City of Beckley, West Virginia
Policemen's Pension and Relief Fund

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

June 30, 2017

GRS Retirement Consulting
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January 5, 2018

Mr. Billie L. Trump, City Treasurer, Recorder
City of Beckley
409 So. Kanawha Street
Beckley, WV 25801

Captain Jamel (Jake) Corey
Pension Board Secretary
City of Beckley Policemen's Pension and Relief Fund

Dear Mr. Trump and Captain Corey:

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 Beckley, West Virginia Policemen'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, 2017, and the sponsor's fiscal year ending June 30, 2017.

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 Beckley, West Virginia Policemen'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 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 Beckley, West Virginia Policemen'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.

Alex Rivera and Lance J. Weiss are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Respectfully submitted,

Alex Rivera

Alex Rivera, FSA, EA, MAAA, FCA

Lance J. Weiss

Lance J. Weiss, 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, 2017

		2017
Actuarial Valuation Date		June 30, 2016
Pension Plan's Fiscal Year Ending Date (Measurement Date & Reporting Date)		June 30, 2017
Membership[a]		
Number of		
- Retirees and Beneficiaries		49
- Inactive, Nonretired Members		2
- Active Members		46
- Total		97
Expected Payroll	$	2,217,255
Net Pension Liability		
Total Pension Liability[b]	$	36,402,396
Plan Fiduciary Net Position		21,082,534
Net Pension Liability	$	15,319,862
Plan Fiduciary Net Position as a Percentage of Total Pension Liability		57.92%
Net Pension Liability as a Percentage of Covered Payroll		690.94%
Development of the Single Discount Rate		
Single Discount Beginning of Year		5.5000%
Single Discount Rate End of Year		5.5000%
Long-Term Expected Rate of Return		5.5000%
Long-Term Municipal Bond Rate Beginning of Year[c]		2.8500%
Long-Term Municipal Bond Rate End of Year[c]		3.5600%
Year Plan is projected to be fully funded		2053
Year assets are expected to be depleted for closed plan		N/A
GASB No. 68 Pension Expense	$	2,542,750

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	$ -	$ (811,592)
Changes in assumptions	4,771,827	(775,095)
Net difference between projected and actual earnings on pension plan investments	497,577	(255,105)
Total	$ 5,269,404	$ (1,841,792)

[a] *Census data measured as of June 30, 2016.*

[b] *Total pension liability projected from July 1, 2016, to June 30, 2017, based on the results of July 1, 2016, 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 Statements, No. 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, 2016, and projected to the measurement date of June 30, 2017.

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 5.5000%, the municipal bond rate is 3.5600% (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 5.5000%.

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, 2016, and for purposes of the accounting actuarial valuation, the blended interest rate used to discount liabilities did not change from 5.5000%. The actuarial assumptions are disclosed in Section G of the report.

SECTION B

FINANCIAL STATEMENTS

Statement of Fiduciary Net Position
as of June 30, 2017

		2017
Assets		
Cash and Deposits	$	1,202,399
Receivables		
Contributions		-
Investment Income		44,739
Total Receivables	**$**	**44,739**
Investment		
Government Securities	$	2,009,236
Corporate Bonds		5,918,530
Corporate Stocks		11,360,854
Alternative Investments		546,776
Other		-
Total Investments	**$**	**19,835,396**
Total Assets	**$**	**21,082,534**
Liabilities		
Payables		-
Total Liabilities	**$**	**-**
Net Position Restricted for Pensions	**$**	**21,082,534**

