



**Municipal Pensions  
Oversight Board**

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

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

**Bolton**

Submitted by:

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October 28, 2019

Mrs. Kimberly Karakiozis  
Finance Director  
City of Clarksburg  
222 W. Main Street  
Clarksburg, WV 26301

Sergeant Richard White  
Pension Board Secretary  
City of Clarksburg, West Virginia  
Policemen's Pension and Relief Fund

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

Dear Kimberly,

The following report contains the GASB 67 and GASB 68 actuarial information for the City of Clarksburg 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 the 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, 2018 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.

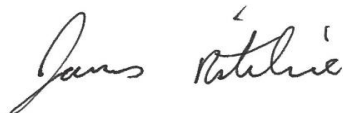
The calculation of actuarial liabilities for valuation purposes is based on a current estimate of future benefit payments. The calculation includes a computation of the "present value" of those estimated future benefit payments using an assumed discount rate; the higher the discount rate assumption, 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



Jordan McClane, FSA, EA, MAAA



City of Clarksburg, 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	\$ 31,171,073
Plan fiduciary net position	(9,371,819)
Employer's net pension liability	<u>\$ 21,799,254</u>
Plan fiduciary net position as a percentage of the total pension liability	30.07%

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)	5.0000%
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	2042
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	\$ 26,843,885	\$ 21,799,254	\$ 17,797,418

City of Clarksburg, West Virginia Policemen's Pension and Relief Fund  
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Changes in the Net Pension Liability

	Total Pension Liability (a)	Increase (Decrease) Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
<b>Balances at 6/30/18</b>	\$ 29,869,800	\$ 8,282,821	\$ 21,586,979
<b>Changes for the year:</b>			
Service cost	979,662		979,662
Interest	1,458,048		1,458,048
Changes of benefit terms	-		-
Differences between expected and actual experience	281,256		281,256
Changes of assumptions	-		-
Contributions - employer (including Premium Tax Allocation)		2,024,660	(2,024,660)
Contributions - member		192,160	(192,160)
Net investment income		297,401	(297,401)
Benefit payments, including refunds of member contributions	(1,417,693)	(1,417,693)	-
Administrative expense		(7,500)	7,500
Other		(30)	30
<b>Net Changes</b>	<u>1,301,273</u>	<u>1,088,998</u>	<u>212,275</u>
<b>Balances at 6/30/19</b>	<u>\$ 31,171,073</u>	<u>\$ 9,371,819</u>	<u>\$ 21,799,254</u>
Return on Investments		3.4%	

City of Clarksburg, West Virginia Policemen's Pension and Relief Fund  
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Components of Employer's Pension Expense for the Fiscal Year Ended June 30, 2019

Note	Description	Amount
A	Service Cost	\$ 979,662
B	Interest on the total pension liability	1,458,048
A	Changes of benefit terms	-
C	Differences between expected and actual experience	(363,366)
C	Changes of assumptions	625,788
A	Employee contributions	(192,160)
D	Projected earnings on pension plan investments	(433,932)
C	Differences between expected and actual earnings on plan investments	23,214
A	Pension plan administrative expense	7,500
A	Other changes in fiduciary net position	30
<b>Total Pension Expense</b>		<b>\$ 2,104,784</b>

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	\$ 29,869,800	100%	5.00%	\$ 1,493,490
Service Cost (End of Year)	979,662	0%	5.00%	-
Benefit payments, including refunds of employee contributions	(1,417,693)	50%	5.00%	(35,442)
<b>Total interest on the total pension liability</b>				<b>\$ 1,458,048</b>

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	\$ 8,282,821	100%	5.00%	\$ 414,141
Employer contributions	2,024,660	50%	5.00%	50,617
Employee contributions	192,160	50%	5.00%	4,804
Benefit payments, including refunds of employee contributions	(1,417,693)	50%	5.00%	(35,442)
Administrative expense and other	(7,530)	50%	5.00%	(188)
<b>Total Projected Earnings</b>				<b>\$ 433,932</b>

City of Clarksburg, 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	\$ 225,005	\$ 940,336
Changes of assumptions	814,799	-
Net difference between projected and actual earnings on pension plan investments	-	39,557
<b>Total</b>	<b>\$ 1,039,804</b>	<b>\$ 979,893</b>

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

<b>Year ended June 30:</b>	
2020	\$ 311,784
2021	(163,053)
2022	(124,821)
2023	36,001
2024	-
Thereafter	-



