

GASB 68 Actuarial Information for the Measurement Period Ending June 30, 2022



Submitted by:

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November 29, 2022

Mr. Danny Dillow City Treasurer City of Bluefield 200 Rogers Street Bluefield, WV 24701 Chief Dennis Dillow, Jr.
Pension Board Secretary
City of Bluefield
Policemen's Pension and Relief Fund

Re: City of Bluefield Policemen's Pension and Relief Fund GASB 68 Actuarial Information for the Measurement Period Ending June 30, 2022

Dear Danny,

The following report contains the GASB 67 and GASB 68 actuarial information for the City of Bluefield Policemen's Pension and Relief Fund to be included in the City's financial statements for FY 2022. The GASB 67 information has been provided as of June 30, 2022 (the GASB 68 measurement date for FY 2022).

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, 2022 (the City's fiscal year end date) as required by GASB 68. 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, 2021 actuarial valuation rolled forward to June 30, 2022. The methods, assumptions, and participant data used are detailed in the July 1, 2021 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 GASB 67. The calculation of the Actuarially Determined Contribution (ADC) for the fiscal year ending June 30, 2022 is contained in the July 1, 2020 actuarial valuation report. The discount rate assumption may have changed if a blended rate was used for GASB purposes.

The included calculations are based on the valuation discount rate of 6.25%. The plan's expected gross rate of investment return of 6.25% has been blended with the 3.69% 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, 2022. The development of the blended discount rate is included within this report. Since the plan assets are estimated to be sufficient to cover benefit payments throughout the projection period, the liability discount rate used for this June 30, 2022 measurement date is equal to the plan's expected rate of investment return.

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) and is based on the funded status (current and projected), equity exposure, and funding policy.

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.

Mr. Danny Dillow November 29, 2022 Page 2

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 the assumptions; the differences may be significant or material because the 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 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. That 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. 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.

The valuation was completed using both proprietary and third-party models (including software and tools). We have tested these models to ensure they are used for their intended purposes, within their known limitations, and without any known material inconsistencies unless otherwise stated.



Mr. Danny Dillow November 29, 2022 Page 3

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 GASB 68. 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, 2021 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

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Jordan McClane, FSA, EA, FCA, MAAA

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Actuarial Information to Include in the Financial Statements for the June 30, 2022 Measurement Date



Net Pension Liability of the Employer

The components of the net pension liability of the Employer at June 30, 2022, were as follows:

Total pension liability	\$ 13,621,796
Plan fiduciary net position	 (8,147,169)
Employer's net pension liability	\$ 5,474,627
Plan fiduciary net position as a percentage of the total pension liability	59.81%

Actuarial assumptions. The total pension liability was determined by an actuarial valuation as of July 1, 2021 rolled forward to June 30, 2022 using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation 2.50 percent

Salary increases Rates vary by years of service

Single discount rate (BOY) 6.25% Single discount rate (EOY) 6.25%

Investment rate of return (BOY) 6.25%, net of pension plan investment expense, including inflation Investment rate of return (EOY) 6.25%, net of pension plan investment expense, including inflation

Long-term municpal bond rate (BOY) 1.92% Long-term municpal bond rate (EOY) 3.69%

Mortality SOA PubS-2010(B) with generational projection using Scale MP-2019

Year Fund is projected to be fully funded
Year assets are expected to be depleted
N/A

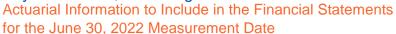
for a closed plan

The above is a summary of key actuarial assumptions. Full descriptions of the actuarial assumptions are available in the July 1, 2021 actuarial valuation report.