Statement of Changes in Fiduciary Net Position for Year Ended June 30, 2017

		2017
Additions		
Contributions		
Employer	$	480,407
State		487,562
Employee		204,974
Receivable Employer		-
Receivable State		-
Receivable Employee		-
Other		-
Total Contributions	**$**	**1,172,943**
Net investment gain (loss) from		
Net Appreciation (Depreciation)	$	193,431
Net Realized Gain (Loss) on Sale or Exchange		650,372
Interest and Dividends		591,325
Other income		-
Investment Expense		(70,338)
Receivable Investment Income		44,739
Payable Investment Expenses		-
Net Investment Income	**$**	**1,409,529**
Other Revenue	$	-
Total Additions	**$**	**2,582,472**
Deductions		
Benefit payments	$	1,522,138
Refunds		9,448
Pension Plan Administrative Expense		24
Other		-
Payable Benefits and Withdrawals		-
Payable Administrative Expenses		-
Total Deductions	**$**	**1,531,610**
Net Increase in Net Position	$	1,050,862
Net Position Restricted for Pensions		
Beginning of Year	**$**	**20,031,672**
End of Year	**$**	**21,082,534**

Long-Term Expected Return on Plan Assets

The investment policy covering the allocation of invested assets for the City of Beckley, West Virginia Policemen'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	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Total Pension Liability										
Service Cost	$ 932,441	$ 527,526	$ 605,759	$ 566,516						
Interest on the Total Pension Liability	1,913,373	1,873,424	1,822,041	1,800,224						
Benefit Changes	-	-	-	-						
Difference between Expected and Actual Experience	(579,180)	(367,023)	(240,296)	-						
Assumption Changes	-	7,544,910	(1,724,947)	-						
Benefit Payments	(1,522,138)	(1,555,886)	(1,548,023)	(1,466,921)						
Refunds	(9,448)	-	(25,921)	(13,466)						
Net Change in Total Pension Liability	735,048	8,022,951	(1,111,387)	886,353						
Total Pension Liability - Beginning	35,667,348	27,644,397	28,755,784	27,869,431						
Total Pension Liability - Ending (a)	$ 36,402,396	$ 35,667,348	$ 27,644,397	$ 28,755,784						
Plan Fiduciary Net Position										
Employer Contributions	$ 967,969	$ 892,200	$ 870,447	$ 834,851						
Employee Contributions	204,974	183,202	163,569	167,926						
Pension Plan Net Investment Income	1,409,529	917,047	650,402	2,169,818						
Benefit Payments	(1,522,138)	(1,555,886)	(1,548,023)	(1,466,921)						
Refunds	(9,448)	-	(25,921)	(13,466)						
Pension Plan Administrative Expense	(24)	-	(68,325)	(63,349)						
Other	-	-	-	-						
Net Change in Plan Fiduciary Net Position	1,050,862	436,563	42,149	1,628,859						
Plan Fiduciary Net Position - Beginning	20,031,672	19,506,341	19,553,486	17,924,627						
Plan Fiduciary Net Position - Ending (b)	$ 21,082,534	$ 19,942,904	$ 19,595,635	$ 19,553,486						
Net Pension Liability - Ending (a) - (b)	15,319,862	15,724,444	8,048,762	9,202,298						
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	57.92 %	55.91 %	70.88 %	68.00 %						
Covered Employee Payroll	$ 2,217,255	$ 2,100,749	$ 2,202,152	$ 2,076,451						
Net Pension Liability as a Percentage of Covered Employee Payroll	690.94 %	748.52 %	365.50 %	443.17 %						

Notes to Schedule:

Market value of assets as of July 1, 2016, includes $88,768, excluded from the market value of assets as of June 30, 2016, used for the actuarial valuation report for the fiscal year end June 30, 2016.

Market value of assets as of July 1, 2015, excludes $89,294, included in the market value of assets as of June 30, 2015, used for the actuarial valuation report for the fiscal year end June 30, 2015.

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
2008						
2009						
2010						
2011						
2012						
2013						
2014	$ 28,755,784	$ 19,553,486	$ 9,202,298	68.00%	$ 2,076,451	443.17%
2015	$ 27,644,397	$ 19,595,635	$ 8,048,762	70.88%	$ 2,202,152	365.50%
2016	$ 35,667,348	$ 19,942,904	$ 15,724,444	55.91%	$ 2,100,749	748.52%
2017	$ 36,402,396	$ 21,082,534	$ 15,319,862	57.92%	$ 2,217,255	690.94%