City of Clarksburg, West Virginia Policemen's Pension and Relief Fund  
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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	\$ 979,662	\$ 964,909	\$ 940,194	\$ 678,319	\$ 618,071	\$ 666,702	\$ -	\$ -	\$ -	\$ -
Interest	1,458,048	1,429,392	1,404,357	1,370,741	1,338,559	1,332,234	-	-	-	-
Changes of benefit terms	-	-	-	-	-	-	-	-	-	-
Differences between expected and actual experience	281,256	(630,123)	(1,132,945)	(192,337)	(345,859)	-	-	-	-	-
Changes of assumptions	-	-	-	3,317,951	-	-	-	-	-	-
Benefit payments, including refunds of member contributions	(1,417,693)	(1,259,755)	(1,192,439)	(1,208,416)	(1,210,149)	(1,150,677)	-	-	-	-
Net change in total pension liability	1,301,273	504,423	19,167	3,966,258	400,622	848,259	-	-	-	-
Total pension liability - beginning	29,869,800	29,365,377	29,346,210	25,379,952	24,979,330	24,131,071	-	-	-	-
<b>Total pension liability - ending (a)</b>	<b>\$ 31,171,073</b>	<b>\$ 29,869,800</b>	<b>\$ 29,365,377</b>	<b>\$ 29,346,210</b>	<b>\$ 25,379,952</b>	<b>\$ 24,979,330</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Plan fiduciary net position</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>	<b>2010</b>
Contributions - employer (including Premium Tax Allocation)	\$ 2,024,660	\$ 2,015,709	\$ 1,758,504	\$ 1,333,490	\$ 1,261,009	\$ 1,189,034	\$ -	\$ -	\$ -	\$ -
Contributions - member	192,160	176,039	168,474	157,241	154,449	151,027	-	-	-	-
Net investment income	297,401	469,963	669,529	(21,235)	133,494	632,587	-	-	-	-
Benefit payments, including refunds of member contributions	(1,417,693)	(1,259,755)	(1,192,439)	(1,208,416)	(1,210,149)	(1,150,677)	-	-	-	-
Administrative expense	(7,500)	(7,500)	(7,500)	(7,750)	(7,500)	(7,500)	-	-	-	-
Other	(30)	-	-	-	-	206	-	-	-	-
Net change in plan fiduciary net position	\$ 1,088,998	\$ 1,394,456	\$ 1,396,568	\$ 253,330	\$ 331,303	\$ 814,677	\$ -	\$ -	\$ -	\$ -
Plan fiduciary net position - beginning	8,282,821	6,888,363	5,491,795	5,238,465	4,907,162	4,092,485	-	-	-	-
<b>Plan fiduciary net position - ending (b)</b>	<b>\$ 9,371,819</b>	<b>\$ 8,282,821</b>	<b>\$ 6,888,363</b>	<b>\$ 5,491,795</b>	<b>\$ 5,238,465</b>	<b>\$ 4,907,162</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
Employer's net pension liability - ending (a)-(b)	\$ 21,799,254	\$ 21,586,979	\$ 22,477,014	\$ 23,854,415	\$ 20,141,487	\$ 20,072,168	\$ -	\$ -	\$ -	\$ -
Plan fiduciary net position as a percentage of the total pension liability	30.07%	27.73%	23.46%	18.71%	20.64%	19.64%	0.00%	0.00%	0.00%	0.00%
Covered payroll	\$ 2,250,404	\$ 2,118,610	\$ 2,085,929	\$ 1,989,442	\$ 1,808,232	\$ 1,958,068	\$ -	\$ -	\$ -	\$ -
Employer's net pension liability as a percentage of covered payroll	968.68%	1018.92%	1077.55%	1199.05%	1113.88%	1025.10%	0.00%	0.00%	0.00%	0.00%
Expected average remaining service years of all participants	5.00	5.41	5.34	5.30	4.75	-	-	-	-	-

**Notes to Schedule:**

Benefit changes: There were no changes for FY2019.

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

City of Clarksburg, West Virginia Policemen's Pension and Relief Fund  
 Actuarial Information to Include in the Financial Statements  
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Schedule of Employer Contributions  
 Last 10 Fiscal Years

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Actuarially determined contribution	\$ 2,139,078	\$ 1,878,699	\$ 1,864,693	\$ 1,802,392	\$ 1,392,630	\$ 1,419,464	\$ 1,517,921	\$ -	\$ -	\$ -
Contributions in relation to the actuarially determined contribution										
Employer provided	1,573,002	1,583,840	1,337,055	929,217	860,386	796,654	737,643	-	-	-
State provided	451,658	431,869	421,449	404,273	400,623	392,380	525,982	-	-	-
Contribution deficiency (excess)	<u>\$ 114,418</u>	<u>\$ (137,010)</u>	<u>\$ 106,189</u>	<u>\$ 468,902</u>	<u>\$ 131,621</u>	<u>\$ 230,430</u>	<u>\$ 254,296</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Covered payroll	\$ 2,250,404	\$ 2,118,610	\$ 2,085,929	\$ 1,989,442	\$ 1,808,232	\$ 1,958,068	\$ 2,017,329	\$ -	\$ -	\$ -
Contributions as a percentage of covered employee payroll	89.97%	95.00%	84.00%	67.00%	70.00%	61.00%	63.00%	0.00%	0.00%	0.00%

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 Clarksburg, West Virginia Policemen's Pension and Relief Fund  
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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	\$ 141,840	5	\$ 28,368	28,368	28,368	28,368	28,368				
2016	316,901	5		\$ 63,380	63,380	63,380	63,380	63,381			
2017	(376,763)	5			\$ (75,353)	(75,353)	(75,353)	(75,353)	(75,351)		
2018	(102,433)	5				\$ (20,487)	(20,487)	(20,487)	(20,487)	(20,485)	
2019	136,531	5					\$ 27,306	27,306	27,306	27,306	27,307
Net increase (decrease) in pension expense							\$ 23,214	\$ (5,153)	\$ (68,532)	\$ 6,821	\$ 27,307