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

				Current		
		ecrease 25%	Dis	count Rate 6.25%	19	% Increase 7.25%
Employer's net pension liability	\$ 7	7,375,596	\$	5,474,627	\$	3,940,691

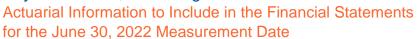
City of Bluefield, West Virginia Policemen's Pension and Relief Fund Actuarial Information to Include in the Financial Statements





Changes in the Net Pension Liability

	l Total Pension Liability (a)	ncrease (Decrease Plan Fiduciary Net Position (b)) Net Pension Liability (a) - (b)
Balances at 6/30/21	\$ 13,407,657	\$ 8,817,402	\$ 4,590,255
Changes for the year:			
Service cost	359,482		359,482
Interest	812,730		812,730
Changes of benefit terms	-		-
Differences between expected and actual experience	(150,109)		(150,109)
Changes of assumptions	-		-
Contributions - employer (including Premium Tax Allocation)		753,093	(753,093)
Contributions - member		129,634	(129,634)
Net investment income		(744,696)	744,696
Benefit payments, including refunds of member contributions	(807,964)	(807,964)	-
Administrative expense		(300)	300
Other			
Net Changes	214,139	(670,233)	884,372
Balances at 6/30/22	\$ 13,621,796	\$ 8,147,169	\$ 5,474,627
Return on Investments		(8.4%)	





Components of Employer's Pension Expense for the Fiscal Year Ended June 30, 2022

Note	Description	Amount
Α	Service cost	\$ 359,482
В	Interest on the total pension liability	812,730
Α	Changes of benefit terms	-
С	Differences between expected and actual experience	14,389
С	Changes of assumptions	(449,312)
Α	Employee contributions	(129,634)
D	Projected earnings on pension plan investments	(553,415)
С	Differences between expected and actual earnings on plan investments	(31,411)
Α	Pension plan administrative expense	300
Α	Other changes in fiduciary net position	-
	Total Pension Expense	\$ 23,129

Notes:

A Provided in the Changes in Net Pension Liability exhibit.

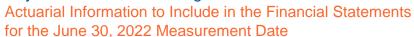
B Based on the following calculation:

	,	Amount for Period (a)	Portion of Period (b)	Interest Rate (c)	E	rojected arnings x (b) x (c)
Beginning total pension liability	\$	13,407,657	100%	6.25%	\$	837,979
Service cost (End of Year)		359,482	0%	6.25%		-
Benefit payments, including refunds of employee contributions		(807,964)	50%	6.25%		(25,249)
Total interest on the total pension liability					\$	812,730

C Provided in the Schedules of Deferrals.

D Based on the following calculation:

	A	Amount for	Portion of	Projected	Р	rojected
		Period	Period	Rate of Return	=	arnings
		(a)	(b)	(c)	(a)	x (b) x (c)
Beginning plan fiduciary net position	\$	8,817,402	100%	6.25%	\$	551,088
Employer contributions		753,093	50%	6.25%		23,534
Employee contributions		129,634	50%	6.25%		4,051
Benefit payments, including refunds of employee contributions		(807,964)	50%	6.25%		(25,249)
Administrative expense and other		(300)	50%	6.25%		(9)
Total Projected Earnings					\$	553,415





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

At June 30, 2022, the Employer reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	red Outflows Resources	erred Inflows Resources
Differences between expected and actual experience	\$ 498,966	\$ 120,087
Changes of assumptions	-	932,963
Net difference between projected and actual earnings	260,473	
on pension plan investments		-
Total	\$ 759,439	\$ 1,053,050

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:	
2023	\$ (172,277)
2024	(149,593)
2025	(201,343)
2026	229,602
2027	-
Thereafter	-

Actuarial Information to Include in the Financial Statements for the June 30, 2022 Measurement Date

