



**Municipal Pensions
Oversight Board**

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

GASB68 Actuarial Information for the
Measurement Period Ending
06/30/2019

Bolton

Submitted by:

James Ritchie, ASA, EA, FCA, MAAA

Senior Consulting Actuary

443.573.3924

jritchie@boltonusa.com

Jordan McClane, FSA, EA, MAAA

Actuary

667.218.6935

jmcclane@boltonusa.com



Employee Benefits, Actuarial & Investment Consulting

December 10, 2019

Mr. Brian Blankenship
Finance Director
City of Princeton
100 Courthouse Road
Princeton, WV 24740

Lieutenant Tim Gray
Pension Board Secretary
City of Princeton, West Virginia
Policemen's Pension and Relief Fund

Re: City of Princeton, West Virginia Policemen's Pension and Relief Fund - GASB68 Actuarial Information for the Measurement Period Ending June 30, 2019

Dear Brian,

The following report contains the GASB 67 and GASB 68 actuarial information for the City of Princeton Policemen's Pension and Relief Fund to be included in the City's financial statements for FY2019. The GASB67 information has been provided as of June 30, 2019 (the GASB 68 measurement date for FY2019).

Methodology, Reliance and Certification

This report is prepared for the City. The report contains the actuarial information to be included with the City's financial statements for the year ending June 30, 2019 (the City's fiscal year end date) as required by GASB68. This information has been prepared for use in the financial statements of the City. This information is not intended for, nor should it be used for, any additional purposes.

The total pension liability is based on the July 1, 2018 actuarial valuation rolled forward to June 30, 2019. The methods, assumptions, and participant data used are detailed in the July 1, 2018 actuarial valuation report with the exception of the actuarial cost method. These calculations are based on the Entry Age Normal cost method as required by GASB67. The calculation of the Actuarially Determined Contribution for the fiscal year ended June 30, 2019 is contained in the July 1, 2017 actuarial valuation report.

The included calculations are based on a blended discount rate of 5.00%. The plan's expected gross rate of investment return of 5.0% has been blended with the 3.13% yield corresponding to the 20-year maturity on a municipal general obligation AA bond yield curve published on Fidelity's Fixed Income Market Data webpage as of June 30, 2019. The development of the blended discount rate is included within this report.

The included calculations assume that the members and the City will continue to make all required contributions in accordance with the City's funding policy.

The long-term nominal expected rate of return on pension plan investments was determined using a methodology approved by the Municipal Pensions Oversight Board (MPOB.) The long-term nominal expected rate of return is based on the fund's current funding ratio, liquidity ratio, equity exposure and expected funded status in 15 years.

Methodology, Reliance and Certification (cont.)

These calculations and comparisons with assets are applicable for the valuation date only. The future is uncertain, and the plan may become better funded or more poorly funded in the future. This valuation does not provide any guarantee that the plan will be able to provide the promised benefits in the future.

This is a deterministic valuation in that it is based on a single set of assumptions. This set of assumptions is one possible basis for our calculations. Other assumptions may be equally valid. The future is uncertain and the plan's actual experience will differ from those assumptions; these differences may be significant or material because these results are very sensitive to the assumptions made and, in some cases, to the interaction between the assumptions. We may consider that some factors are not material to the valuation of the plan and may not provide a specific assumption for those factors. We may have used other assumptions in the past. We will likely consider changes in assumptions at a future date.

The City is responsible for selecting the plan's funding policy based on four methods allowed for under state law. The actuarial valuation methods are chosen by the actuary in accordance with actuarial standards of practice promulgated by the actuarial standards board of the American Academy of Actuaries and as required by GASB 67 & 68. The MPOB selects the asset valuation methods and assumptions; these selections are reviewed by a qualified actuary no less than every five years. The actuary shall provide a report to the oversight board with recommendations on any changes to the actuarial process. The policies, methods and assumptions used in this valuation are those that have been so prescribed and are described in this report. The City and MPOB are solely responsible for communicating to Bolton Partners, Inc. any changes required thereto.

The City could reasonably ask how the valuation would change if we used a different assumption set or if plan experience exhibited variations from our assumptions. This report does not contain such an analysis. This type of analysis would be a separate assignment.

The cost of this plan is determined by the benefits promised by the plan, the plan's participant population, the investment experience of the plan and many other factors. An actuarial valuation is a budgeting tool for the City or in this case a measure of accounting expense. It does not affect the cost of the plan. As the experience of the plan evolves, it is normal for the level of contributions and expense of the plan to change.

We make every effort to ensure that our calculations are accurately performed. These calculations are complex. Despite our best efforts, we may make a mistake. We reserve the right to correct any potential errors by amending the results of this report or by including the corrections in a future valuation report.

Because modeling all aspects of a situation is not possible or practical, we may use summary information, estimates, or simplifications of calculations to facilitate the modeling of future events in an efficient and cost-effective manner. We may also exclude factors or data that are immaterial in our judgment. Use of such simplifying techniques does not, in our judgment, affect the reasonableness of valuation results for the plan.



Methodology, Reliance and Certification (cont.)

This report is based on plan provisions, census data, and asset data submitted by the City. We have relied on this information for purposes of preparing this report, but have not performed an audit. The accuracy of the results presented in this report is dependent upon the accuracy and completeness of the underlying information. The plan sponsor is solely responsible for the validity and completeness of this information.

The City is solely responsible for selecting the plan's investment policies, asset allocations and individual investments. Bolton Partners, Inc.'s actuaries have not provided any investment advice to the City.

The information in this report was prepared for the internal use of the City, the plan and their auditors in connection with our actuarial valuations of the pension plan as required by GASB68. This report may not be used for any other purpose; Bolton Partners, Inc. is not responsible for the consequences of any unauthorized use or the reliance on this information by any other party.

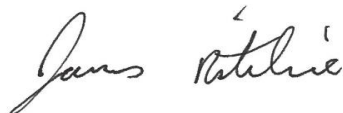
The calculation of actuarial liabilities for valuation purposes is based on a current estimate of future benefit payments. The calculation includes a computation of the "present value" of those estimated future benefit payments using an assumed discount rate; the higher the discount rate assumption, the lower the estimated liability will be. For purposes of estimating the liabilities (future and accrued) in this report, an assumption based on the expected long-term rate of return on plan investments is used. If the plan is expected to become insolvent, the return assumption is blended with a long-term municipal bond rate. Using a lower discount rate assumption, such as a rate solely based on long-term bond yields, could substantially increase the estimated present value of future and accrued liabilities.

This report provides certain financial calculations for use by the auditor. These values have been computed in accordance with our understanding of generally accepted actuarial principles and practices and fairly reflect the actuarial position of the Plan. The various actuarial assumptions and methods which have been used are, in our opinion, appropriate for the purposes of this report.