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	\$ 141,840	\$ -	\$ 141,840	\$ -	\$ -
2016	316,901	-	253,520	63,381	-
2017	-	376,763	226,059	-	150,704
2018	-	102,433	40,974	-	61,459
2019	136,531	-	27,306	109,225	-
				\$ 172,606	\$ 212,163

City of Clarksburg, West Virginia Policemen's Pension and Relief Fund  
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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	(345,859)	4.748459			(72,836)	(72,836)	(72,836)	(72,836)	(54,515)							
2016	(192,337)	5.302034				(36,276)	(36,276)	(36,276)	(36,276)	(36,276)	(10,957)					
2017	(1,132,945)	5.336196					(212,313)	(212,313)	(212,313)	(212,313)	(212,313)	(71,380)				
2018	(630,123)	5.408155						(116,513)	(116,513)	(116,513)	(116,513)	(116,513)	(47,558)			
2019	281,256	5							56,251	56,251	56,251	56,251	56,252			
Net increase (decrease) in pension expense									<u>\$ (363,366)</u>	<u>\$ (308,851)</u>	<u>\$ (283,532)</u>	<u>\$ (131,642)</u>	<u>\$ 8,694</u>	<u>\$ -</u>	<u>\$ -</u>	

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	-	345,859	345,859	-	-
2016	-	192,337	145,104	-	47,233
2017	-	1,132,945	636,939	-	496,006
2018	-	630,123	233,026	-	397,097
2019	281,256	-	56,251	225,005	-
				<u>\$ 225,005</u>	<u>\$ 940,336</u>

City of Clarksburg, West Virginia Policemen's Pension and Relief Fund  
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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	-	4.748459			\$ -	-	-	-	-	-	-	-	-	-	-
2016	3,317,951	5.302034				\$ 625,788	625,788	625,788	625,788	625,788	189,011				
2017	-	5.336196					\$ -	-	-	-	-	-	-	-	-
2018	-	5.408155						\$ -	-	-	-	-	-	-	-
2019	-	5							\$ -	-	-	-	-	-	-
Net increase (decrease) in pension expense									\$ 625,788	\$ 625,788	\$ 189,011	\$ -	\$ -	\$ -	\$ -

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	3,317,951	-	2,503,152	814,799	-
2017	-	-	-	-	-
2018	-	-	-	-	-
2019	-	-	-	-	-
				\$ 814,799	\$ -

City of Clarksburg, 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 (Dollar amounts in thousands)

