	$ (493,994)	$ 645,119	$ 53,772	$ (22,255)	$ 31,517
Deferred Outflows/(Inflows) Recognized in Pension Expense for Future Plan Years Ending									
6/30/2019	$ 29,573	$ (52,677)	$ (23,105)	$ 1,083,029	$ (493,994)	$ 589,036	$ 53,772	$ (22,255)	$ 31,517
6/30/2020	26,320	(21,172)	5,148	846,237	(493,994)	352,243	38,997	(22,255)	16,742
6/30/2021	8,003	(21,172)	(13,169)	-	(410,957)	(410,957)	2,818	(22,255)	(19,437)
6/30/2022	-	(13,086)	(13,086)	-	(26,921)	(26,921)	2,818	-	2,818
6/30/2023	-	-	-	-	-	-	-	-	-
6/30/2024	-	-	-	-	-	-	-	-	-
Total	$ 63,896	$ (108,107)	$ (44,212)	$ 1,929,266	$ (1,425,865)	$ 503,401	$ 98,405	$ (66,764)	$ 31,640
Change In Deferred Outflows/(Inflows) Recognized in Liability and Assets for Current Plan Year End									
6/30/2018			$ (49,459)			$ (846,260)			$ (17,429)

SECTION F

SUMMARY OF BENEFITS

Employee Eligibility — All compensated employees of the Fire Department are eligible to participate in the Firemen's Pension and Relief Fund.

Average Annual Compensation — The average of any three twelve-consecutive-month periods of employment which produces the highest average annual compensation.

Each twelve-consecutive-month annual compensation is limited to 120% of the *Average Adjusted Salary* received by the member in the two consecutive twelve-consecutive-month periods immediately preceding the twelve-consecutive-month period used in determining benefits.

The *Average Adjusted Salary* is base salary (exclusive of all overtime and other pay) of the year used in determining benefits multiplied by the ratio of total salary (includes all overtime and other pay) to base salary from the respective preceding twelve-consecutive-month period.

Determining Years of Service Credit (Credited Service**)** — The number of years that the member has contributed to the employees retirement and benefit fund.

Prior Military Service — A city may provide that members who have been honorably discharged from the military shall receive up to two years prior service credit for military service prior to their employment with the city.

Current Military Service — Any current member who has been on qualified military service in the armed forces of the United States with an honorable discharge may, within six months from his or her date of discharge, be given credit for continuous service in the paid police or fire department.

Any member who has served in active duty with the armed forces of the United States, whether prior to or subsequent to becoming a member of a paid police or fire department, shall receive one additional percent for each year so served in active military duty, up to a maximum of four additional percent.

Absence from the service because of sickness or injury for a period of two years or less shall not be construed as time out of service.

Contributions — Participating employees contribute 9.5% of compensation. Participating employees hired on or after January 1, 2010, contribute 9.5% of pay. The municipality has elected to contribute the minimum employer contribution under the Alternative Method.

Normal Retirement — Members are eligible at the earlier of age 50 with 20 years of credited service or age 65.

Benefit Commencement — Annual retirement pension benefits commence upon retirement or upon the member attaining age fifty, whichever is later, payable in twelve monthly installments.

Accrued Benefit — The annual retirement benefit equals 60% of average annual compensation, not less than $6,000, plus an additional percentage of average annual compensation for service over 20 years equal to 2% for each year of service between 20 and 25 and 1% for each year of service between 25 and 30 years. Employees serving in the military are eligible for an additional 1% of average annual compensation for each year of military service up to four years. The maximum benefit is limited to 75% of average annual compensation. Benefits continue for life.

Disability Retirement — Members are eligible after earning five years of service. No service requirement if disability is service related.

The monthly disability benefit equals the greater of 60% of monthly salary at disability or $500. Employees serving in the military are eligible for an additional benefit of 1% of monthly salary at disability for each year of military service up to four years. Disability benefits, when aggregated with monthly State workers compensation benefits, shall not exceed 100% of the member's monthly compensation at the time of disability. Benefits continue for life or until recovery.