The report is conditioned on the assumption of an ongoing plan and is not meant to present the actuarial position of the Plan in the case of Plan termination. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions, changes in economic or demographic assumptions, increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status), and changes in plan provisions or applicable law.

The undersigned enrolled actuaries meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. The July 1, 2018 actuarial valuation report contains information that is integral to the results contained herein and a copy may be provided upon request.

Sincerely,



James Ritchie, ASA, EA, FCA, MAAA



City of Princeton, West Virginia Policemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2019 Measurement Date



Net Pension Liability of the Employer

The components of the net pension liability of the Employer at June 30, 2019, were as follows:

Total pension liability	\$ 12,884,435
Plan fiduciary net position	(4,466,263)
Employer's net pension liability	<u>\$ 8,418,172</u>
Plan fiduciary net position as a percentage of the total pension liability	34.66%

Actuarial assumptions. The total pension liability was determined by an actuarial valuation as of July 1, 2018 rolled forward to June 30, 2019 using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.75 percent
Salary increases	Rates vary by years of service
Single discount rate (BOY)	5.5000%
Single discount rate (EOY)	5.0000%
Investment rate of return	5.00 percent, net of pension plan investment expense, including inflation
Long-term municipal bond rate (BOY)	3.62%
Long-term municipal bond rate (EOY)	3.13%
Mortality	RP-2014 Blue Collar Mortality Table with generational projection using Scale MP-2014
Year Fund is projected to be fully funded	2060
Year assets are expected to be depleted for a closed plan	#N/A

The above is a summary of key actuarial assumptions. Full descriptions of the actuarial assumptions are available in the July 1, 2018 actuarial valuation report.

Sensitivity of the net pension liability to changes in the discount rate

	1% Decrease 4.00%	Current Discount Rate 5.00%	1% Increase 6.00%
Employer's net pension liability	\$ 10,551,933	\$ 8,418,172	\$ 6,729,445

City of Princeton, West Virginia Policemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2019 Measurement Date



Changes in the Net Pension Liability

	Total Pension Liability (a)	Increase (Decrease) Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
Balances at 6/30/18	\$ 11,168,638	\$ 4,367,431	\$ 6,801,207
Changes for the year:			
Service cost	450,914		450,914
Interest	598,080		598,080
Changes of benefit terms	-		-
Differences between expected and actual experience	360,077		360,077
Changes of assumptions	895,619		895,619
Contributions - employer (including Premium Tax Allocation)		429,816	(429,816)
Contributions - member		102,746	(102,746)
Net investment income*		155,367	(155,367)
Benefit payments, including refunds of member contributions	(588,893)	(588,893)	-
Administrative expense		(24)	24
Other		(180)	180
Net Changes	<u>1,715,797</u>	<u>98,832</u>	<u>1,616,965</u>
Balances at 6/30/19	<u>\$ 12,884,435</u>	<u>\$ 4,466,263</u>	<u>\$ 8,418,172</u>
Return on Investments		3.6%	

* The Plan Fiduciary Net Position as of July 1, 2018 provided to Bolton by the City does not match the Plan Fiduciary Net Position as of June 30, 2018 as provided in the prior GASB report. The difference of \$85,240.27 has been excluded as investment income for the measurement period ending June 30, 2019.

City of Princeton, West Virginia Policemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2019 Measurement Date



Components of Employer's Pension Expense for the Fiscal Year Ended June 30, 2019

Note	Description	Amount
A	Service Cost	\$ 450,914
B	Interest on the total pension liability	598,080
A	Changes of benefit terms	-
C	Differences between expected and actual experience	(170,038)
C	Changes of assumptions	389,625
A	Employee contributions	(102,746)
D	Projected earnings on pension plan investments	(216,959)
C	Differences between expected and actual earnings on plan investments	86,180
A	Pension plan administrative expense	24
A	Other changes in fiduciary net position	180
Total Pension Expense		\$ 1,035,260

Notes:

A Provided in the Changes in Net Pension Liability exhibit.

B Based on the following calculation:

	Amount for Period (a)	Portion of Period (b)	Projected Rate of Return (c)	Projected Earnings (a) x (b) x (c)
Beginning total pension liability	\$ 11,168,638	100%	5.50%	\$ 614,275
Service Cost (End of Year)	450,914	0%	5.50%	-
Benefit payments, including refunds of employee contributions	(588,893)	50%	5.50%	(16,195)
Total interest on the total pension liability				\$ 598,080

C Provided in the Schedules of Deferrals.

D Based on the following calculation:

	Amount for Period (a)	Portion of Period (b)	Projected Rate of Return (c)	Projected Earnings (a) x (b) x (c)
Beginning plan fiduciary net position	\$ 4,367,431	100%	5.00%	\$ 218,372
Employer contributions	429,816	50%	5.00%	10,745
Employee contributions	102,746	50%	5.00%	2,569
Benefit payments, including refunds of employee contributions	(588,893)	50%	5.00%	(14,722)
Administrative expense and other	(204)	50%	5.00%	(5)
Total Projected Earnings				\$ 216,959

City of Princeton, West Virginia Policemen’s Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2019 Measurement Date



Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

At June 30, 2019, the Employer reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 319,263	\$ 750,407
Changes of assumptions	2,238,626	1,650,787
Net difference between projected and actual earnings on pension plan investments	95,723	-
Total	\$ 2,653,612	\$ 2,401,194

Amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

Year ended June 30:	
2020	\$ 286,132
2021	248,078
2022	(298,790)
2023	(120,754)
2024	137,752
Thereafter	-

City of Princeton, West Virginia Policemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2019 Measurement Date



Changes in the Employer's Net Pension Liability and Related Ratios
 Last 10 Fiscal Years