Schedule of Contributions Multiyear

Fiscal Year Ended	Actuarially Determined Contribution (a)	Employer Contribution[1] (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	$ 856,764	$ 366,500	$ 702,751	125%	$ 1,865,580	57%
6/30/2014	$ 908,970	$ 392,155	$ 405,775	88%	$ 2,076,451	38%
6/30/2015	$ 769,449	$ 419,606	$ 450,841	113%	$ 2,202,152	40%
6/30/2016	$ 1,424,813	$ 448,978	$ 443,222	63%	$ 2,100,749	42%
6/30/2017	$ 1,526,595	$ 480,407	$ 487,562	63%	$ 2,217,255	44%

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, 2017, measurement date based on actuarial liabilities as of July 1, 2016
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 expected to fully fund the projected actuarial liability for current plan members by 2053.
Actuarial Assumptions:	
Investment Rate of Return	5.5000% per year
GASB 67/68 Discount Rate	5.5000% per year at June 30, 2017, and 5.5000% at June 30, 2016
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

SECTION D

NOTES TO FINANCIAL STATEMENTS

Single Discount Rate

A GASB Statement Nos. 67 and 68 single discount rate of 5.5000% was used to measure the total pension liability as of June 30, 2017. This single discount rate was based on the expected rate of return on pension plan investments of 5.5000%, and the municipal bond rate of 3.5600%. 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 for all future plan years. Therefore, the single discount rate of 5.5000% 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 5.5000%, 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 4.5000%	Current Single Discount Rate Assumption 5.5000%	1% Increase 6.5000%
$20,954,106	$15,319,862	$10,794,237

SECTION E

GASB STATEMENT NO. 68 PENSION EXPENSE

Net Pension Liability
for Fiscal Year ending June 30, 2017

A. Total Pension Liability		
1. Service Cost	$	932,441
2. Interest on the Total Pension Liability		1,913,373
3. Changes of benefit terms		-
4. Difference between expected and actual experience of the Total Pension Liability		(579,180)
5. Changes of assumptions		-
6. Benefit payments, including refunds of employee contributions		(1,531,586)
7. Net change in total pension liability	$	735,048
8. Total pension liability – beginning (July 1, 2016)		35,667,348
9. Total pension liability – ending (June 30, 2017)	**$**	**36,402,396**
B. Plan Fiduciary Net Position		
1. Contributions – employer	$	967,969
2. Contributions – employee		204,974
3. Net investment income		1,409,529
4. Benefit payments, including refunds of employee contributions		(1,531,586)
5. Pension Plan Administrative Expense		(24)
6. Other		-
7. Net change in plan fiduciary net position	$	1,050,862
8. Plan fiduciary net position – beginning (July 1, 2016)		20,031,672
9. Plan fiduciary net position – ending (June 30, 2017)	**$**	**21,082,534**
C. Net pension liability as of June 30, 2017	**$**	**15,319,862**
D. Plan Fiduciary Net Position as a Percentage of the Total Pension Liability		**57.92%**
E. Covered-employee Payroll	**$**	**2,217,255**
F. Net Pension Liability as a Percentage of Covered Employee Payroll		**690.94%**

Pension Expense
(for Fiscal Year ending June 30, 2017)

A. Expense

1. Service Cost	$	932,441
2. Interest on the Total Pension Liability		1,913,373
3. Current-Period Benefit Changes		-
4. Employee Contributions (made negative for addition here)		(204,974)
5. Projected Earnings on Plan Investments (made negative for addition here)		(1,090,648)
6. Pension Plan Administrative Expense		24
7. Other Changes in Plan Fiduciary Net Position		-
8. Recognition of Outflow/(Inflow) due to Non-investment Experience		(219,244)
9. Recognition of Outflow/(Inflow) due to Assumption Changes		1,069,924
10. Recognition of Outflow/(Inflow) due to Investment Experience		141,854
11. Total Pension Expense	**$**	**2,542,750**