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	\$ 933,011	\$ -	\$ 933,011	\$ 184,163	\$ -	\$ 184,163	\$ 748,848	\$ -	\$ 748,848	\$ 7,706	\$ -	\$ 7,706	\$ 1,076,538	\$ -	\$ 1,076,538	\$ 446,236	\$ -	\$ 446,236
2020	\$ 930,448	\$ 55,658	\$ 986,106	\$ 183,840	\$ 11,783	\$ 195,623	\$ 746,608	\$ 43,875	\$ 790,483	\$ 8,136	\$ -	\$ 8,136	\$ 1,106,938	\$ 44,958	\$ 1,151,896	\$ 457,642	\$ -	\$ 457,642
2021	\$ 912,445	\$ 123,839	\$ 1,036,284	\$ 180,787	\$ 207,018	\$ 387,805	\$ 731,658	\$ 97,608	\$ 829,266	\$ 8,178	\$ 270	\$ 8,448	\$ 1,132,241	\$ 100,288	\$ 1,232,529	\$ 468,532	\$ -	\$ 468,532
2022	\$ 896,740	\$ 198,709	\$ 1,095,449	\$ 178,276	\$ 42,114	\$ 220,390	\$ 718,464	\$ 156,595	\$ 875,059	\$ 8,123	\$ 648	\$ 8,771	\$ 1,157,696	\$ 161,110	\$ 1,318,806	\$ 481,356	\$ -	\$ 481,356
2023	\$ 888,557	\$ 266,097	\$ 1,154,654	\$ 177,153	\$ 56,425	\$ 233,578	\$ 711,404	\$ 209,672	\$ 921,076	\$ 8,250	\$ 762	\$ 9,012	\$ 1,195,510	\$ 215,612	\$ 1,411,122	\$ 494,532	\$ -	\$ 494,532
2024	\$ 878,544	\$ 334,988	\$ 1,213,532	\$ 175,950	\$ 71,071	\$ 247,021	\$ 702,594	\$ 263,917	\$ 966,511	\$ 8,280	\$ 980	\$ 9,260	\$ 1,238,487	\$ 271,414	\$ 1,509,901	\$ 508,070	\$ -	\$ 508,070
2025	\$ 874,976	\$ 402,412	\$ 1,277,388	\$ 175,930	\$ 85,420	\$ 261,350	\$ 699,046	\$ 316,992	\$ 1,016,038	\$ 8,305	\$ 1,210	\$ 9,515	\$ 1,289,564	\$ 326,030	\$ 1,615,594	\$ 527,471	\$ -	\$ 527,471
2026	\$ 866,882	\$ 473,773	\$ 1,340,655	\$ 175,282	\$ 100,621	\$ 275,903	\$ 691,600	\$ 373,152	\$ 1,064,752	\$ 8,325	\$ 1,452	\$ 9,777	\$ 1,344,867	\$ 383,819	\$ 1,728,686	\$ 541,898	\$ -	\$ 541,898
2027	\$ 857,516	\$ 548,743	\$ 1,406,259	\$ 174,328	\$ 116,604	\$ 290,932	\$ 683,188	\$ 432,139	\$ 1,115,327	\$ 8,447	\$ 1,599	\$ 10,046	\$ 1,405,284	\$ 444,410	\$ 1,849,694	\$ 556,723	\$ -	\$ 556,723
2028	\$ 853,881	\$ 627,837	\$ 1,481,718	\$ 174,388	\$ 133,477	\$ 307,865	\$ 679,493	\$ 494,360	\$ 1,173,853	\$ 8,460	\$ 1,862	\$ 10,322	\$ 1,470,743	\$ 508,430	\$ 1,979,173	\$ 571,956	\$ -	\$ 571,956
2029	\$ 845,505	\$ 702,380	\$ 1,547,885	\$ 173,851	\$ 149,386	\$ 323,237	\$ 671,654	\$ 552,994	\$ 1,224,648	\$ 8,580	\$ 2,026	\$ 10,606	\$ 1,549,039	\$ 568,676	\$ 2,117,715	\$ 589,699	\$ -	\$ 589,699
2030	\$ 825,867	\$ 796,838	\$ 1,622,705	\$ 171,806	\$ 169,563	\$ 341,369	\$ 654,661	\$ 627,275	\$ 1,281,936	\$ 8,584	\$ 2,314	\$ 10,898	\$ 1,620,875	\$ 645,080	\$ 2,265,955	\$ 605,834	\$ -	\$ 605,834
2031	\$ 817,326	\$ 890,836	\$ 1,708,162	\$ 171,756	\$ 189,651	\$ 361,407	\$ 645,570	\$ 701,185	\$ 1,346,755	\$ 8,701	\$ 2,612	\$ 11,313	\$ 1,703,459	\$ 721,113	\$ 2,424,572	\$ 622,413	\$ -	\$ 622,413