Total pension liability	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Service cost	\$ 450,914	\$ 422,417	\$ 536,890	\$ 271,757	\$ 237,821	\$ 216,080	\$ -	\$ -	\$ -	\$ -
Interest	598,080	570,241	512,106	572,905	550,980	551,456	-	-	-	-
Changes of benefit terms	-	-	-	-	-	-	-	-	-	-
Differences between expected and actual experience	360,077	(166,623)	(1,151,572)	54,627	(188,795)	-	-	-	-	-
Changes of assumptions	895,619	(797,790)	(2,073,963)	4,245,789	-	-	-	-	-	-
Benefit payments, including refunds of member contributions	(588,893)	(439,700)	(491,271)	(510,173)	(479,794)	(499,192)	-	-	-	-
Net change in total pension liability	1,715,797	(411,455)	(2,667,810)	4,634,905	120,212	268,344	-	-	-	-
Total pension liability - beginning	11,168,638	11,580,093	14,247,903	9,612,998	9,492,786	9,224,442	-	-	-	-
Total pension liability - ending (a)	\$ 12,884,435	\$ 11,168,638	\$ 11,580,093	\$ 14,247,903	\$ 9,612,998	\$ 9,492,786	\$ -	\$ -	\$ -	\$ -
Plan fiduciary net position	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Contributions - employer (including Premium Tax Allocation)	\$ 429,816	\$ 414,154	\$ 380,690	\$ 550,085	\$ 173,527	\$ 367,187	\$ -	\$ -	\$ -	\$ -
Contributions - member	102,746	88,524	80,332	76,114	71,592	68,439	-	-	-	-
Net investment income*	155,367	126,728	358,532	(82,353)	92,071	412,241	-	-	-	-
Benefit payments, including refunds of member contributions	(588,893)	(439,700)	(491,271)	(510,173)	(479,794)	(499,192)	-	-	-	-
Administrative expense	(24)	(180)	(180)	(180)	(308)	(232)	-	-	-	-
Other	(180)	2	-	5,755	-	4	-	-	-	-
Net change in plan fiduciary net position	\$ 98,832	\$ 189,528	\$ 328,103	\$ 39,248	\$ (142,912)	\$ 348,447	\$ -	\$ -	\$ -	\$ -
Plan fiduciary net position - beginning	4,367,431	4,177,903	3,849,800	3,810,552	3,947,819	3,605,017	-	-	-	-
Plan fiduciary net position - ending (b)	\$ 4,466,263	\$ 4,367,431	\$ 4,177,903	\$ 3,849,800	\$ 3,804,907	\$ 3,953,464	\$ -	\$ -	\$ -	\$ -
Employer's net pension liability - ending (a)-(b)	\$ 8,418,172	\$ 6,801,207	\$ 7,402,190	\$ 10,398,103	\$ 5,808,091	\$ 5,539,322	\$ -	\$ -	\$ -	\$ -
Plan fiduciary net position as a percentage of the total pension liability	34.66%	39.10%	36.08%	27.02%	39.58%	41.65%	0.00%	0.00%	0.00%	0.00%
Covered payroll	\$ 1,034,188	\$ 933,350	\$ 901,229	\$ 927,966	\$ 781,090	\$ 730,141	\$ -	\$ -	\$ -	\$ -
Employer's net pension liability as a percentage of covered payroll	813.99%	728.69%	821.34%	1120.53%	743.59%	758.66%	0.00%	0.00%	0.00%	0.00%
Expected average remaining service years of all participants	6.00	6.48	6.38	6.17	5.76	-	-	-	-	-

Notes to Schedule:

Benefit changes: There were no changes for FY2019.

Changes of assumptions: The discount rate changed from 5.5000% to 5.0000%.

* The Plan Fiduciary Net Position as of July 1, 2018 provided to Bolton by the City does not match the Plan Fiduciary Net Position as of June 30, 2018 as provided in the prior GASB report. The difference of \$85,240.27 has been excluded as investment income for the measurement period ending June 30, 2019.

City of Princeton, West Virginia Policemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2019 Measurement Date



Schedule of Employer Contributions
 Last 10 Fiscal Years

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Actuarially determined contribution	\$ 715,674	\$ 631,477	\$ 674,315	\$ 675,818	\$ 434,627	\$ 421,933	\$ 475,653	\$ -	\$ -	\$ -
Contributions in relation to the actuarially determined contribution										
Employer provided	227,500	212,600	198,672	185,674	173,527	162,175	201,565	-	-	-
State provided	202,316	201,554	182,018	183,874	180,537	205,012	169,853	-	-	-
Contribution deficiency (excess)	<u>\$ 285,858</u>	<u>\$ 217,323</u>	<u>\$ 293,625</u>	<u>\$ 306,270</u>	<u>\$ 80,563</u>	<u>\$ 54,746</u>	<u>\$ 104,235</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Covered payroll	\$ 1,034,188	\$ 933,350	\$ 901,229	\$ 927,966	\$ 781,090	\$ 730,141	\$ 711,063	\$ -	\$ -	\$ -
Contributions as a percentage of covered employee payroll	41.56%	44.37%	42.24%	39.82%	45.33%	50.29%	52.23%	N/A	N/A	N/A

Notes to Schedule

Valuation date:

Actuarially determined contribution amounts are calculated as of the beginning of the fiscal year (July 1) for the year immediately following the fiscal year. Actuarial valuations are performed every year.

Methods and assumptions used to determine contribution rates:

Actuarial cost method	Entry Age Normal
Amortization method	Level Dollar
Remaining amortization period	32.5 years
Asset valuation method	Market Value
Inflation	2.75 percent
Salary increases	Rates vary by years of service
Investment rate of return	5.00 percent, net of pension plan investment expense, including inflation
Retirement age	Rates vary by age
Mortality	RP-2014 Blue Collar Mortality Table with generational projection using Scale MP-2014

City of Princeton, West Virginia Policemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2019 Measurement Date



Schedule of Differences between Projected and Actual Earnings on Pension Plan Investments

In conformity with paragraph 33b of Statement 68, the effects of differences between projected and actual earnings on pension plan investments are recognized in pension expense using a systematic and rational method over a closed five-year period, beginning in the current reporting period. The following table illustrates the application of this requirement.

Increase (Decrease) in Pension Expense Arising from the Recognition of Differences between Projected and Actual Earnings on Plan Investments											
Year	Differences between Projected and Actual Earnings on Pension Plan Investments	Recognition Period (Years)	2015	2016	2017	2018	2019	2020	2021	2022	2023
2015	\$ 137,749	5	\$ 27,550	27,550	27,550	27,550	27,549				
2016	314,634	5		\$ 62,927	62,927	62,927	62,927	62,926			
2017	(166,803)	5			\$ (33,361)	(33,361)	(33,361)	(33,361)	(33,359)		
2018	83,737	5				\$ 16,747	16,747	16,747	16,747	16,749	
2019	61,592	5					\$ 12,318	12,318	12,318	12,318	12,320
Net increase (decrease) in pension expense							\$ 86,180	\$ 58,630	\$ (4,294)	\$ 29,067	\$ 12,320

Deferred Outflows of Resources and Deferred Inflows of Resources Arising from Differences between Projected and Actual Earnings on Pension Plan Investments

Year	Investment Earnings Less than Projected (a)	Investment Earnings Greater Than Projected (b)	Amounts Recognized in Pension Expense Through June 30, 2019 (c)	Balances at June 30, 2019	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2015	\$ 137,749	\$ -	\$ 137,749	\$ -	\$ -
2016	314,634	-	251,708	62,926	-
2017	-	166,803	100,083	-	66,720
2018	83,737	-	33,494	50,243	-
2019	61,592	-	12,318	49,274	-
				\$ 162,443	\$ 66,720

City of Princeton, West Virginia Policemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2019 Measurement Date



Schedule of Differences between Expected and Actual Experience

In conformity with paragraph 33a of Statement 68, the effects of differences between expected and actual experience are recognized in pension expense, beginning in the current reporting period, using a systematic and rational method over a closed period equal to the average of the remaining service lives of all employees that are provided with pensions through the pension plan (active and inactive employees), determined as of the beginning of the measurement period. The following table illustrates the application of this requirement.