Death Benefits — Members are eligible after earning five years of service. No service requirement if death is service related. Retirees and terminated vested participants are also eligible.

The benefit is equal to 60% of the participant's benefit, but not less than $300 per month, payable to the spouse until death or remarriage. Other dependents (children, parents, brothers and sisters) are also eligible for death benefits. To each dependent child, twenty percent of the participant's benefit until the child attains eighteen or marries; to each dependent orphaned child, twenty-five percent of the participant's benefit until the child attains eighteen or marries; to each dependent parent, ten percent of the participant's benefit for life, and to each dependent brother or sister, the sum of fifty dollars per month (but a total not to exceed $100 per month) until such individual attains the age of eighteen years or marries.

In no case shall the payments to the surviving spouse and children be reduced below sixty-five percent of the total amount paid to all dependents.

Supplemental Pension Benefits — All retirees, surviving beneficiaries and disability pensioners are eligible for automatic cost-of-living benefits commencing on the first day of July following two years of retirement. The benefits equal the percentage increase in the Consumer Price Index, limited to 4% (2% for some disability retirees), multiplied by the sum of the allowable amount which is the first $15,000 of the total annual benefits paid and the accumulated supplemental pension amounts for prior years.

Termination Benefits — Any member who terminates employment prior to retirement will be entitled to a refund of contributions without interest.

Refunds — Any member who terminates from their department without receiving a retirement pension shall be refunded all deductions made from his salary, without interest. Any member who receives such a refund and subsequently wishes to reenter the department must repay to the pension fund all sums refunded with interest at the rate of eight percent annual.

SECTION G

ACTUARIAL VALUATION ASSUMPTIONS

Actuarial Valuation Assumptions

General Inflation	2.75%
Expected Salary Increase	General Inflation: 2.75% *plus* Wage Inflation: 1.00% *plus* Service Based Increase: Years of Service — Increase 1 — 20.00% 2 — 6.50% 3 — 3.50% 4 — 2.75% 5-9 — 2.50% 10-29 — 2.00% 30-34 — 1.25% after 34 years of service — 0.00%
Post-retirement COLA	2.75% on first $15,000 of Annual Benefit and on the accumulated supplemental pension amounts for prior years. Assumed to be payable to all members receiving payments.
Increase in State Insurance Premium Tax Allocation	2.75% on and after year 1

Actuarial Valuation Assumptions

Cost Method	Entry-Age Normal Level-Percentage-of-Pay **The sponsor finances benefits using the Alternative funding policy as defined by state statute. This policy does not directly amortize the unfunded actuarial liability. The policy is projected to result in a depletion of plan assets for the closed plan by 2028.** 30-Year Closed Level-Percentage-of-Pay Amortization for Actuarially Determined Contribution (from July 1, 2010). 23 years remaining as of July 1, 2017.
Asset Method	Market Value
Turnover	Sample Rates – <u>Age</u> <u>Rates</u> 25 9% 35 4% 45 2% 50 0%
Retirement	<u>Age</u> <u>Rates</u>[a] 50 45% 51-55 30% 56-59 35% 60 100% [a] *Terminated vested participants are assumed to retire at age 50*

Actuarial Valuation Assumptions

Mortality	Active: RP-2014 Blue Collar Healthy Employee[b] Post-Retirement: RP-2014 Blue Collar Healthy Annuitant Disabled: RP-2014 Blue Collar Healthy Annuitant set forward four years Tables above incorporate generational mortality improvement using MP-2014 two-dimensional mortality improvement scales [b] *Assumes 10% of deaths are duty-related and 90% are non-duty-related.*
Disability	Sample Rates – <u>Age</u> <u>Rates</u>[c] 30 0.22% 40 0.50% 50 0.79% [c] *Assumes 60% duty related and 40% non-duty related. Also assumes 10% of non-duty disabled members receive a 20% reduction in benefits due to gainful employment.*
Percent Married	90%
Spouse Age	Females 3 years younger than males

Discount Rate

The following table outlines the factors used to determine the discount rate:

Funded Ratio as of Valuation Date[1]	Liquidity Ratio [2]	Equity Exposure [3]	Projected Funded Ratio after 15 Years [1]	Discount Rate
60% or more	10	50% or more	70% or more	6.50%
40% or more	8	40% or more	60% or more	6.00%
30% or more	6	30% or more	50% or more	5.50%
15% or more	4	n/a	40% or more	5.00%
Less than 15%	n/a	n/a	15% or more	4.50%
Less than 15%	n/a	n/a	Less than 15%	4.00%

[1] *Funded ratios based on a 6.00% investment return assumption for plans using an actuarially sound policy (standard or optional) and a 5.50% investment return assumption for other plans (alternative or conservation).*

[2] *Liquidity ratio equals assets as of the valuation date divided by expected benefit payments for the year.*

[3] *Based on investment policy.*

As of June 30, 2017 [*]	
Assets	$2,576,530
Liabilities using a 5.50% discount rate	$16,054,161
Funded Ratio	16%
Expected Benefit Payments	$984,623
Liquidity Ratio	2.62
Equity Exposure	46%
Projected Funded Ratio after 15 years	8%

[*] *Based on funding valuation results as of June 30, 2017.*

Discount Rate	4.00%

SECTION H

CALCULATION OF THE SINGLE DISCOUNT RATE

Calculation of the Single Discount Rate

GASB Statement Nos. 67 and 68 include specific requirements for the discount rate that is used for the purpose of the measurement of the Total Pension Liability. This rate considers the ability of the fund to meet benefit obligations in the future. To make this determination, employer contributions, employee contributions, benefit payments, expenses and investment returns are projected into the future. The Plan Net Position (assets) in future years can then be determined and compared to its obligation to make benefit payments in those years. As long as assets are projected to be on hand in a future year, the assumed valuation discount rate is used. In years where assets are not projected to be available or sufficient to meet benefit payments, the use of a "risk-free" rate is required, as described in the following paragraph.

The *single discount rate* (SDR) is equivalent to applying these two rates to the benefits that are projected to be paid during the different time periods. The SDR reflects (1) the long-term expected rate of return on pension plan investments (during the period in which the fiduciary net position is projected to be sufficient to pay benefits) and (2) a tax-exempt municipal bond rate based on an index of 20-year mixed maturity general obligation bonds with an average AA credit rating (which is published by Fidelity) as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

For the purpose of this valuation, the expected rate of return on pension plan investments is 4.00%, the municipal bond rate is 3.62%, and the resulting single discount rate is 3.6901%.

The sponsor finances benefits using the Alternative funding policy as defined in State statute. Sponsor contributions are equal to 107 percent of the prior year contribution. The plan also receives State contributions based on an allocation of premium tax that depends on the number of actives and retired members. This funding policy does not directly amortize the unfunded actuarial liability. The statutory contribution does not explicitly separate projected employer contributions between current plan members and future plan members. **Please see important comments about the Alternative Funding Policy in the actuarial valuation report (used for funding) including its inability to fund for expected benefit payments in an already severely underfunded plan.**

For purposes of developing the single equivalent discount rate, we have assumed the actuarial liability for future members will be fully financed, to the extent that assets are available, and any remaining asset will be assigned to current plan members. **Based on this assignment of assets and employer contributions, plan assets assigned to current plan members are projected to be depleted by 2028.**

The tables on the following pages show the assignment of assets and employer contributions and the projection of assets for current members as of the valuation date. Our projections assume the sponsor will make the required statutory contributions. The projections are based on the statutory funding actuarial valuation and projection report as of June 30, 2017.