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



Total pension liability	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Service cost	\$ 359,482	\$ 424,136	\$ 407,114	\$ 390,251	\$ 319,814	\$ 392,147	\$ 220,182	\$ 250,953	\$ 258,950	\$
Interest	812,730	836,320	775,860	735,057	722,124	679,543	700,256	670,364	662,929	
Changes of benefit terms	-	-	-	-	-	-	-	-	-	
Differences between expected and actual experience	(150,109)	165,924	597,973	279,504	89,417	(912,402)	(40,233)	(128,049)	-	
Changes of assumptions	-	(1,554,937)	-	-	-	(833,335)	2,079,763	(696,283)	-	
Benefit payments, including refunds of member contributions	 (807,964)	 (804,902)	(741,643)	(707,898)	(625,051)	(598,019)	(585,237)	(552,719)	(520,150)	
Net change in total pension liability	214,139	(933,459)	1,039,304	696,914	506,304	(1,272,066)	2,374,731	(455,734)	401,729	
Total pension liability - beginning	13,407,657	14,341,116	13,301,812	12,604,898	12,098,594	13,370,660	10,995,929	11,451,663	11,049,934	
Total pension liability - ending (a)	\$ 13,621,796	\$ 13,407,657	\$ 14,341,116	\$ 13,301,812	\$ 12,604,898	\$ 12,098,594	\$ 13,370,660	\$ 10,995,929	\$ 11,451,663	\$
Plan fiduciary net position	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Contributions - employer (including Premium Tax Allocation)	\$ 753,093	\$ 713,926	\$ 687,020	\$ 633,528	\$ 600,582	\$ 583,904	\$ 520,935	\$ 659,543	\$ 543,351	\$
Contributions - member	129,634	113,517	113,231	109,496	100,599	97,183	88,383	71,722	67,170	
Net investment income	(744,696)	1,690,935	376,112	517,785	407,572	486,123	157,192	181,170	379,653	
Benefit payments, including refunds of member contributions	(807,964)	(804,902)	(741,643)	(707,898)	(625,051)	(598,019)	(585,237)	(552,719)	(520,150)	
Administrative expense	(300)	(300)	(300)	-	(300)	(300)	(300)	(300)	(4,643)	
Other	-	-	-	(300)	-	6,214	2,566	-	-	
Net change in plan fiduciary net position	\$ (670,233)	\$ 1,713,176	\$ 434,420	\$ 552,611	\$ 483,402	\$ 575,105	\$ 183,539	\$ 359,416	\$ 465,381	\$
Plan fiduciary net position - beginning	8,817,402	7,104,226	6,669,806	6,117,195	5,633,794	5,058,689	4,875,150	4,515,734	4,050,353	
Plan fiduciary net position - ending (b)	\$ 8,147,169	\$ 8,817,402	\$ 7,104,226	\$ 6,669,806	\$ 6,117,195	\$ 5,633,794	\$ 5,058,689	\$ 4,875,150	\$ 4,515,734	\$
Employer's net pension liability - ending (a)-(b)	\$ 5,474,627	\$ 4,590,255	\$ 7,236,890	\$ 6,632,006	\$ 6,487,703	\$ 6,464,800	\$ 8,311,971	\$ 6,120,779	\$ 6,935,929	\$
Plan fiduciary net position as a percentage of the total pension liability	59.81%	65.76%	49.54%	50.14%	48.53%	46.57%	37.83%	44.34%	39.43%	N/A
Covered payroll	\$ 1,165,303	\$ 1,142,704	\$ 1,121,382	\$ 1,135,170	\$ 955,341	\$ 1,025,108	\$ 841,730	\$ 834,851	\$ 837,491	N/A
Employer's net pension liability as a percentage of covered payroll	469.80%	401.70%	645.35%	584.23%	679.10%	630.65%	987.49%	733.16%	828.18%	N/
Expected average remaining service years of all participants	5.00	5.00	6.00	6.00	5.44	6.00	4.73	4.74	N/A	N/A

Notes to Schedule:

Benefit changes: There were no changes for FY2022.

Changes of assumptions: There were no changes for FY2022.