Increase (Decrease) in Pension Expense Arising from the Recognition of Differences between Expected and Actual Experience															
Year	Differences between Expected and Actual Experience	Recognition Period (Years)	Prior	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Thereafter
Prior	\$ -		\$ -												
2015	(188,795)	5.758612			\$ (32,785)	(32,785)	(32,785)	(32,785)	(32,785)	(24,870)					
2016	54,627	6.167813				\$ 8,857	8,857	8,857	8,857	8,857	8,857	1,485			
2017	(1,151,572)	6.383004					\$ (180,412)	(180,412)	(180,412)	(180,412)	(180,412)	(180,412)	(69,100)		
2018	(166,623)	6.480654						\$ (25,711)	(25,711)	(25,711)	(25,711)	(25,711)	(25,711)	(12,357)	-
2019	360,077	6							\$ 60,013	60,013	60,013	60,013	60,013	\$ 60,012	-
Net increase (decrease) in pension expense									\$ (170,038)	\$ (162,123)	\$ (137,253)	\$ (144,625)	\$ (34,798)	\$ 47,655	\$ -

Deferred Outflows of Resources and Deferred Inflows of Resources Arising from Differences between Expected and Actual Experience

Year	Experience Losses (a)	Experience Gains (b)	Amounts Recognized in Pension Expense Through June 30, 2019 (c)	Balances at June 30, 2019	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
Prior	\$ -	\$ -	\$ -	\$ -	\$ -
2015	-	188,795	163,925	-	24,870
2016	54,627	-	35,428	19,199	-
2017	-	1,151,572	541,236	-	610,336
2018	-	166,623	51,422	-	115,201
2019	360,077	-	60,013	300,064	-
				\$ 319,263	\$ 750,407

City of Princeton, West Virginia Policemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2019 Measurement Date



Schedule of Changes of Assumptions

In conformity with paragraph 33a of Statement 68, the effects of changes of assumptions should be recognized in pension expense, beginning in the current reporting period, using a systematic and rational method over a closed period equal to the average of the remaining service lives of all employees that are provided with pensions through the pension plan (active and inactive employees), determined as of the beginning of the measurement period. The following table illustrates the application of this requirement.

Increase (Decrease) in Pension Expense Arising from the Effects of Changes of Assumptions															
Year	Changes of Assumptions	Recognition Period (Years)	Prior	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Thereafter
Prior	\$ -		\$ -	-	-	-	-	-	-	-	-	-	-	-	-
2015	-	5.758612			\$ -	-	-	-	-	-	-	-	-	-	-
2016	4,245,789	6.167813				\$ 688,378	688,378	688,378	688,378	688,378	688,378	115,521			
2017	(2,073,963)	6.383004					\$ (324,920)	(324,920)	(324,920)	(324,920)	(324,920)	(324,920)	(124,443)		
2018	(797,790)	6.480654						\$ (123,103)	(123,103)	(123,103)	(123,103)	(123,103)	(123,103)	(59,172)	-
2019	895,619	6							\$ 149,270	149,270	149,270	149,270	149,270	\$ 149,269	-
Net increase (decrease) in pension expense									\$ 389,625	\$ 389,625	\$ 389,625	\$ (183,232)	\$ (98,276)	\$ 90,097	\$ -

Deferred Outflows of Resources and Deferred Inflows of Resources Arising from Changes of Assumptions

Year	Increases in the Total Pension Liability (a)	Decreases in the Total Pension Liability (b)	Amounts Recognized in Pension Expense Through June 30, 2019 (c)	Balances at June 30, 2019	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
Prior	\$ -	\$ -	\$ -	\$ -	\$ -
2015	-	-	-	-	-
2016	4,245,789	-	2,753,512	1,492,277	-
2017	-	2,073,963	974,760	-	1,099,203
2018	-	797,790	246,206	-	551,584
2019	895,619	-	149,270	746,349	-
				\$ 2,238,626	\$ 1,650,787

City of Princeton, West Virginia Policemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2019 Measurement Date