2032	\$ 803,627	\$ 980,846	\$ 1,784,473	\$ 170,783	\$ 208,892	\$ 379,675	\$ 632,844	\$ 771,954	\$ 1,404,798	\$ 8,818	\$ 2,687	\$ 11,505	\$ 1,800,588	\$ 793,704	\$ 2,594,292	\$ 639,448	\$ -	\$ 639,448
2033	\$ 791,756	\$ 1,085,624	\$ 1,877,380	\$ 169,966	\$ 231,307	\$ 401,273	\$ 621,790	\$ 854,317	\$ 1,476,107	\$ 8,809	\$ 3,134	\$ 11,943	\$ 1,897,344	\$ 878,548	\$ 2,775,892	\$ 658,951	\$ -	\$ 658,951
2034	\$ 765,486	\$ 1,181,699	\$ 1,947,185	\$ 166,747	\$ 251,863	\$ 418,610	\$ 598,739	\$ 929,836	\$ 1,528,575	\$ 8,793	\$ 3,353	\$ 12,146	\$ 2,014,053	\$ 956,151	\$ 2,970,204	\$ 696,221	\$ -	\$ 696,221
2035	\$ 713,786	\$ 1,304,126	\$ 2,017,912	\$ 158,389	\$ 278,079	\$ 436,468	\$ 555,397	\$ 1,026,047	\$ 1,581,444	\$ 9,035	\$ 3,574	\$ 12,609	\$ 2,123,159	\$ 1,054,959	\$ 3,178,118	\$ 715,244	\$ -	\$ 715,244
2036	\$ 662,249	\$ 1,442,728	\$ 2,104,977	\$ 149,832	\$ 307,777	\$ 457,609	\$ 512,417	\$ 1,134,951	\$ 1,647,368	\$ 9,010	\$ 4,078	\$ 13,088	\$ 2,233,529	\$ 1,167,057	\$ 3,400,586	\$ 734,791	\$ -	\$ 734,791
2037	\$ 600,573	\$ 1,574,222	\$ 2,174,795	\$ 139,136	\$ 335,954	\$ 475,090	\$ 461,437	\$ 1,238,268	\$ 1,699,705	\$ 9,118	\$ 4,330	\$ 13,448	\$ 2,365,450	\$ 1,273,177	\$ 3,638,627	\$ 754,874	\$ -	\$ 754,874
2038	\$ 559,513	\$ 1,724,606	\$ 2,284,119	\$ 132,136	\$ 368,198	\$ 500,334	\$ 427,377	\$ 1,356,408	\$ 1,783,785	\$ 9,225	\$ 4,732	\$ 13,957	\$ 2,498,694	\$ 1,394,637	\$ 3,893,331	\$ 775,510	\$ -	\$ 775,510
2039	\$ 523,411	\$ 1,864,288	\$ 2,387,699	\$ 125,928	\$ 398,145	\$ 524,073	\$ 397,483	\$ 1,466,143	\$ 1,863,626	\$ 9,182	\$ 5,159	\$ 14,341	\$ 2,658,355	\$ 1,507,509	\$ 4,165,864	\$ 805,922	\$ -	\$ 805,922
2040	\$ 483,551	\$ 2,007,662	\$ 2,491,213	\$ 118,456	\$ 428,891	\$ 547,347	\$ 365,095	\$ 1,578,771	\$ 1,943,866	\$ 9,282	\$ 5,453	\$ 14,735	\$ 2,834,262	\$ 1,623,212	\$ 4,457,474	\$ 827,950	\$ -	\$ 827,950
2041	\$ 443,196	\$ 2,151,400	\$ 2,594,596	\$ 110,212	\$ 459,771	\$ 569,983	\$ 332,984	\$ 1,691,629	\$ 2,024,613	\$ 9,381	\$ 5,759	\$ 15,140	\$ 3,030,334	\$ 1,739,163	\$ 4,769,497	\$ 850,583	\$ -	\$ 850,583
2042	\$ 394,058	\$ 2,291,915	\$ 2,685,973	\$ 99,476	\$ 490,069	\$ 589,545	\$ 294,582	\$ 1,801,846	\$ 2,096,428	\$ 9,478	\$ 6,078	\$ 15,556	\$ 3,218,521	\$ 1,852,421	\$ 5,070,942	\$ -	\$ -	
2043	\$ 348,804	\$ 2,430,794	\$ 2,779,598	\$ 89,004	\$ 520,123	\$ 609,127	\$ 259,800	\$ 1,910,671	\$ 2,170,471	\$ 9,409	\$ 6,575	\$ 15,984	\$ 2,756,225	\$ 1,964,430	\$ 4,720,655	\$ -	\$ -	
2044	\$ 295,941	\$ 2,560,856	\$ 2,856,797	\$ 76,568	\$ 548,327	\$ 624,895	\$ 219,373	\$ 2,012,529	\$ 2,231,902	\$ 9,498	\$ 7,090	\$ 16,588	\$ 2,342,288	\$ 2,069,319	\$ 4,411,607	\$ -	\$ -	
2045	\$ 239,505	\$ 2,706,352	\$ 2,945,857	\$ 62,595	\$ 579,880	\$ 642,475	\$ 176,910	\$ 2,126,472	\$ 2,303,382	\$ 9,585	\$ 7,628	\$ 17,213	\$ 190,864	\$ 2,186,613	\$ 2,377,477	\$ -	\$ -	