GASB Statement Nos. 67 and 68 - Alternative Funding Policy
Assignment of assets which provides 100% financing of future member actuarial liability

Plan Year End 6/30	Open Group Actuarial Liability (a)	Closed Group Actuarial Liability (b)	Future Member Actuarial Liability (c) = (a)-(b)	Open Group Assets (d)	Future Member Assigned Assets (e)=min[(c), (d)]	Closed Group Assigned Assets (f)=(d)-(e)	Funded Ratio Current Members (g)=(f)/(b)	Funded Ratio Future Members (h)=(e)/(c)
2017	$ 19,919,903	$ 19,919,903	$ 0	$ 2,576,530	$ 0	$ 2,576,530	12.9%	100.0%
2018	20,280,080	20,280,079	1	2,255,497	1	2,255,496	11.1%	100.0%
2019	20,886,351	20,867,473	18,878	2,167,506	18,878	2,148,628	10.3%	100.0%
2020	21,498,401	21,426,056	72,345	2,072,507	72,345	2,000,162	9.3%	100.0%
2021	22,136,998	21,980,939	156,059	1,983,485	156,059	1,827,426	8.3%	100.0%
2022	22,802,122	22,533,156	268,966	1,901,124	268,966	1,632,158	7.2%	100.0%
2023	23,507,760	23,093,712	414,048	1,834,481	414,048	1,420,433	6.2%	100.0%
2024	24,245,202	23,657,920	587,282	1,779,519	587,282	1,192,237	5.0%	100.0%
2025	24,999,131	24,201,246	797,885	1,725,235	797,885	927,350	3.8%	100.0%
2026	25,786,461	24,733,473	1,052,988	1,681,993	1,052,988	629,005	2.5%	100.0%
2027	26,604,239	25,255,576	1,348,663	1,650,992	1,348,663	302,329	1.2%	100.0%
2028	27,416,404	25,722,661	1,693,743	1,610,806	1,610,806	-	0.0%	95.1%
2029	28,219,713	26,111,364	2,108,349	1,558,107	1,558,107	-	0.0%	73.9%
2030	29,047,357	26,453,924	2,593,433	1,517,551	1,517,551	-	0.0%	58.5%
2031	29,860,182	26,716,830	3,143,352	1,467,096	1,467,096	-	0.0%	46.7%
2032	30,636,464	26,854,458	3,782,006	1,392,962	1,392,962	-	0.0%	36.8%
2033	31,407,009	26,890,241	4,516,768	1,317,811	1,317,811	-	0.0%	29.2%
2034	32,198,914	26,856,725	5,342,189	1,263,744	1,263,744	-	0.0%	23.7%
2035	33,010,512	26,752,198	6,258,314	1,236,045	1,236,045	-	0.0%	19.8%
2036	33,856,201	26,582,078	7,274,123	1,245,844	1,245,844	-	0.0%	17.1%
2037	34,740,403	26,353,072	8,387,331	1,303,592	1,303,592	-	0.0%	15.5%
2038	35,669,785	26,062,232	9,607,553	1,417,450	1,417,450	-	0.0%	14.8%
2039	36,661,602	25,733,691	10,927,911	1,607,440	1,607,440	-	0.0%	14.7%
2040	37,722,721	25,381,486	12,341,235	1,886,413	1,886,413	-	0.0%	15.3%
2041	38,838,586	24,992,436	13,846,150	2,249,386	2,249,386	-	0.0%	16.3%
2042	39,993,372	24,544,064	15,449,308	2,688,721	2,688,721	-	0.0%	17.4%
2043	41,200,433	24,047,070	17,153,363	3,219,443	3,219,443	-	0.0%	18.8%
2044	42,459,897	23,505,976	18,953,921	3,850,790	3,850,790	-	0.0%	20.3%
2045	43,774,814	22,920,535	20,854,279	4,592,963	4,592,963	-	0.0%	22.0%
2046	45,157,294	22,307,518	22,849,776	5,465,362	5,465,362	-	0.0%	23.9%
2047	46,610,927	21,673,009	24,937,918	6,480,100	6,480,100	-	0.0%	26.0%
2048	48,134,556	21,021,508	27,113,048	7,650,036	7,650,036	-	0.0%	28.2%
2049	49,725,569	20,357,776	29,367,793	8,987,524	8,987,524	-	0.0%	30.6%
2050	51,385,167	19,684,804	31,700,363	10,503,299	10,503,299	-	0.0%	33.1%
2051	53,114,790	19,004,433	34,110,357	12,210,422	12,210,422	-	0.0%	35.8%
2052	54,911,501	18,318,599	36,592,902	14,126,105	14,126,105	-	0.0%	38.6%
2053	56,774,665	17,630,207	39,144,458	16,267,094	16,267,094	-	0.0%	41.6%
2054	58,705,390	16,941,075	41,764,315	18,650,017	18,650,017	-	0.0%	44.7%
2055	60,706,220	16,252,677	44,453,543	21,295,062	21,295,062	-	0.0%	47.9%
2056	62,779,522	15,566,821	47,212,701	24,225,281	24,225,281	-	0.0%	51.3%
2057	64,927,492	14,884,557	50,042,935	27,464,989	27,464,989	-	0.0%	54.9%