Projection of Pension Plan's Fiduciary Net Position

Fiscal Year	Gross Normal Cost (BOY)			Employee Contributions (BOY)			Employer Normal Cost (BOY)			Expenses (MOY)			Employer Contributions (MOY)			Premium Tax Allocation (MOY)		
	Current Members	Future Members	Total	Current Members	Future Members	Total	Current Members	Future Members	Total	Current Members	Future Members	Total	Current Members	Future Members	Total	Current Members	Future Members	Total
2019	\$ 429,442	\$ -	\$ 429,442	\$ 88,042	\$ -	\$ 88,042	\$ 341,400	\$ -	\$ 341,400	\$ 3,579	\$ -	\$ 3,579	\$ 227,460	\$ -	\$ 227,460	\$ 202,316	\$ -	\$ 202,316
2020	\$ 431,015	\$ 24,480	\$ 455,495	\$ 88,537	\$ 5,182	\$ 93,719	\$ 342,478	\$ 19,298	\$ 361,776	\$ 3,779	\$ -	\$ 3,779	\$ 223,607	\$ 19,775	\$ 243,382	\$ 224,450	\$ -	\$ 224,450
2021	\$ 432,193	\$ 51,488	\$ 483,681	\$ 88,793	\$ 10,905	\$ 99,698	\$ 343,400	\$ 40,583	\$ 383,983	\$ 3,689	\$ 194	\$ 3,883	\$ 218,640	\$ 41,779	\$ 260,419	\$ 229,767	\$ -	\$ 229,767
2022	\$ 435,180	\$ 78,057	\$ 513,237	\$ 89,354	\$ 16,541	\$ 105,895	\$ 345,826	\$ 61,516	\$ 407,342	\$ 3,790	\$ 297	\$ 4,087	\$ 215,316	\$ 63,332	\$ 278,648	\$ 235,846	\$ -	\$ 235,846
2023	\$ 435,041	\$ 103,655	\$ 538,696	\$ 89,617	\$ 21,978	\$ 111,595	\$ 345,424	\$ 81,677	\$ 427,101	\$ 3,894	\$ 305	\$ 4,199	\$ 214,154	\$ 83,999	\$ 298,153	\$ 242,092	\$ -	\$ 242,092
2024	\$ 431,680	\$ 134,444	\$ 566,124	\$ 89,538	\$ 28,525	\$ 118,063	\$ 342,142	\$ 105,919	\$ 448,061	\$ 3,896	\$ 418	\$ 4,314	\$ 210,071	\$ 108,953	\$ 319,024	\$ 248,509	\$ -	\$ 248,509
2025	\$ 432,020	\$ 164,884	\$ 596,904	\$ 90,080	\$ 35,003	\$ 125,083	\$ 341,940	\$ 129,881	\$ 471,821	\$ 3,895	\$ 538	\$ 4,433	\$ 207,730	\$ 133,626	\$ 341,356	\$ 257,799	\$ -	\$ 257,799
2026	\$ 436,521	\$ 193,564	\$ 630,085	\$ 91,312	\$ 41,112	\$ 132,424	\$ 345,209	\$ 152,452	\$ 497,661	\$ 3,891	\$ 664	\$ 4,555	\$ 208,370	\$ 156,881	\$ 365,251	\$ 264,638	\$ -	\$ 264,638
2027	\$ 442,495	\$ 220,991	\$ 663,486	\$ 92,830	\$ 46,957	\$ 139,787	\$ 349,665	\$ 174,034	\$ 523,699	\$ 3,998	\$ 682	\$ 4,680	\$ 211,805	\$ 179,014	\$ 390,819	\$ 271,665	\$ -	\$ 271,665
2028	\$ 447,236	\$ 248,817	\$ 696,053	\$ 94,234	\$ 52,893	\$ 147,127	\$ 353,002	\$ 195,924	\$ 548,926	\$ 3,991	\$ 818	\$ 4,809	\$ 216,596	\$ 201,580	\$ 418,176	\$ 278,885	\$ -	\$ 278,885
2029	\$ 452,931	\$ 278,034	\$ 730,965	\$ 95,707	\$ 59,128	\$ 154,835	\$ 357,224	\$ 218,906	\$ 576,130	\$ 4,101	\$ 840	\$ 4,941	\$ 222,296	\$ 225,152	\$ 447,448	\$ 287,327	\$ -	\$ 287,327
2030	\$ 456,721	\$ 313,891	\$ 770,612	\$ 96,926	\$ 66,787	\$ 163,713	\$ 359,795	\$ 247,104	\$ 606,899	\$ 4,090	\$ 987	\$ 5,077	\$ 224,576	\$ 254,193	\$ 478,769	\$ 294,975	\$ -	\$ 294,975
2031	\$ 466,532	\$ 346,374	\$ 812,906	\$ 99,179	\$ 73,728	\$ 172,907	\$ 367,353	\$ 272,646	\$ 639,999	\$ 4,202	\$ 1,015	\$ 5,217	\$ 231,889	\$ 280,394	\$ 512,283	\$ 302,834	\$ -	\$ 302,834
2032	\$ 470,482	\$ 378,432	\$ 848,914	\$ 100,601	\$ 80,578	\$ 181,179	\$ 369,881	\$ 297,854	\$ 667,735	\$ 4,187	\$ 1,173	\$ 5,360	\$ 241,760	\$ 306,383	\$ 548,143	\$ 310,909	\$ -	\$ 310,909
2033	\$ 472,299	\$ 419,363	\$ 891,662	\$ 101,716	\$ 89,334	\$ 191,050	\$ 370,583	\$ 330,029	\$ 700,612	\$ 4,302	\$ 1,205	\$ 5,507	\$ 247,129	\$ 339,384	\$ 586,513	\$ 319,205	\$ -	\$ 319,205
2034	\$ 473,802	\$ 457,382	\$ 931,184	\$ 102,561	\$ 97,469	\$ 200,030	\$ 371,241	\$ 359,913	\$ 731,154	\$ 4,282	\$ 1,376	\$ 5,658	\$ 257,392	\$ 370,177	\$ 627,569	\$ 338,103	\$ -	\$ 338,103
2035	\$ 455,654	\$ 501,872	\$ 957,526	\$ 99,685	\$ 106,994	\$ 206,679	\$ 355,969	\$ 394,878	\$ 750,847	\$ 4,400	\$ 1,552	\$ 5,952	\$ 265,317	\$ 406,182	\$ 671,499	\$ 347,120	\$ -	\$ 347,120
2036	\$ 403,740	\$ 563,517	\$ 967,257	\$ 90,381	\$ 120,205	\$ 210,586	\$ 313,359	\$ 443,312	\$ 756,671	\$ 4,521	\$ 1,695	\$ 6,216	\$ 262,649	\$ 455,855	\$ 718,504	\$ 356,385	\$ -	\$ 356,385
2037	\$ 392,588	\$ 631,746	\$ 1,024,334	\$ 88,665	\$ 134,836	\$ 223,501	\$ 303,923	\$ 496,910	\$ 800,833	\$ 4,495	\$ 1,935	\$ 6,430	\$ 257,683	\$ 511,116	\$ 768,799	\$ 365,905	\$ -	\$ 365,905
2038	\$ 358,024	\$ 693,586	\$ 1,051,610	\$ 82,139	\$ 148,096	\$ 230,235	\$ 275,885	\$ 545,490	\$ 821,375	\$ 4,465	\$ 2,142	\$ 6,607	\$ 261,512	\$ 561,103	\$ 822,615	\$ 375,687	\$ -	\$ 375,687