Actuarial Information to Include in the Financial Statements for the June 30, 2022 Measurement Date

Schedule of Employer Contributions

Last 10 Fiscal Years



	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Actuarially determined contribution	\$ 630,273	\$ 803,530	\$ 752,872	\$ 691,752	\$ 599,307	\$ 612,202	\$ 656,589	\$ 475,033	\$ 524,627	\$ 567,272
Contributions in relation to the actuarially determined contribution										
Employer provided	442,466	413,519	386,467	361,184	337,555	340,042	270,265	297,006	256,115	239,360
State provided	310,627	300,407	300,553	272,344	263,027	243,862	250,670	362,537	287,236	199,023
Contribution deficiency (excess)	\$ (122,820)	\$ 89,604	\$ 65,852	\$ 58,224	\$ (1,275)	\$ 28,298	\$ 135,654	\$ (184,510)	\$ (18,724)	\$ 128,889
Covered payroll	\$ 1,165,303	\$ 1,142,704	\$ 1,121,382	\$ 1,135,170	\$ 955,341	\$ 1,025,108	\$ 841,730	\$ 834,851	\$ 837,491	\$ 811,266
Contributions as a percentage of covered employee payroll	64.63%	62.48%	61.27%	55.81%	62.87%	56.96%	61.89%	79.00%	64.88%	54.04%

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. The assumption shown below are those used in the 7/1/2020 actuarial valuation to calculate the FY2022 ADC. Assumptions used to determine all contributions in the past would not have been the same.

Methods and assumptions used to determine contribution rates:

Actuarial cost method Entry Age Normal
Amortization method Level Dollar
Remaining amortization period 15 to 28.5 years
Asset valuation method 4-year smoothed market

Inflation 2.50 percent

Salary increases Rates vary by years of service

Investment rate of return 6.25%, net of pension plan investment expense, including inflation

Retirement age Rates vary by age

Mortality SOA PubS-2010(B) with generational projection using Scale MP-2019

Actuarial Information to Include in the Financial Statements for the June 30, 2022 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.

Year	bet and or	Differences tween Projected Actual Earnings n Pension Plan Investments	Recognition Period (Years)	2018	2019	2020	2021	2022	2023	2024	2025	2026
2018	\$	(67,269)	5	\$ (13,454)	(13,454)	(13,454)	(13,454)	(13,453)				
2019		(149,708)	5		\$ (29,942)	(29,942)	(29,942)	(29,942)	(29,940)			
2020		25,826	5			\$ 5,165	5,165	5,165	5,165	5,166		
2021		(1,264,013)	5				\$ (252,803)	(252,803)	(252,803)	(252,803)	(252,801)	
2022		1,298,111	5					\$ 259,622	259,622	259,622	259,622	259,623
let increa	se (de	ecrease) in pension	expense					\$ (31,411)	\$ (17,956)	\$ 11,985	\$ 6,821	\$ 259,623

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

					Balan June 3	
Year	Investment Earnings Less than Projected (a)		Investment Earnings Greater Than Projected (b)	Amounts Recognized in Pension Expense Through June 30, 2022 (c)	Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2018	\$	-	\$ 67,269	\$ 67,269	\$ -	\$ -
2019		-	149,708	119,768	-	29,940
2020		25,826	-	15,495	10,331	-
2021		-	1,264,013	505,606	-	758,407
2022		1,298,111	-	259,622	1,038,489	-
					\$ 1,048,820	\$ 788,347



Schedule of Differences between Expected and Actual Experience

In conformity with paragraph 33 a 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.