2046	\$ 185,209	\$ 2,858,564	\$ 3,043,773	\$ 48,834	\$ 612,893	\$ 661,727	\$ 136,375	\$ 2,245,671	\$ 2,382,046	\$ 9,670	\$ 8,190	\$ 17,860	\$ 149,413	\$ 2,309,318	\$ 2,458,731	\$ -	\$ -	
2047	\$ 139,745	\$ 3,011,141	\$ 3,150,886	\$ 37,242	\$ 645,992	\$ 683,234	\$ 102,503	\$ 2,365,149	\$ 2,467,652	\$ 9,752	\$ 8,777	\$ 18,529	\$ 114,785	\$ 2,432,334	\$ 2,547,119	\$ -	\$ -	
2048	\$ 101,830	\$ 3,161,139	\$ 3,262,969	\$ 27,267	\$ 678,543	\$ 705,810	\$ 74,563	\$ 2,482,596	\$ 2,557,159	\$ 9,642	\$ 9,580	\$ 19,222	\$ 86,047	\$ 2,553,484	\$ 2,639,531	\$ -	\$ -	
2049	\$ 69,690	\$ 3,314,486	\$ 3,384,176	\$ 18,629	\$ 711,822	\$ 730,451	\$ 51,061	\$ 2,602,664	\$ 2,653,725	\$ 9,713	\$ 10,226	\$ 19,939	\$ 62,034	\$ 2,677,163	\$ 2,739,197	\$ -	\$ -	
2050	\$ 49,217	\$ 3,464,224	\$ 3,513,441	\$ 13,171	\$ 744,315	\$ 757,486	\$ 36,046	\$ 2,719,909	\$ 2,755,955	\$ 9,781	\$ 10,706	\$ 20,487	\$ 46,718	\$ 2,797,783	\$ 2,844,501	\$ -	\$ -	
2051	\$ 33,493	\$ 3,614,337	\$ 3,647,830	\$ 9,018	\$ 776,887	\$ 785,905	\$ 24,475	\$ 2,837,450	\$ 2,861,925	\$ 9,640	\$ 11,609	\$ 21,249	\$ 34,720	\$ 2,919,130	\$ 2,953,850	\$ -	\$ -	
2052	\$ 21,582	\$ 3,765,383	\$ 3,786,965	\$ 5,876	\$ 809,664	\$ 815,540	\$ 15,706	\$ 2,955,719	\$ 2,971,425	\$ 9,694	\$ 12,139	\$ 21,833	\$ 25,788	\$ 3,040,850	\$ 3,066,638	\$ -	\$ -	
2053	\$ 14,451	\$ 3,919,011	\$ 3,933,462	\$ 3,931	\$ 842,986	\$ 846,917	\$ 10,520	\$ 3,076,025	\$ 3,086,545	\$ 9,744	\$ 12,899	\$ 22,643	\$ 20,523	\$ 3,164,887	\$ 3,185,410	\$ -	\$ -	
2054	\$ 8,211	\$ 4,079,142	\$ 4,087,353	\$ 2,268	\$ 877,686	\$ 879,954	\$ 5,943	\$ 3,201,456	\$ 3,207,399	\$ 9,789	\$ 13,477	\$ 23,266	\$ 15,878	\$ 3,293,993	\$ 3,309,871	\$ -	\$ -	
2055	\$ 4,064	\$ 4,246,328	\$ 4,250,392	\$ 1,153	\$ 913,894	\$ 915,047	\$ 2,911	\$ 3,332,434	\$ 3,335,345	\$ 9,830	\$ 14,076	\$ 23,906	\$ 12,813	\$ 3,428,805	\$ 3,441,618	\$ -	\$ -	
2056	\$ 1,847	\$ 4,418,474	\$ 4,420,321	\$ 534	\$ 951,162	\$ 951,696	\$ 1,313	\$ 3,467,312	\$ 3,468,625	\$ 9,865	\$ 14,926	\$ 24,791	\$ 11,210	\$ 3,567,864	\$ 3,579,074	\$ -	\$ -	
2057	\$ 926	\$ 4,593,655	\$ 4,594,581	\$ 278	\$ 989,094	\$ 989,372	\$ 648	\$ 3,604,561	\$ 3,605,209	\$ 9,895	\$ 15,578	\$ 25,473	\$ 10,558	\$ 3,709,154	\$ 3,719,712	\$ -	\$ -	
2058	\$ -	\$ 4,770,081	\$ 4,770,081	\$ -	\$ 1,027,291	\$ 1,027,291	\$ -	\$ 3,742,790	\$ 3,742,790	\$ 9,671	\$ 16,503	\$ 26,174	\$ 9,671	\$ 3,851,721	\$ 3,861,392	\$ -	\$ -	
2059	\$ -	\$ 4,952,473	\$ 4,952,473	\$ -	\$ 1,066,749	\$ 1,066,749	\$ -	\$ 3,885,724	\$ 3,885,724	\$ 9,682	\$ 17,459	\$ 27,141	\$ 9,682	\$ 3,999,141	\$ 4,008,823	\$ -	\$ -	