2039	\$ 303,102	\$ 773,847	\$ 1,076,949	\$ 70,948	\$ 165,320	\$ 236,268	\$ 232,154	\$ 608,527	\$ 840,681	\$ 4,588	\$ 2,355	\$ 6,943	\$ 254,288	\$ 625,910	\$ 880,198	\$ 390,206	\$ -	\$ 390,206
2040	\$ 257,535	\$ 858,452	\$ 1,115,987	\$ 61,375	\$ 183,483	\$ 244,858	\$ 196,160	\$ 674,969	\$ 871,129	\$ 4,552	\$ 2,582	\$ 7,134	\$ 247,593	\$ 694,219	\$ 941,812	\$ 400,648	\$ -	\$ 400,648
2041	\$ 221,920	\$ 931,788	\$ 1,153,708	\$ 53,526	\$ 199,246	\$ 252,772	\$ 168,394	\$ 732,542	\$ 900,936	\$ 4,844	\$ 2,649	\$ 7,493	\$ 254,458	\$ 753,281	\$ 1,007,739	\$ 411,376	\$ -	\$ 411,376
2042	\$ 183,683	\$ 1,009,284	\$ 1,192,967	\$ 44,909	\$ 215,952	\$ 260,861	\$ 138,774	\$ 793,332	\$ 932,106	\$ 4,806	\$ 2,893	\$ 7,699	\$ 262,465	\$ 815,816	\$ 1,078,281	\$ 422,400	\$ -	\$ 422,400
2043	\$ 155,211	\$ 1,080,203	\$ 1,235,414	\$ 38,567	\$ 231,281	\$ 269,848	\$ 116,644	\$ 848,922	\$ 965,566	\$ 4,762	\$ 3,321	\$ 8,083	\$ 280,554	\$ 873,207	\$ 1,153,761	\$ 444,122	\$ -	\$ 444,122
2044	\$ 131,014	\$ 1,150,809	\$ 1,281,823	\$ 33,090	\$ 246,559	\$ 279,649	\$ 97,924	\$ 904,250	\$ 1,002,174	\$ 4,893	\$ 3,412	\$ 8,305	\$ 304,531	\$ 929,993	\$ 1,234,524	\$ 456,031	\$ -	\$ 456,031
2045	\$ 103,608	\$ 1,216,040	\$ 1,319,648	\$ 26,381	\$ 260,691	\$ 287,072	\$ 77,227	\$ 955,349	\$ 1,032,576	\$ 4,841	\$ 3,692	\$ 8,533	\$ 338,308	\$ 982,633	\$ 1,320,941	\$ 468,267	\$ -	\$ 468,267
2046	\$ 71,861	\$ 1,290,707	\$ 1,362,568	\$ 18,198	\$ 276,870	\$ 295,068	\$ 53,663	\$ 1,013,837	\$ 1,067,500	\$ 4,783	\$ 4,171	\$ 8,954	\$ 370,362	\$ 1,043,045	\$ 1,413,407	\$ 480,840	\$ -	\$ 480,840
2047	\$ 49,079	\$ 1,363,744	\$ 1,412,823	\$ 12,490	\$ 292,701	\$ 305,191	\$ 36,589	\$ 1,071,043	\$ 1,107,632	\$ 4,915	\$ 4,285	\$ 9,200	\$ 410,568	\$ 1,101,777	\$ 1,512,345	\$ 527,896	\$ -	\$ 527,896
2048	\$ 32,694	\$ 1,433,792	\$ 1,466,486	\$ 8,449	\$ 307,885	\$ 316,334	\$ 24,245	\$ 1,125,907	\$ 1,150,152	\$ 4,848	\$ 4,605	\$ 9,453	\$ 459,893	\$ 1,158,316	\$ 1,618,209	\$ 542,075	\$ -	\$ 542,075
2049	\$ 21,604	\$ 1,504,095	\$ 1,525,699	\$ 5,639	\$ 323,120	\$ 328,759	\$ 15,965	\$ 1,180,975	\$ 1,196,940	\$ 4,774	\$ 4,939	\$ 9,713	\$ 516,406	\$ 1,215,078	\$ 1,731,484	\$ 556,643	\$ -	\$ 556,643
2050	\$ 15,365	\$ 1,574,695	\$ 1,590,060	\$ 4,018	\$ 338,414	\$ 342,432	\$ 11,347	\$ 1,236,281	\$ 1,247,628	\$ 4,905	\$ 5,075	\$ 9,980	\$ 580,802	\$ 1,271,886	\$ 1,852,688	\$ 571,612	\$ -	\$ 571,612
2051	\$ 9,412	\$ 1,645,159	\$ 1,654,571	\$ 2,482	\$ 353,682	\$ 356,164	\$ 6,930	\$ 1,291,477	\$ 1,298,407	\$ 4,821	\$ 5,647	\$ 10,468	\$ 653,359	\$ 1,329,017	\$ 1,982,376	\$ 847,462	\$ -	\$ 847,462
2052	\$ 6,239	\$ 1,717,052	\$ 1,723,291	\$ 1,658	\$ 369,255	\$ 370,913	\$ 4,581	\$ 1,347,797	\$ 1,352,378	\$ 4,954	\$ 5,802	\$ 10,756	\$ 734,259	\$ 1,386,883	\$ 2,121,142	\$ 870,440	\$ -	\$ 870,440
2053	\$ 3,629	\$ 1,791,179	\$ 1,794,808	\$ 979	\$ 385,301	\$ 386,280	\$ 2,650	\$ 1,405,878	\$ 1,408,528	\$ 4,859	\$ 5,967	\$ 10,826	\$ 823,059	\$ 1,446,563	\$ 2,269,622	\$ 894,050	\$ -	\$ 894,050
2054	\$ 2,435	\$ 1,868,915	\$ 1,871,350	\$ 657	\$ 402,118	\$ 402,775	\$ 1,778	\$ 1,466,797	\$ 1,468,575	\$ 4,755	\$ 6,369	\$ 11,124	\$ 919,107	\$ 1,509,389	\$ 2,428,496	\$ 918,310	\$ -	\$ 918,310
2055	\$ 626	\$ 1,948,827	\$ 1,949,453	\$ 156	\$ 419,403	\$ 419,559	\$ 470	\$ 1,529,424	\$ 1,529,894	\$ 4,886	\$ 6,544	\$ 11,430	\$ 1,024,754	\$ 1,573,737	\$ 2,598,491	\$ 943,236	\$ -	\$ 943,236
2056	\$ -	\$ 2,031,389	\$ 2,031,389	\$ -	\$ 437,255	\$ 437,255	\$ -	\$ 1,594,134	\$ 1,594,134	\$ 4,769	\$ 6,975	\$ 11,744	\$ 1,139,909	\$ 1,640,476	\$ 2,780,385	\$ 2,295,739	\$ -	\$ 2,295,739
2057	\$ -	\$ 2,115,418	\$ 2,115,418	\$ -	\$ 455,430	\$ 455,430	\$ -	\$ 1,659,988	\$ 1,659,988	\$ 4,900	\$ 7,167	\$ 12,067	\$ 1,266,863	\$ 1,708,149	\$ 2,975,012	\$ 2,359,412	\$ -	\$ 2,359,412
2058	\$ -	\$ 2,198,092	\$ 2,198,092	\$ -	\$ 473,328	\$ 473,328	\$ -	\$ 1,724,764	\$ 1,724,764	\$ 4,770	\$ 7,629	\$ 12,399	\$ 1,408,277	\$ 1,774,986	\$ 3,183,263	\$ 2,424,836	\$ -	\$ 2,424,836
2059	\$ -	\$ 2,280,730	\$ 2,280,730	\$ -	\$ 491,212	\$ 491,212	\$ -	\$ 1,789,518	\$ 1,789,518	\$ 4,629	\$ 8,111	\$ 12,740	\$ 1,564,270	\$ 1,841,821	\$ 3,406,091	\$ 2,492,059	\$ -	\$ 2,492,059