Year	Differences between Expected and Actual Experience	Recognition Period (Years)	Prior	2013	2014	2015	Increa:	se (Decrease) in	Pension Expens	se Arising from	the Recognition	on of Differen	ces bet	veen Expected	and Actual Expo	erience 2024	2025	2026	2027	Thereafter
Prior		-																		
2013																				
2014	-	-																		
2015	(128,049)	4.740139				\$ (27,014)	(27,014)	(27,014)	(27,014)	(19,993)										
2016	(40,233)	4.728475					\$ (8,509)	(8,509)	(8,509)	(8,509)	(6,197)								
2017	(912,402)	5.995135						\$ (152,190)	(152,190)	(152,190)	(152,190) (152,1	90)	(151,452)						
2018	89,417	5.441766							\$ 16,432	16,432	16,432	16,4	32	16,432	7,257					
2019	279,504	6.000000								\$ 46,584	46,584	46,5	84	46,584	46,584	46,584				
2020	597,973	6.000000									\$ 99,662	99,6	62	99,662	99,662	99,662	99,663			
2021	165,924	5.000000										\$ 33,1	85	33,185	33,185	33,185	33,184			
2022	(150,109)	5.000000											\$	(30,022)	(30,022)	(30,022)	(30,022)	(30,021)		
Net increas	e (decrease) in per	nsion expense											\$	14,389	\$ 156,666	\$ 149,409	\$ 102,825	\$ (30,021)	\$ -	- \$ -

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

				Bala June	nces 30, 2	
Year	Experience Losses (a)	Experience Gains (b)	Amounts Recognized in Pension Expense Through June 30, 2022 (c)	Deferred Outflows of Resources (a) - (c)	1	Deferred nflows of tesources (b) - (c)
Prior	\$ -	\$ -	\$ -	\$ -	\$	-
2013	-	-	-	-		-
2014	-	-	-	-		-
2015		128,049	128,049			
2016	-	40,233	40,233	-		-
2017	-	912,402	912,402	-		-
2018	89,417	-	82,160	7,257		-
2019	279,504	-	186,336	93,168		
2020	597,973	-	298,986	298,987		-
2021	165,924	-	66,370	99,554		-
2022	-	150,109	30,022	-		120,087
				\$ 498,966	\$	120,087

Actuarial Information to Include in the Financial Statements

for the June 30, 2022 Measurement Date

B

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.

		Recognition						Incre	ase (Decrease) ir	Pension Exper	se Arising fro	n the Effects of (Changes of Ass	umptions							
Year	Changes of Assumptions	Period (Years)	Prior	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	202	3	2024	2025	202	6	2027	Thereafter
Prior	\$ -	-																			
2013	-	-																			
2014	-	-																			
2015	(696,283)	4.740139				\$ (146,891)	(146,891)	(146,891)	(146,891)	(108,719)											
2016	2,079,763	4.728475					\$ 439,838	439,838	439,838	439,838	320,411										
2017	(833,335)	5.995135						\$ (139,002)	(139,002)	(139,002)	(139,002)	(139,002)	(138,325)								
2018	-	5.441766																			
2019		6.000000																			
2020	-	6.000000																			
2021	(1,554,937)	5.000000										\$ (310,987)	(310,987)	(3	0,987)	(310,987)	(310,989)				
2022	-	5.000000																			
Net increas	e (decrease) in pen	sion expense											\$ (449,312)	\$ (3	10,987)	\$ (310,987)	\$ (310,989)	\$	-	\$ -	\$ -

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

					ices at 60, 2022
Year	Increases in the Total Pension Liability (a)	Decreases in the Total Pension Liability (b)	Amounts Recognized in Pension Expense Through June 30, 2022 (c)	Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
Prior	\$ -	\$ -	\$ -	\$ -	\$ -
2013	-	-	-	-	-
2014	-	-	-	-	-
2015		696,283	696,283	-	-
2016	2,079,763	-	2,079,763	-	-
2017		833,335	833,335	-	-
2018	-	-	-	-	-
2019	-	-	-	-	-
2020	-	-	-	-	-
2021		1,554,937	621,974	-	932,963
2022	-	-	-	-	-
				\$ -	\$ 932,963