City of Clarksburg, 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 (Dollar amounts in thousands)

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	\$ 30,137,664	\$ -	\$ 30,137,664	\$ 9,371,819	31.10%	\$ 188,711	\$ 1,522,774	\$ 1,283,863	\$ 7,706	\$ 478,961
2020	\$ 31,309,395	\$ -	\$ 31,309,395	\$ 10,270,696	32.80%	\$ 188,380	\$ 1,564,580	\$ 1,400,765	\$ 8,136	\$ 522,031
2021	\$ 32,416,478	\$ 58,099	\$ 32,474,577	\$ 11,136,786	34.36%	\$ 185,252	\$ 1,600,773	\$ 1,459,093	\$ 8,178	\$ 564,711
2022	\$ 33,500,244	\$ 189,733	\$ 33,689,977	\$ 12,020,250	35.88%	\$ 182,679	\$ 1,639,052	\$ 1,513,199	\$ 8,123	\$ 608,431
2023	\$ 34,566,266	\$ 404,935	\$ 34,971,201	\$ 12,929,090	37.40%	\$ 181,528	\$ 1,690,042	\$ 1,556,472	\$ 8,250	\$ 654,032
2024	\$ 35,632,655	\$ 699,338	\$ 36,331,993	\$ 13,889,970	38.98%	\$ 180,295	\$ 1,746,557	\$ 1,602,429	\$ 8,280	\$ 702,306
2025	\$ 36,694,758	\$ 1,077,707	\$ 37,772,465	\$ 14,908,419	40.63%	\$ 180,275	\$ 1,817,035	\$ 1,637,720	\$ 8,305	\$ 754,096
2026	\$ 37,770,057	\$ 1,541,992	\$ 39,312,049	\$ 16,013,799	42.40%	\$ 179,611	\$ 1,886,765	\$ 1,682,876	\$ 8,325	\$ 809,955
2027	\$ 38,844,351	\$ 2,099,906	\$ 40,944,257	\$ 17,198,929	44.28%	\$ 178,633	\$ 1,962,007	\$ 1,734,625	\$ 8,447	\$ 869,764
2028	\$ 39,909,499	\$ 2,759,505	\$ 42,669,004	\$ 18,466,262	46.27%	\$ 178,695	\$ 2,042,699	\$ 1,772,264	\$ 8,460	\$ 934,195
2029	\$ 40,985,519	\$ 3,530,135	\$ 44,515,654	\$ 19,841,127	48.41%	\$ 178,144	\$ 2,138,738	\$ 1,821,591	\$ 8,580	\$ 1,004,076
2030	\$ 42,056,000	\$ 4,412,578	\$ 46,468,578	\$ 21,331,913	50.72%	\$ 176,049	\$ 2,226,709	\$ 1,877,425	\$ 8,584	\$ 1,079,357
2031	\$ 43,102,172	\$ 5,432,961	\$ 48,535,133	\$ 22,928,020	53.19%	\$ 175,998	\$ 2,325,872	\$ 1,916,245	\$ 8,701	\$ 1,160,648
2032	\$ 44,151,906	\$ 6,596,708	\$ 50,748,614	\$ 24,665,592	55.87%	\$ 175,000	\$ 2,440,036	\$ 1,960,580	\$ 8,818	\$ 1,249,224
2033	\$ 45,194,313	\$ 7,905,659	\$ 53,099,972	\$ 26,560,453	58.77%	\$ 174,163	\$ 2,554,295	\$ 2,004,239	\$ 8,809	\$ 1,345,690
2034	\$ 46,231,639	\$ 9,381,615	\$ 55,613,254	\$ 28,621,553	61.91%	\$ 170,865	\$ 2,710,274	\$ 2,080,057	\$ 8,793	\$ 1,450,643
2035	\$ 47,215,557	\$ 11,022,690	\$ 58,238,247	\$ 30,864,485	65.37%	\$ 162,300	\$ 2,838,403	\$ 2,185,965	\$ 9,035	\$ 1,563,121
2036	\$ 48,085,863	\$ 12,863,533	\$ 60,949,396	\$ 33,233,308	69.11%	\$ 153,532	\$ 2,968,320	\$ 2,272,707	\$ 9,010	\$ 1,682,413
2037	\$ 48,856,686	\$ 14,929,667	\$ 63,786,353	\$ 35,755,857	73.19%	\$ 142,572	\$ 3,120,324	\$ 2,380,114	\$ 9,118	\$ 1,809,368
2038	\$ 49,491,231	\$ 17,223,222	\$ 66,714,453	\$ 38,438,888	77.67%	\$ 135,399	\$ 3,274,204	\$ 2,451,801	\$ 9,225	\$ 1,945,370
2039	\$ 50,040,933	\$ 19,773,847	\$ 69,814,780	\$ 41,332,836	82.60%	\$ 129,038	\$ 3,464,277	\$ 2,511,500	\$ 9,182	\$ 2,093,131
2040	\$ 50,519,040	\$ 22,581,620	\$ 73,100,660	\$ 44,498,600	88.08%	\$ 121,381	\$ 3,662,212	\$ 2,584,816	\$ 9,282	\$ 2,254,305
2041	\$ 50,904,072	\$ 25,666,788	\$ 76,570,860	\$ 47,942,400	94.18%	\$ 112,934	\$ 3,880,917	\$ 2,664,263	\$ 9,381	\$ 2,429,723
2042	\$ 51,184,574	\$ 29,034,183	\$ 80,218,757	\$ 51,692,331	100.99%	\$ 101,933	\$ 3,218,521	\$ 2,762,045	\$ 9,478	\$ 2,598,172
2043	\$ 51,327,310	\$ 32,665,049	\$ 83,992,359	\$ 54,839,434	106.84%	\$ 91,202	\$ 275,625	\$ 2,846,958	\$ 9,409	\$ 2,680,492
2044	\$ 51,342,656	\$ 36,524,875	\$ 87,867,531	\$ 55,030,386	107.18%	\$ 78,459	\$ 234,288	\$ 2,953,397	\$ 9,498	\$ 2,686,074
2045	\$ 51,194,195	\$ 40,580,143	\$ 91,774,338	\$ 55,066,312	107.56%	\$ 64,141	\$ 190,864	\$ 3,064,783	\$ 9,585	\$ 2,683,691
2046	\$ 50,864,917	\$ 44,835,594	\$ 95,700,511	\$ 54,930,640	107.99%	\$ 50,040	\$ 149,413	\$ 3,165,879	\$ 9,670	\$ 2,673,037
2047	\$ 50,358,572	\$ 49,295,282	\$ 99,653,854	\$ 54,627,581	108.48%	\$ 38,162	\$ 114,785	\$ 3,238,285	\$ 9,752	\$ 2,654,946
2048	\$ 49,704,978	\$ 53,959,127	\$ 103,664,105	\$ 54,187,437	109.02%	\$ 27,940	\$ 86,047	\$ 3,302,091	\$ 9,642	\$ 2,630,403
2049	\$ 48,913,512	\$ 58,824,212	\$ 107,737,724	\$ 53,620,094	109.62%	\$ 19,089	\$ 62,034	\$ 3,339,427	\$ 9,713	\$ 2,600,301
2050	\$ 48,010,468	\$ 63,892,509	\$ 111,902,977	\$ 52,952,378	110.29%	\$ 13,496	\$ 46,718	\$ 3,349,612	\$ 9,781	\$ 2,566,145
2051	\$ 47,030,338	\$ 69,163,179	\$ 116,193,517	\$ 52,219,344	111.03%	\$ 9,241	\$ 34,720	\$ 3,346,813	\$ 9,640	\$ 2,529,165
2052	\$ 45,987,560	\$ 74,638,226	\$ 120,625,786	\$ 51,436,017	111.85%	\$ 6,021	\$ 25,788	\$ 3,333,509	\$ 9,694	\$ 2,490,026
2053	\$ 44,893,769	\$ 80,317,996	\$ 125,211,765	\$ 50,614,649	112.74%	\$ 4,028	\$ 20,523	\$ 3,308,699	\$ 9,744	\$ 2,449,390
2054	\$ 43,763,223	\$ 86,205,642	\$ 129,968,865	\$ 49,770,148	113.73%	\$ 2,324	\$ 15,878	\$ 3,279,668	\$ 9,789	\$ 2,407,723
2055	\$ 42,599,346	\$ 92,311,710	\$ 134,911,056	\$ 48,906,615	114.81%	\$ 1,181	\$ 12,813	\$ 3,244,504	\$ 9,830	\$ 2,365,310
2056	\$ 41,408,953	\$ 98,653,155	\$ 140,062,108	\$ 48,031,586	115.99%	\$ 547	\$ 11,210	\$ 3,203,674	\$ 9,865	\$ 2,322,511
2057	\$ 40,198,551	\$ 105,240,455	\$ 145,439,006	\$ 47,152,315	117.30%	\$ 285	\$ 10,558	\$ 3,158,190	\$ 9,895	\$ 2,279,647
2058	\$ 38,973,269	\$ 112,074,511	\$ 151,047,780	\$ 46,274,720	118.73%	\$ -	\$ 9,671	\$ 3,110,824	\$ 9,671	\$ 2,236,914
2059	\$ 37,734,286	\$ 119,149,720	\$ 156,884,006	\$ 45,400,810	120.32%	\$ -	\$ 9,682	\$ 3,059,372	\$ 9,682	\$ 2,194,489