B. Reconciliation of Net Pension Liability

1. Net Pension Liability beginning of year	**$**	**15,635,676**
2. Pension Expense		2,542,750
3. Employer Contributions		(967,969)
4. Change in Outflow/(Inflow) due to Non-investment Experience		(359,936)
5. Change in Outflow/(Inflow) due to Assumption Changes		(1,069,924)
6. Change in Outflow/(Inflow) due to Investment Experience		(460,735)
7. Net Pension Liability End of year	**$**	**15,319,862**

Schedule of Outflows and Inflows of Resources

	Non-Investment Experience				Assumption Changes				Investment Experience			
Plan Year Beginning	7/1/2014	7/1/2015	7/1/2016		7/1/2014	7/1/2015	7/1/2016		7/1/2014	7/1/2015	7/1/2016	
(Gain)/Loss	$ (240,296)	$ (367,023)	$ (579,180)		$ (1,724,947)	$ 7,544,910	$ -		$ 596,572	$ 431,580	$ (318,881)	
Amortization Factor	5.448048	5.441533	5.378254		5.448048	5.441533	5.378254		5.000000	5.000000	5.000000	
Amortization Amount	$ (44,107)	$ (67,448)	$ (107,689)		$ (316,617)	$ 1,386,541	$ -		$ 119,314	$ 86,316	$ (63,776)	
Amortization for Plan Year End				**Total**				**Total**				**Total**
6/30/2015	$ (44,107)			(44,107)	$ (316,617)			(316,617)	$ 119,314			119,314
6/30/2016	(44,107)	$ (67,448)		(111,555)	(316,617)	$ 1,386,541		1,069,924	119,314	$ 86,316		205,630
6/30/2017	**(44,107)**	**(67,448)**	**$ (107,689)**	**(219,244)**	**(316,617)**	**1,386,541**	**$ -**	**1,069,924**	**119,314**	**86,316**	**$ (63,776)**	**141,854**
6/30/2018	(44,107)	(67,448)	(107,689)	(219,244)	(316,617)	1,386,541	-	1,069,924	119,314	86,316	(63,776)	141,854
6/30/2019	(44,107)	(67,448)	(107,689)	(219,244)	(316,617)	1,386,541	-	1,069,924	119,314	86,316	(63,776)	141,854
6/30/2020	(19,762)	(67,448)	(107,689)	(194,900)	(141,860)	1,386,541	-	1,244,681	-	86,316	(63,776)	22,540
6/30/2021	-	(29,781)	(107,689)	(137,470)	-	612,204	-	612,204	-	-	(63,776)	(63,776)
6/30/2022	-	-	(40,734)	(40,734)	-	-	-	-	-	-	-	-
6/30/2023	-	-	-	-	-	-	-	-	-	-	-	-
6/30/2024	-	-	-	-	-	-	-	-	-	-	-	-
6/30/2025	-	-	-	-	-	-	-	-	-	-	-	-
6/30/2026	-	-	-	-	-	-	-	-	-	-	-	-
Total	$ (240,296)	$ (367,023)	$ (579,180)		$ (1,724,947)	$ 7,544,910	$ -		$ 596,572	$ 431,580	$ (318,881)	

Deferred Outflows/(Inflows) Recognized in Pension Expense for Current Plan Year End	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net
6/30/2017	$ -	$ (219,244)	$ (219,244)	$ 1,386,541	$ (316,617)	$ 1,069,924	$ 205,630	$ (63,776)	$ 141,854

Deferred Outflows/(Inflows) Recognized in Pension Expense for Future Plan Years Ending									
6/30/2018	$ -	$ (219,244)	$ (219,244)	$ 1,386,541	$ (316,617)	$ 1,069,924	$ 205,630	$ (63,776)	$ 141,854
6/30/2019	-	(219,244)	(219,244)	1,386,541	(316,617)	1,069,924	205,630	(63,776)	141,854
6/30/2020	-	(194,900)	(194,900)	1,386,541	(141,860)	1,244,681	86,316	(63,776)	22,540
6/30/2021	-	(137,470)	(137,470)	612,204	-	612,204	-	(63,776)	(63,776)
6/30/2022	-	(40,734)	(40,734)	-	-	-	-	-	-
6/30/2023	-	-	-	-	-	-	-	-	-
Total	$ -	$ (811,592)	$ (811,592)	$ 4,771,827	$ (775,095)	$ 3,996,733	$ 497,577	$ (255,105)	$ 242,472
Change In Deferred Outflows/(Inflows) Recognized in Liability and Assets for Current Plan Year End									
6/30/2017			$ (359,936)			$ (1,069,924)			$ (460,735)