City of Bluefield, West Virginia Policemen's Pension and Relief Fund Actuarial Information to Include in the Financial Statements

for the June 30, 2022 Measurement Date

Projection of Pension Plan's Fiduciary Net Position



	Gross Normal Cost (BOY)				Emp		e Contribu (BOY)	itions	5		Emp		er Normal ((BOY)	Cos	st				penses (MOY)			Emplo		Contribu	tions			Prem		ax Alloo IOY)	ation)
Fiscal Year	Current Members	Future Members	Total		Current Members		Future Members		Total		Current lembers		Future lembers		Total		ırrent mbers		-uture embers	Total		Current Members		Future embers		Total		Current Members		iture nbers		Total
2022	\$ 338,336	\$ -	\$ 338,336	\$	129,634	\$	-	\$	129,634	\$	208,702	\$	-	\$	208,702	\$	300	\$	-	\$ 300	\$	442,466	\$	-	\$	442,466	\$	310,627	\$	-	\$	310,627
2023	\$ 318,976	\$ 30,379	\$ 349,355	\$	95,410	\$	10,522	\$	105,932	\$	223,566	\$	19,857	\$	243,423	\$	292	\$	24	\$ 316	\$	452,944	\$	20,492	\$	473,436	\$	269,170	\$	-	\$	269,170
2024	\$ 297,098	\$ 75,548	\$ 372,646	\$	88,492	\$	25,866	\$	114,358	\$	208,606	\$	49,682	\$	258,288	\$	289	\$	40	\$ 329	\$	455,326	\$	51,251	\$	506,577	\$	271,120	\$	-	\$	271,120
2025	\$ 281,039	\$ 111,965	\$ 393,004		83,206	\$	38,280	\$	121,486	\$	197,833	\$	73,685	\$	271,518	\$		\$	47	\$ 343	\$,	\$	76,000	\$	542,037	\$	284,695	\$	-	\$	284,695
2026	\$ 265,738		\$ 416,093		78,341	\$	51,304	\$	129,645	\$. ,	\$		\$	286,448	\$	292	\$		352	\$, -	\$	102,159	\$	579,980	\$. ,	\$	-	\$	291,656
2027	\$ 253,622		\$ 439,843		74,261	\$	63,433	\$	137,694	\$		\$		\$	302,149	\$	288	\$	67	355	\$		\$		\$	620,579	\$,	\$	-	\$	300,831
2028	\$ 244,009		\$ 464,627	\$	70,819		75,030		145,849	\$	173,190	\$		\$	318,778	\$		\$	81	358	\$,.	\$,	\$	664,020	\$. ,	\$	-	\$	312,255
2029	\$ 237,173		\$ 490,456		68,061	\$	86,038		154,099	\$		\$		\$	336,357	\$	278		89	367	\$,		172,481		710,501	\$,	\$	-	\$	323,967
2030	\$ 232,554		\$ 516,805		65,852	\$	96,473	\$	162,325	\$	166,702	\$		\$	354,480	\$	285	\$	91	376	\$,	\$	193,648	\$	760,236	\$	331,874	\$	-	\$	331,874
2031	\$ 229,164		\$ 543,716		63,959	\$	106,681	\$	170,640	\$	165,205	\$		\$	373,076	\$	286	\$	99	385	\$,	\$	813,453	\$	339,978		-	\$	339,978
2032	\$ 226,411		\$ 571,272		62,270	\$	116,889	\$	179,159	\$	164,141	\$		\$	392,113	\$		\$	108	395	\$,	\$,	\$	870,395	\$,	\$	-	\$	348,285
2033 2034	\$ 221,942 \$ 215.079		\$ 596,640 \$ 624,689		60,064 57,234	\$ \$	126,822 138,382		186,886 195,616	\$	161,878	\$ \$		\$	409,754 429,073	\$ \$		\$ \$	117 120	398 401	\$ \$, -	\$	255,622 279,695		931,323 996,516	\$ \$	002,110	\$	-	\$ \$	362,413 181,482