Projected amounts from 2018 and beyond come directly from the June 30, 2017 actuarial valuation and do not reflect actual experience for the plan year ended June 30, 2018.

GASB Statement Nos. 67 and 68 - Alternative Funding Policy
Current member projection of assets and assignment of employer contributions

Plan Year End 6/30	Closed Group Assets (boy)	Member Contributions*	Administrative Expenses	Benefit Payments	Assigned Employer/State Contribution	Income on Cash Flow	Income on Assigned Contribution	Total Investment Income	Assets (eoy)
2017	$ 2,444,156	$ 94,205	$ 750	$ 617,725	$ 449,321	$ 207,323	$ 0	$ 207,323	$ 2,576,530
2018	2,576,530	96,110	4,134	984,623	476,867	85,208	9,537	94,746	2,255,496
2019	2,255,496	85,664	4,177	762,678	487,968	76,596	9,759	86,355	2,148,628
2020	2,148,628	83,454	4,225	798,545	489,501	71,559	9,790	81,349	2,000,162
2021	2,000,162	82,907	4,274	819,276	492,857	65,194	9,857	75,051	1,827,426
2022	1,827,426	82,618	4,327	840,376	498,982	57,855	9,980	67,835	1,632,158
2023	1,632,158	83,065	4,382	855,586	505,323	49,748	10,106	59,855	1,420,433
2024	1,420,433	83,305	4,438	875,171	516,879	40,891	10,338	51,229	1,192,237
2025	1,192,237	81,875	4,493	908,564	524,735	31,066	10,495	41,561	927,350
2026	927,350	81,001	4,548	935,635	530,321	19,910	10,606	30,517	629,005
2027	629,005	80,136	4,602	961,929	541,458	7,432	10,829	18,261	302,329
2028	302,329	75,997	4,658	1,010,905	631,309	(6,698)	12,626	5,928	-
2029	-	70,309	4,719	1,069,011	1,003,421	(20,068)	20,068	-	-
2030	-	66,703	4,780	1,105,399	1,043,475	(20,870)	20,870	-	-
2031	-	61,097	4,842	1,161,588	1,105,333	(22,107)	22,107	-	-
2032	-	51,971	4,904	1,236,729	1,189,662	(23,793)	23,793	-	-
2033	-	44,669	4,965	1,294,269	1,254,566	(25,091)	25,091	-	-
2034	-	39,875	5,025	1,332,107	1,297,256	(25,945)	25,945	-	-
2035	-	34,943	5,081	1,368,112	1,338,250	(26,765)	26,765	-	-
2036	-	30,600	5,136	1,399,996	1,374,532	(27,491)	27,491	-	-
2037	-	26,600	5,188	1,424,517	1,403,105	(28,062)	28,062	-	-
2038	-	22,513	5,238	1,448,849	1,431,574	(28,631)	28,631	-	-
2039	-	20,309	5,284	1,459,491	1,444,466	(28,889)	28,889	-	-
2040	-	19,147	5,326	1,461,771	1,447,950	(28,959)	28,959	-	-
2041	-	17,100	5,365	1,471,139	1,459,404	(29,188)	29,188	-	-
2042	-	13,528	5,399	1,493,582	1,485,453	(29,709)	29,709	-	-
2043	-	10,622	5,429	1,507,741	1,502,549	(30,051)	30,051	-	-
2044	-	8,010	5,455	1,517,204	1,514,649	(30,293)	30,293	-	-
2045	-	5,358	5,477	1,525,072	1,525,191	(30,504)	30,504	-	-
2046	-	3,809	5,493	1,520,677	1,522,361	(30,447)	30,447	-	-
2047	-	2,682	5,505	1,511,543	1,514,365	(30,287)	30,287	-	-
2048	-	1,838	5,511	1,498,708	1,502,381	(30,048)	30,048	-	-
2049	-	1,287	5,512	1,482,212	1,486,438	(29,729)	29,729	-	-
2050	-	888	5,508	1,463,120	1,467,740	(29,355)	29,355	-	-
2051	-	550	5,498	1,442,156	1,447,104	(28,942)	28,942	-	-
2052	-	276	5,482	1,419,363	1,424,569	(28,491)	28,491	-	-
2053	-	138	5,460	1,394,266	1,399,588	(27,992)	27,992	-	-
2054	-	56	5,431	1,367,557	1,372,933	(27,459)	27,459	-	-
2055	-	-	5,397	1,339,514	1,344,911	(26,898)	26,898	-	-
2056	-	-	5,357	1,310,019	1,315,376	(26,308)	26,308	-	-
2057	-	-	5,311	1,279,596	1,284,907	(25,698)	25,698	-	-