SECTION F

SUMMARY OF BENEFITS

Employee Eligibility — All compensated employees of the Police Department hired before July 1, 2016, are eligible to participate in the Policemen'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 7.0% 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

Investment return 7/1/2016 7/1/2017	 5.5000% 5.5000%
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.
Increase in State Insurance Premium Tax Allocation	2.75% on and after year 1

Valuation Assumptions (continued)

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 fully finance the closed group actuarial liability by 2053. 30 – Year Closed Level-Percentage-of-Pay Amortization for Actuarially Determined Contribution (from July 1, 2010). 24 years remaining as of July 1, 2016.
Asset Method	Market Value
Turnover	Sample Rates – Age / Rates 25 / 9% 35 / 4% 45 / 2% 50 / 0%
Retirement	Age / Rates 50 / 45% 51-55 / 30% 56-59 / 35% 60 / 100%

Valuation Assumptions (continued)

Mortality	Active: RP-2014 Blue Collar Healthy Employee 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
Disability	Sample Rates – <u>Age</u> — <u>Rates[a]</u> 30 — 0.22% 40 — 0.50% 50 — 0.79% [a] *Assumes 60% duty related and 40% non-duty related.*
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	6.5000%
40% or more	8	40% or more	60% or more	6.0000%
30% or more	6	30% or more	50% or more	5.5000%
15% or more	4	n/a	40% or more	5.0000%
Less than 15%	n/a	n/a	15% or more	4.5000%
Less than 15%	n/a	n/a	Less than 15%	4.0000%

[1] Funded ratios based on a 6.0000% investment return assumption for plans using an actuarially sound policy (standard or optional) and a 5.5000% 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, 2016 *	
Assets	$20,031,672
Liabilities using a 5.50% discount rate	$35,088,168
Funded Ratio	57%
Expected Benefit Payments	$1,571,207
Liquidity Ratio	12.75
Equity Exposure	50%
Projected Funded Ratio after 15 years	58%

* *Based on funding valuation results as of June 30, 2016.*

Discount Rate	5.5000%

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 5.5000%, the municipal bond rate is 3.5600%, and the resulting single discount rate is 5.5000%.

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.

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, the projected actuarial liability for current plan members is projected to be fully financed by 2053.

The following tables 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, 2016.