City of Princeton, West Virginia Policemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2019 Measurement Date



Projection of Pension Plan's Fiduciary Net Position

Fiscal Year	Actuarial Accrued Liability (BOY)			Closed Group Asset Projection						
	Current Members	Future Members	Total	Fiduciary Net Position (boy)	Funded Ratio (boy)	Projected EEC Contributions (moy)	Projected ER Contrib + Premium Tax (moy)	Projected BP (moy)	Projected Admin Expenses (moy)	Projected Investment Earnings
2019	\$ 12,416,320	\$ -	\$ 12,416,320	\$ 4,367,431	35.17%	\$ 90,216	\$ 429,776	\$ 601,652	\$ 3,579	\$ 216,267
2020	\$ 12,871,060	\$ -	\$ 12,871,060	\$ 4,498,459	34.95%	\$ 90,723	\$ 448,057	\$ 575,224	\$ 3,779	\$ 223,930
2021	\$ 13,377,750	\$ 25,553	\$ 13,403,303	\$ 4,682,166	35.00%	\$ 90,986	\$ 448,407	\$ 589,290	\$ 3,689	\$ 232,785
2022	\$ 13,896,598	\$ 80,339	\$ 13,976,937	\$ 4,861,365	34.98%	\$ 91,561	\$ 451,162	\$ 601,290	\$ 3,790	\$ 241,528
2023	\$ 14,432,228	\$ 165,114	\$ 14,597,342	\$ 5,040,536	34.93%	\$ 91,830	\$ 456,246	\$ 617,590	\$ 3,894	\$ 250,214
2024	\$ 14,977,791	\$ 280,102	\$ 15,257,893	\$ 5,217,342	34.83%	\$ 91,749	\$ 458,580	\$ 637,334	\$ 3,896	\$ 258,622
2025	\$ 15,526,872	\$ 431,931	\$ 15,958,803	\$ 5,385,063	34.68%	\$ 92,305	\$ 465,529	\$ 651,770	\$ 3,895	\$ 266,837
2026	\$ 16,088,971	\$ 621,768	\$ 16,710,739	\$ 5,554,069	34.52%	\$ 93,567	\$ 473,008	\$ 663,769	\$ 3,891	\$ 275,207
2027	\$ 16,671,606	\$ 849,373	\$ 17,520,979	\$ 5,728,191	34.36%	\$ 95,122	\$ 483,470	\$ 676,171	\$ 3,998	\$ 283,901
2028	\$ 17,276,937	\$ 1,115,179	\$ 18,392,116	\$ 5,910,515	34.21%	\$ 96,561	\$ 495,481	\$ 688,620	\$ 3,991	\$ 293,042
2029	\$ 17,904,756	\$ 1,421,522	\$ 19,326,278	\$ 6,102,988	34.09%	\$ 98,070	\$ 509,623	\$ 704,172	\$ 4,101	\$ 302,666
2030	\$ 18,554,010	\$ 1,771,890	\$ 20,325,900	\$ 6,305,074	33.98%	\$ 99,320	\$ 519,551	\$ 720,823	\$ 4,090	\$ 312,635
2031	\$ 19,222,644	\$ 2,175,278	\$ 21,397,922	\$ 6,511,667	33.87%	\$ 101,628	\$ 534,723	\$ 731,740	\$ 4,202	\$ 323,124
2032	\$ 19,923,824	\$ 2,630,438	\$ 22,554,262	\$ 6,735,200	33.80%	\$ 103,085	\$ 552,669	\$ 754,635	\$ 4,187	\$ 334,215
2033	\$ 20,640,751	\$ 3,139,169	\$ 23,779,920	\$ 6,966,347	33.75%	\$ 104,228	\$ 566,334	\$ 778,159	\$ 4,302	\$ 345,554
2034	\$ 21,371,327	\$ 3,713,151	\$ 25,084,478	\$ 7,200,002	33.69%	\$ 105,094	\$ 595,495	\$ 797,837	\$ 4,282	\$ 357,493
2035	\$ 22,119,846	\$ 4,352,130	\$ 26,471,976	\$ 7,455,965	33.71%	\$ 102,147	\$ 612,437	\$ 849,967	\$ 4,400	\$ 369,346
2036	\$ 22,833,318	\$ 5,065,593	\$ 27,898,911	\$ 7,685,529	33.66%	\$ 92,613	\$ 619,034	\$ 932,769	\$ 4,521	\$ 378,704
2037	\$ 23,443,107	\$ 5,874,620	\$ 29,317,727	\$ 7,838,590	33.44%	\$ 90,855	\$ 623,588	\$ 962,415	\$ 4,495	\$ 385,695
2038	\$ 24,041,298	\$ 6,790,108	\$ 30,831,406	\$ 7,971,818	33.16%	\$ 84,167	\$ 637,199	\$ 1,032,029	\$ 4,465	\$ 390,809
2039	\$ 24,561,773	\$ 7,809,997	\$ 32,371,770	\$ 8,047,499	32.76%	\$ 72,700	\$ 644,494	\$ 1,136,642	\$ 4,588	\$ 391,903
2040	\$ 24,943,407	\$ 8,958,059	\$ 33,901,466	\$ 8,015,366	32.13%	\$ 62,891	\$ 648,241	\$ 1,216,354	\$ 4,552	\$ 388,179
2041	\$ 25,214,597	\$ 10,246,569	\$ 35,461,166	\$ 7,893,771	31.31%	\$ 54,848	\$ 665,834	\$ 1,296,688	\$ 4,844	\$ 380,344
2042	\$ 25,379,633	\$ 11,666,201	\$ 37,045,834	\$ 7,693,265	30.31%	\$ 46,018	\$ 684,865	\$ 1,366,553	\$ 4,806	\$ 368,847
2043	\$ 25,441,182	\$ 13,214,976	\$ 38,656,158	\$ 7,421,635	29.17%	\$ 39,519	\$ 724,676	\$ 1,421,063	\$ 4,762	\$ 354,743
2044	\$ 25,420,056	\$ 14,874,277	\$ 40,294,333	\$ 7,114,748	27.99%	\$ 33,907	\$ 760,562	\$ 1,460,940	\$ 4,893	\$ 339,158
2045	\$ 25,331,605	\$ 16,637,276	\$ 41,968,881	\$ 6,782,543	26.78%	\$ 27,032	\$ 806,575	\$ 1,525,302	\$ 4,841	\$ 321,926
2046	\$ 25,144,004	\$ 18,496,041	\$ 43,640,045	\$ 6,407,932	25.48%	\$ 18,647	\$ 851,202	\$ 1,584,241	\$ 4,783	\$ 302,637
2047	\$ 24,853,294	\$ 20,457,750	\$ 45,311,044	\$ 5,991,394	24.11%	\$ 12,798	\$ 938,464	\$ 1,617,469	\$ 4,915	\$ 282,996
2048	\$ 24,490,079	\$ 22,518,681	\$ 47,008,760	\$ 5,603,268	22.88%	\$ 8,658	\$ 1,001,968	\$ 1,636,237	\$ 4,848	\$ 264,594
2049	\$ 24,072,268	\$ 24,676,504	\$ 48,748,772	\$ 5,237,402	21.76%	\$ 5,778	\$ 1,073,049	\$ 1,643,078	\$ 4,774	\$ 247,818
2050	\$ 23,614,912	\$ 26,934,679	\$ 50,549,591	\$ 4,916,195	20.82%	\$ 4,117	\$ 1,152,414	\$ 1,639,292	\$ 4,905	\$ 233,767
2051	\$ 23,132,016	\$ 29,297,866	\$ 52,429,882	\$ 4,662,296	20.16%	\$ 2,543	\$ 1,500,821	\$ 1,633,223	\$ 4,821	\$ 229,789
2052	\$ 22,624,944	\$ 31,768,128	\$ 54,393,072	\$ 4,757,405	21.03%	\$ 1,699	\$ 1,604,699	\$ 1,620,476	\$ 4,954	\$ 237,400
2053	\$ 22,102,248	\$ 34,348,182	\$ 56,450,430	\$ 4,975,773	22.51%	\$ 1,003	\$ 1,717,109	\$ 1,605,575	\$ 4,859	\$ 251,448
2054	\$ 21,565,946	\$ 37,043,736	\$ 58,609,682	\$ 5,334,899	24.74%	\$ 673	\$ 1,837,417	\$ 1,586,887	\$ 4,755	\$ 272,831
2055	\$ 21,020,725	\$ 39,863,180	\$ 60,883,905	\$ 5,854,178	27.85%	\$ 160	\$ 1,967,990	\$ 1,568,511	\$ 4,886	\$ 302,457
2056	\$ 20,465,173	\$ 42,813,114	\$ 63,278,287	\$ 6,551,388	32.01%	\$ -	\$ 3,435,648	\$ 1,546,739	\$ 4,769	\$ 374,098
2057	\$ 19,903,496	\$ 45,899,770	\$ 65,803,266	\$ 8,809,626	44.26%	\$ -	\$ 3,626,275	\$ 1,522,982	\$ 4,900	\$ 492,301
2058	\$ 19,338,079	\$ 49,125,386	\$ 68,463,465	\$ 11,400,320	58.95%	\$ -	\$ 3,833,113	\$ 1,498,596	\$ 4,770	\$ 627,549
2059	\$ 18,769,379	\$ 52,481,639	\$ 71,251,018	\$ 14,357,616	76.49%	\$ -	\$ 4,056,329	\$ 1,473,582	\$ 4,629	\$ 781,548