* *Member contributions include additional amounts for DROP members of $9,269 for plan year end June 30, 2018. Benefit payments include payout of DROP balances on the same date.*

Projected amounts from 2018 and beyond come directly from the June 30, 2017 actuarial valuation and do not reflect actual experience for the plan year ended June 30, 2018.

GASB Statement Nos. 67 and 68 - Alternative Funding Policy
Development of single equivalent discount rate

Plan Year End 6/30	Benefit Payments	Discount Rate	Discounted Benefit Payments	Single Discount Rate	Discounted Benefit Payments
2018	$984,623	4.00%	$965,421	3.6901%	$966,868
2019	762,678	4.00%	719,042	3.6901%	722,273
2020	798,545	4.00%	723,901	3.6901%	729,327
2021	819,276	4.00%	714,129	3.6901%	721,632
2022	840,376	4.00%	704,347	3.6901%	713,874
2023	855,586	4.00%	689,515	3.6901%	700,929
2024	875,171	4.00%	678,172	3.6901%	691,458
2025	908,564	4.00%	676,969	3.6901%	692,295
2026	935,635	4.00%	670,327	3.6901%	687,551
2027	961,929	4.00%	662,658	3.6901%	681,717
2028	1,010,905	3.62%	694,578	3.6901%	690,930
2029	1,069,011	3.62%	708,842	3.6901%	704,642
2030	1,105,399	3.62%	707,364	3.6901%	702,697
2031	1,161,588	3.62%	717,352	3.6901%	712,137
2032	1,236,729	3.62%	737,074	3.6901%	731,221
2033	1,294,269	3.62%	744,419	3.6901%	738,008
2034	1,332,107	3.62%	739,415	3.6901%	732,552
2035	1,368,112	3.62%	732,871	3.6901%	725,577
2036	1,399,996	3.62%	723,750	3.6901%	716,063
2037	1,424,517	3.62%	710,700	3.6901%	702,676
2038	1,448,849	3.62%	697,586	3.6901%	689,244
2039	1,459,491	3.62%	678,161	3.6901%	669,598
2040	1,461,771	3.62%	655,492	3.6901%	646,777
2041	1,471,139	3.62%	636,646	3.6901%	627,757
2042	1,493,582	3.62%	623,777	3.6901%	614,652
2043	1,507,741	3.62%	607,692	3.6901%	598,397
2044	1,517,204	3.62%	590,143	3.6901%	580,724
2045	1,525,072	3.62%	572,480	3.6901%	562,961
2046	1,520,677	3.62%	550,888	3.6901%	541,362
2047	1,511,543	3.62%	528,449	3.6901%	518,960
2048	1,498,708	3.62%	505,657	3.6901%	496,241
2049	1,482,212	3.62%	482,620	3.6901%	473,314
2050	1,463,120	3.62%	459,761	3.6901%	450,590
2051	1,442,156	3.62%	437,341	3.6901%	428,328
2052	1,419,363	3.62%	415,392	3.6901%	406,556
2053	1,394,266	3.62%	393,792	3.6901%	385,154
2054	1,367,557	3.62%	372,755	3.6901%	364,332
2055	1,339,514	3.62%	352,356	3.6901%	344,161
2056	1,310,019	3.62%	332,558	3.6901%	324,605
2057	1,279,596	3.62%	313,487	3.6901%	305,782
2058	1,248,350	3.62%	295,148	3.6901%	287,699
2059	1,216,395	3.62%	277,545	3.6901%	270,358
2069	868,181	4.00%	115,175	3.6901%	134,308
2079	461,121	4.00%	41,326	3.6901%	49,651
2109	392	4.00%	11	3.6901%	14
Total Present Value			**$28,083,900**		**$28,083,900**