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)
2016	$35,088,168	$35,088,168	$0	$20,031,672	$0	$20,031,672	57.1%	100.0%
2017	36,364,617	36,362,482	2,135	20,679,371	2,135	20,677,236	56.9%	100.0%
2018	37,749,841	37,715,241	34,600	21,430,493	34,600	21,395,893	56.7%	100.0%
2019	39,182,916	39,077,152	105,764	22,216,062	105,764	22,110,298	56.6%	100.0%
2020	40,695,324	40,472,607	222,717	23,059,608	222,717	22,836,891	56.4%	100.0%
2021	42,270,438	41,885,123	385,315	23,948,619	385,315	23,563,304	56.3%	100.0%
2022	43,890,009	43,279,826	610,183	24,874,168	610,183	24,263,985	56.1%	100.0%
2023	45,539,879	44,638,723	901,156	25,822,428	901,156	24,921,272	55.8%	100.0%
2024	47,195,092	45,925,258	1,269,834	26,795,467	1,269,834	25,525,633	55.6%	100.0%
2025	48,842,243	47,106,306	1,735,937	27,780,131	1,735,937	26,044,194	55.3%	100.0%
2026	50,537,771	48,236,420	2,301,351	28,812,117	2,301,351	26,510,766	55.0%	100.0%
2027	52,331,626	49,375,474	2,956,152	29,937,563	2,956,152	26,981,411	54.7%	100.0%
2028	54,156,799	50,454,016	3,702,783	31,111,706	3,702,783	27,408,923	54.3%	100.0%
2029	55,984,260	51,406,177	4,578,083	32,315,535	4,578,083	27,737,452	54.0%	100.0%
2030	57,839,456	52,249,462	5,589,994	33,577,154	5,589,994	27,987,160	53.6%	100.0%
2031	59,707,486	52,960,357	6,747,129	34,894,980	6,747,129	28,147,851	53.2%	100.0%
2032	61,577,747	53,510,284	8,067,463	36,266,909	8,067,463	28,199,446	52.7%	100.0%
2033	63,393,751	53,829,958	9,563,793	37,670,210	9,563,793	28,106,417	52.2%	100.0%
2034	65,227,856	53,954,694	11,273,162	39,164,578	11,273,162	27,891,416	51.7%	100.0%
2035	67,105,627	53,931,898	13,173,729	40,775,880	13,173,729	27,602,151	51.2%	100.0%
2036	68,978,418	53,676,853	15,301,565	42,473,585	15,301,565	27,172,020	50.6%	100.0%
2037	70,874,721	53,206,581	17,668,140	44,295,080	17,668,140	26,626,940	50.0%	100.0%
2038	72,859,503	52,599,163	20,260,340	46,313,714	20,260,340	26,053,374	49.5%	100.0%
2039	74,950,913	51,884,699	23,066,214	48,558,257	23,066,214	25,492,043	49.1%	100.0%
2040	77,154,783	51,065,495	26,089,288	51,049,672	26,089,288	24,960,384	48.9%	100.0%
2041	79,478,935	50,150,895	29,328,040	53,813,115	29,328,040	24,485,075	48.8%	100.0%
2042	81,932,783	49,154,404	32,778,379	56,880,179	32,778,379	24,101,800	49.0%	100.0%
2043	84,505,501	48,072,797	36,432,704	60,263,181	36,432,704	23,830,477	49.6%	100.0%
2044	87,197,744	46,912,481	40,285,263	63,988,234	40,285,263	23,702,971	50.5%	100.0%
2045	90,021,575	45,701,779	44,319,796	68,095,492	44,319,796	23,775,696	52.0%	100.0%
2046	92,984,910	44,449,571	48,535,339	72,612,457	48,535,339	24,077,118	54.2%	100.0%
2047	96,102,577	43,167,508	52,935,069	77,575,135	52,935,069	24,640,066	57.1%	100.0%
2048	99,377,555	41,865,456	57,512,099	83,023,292	57,512,099	25,511,193	60.9%	100.0%
2049	102,805,971	40,547,793	62,258,178	88,994,970	62,258,178	26,736,792	65.9%	100.0%
2050	106,387,361	39,218,316	67,169,045	95,525,682	67,169,045	28,356,637	72.3%	100.0%
2051	110,121,300	37,881,118	72,240,182	102,657,444	72,240,182	30,417,262	80.3%	100.0%
2052	114,011,426	36,539,676	77,471,750	110,435,544	77,471,750	32,963,794	90.2%	100.0%
2053	118,052,643	35,195,786	82,856,857	118,052,643	82,856,857	35,195,786	100.0%	100.0%
2054	122,244,533	33,851,099	88,393,434	122,244,533	88,393,434	33,851,099	100.0%	100.0%
2055	126,590,164	32,507,687	94,082,477	126,590,164	94,082,477	32,507,687	100.0%	100.0%
2056	131,084,184	31,166,319	99,917,865	131,084,184	99,917,865	31,166,319	100.0%	100.0%