City of Princeton, West Virginia Policemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2019 Measurement Date



Projection of Pension Plan's Fiduciary Net Position

Calculation of Single Equivalent Rate									
Fiscal Year	"Funded" Portion of BP	"Unfunded" Portion of BP	PV of "Funded" BP	PV of "Unfunded" BP	PV of BP Using a Single DR				
2019	\$ 601,652	\$ -	\$ 587,152	\$ -	\$ 601,652				
2020	\$ 575,224	\$ -	\$ 534,630	\$ -	\$ 575,224				
2021	\$ 589,290	\$ -	\$ 521,622	\$ -	\$ 589,290				
2022	\$ 601,290	\$ -	\$ 506,899	\$ -	\$ 601,290				
2023	\$ 617,590	\$ -	\$ 495,848	\$ -	\$ 617,590				
2024	\$ 637,334	\$ -	\$ 487,333	\$ -	\$ 637,334				
2025	\$ 651,770	\$ -	\$ 474,640	\$ -	\$ 651,770				
2026	\$ 663,769	\$ -	\$ 460,360	\$ -	\$ 663,769				
2027	\$ 676,171	\$ -	\$ 446,630	\$ -	\$ 676,171				
2028	\$ 688,620	\$ -	\$ 433,193	\$ -	\$ 688,620				
2029	\$ 704,172	\$ -	\$ 421,882	\$ -	\$ 704,172				
2030	\$ 720,823	\$ -	\$ 411,293	\$ -	\$ 720,823				
2031	\$ 731,740	\$ -	\$ 397,640	\$ -	\$ 731,740				
2032	\$ 754,635	\$ -	\$ 390,554	\$ -	\$ 754,635				
2033	\$ 778,159	\$ -	\$ 383,551	\$ -	\$ 778,159				
2034	\$ 797,837	\$ -	\$ 374,524	\$ -	\$ 797,837				
2035	\$ 849,967	\$ -	\$ 379,996	\$ -	\$ 849,967				
2036	\$ 932,769	\$ -	\$ 397,156	\$ -	\$ 932,769				
2037	\$ 962,415	\$ -	\$ 390,266	\$ -	\$ 962,415				
2038	\$ 1,032,029	\$ -	\$ 398,566	\$ -	\$ 1,032,029				
2039	\$ 1,136,642	\$ -	\$ 418,064	\$ -	\$ 1,136,642				
2040	\$ 1,216,354	\$ -	\$ 426,079	\$ -	\$ 1,216,354				
2041	\$ 1,296,688	\$ -	\$ 432,590	\$ -	\$ 1,296,688				
2042	\$ 1,366,553	\$ -	\$ 434,188	\$ -	\$ 1,366,553				
2043	\$ 1,421,063	\$ -	\$ 430,007	\$ -	\$ 1,421,063				
2044	\$ 1,460,940	\$ -	\$ 421,022	\$ -	\$ 1,460,940				
2045	\$ 1,525,302	\$ -	\$ 418,639	\$ -	\$ 1,525,302				
2046	\$ 1,584,241	\$ -	\$ 414,110	\$ -	\$ 1,584,241				
2047	\$ 1,617,469	\$ -	\$ 402,662	\$ -	\$ 1,617,469				
2048	\$ 1,636,237	\$ -	\$ 387,938	\$ -	\$ 1,636,237				
2049	\$ 1,643,078	\$ -	\$ 371,009	\$ -	\$ 1,643,078				
2050	\$ 1,639,292	\$ -	\$ 352,528	\$ -	\$ 1,639,292				
2051	\$ 1,633,223	\$ -	\$ 334,498	\$ -	\$ 1,633,223				
2052	\$ 1,620,476	\$ -	\$ 316,083	\$ -	\$ 1,620,476				
2053	\$ 1,605,575	\$ -	\$ 298,263	\$ -	\$ 1,605,575				
2054	\$ 1,586,887	\$ -	\$ 280,754	\$ -	\$ 1,586,887				
2055	\$ 1,568,511	\$ -	\$ 264,288	\$ -	\$ 1,568,511				
2056	\$ 1,546,739	\$ -	\$ 248,209	\$ -	\$ 1,546,739				
2057	\$ 1,522,982	\$ -	\$ 232,759	\$ -	\$ 1,522,982				
2058	\$ 1,498,596	\$ -	\$ 218,126	\$ -	\$ 1,498,596				
2059	\$ 1,473,582	\$ -	\$ 204,271	\$ -	\$ 1,473,582				