SECTION I

GLOSSARY OF TERMS

Glossary of Terms

Actuarial Accrued Liability (AAL) The AAL is the difference between the actuarial present value of all benefits and the actuarial value of future normal costs. The definition comes from the fundamental equation of funding which states that the present value of all benefits is the sum of the Actuarial Accrued Liability and the present value of future normal costs. The AAL may also be referred to as "accrued liability" or "actuarial liability."

Actuarial Assumptions These assumptions are estimates of future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and compensation increases. Actuarial assumptions are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (compensation increases, payroll growth, inflation and investment return) consist of an underlying real rate of return plus an assumption for a long-term average rate of inflation.

Accrued Service Service credited under the system which was rendered before the date of the actuarial valuation.

Actuarial Equivalent A single amount or series of amounts of equal actuarial value to another single amount or series of amounts, computed on the basis of appropriate actuarial assumptions.

Actuarial Cost Method A mathematical budgeting procedure for allocating the dollar amount of the actuarial present value of the pension trust benefits between future normal cost and actuarial accrued liability. The actuarial cost method may also be referred to as the actuarial funding method.

Actuarial Gain (Loss) The difference in liabilities between actual experience and expected experience during the period between two actuarial valuations is the gain (loss) on the accrued liabilities.

Actuarial Present Value (APV) The amount of funds currently required to provide a payment or series of payments in the future. The present value is determined by discounting future payments at predetermined rates of interest and probabilities of payment.

Actuarial Valuation The actuarial valuation report determines, as of the actuarial valuation date, the service cost, total pension liability and related actuarial present value of projected benefit payments for pensions.

Actuarial Valuation Date The date as of which an actuarial valuation is performed.

Glossary of Terms

Actuarially Determined Contribution (ADC) or Annual Required Contribution (ARC)	A calculated contribution into a defined benefit pension plan for the reporting period, most often determined based on the funding policy of the plan. Typically the Actuarially Determined Contribution has a normal cost payment and an amortization payment.
Amortization Method	The method used to determine the periodic amortization payment may be a level dollar amount, or a level percent of pay amount. The period will typically be expressed in years, and the method will either be “open” (meaning, reset each year) or “closed” (the number of years remaining will decline each year.
Amortization Payment	The amortization payment is the periodic payment required to pay off an interest-discounted amount with payments of interest and principal.
Cost-of-Living Adjustments	Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.
Cost-Sharing Multiple-Employer Defined Benefit Pension Plan (cost-sharing pension plan)	A multiple-employer defined benefit pension plan in which the pension obligations to the employees of more than one employer are pooled and pension plan assets can be used to pay the benefits of the employees of any employer that provides pensions through the pension plan.
Covered-Employee Payroll	The payroll of covered employees, which is typically only the pensionable pay and does not include pay above any pay cap.
Deferred Inflows and Outflows	The deferred inflows and outflows of pension resources are amounts used under GASB Statement No. 68 in developing the annual pension expense. Deferred inflows and outflows arise with differences between expected and actual experiences; changes of assumptions. The portion of these amounts not included in pension expense should be included in the deferred inflows or outflows of resources.
Deferred Retirement Option Program (DROP)	A program that permits a plan member to elect a calculation of benefit payments based on service credits and salary, as applicable, as of the DROP entry date. The plan member continues to provide service to the employer and is paid for the service by the employer after the DROP entry date; however, the pensions that would have been paid to the plan member are credited to an individual member account within the defined benefit pension plan until the end of the DROP period. Other variations for DROP exist and will be more fully detailed in the plan provision section of the valuation report.