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

Plan Year End 6/30	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)
2016	$ 19,595,635	$183,395	$5,487	$1,562,207	$893,980	$926,356	$0	926,356	$20,031,672
2017	20,031,672	172,083	10,892	1,571,207	966,047	1,062,967	26,566	1,089,533	20,677,236
2018	20,677,236	174,408	10,987	1,575,545	1,004,736	1,098,415	27,630	1,126,045	21,395,893
2019	21,395,893	175,592	11,099	1,643,751	1,029,264	1,136,095	28,305	1,164,399	22,110,298
2020	22,110,298	177,213	11,225	1,691,721	1,049,359	1,174,109	28,857	1,202,966	22,836,891
2021	22,836,891	177,297	11,111	1,747,872	1,066,245	1,212,533	29,322	1,241,854	23,563,304
2022	23,563,304	175,479	11,253	1,828,133	1,084,539	1,250,224	29,825	1,280,049	24,263,985
2023	24,263,985	173,758	11,421	1,926,726	1,105,282	1,285,998	30,395	1,316,394	24,921,272
2024	24,921,272	169,046	11,602	2,027,449	1,124,205	1,319,245	30,916	1,350,160	25,525,633
2025	25,525,633	162,629	11,649	2,147,285	1,134,653	1,349,011	31,203	1,380,214	26,044,194
2026	26,044,194	159,598	11,838	2,241,920	1,154,152	1,374,841	31,739	1,406,580	26,510,766
2027	26,510,766	160,083	12,033	2,294,809	1,185,740	1,399,056	32,608	1,431,664	26,981,411
2028	26,981,411	156,809	12,239	2,394,650	1,221,889	1,422,100	33,602	1,455,702	27,408,923
2029	27,408,923	149,431	12,452	2,530,276	1,245,890	1,441,675	34,262	1,475,937	27,737,452
2030	27,737,452	143,122	12,674	2,644,840	1,272,687	1,456,414	34,999	1,491,413	27,987,160
2031	27,987,160	135,147	12,897	2,767,660	1,303,703	1,466,545	35,852	1,502,397	28,147,851
2032	28,147,851	125,478	13,117	2,903,007	1,334,163	1,471,389	36,689	1,508,079	28,199,446
2033	28,199,446	108,517	13,336	3,062,518	1,367,339	1,469,368	37,602	1,506,970	28,106,417
2034	28,106,417	93,519	13,555	3,187,664	1,393,973	1,460,391	38,334	1,498,725	27,891,416
2035	27,891,416	83,921	13,769	3,285,466	1,440,819	1,445,607	39,623	1,485,229	27,602,151
2036	27,602,151	67,691	13,976	3,430,796	1,480,975	1,425,249	40,727	1,465,975	27,172,020
2037	27,172,020	52,418	14,173	3,553,833	1,530,633	1,397,782	42,092	1,439,875	26,626,940
2038	26,626,940	43,288	14,359	3,617,383	1,604,951	1,365,799	44,136	1,409,935	26,053,374
2039	26,053,374	36,777	14,531	3,658,319	1,695,181	1,332,944	46,617	1,379,561	25,492,043
2040	25,492,043	30,273	14,689	3,692,773	1,795,222	1,300,940	49,369	1,350,308	24,960,384
2041	24,960,384	24,483	14,832	3,716,829	1,908,511	1,270,874	52,484	1,323,358	24,485,075
2042	24,485,075	19,618	14,959	3,726,936	2,038,623	1,244,317	56,062	1,300,379	24,101,800
2043	24,101,800	14,464	15,068	3,736,818	2,183,241	1,222,820	60,039	1,282,859	23,830,477
2044	23,830,477	9,619	15,160	3,738,454	2,344,304	1,207,716	64,468	1,272,185	23,702,971
2045	23,702,971	6,753	15,234	3,714,795	2,525,282	1,201,273	69,445	1,270,719	23,775,696
2046	23,775,696	4,476	15,289	3,681,901	2,713,404	1,206,114	74,619	1,280,732	24,077,118
2047	24,077,118	2,966	15,324	3,638,460	2,909,900	1,223,844	80,022	1,303,866	24,640,066
2048	24,640,066	2,089	15,342	3,586,263	3,128,394	1,256,217	86,031	1,342,248	25,511,193
2049	25,511,193	1,389	15,341	3,529,317	3,370,503	1,305,676	92,689	1,398,365	26,736,792
2050	26,736,792	834	15,323	3,468,331	3,628,144	1,374,746	99,774	1,474,520	28,356,637
2051	28,356,637	474	15,290	3,403,420	3,905,837	1,465,614	107,411	1,573,024	30,417,262
2052	30,417,262	274	15,242	3,335,292	4,200,462	1,580,817	115,513	1,696,330	32,963,794
2053	32,963,794	111	15,182	3,265,336	3,688,176	1,722,797	101,425	1,824,222	35,195,786
2054	35,195,786	-	15,110	3,193,801	16,253	1,847,523	447	1,847,970	33,851,099
2055	33,851,099	-	15,028	3,120,555	16,145	1,775,582	444	1,776,026	32,507,687
2056	32,507,687	-	14,937	3,046,629	16,028	1,703,730	441	1,704,170	31,166,319