City of Clarksburg, 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 (Dollar amounts in thousands)

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	\$ 1,283,863	\$ -	\$ 1,252,922	\$ -	\$ 1,252,922
2020	\$ 1,400,765	\$ -	\$ 1,301,911	\$ -	\$ 1,301,911
2021	\$ 1,459,093	\$ -	\$ 1,291,546	\$ -	\$ 1,291,546
2022	\$ 1,513,199	\$ -	\$ 1,275,656	\$ -	\$ 1,275,656
2023	\$ 1,556,472	\$ -	\$ 1,249,653	\$ -	\$ 1,249,653
2024	\$ 1,602,429	\$ -	\$ 1,225,287	\$ -	\$ 1,225,287
2025	\$ 1,637,720	\$ -	\$ 1,192,640	\$ -	\$ 1,192,640
2026	\$ 1,682,876	\$ -	\$ 1,167,165	\$ -	\$ 1,167,165
2027	\$ 1,734,625	\$ -	\$ 1,145,768	\$ -	\$ 1,145,768
2028	\$ 1,772,264	\$ -	\$ 1,114,885	\$ -	\$ 1,114,885
2029	\$ 1,821,591	\$ -	\$ 1,091,348	\$ -	\$ 1,091,348
2030	\$ 1,877,425	\$ -	\$ 1,071,237	\$ -	\$ 1,071,237
2031	\$ 1,916,245	\$ -	\$ 1,041,321	\$ -	\$ 1,041,321
2032	\$ 1,960,580	\$ -	\$ 1,014,680	\$ -	\$ 1,014,680
2033	\$ 2,004,239	\$ -	\$ 987,881	\$ -	\$ 987,881
2034	\$ 2,080,057	\$ -	\$ 976,430	\$ -	\$ 976,430
2035	\$ 2,185,965	\$ -	\$ 977,282	\$ -	\$ 977,282
2036	\$ 2,272,707	\$ -	\$ 967,678	\$ -	\$ 967,678
2037	\$ 2,380,114	\$ -	\$ 965,152	\$ -	\$ 965,152
2038	\$ 2,451,801	\$ -	\$ 946,878	\$ -	\$ 946,878
2039	\$ 2,511,500	\$ -	\$ 923,746	\$ -	\$ 923,746
2040	\$ 2,584,816	\$ -	\$ 905,440	\$ -	\$ 905,440
2041	\$ 2,664,263	\$ -	\$ 888,828	\$ -	\$ 888,828
2042	\$ 2,762,045	\$ -	\$ 877,571	\$ -	\$ 877,571
2043	\$ 2,846,958	\$ -	\$ 861,476	\$ -	\$ 861,476
2044	\$ 2,953,397	\$ -	\$ 851,128	\$ -	\$ 851,128
2045	\$ 3,064,783	\$ -	\$ 841,169	\$ -	\$ 841,169
2046	\$ 3,165,879	\$ -	\$ 827,539	\$ -	\$ 827,539
2047	\$ 3,238,285	\$ -	\$ 806,158	\$ -	\$ 806,158
2048	\$ 3,302,091	\$ -	\$ 782,897	\$ -	\$ 782,897
2049	\$ 3,339,427	\$ -	\$ 754,047	\$ -	\$ 754,047
2050	\$ 3,349,612	\$ -	\$ 720,330	\$ -	\$ 720,330
2051	\$ 3,346,813	\$ -	\$ 685,455	\$ -	\$ 685,455
2052	\$ 3,333,509	\$ -	\$ 650,220	\$ -	\$ 650,220
2053	\$ 3,308,699	\$ -	\$ 614,648	\$ -	\$ 614,648
2054	\$ 3,279,668	\$ -	\$ 580,243	\$ -	\$ 580,243
2055	\$ 3,244,504	\$ -	\$ 546,687	\$ -	\$ 546,687
2056	\$ 3,203,674	\$ -	\$ 514,102	\$ -	\$ 514,102
2057	\$ 3,158,190	\$ -	\$ 482,670	\$ -	\$ 482,670
2058	\$ 3,110,824	\$ -	\$ 452,791	\$ -	\$ 452,791
2059	\$ 3,059,372	\$ -	\$ 424,097	\$ -	\$ 424,097
#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A	#N/A	#N/A