Glossary of Terms

Discount Rate	For GASB purposes, the discount rate is the single rate of return that results in the present value of all projected benefit payments to be equal to the sum of the funded and unfunded projected benefit payments, specifically: The benefit payments to be made while the pension plans' fiduciary net position is projected to be greater than the benefit payments that are projected to be made in the period and; The present value of the benefit payments not in (1) above, discounted using the municipal bond rate.
Entry Age Actuarial Cost Method (EAN)	The EAN is a funding method for allocating the costs of the plan between the normal cost and the accrued liability. The actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis (either level dollar or level percent of pay) over the earnings or service of the individual between entry age and assumed exit ages(s). The portion of the actuarial present value allocated to a valuation year is the normal cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future normal costs is the actuarial accrued liability. The sum of the accrued liability plus the present value of all future normal costs is the present value of all benefits.
Fiduciary Net Position	The fiduciary net position is the value of the assets of the trust.
GASB	The Governmental Accounting Standards Board is an organization that exists in order to promulgate accounting standards for governmental entities.
Long-Term Expected Rate of Return	The long-term rate of return is the expected return to be earned over the entire trust portfolio based on the asset allocation of the portfolio.
Money-Weighted Rate of Return	The money-weighted rate of return is a method of calculating the returns that adjusts for the changing amounts actually invested. For purposes of GASB Statement No. 67, money-weighted rate of return is calculated as the internal rate of return on pension plan investments, net of pension plan investment expense.
Multiple-Employer Defined Benefit Pension Plan	A multiple-employer plan is a defined benefit pension plan that is used to provide pensions to the employees of more than one employer.

Glossary of Terms

Municipal Bond Rate	The Municipal Bond Rate is the discount rate to be used for those benefit payments that occur after the assets of the trust have been depleted.
Net Pension Liability (NPL)	The NPL is the liability of employers and non-employer contribution entities to plan members for benefits provided through a defined benefit pension plan.
Non-employer Contribution Entities	Non-employer contribution entities are entities that make contributions to a pension plan that is used to provide pensions to the employees of other entities. For purposes of the GASB Accounting statement plan members are not considered non-employer contribution entities.
Normal Cost	The actuarial present value of the pension trust benefits allocated to the current year by the actuarial cost method.
Other Postemployment Benefits (OPEB)	All postemployment benefits other than retirement income (such as death benefits, life insurance, disability and long-term care) that are provided separately from a pension plan, as well as postemployment healthcare benefits regardless of the manner in which they are provided. Other post-employment benefits do not include termination benefits.
Real Rate of Return	The real rate of return is the rate of return on an investment after adjustment to eliminate inflation.
Service Cost	The service cost is the portion of the actuarial present value of projected benefit payments that is attributed to a valuation year.
Total Pension Expense	The total pension expense is the sum of the following items that are recognized at the end of the employer's fiscal year: 1. Service Cost 2. Interest on the Total Pension Liability 3. Current-Period Benefit Changes 4. Employee Contributions (made negative for addition here) 5. Projected Earnings on Plan Investments (made negative for addition here) 6. Pension Plan Administrative Expense 7. Other Changes in Plan Fiduciary Net Position 8. Recognition of Outflow/(Inflow) of Resources due to Liabilities 9. Recognition of Outflow/(Inflow) of Resources due to Assets

Glossary of Terms

Total Pension Liability (TPL) The TPL is the portion of the actuarial present value of projected benefit payments that is attributed to past periods of member service.

Unfunded Actuarial Accrued Liability (UAAL) The UAAL is the difference between actuarial accrued liability and valuation assets.

Valuation Assets The valuation assets are the assets used in determining the unfunded liability of the plan. For purposes of the GASB Statement No. 67, the valuation asset is equal to the market value of assets.