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
2017	$1,571,207	5.5000%	$1,529,982	5.5000%	$1,529,982
2018	1,575,545	5.5000%	1,454,224	5.5000%	1,454,224
2019	1,643,751	5.5000%	1,438,084	5.5000%	1,438,084
2020	1,691,721	5.5000%	1,402,892	5.5000%	1,402,892
2021	1,747,872	5.5000%	1,373,893	5.5000%	1,373,893
2022	1,828,133	5.5000%	1,362,067	5.5000%	1,362,067
2023	1,926,726	5.5000%	1,360,687	5.5000%	1,360,687
2024	2,027,449	5.5000%	1,357,175	5.5000%	1,357,175
2025	2,147,285	5.5000%	1,362,458	5.5000%	1,362,458
2026	2,241,920	5.5000%	1,348,345	5.5000%	1,348,345
2027	2,294,809	5.5000%	1,308,202	5.5000%	1,308,202
2028	2,394,650	5.5000%	1,293,951	5.5000%	1,293,951
2029	2,530,276	5.5000%	1,295,959	5.5000%	1,295,959
2030	2,644,840	5.5000%	1,284,016	5.5000%	1,284,016
2031	2,767,660	5.5000%	1,273,595	5.5000%	1,273,595
2032	2,903,007	5.5000%	1,266,235	5.5000%	1,266,235
2033	3,062,518	5.5000%	1,266,171	5.5000%	1,266,171
2034	3,187,664	5.5000%	1,249,205	5.5000%	1,249,205
2035	3,285,466	5.5000%	1,220,410	5.5000%	1,220,410
2036	3,430,796	5.5000%	1,207,956	5.5000%	1,207,956
2037	3,553,833	5.5000%	1,186,044	5.5000%	1,186,044
2038	3,617,383	5.5000%	1,144,316	5.5000%	1,144,316
2039	3,658,319	5.5000%	1,096,934	5.5000%	1,096,934
2040	3,692,773	5.5000%	1,049,540	5.5000%	1,049,540
2041	3,716,829	5.5000%	1,001,305	5.5000%	1,001,305
2042	3,726,936	5.5000%	951,685	5.5000%	951,685
2043	3,736,818	5.5000%	904,463	5.5000%	904,463
2044	3,738,454	5.5000%	857,687	5.5000%	857,687
2045	3,714,795	5.5000%	807,828	5.5000%	807,828
2046	3,681,901	5.5000%	758,934	5.5000%	758,934
2047	3,638,460	5.5000%	710,881	5.5000%	710,881
2048	3,586,263	5.5000%	664,154	5.5000%	664,154
2049	3,529,317	5.5000%	619,534	5.5000%	619,534
2050	3,468,331	5.5000%	577,088	5.5000%	577,088
2051	3,403,420	5.5000%	536,766	5.5000%	536,766
2052	3,335,292	5.5000%	498,598	5.5000%	498,598
2053	3,265,336	5.5000%	462,692	5.5000%	462,692
2078	1,068,915	5.5000%	39,719	5.5000%	39,719
2103	6,874	5.5000%	67	5.5000%	67
Total Present Value			**$45,330,500**		**$45,330,500**

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.