2034	\$ 215,079 \$ 210,278		\$ 624,689 \$ 655,318		54,983	\$	150,362	\$ \$	205.223	\$ \$	157,845 155,295	S	294.800	\$	450.095	ş S		э \$	130	404	S		\$ \$	304.003	\$ \$	464.351	ş S	181,482	Φ	-	s S	101,402
2035	\$ 210,278		\$ 649,052		47,661	\$	150,240		205,223	\$	132,808	\$. ,	\$	450,095	s S	274			414	s s	,-	•	,	\$ \$	457,307	s S	-	φ φ	-	\$	-
2036	\$ 171.481		\$ 690,762		44,760	\$	175,145		219.905	\$		\$,	\$	470.857	ş S	274		159	432	S		\$		э \$	485,780	ş S	-	φ φ	-	s S	-
2037	\$ 155,419		\$ 711,856		40.329	\$	187.693	\$	228,022	\$	115,090	\$. ,	\$	483.834	s	272		179	451	\$,	\$,	\$	499,175	S	-	φ	-	\$	-
2039	\$ 109,909		\$ 698.019		29.895	\$	198,208	\$	228.103	\$	80.014	\$,	\$	469,916	s	279		183	462	s		\$	402.085	s	484.840	s	_	\$	_	\$	_
2040	\$ 82,174		\$ 735,208		23,162	\$	219,439		242,601	\$	59.012	\$,	\$	492,607	s	286	S	204	490	s	. ,	•	. ,	\$	508,258	\$	_	\$	_	\$	_
2041	\$ 64.588		\$ 769.973		18,695	\$	236,228		254.923	\$	45.893	\$,	\$	515.050	s	285			511	\$. , .		483.822		531,412	\$		\$	-	\$	
2042	\$ 52,594	\$ 755,388	\$ 807,982	\$	15,332	\$	251,945	\$	267,277	\$	37,262	\$	503,443	\$	540.705	s	284	\$	240	\$ 524	\$	38,692	\$	519,177	\$	557,869	\$		\$	-	\$	
2043	\$ 41,812		\$ 843,574		12,375	\$	266,588		278,963	\$	29,437	\$		\$	564,611	\$	291	\$	255	546	\$		\$	551,900	\$	582,534	\$	-	\$	-	\$	-
2044	\$ 32,348	\$ 841,486	\$ 873,834	\$	9,704	\$	279,294	\$	288,998	\$	22,644	\$	562,192	\$	584,836	\$	290	\$	270	\$ 560	\$	23,632	\$	579,764	\$	603,396	\$	-	\$	-	\$	-
2045	\$ 22,011	\$ 883,221	\$ 905,232	\$	6,701	\$	292,412	\$	299,113	\$	15,310	\$	590,809	\$	606,119	\$	297	\$	277	\$ 574	\$	16,078	\$	609,269	\$	625,347	\$		\$	-	\$	-
2046	\$ 15,708	\$ 926,088	\$ 941,796	\$	4,750	\$	306,364	\$	311,114	\$	10,958	\$	619,724	\$	630,682	\$	295	\$	303	\$ 598	\$	11,591	\$	639,100	\$	650,691	\$	-	\$	-	\$	-
2047	\$ 10,826	\$ 962,189	\$ 973,015	\$	3,238	\$	318,215	\$	321,453	\$	7,588	\$	643,974	\$	651,562	\$	293	\$	320	\$ 613	\$	8,115	\$	664,113	\$	672,228	\$	-	\$	-	\$	-
2048	\$ 6,393	\$ 1,004,670	\$ 1,011,063	\$	1,882	\$	331,940	\$	333,822	\$	4,511	\$	672,730	\$	677,241	\$	291	\$	337	\$ 628	\$	4,941	\$	693,771	\$	698,712	\$	-	\$	-	\$	-
2049	\$ 4,462	\$ 1,045,261	\$ 1,049,723	\$	1,308	\$	345,442	\$	346,750	\$	3,154	\$	699,819	\$	702,973	\$	288	\$	356	\$ 644	\$	3,539	\$	721,713	\$	725,252	\$	-	\$	-	\$	-
2050	\$ 3,337	\$ 1,086,704	\$ 1,090,041	\$	972	\$	359,264	\$	360,236	\$	2,365	\$	727,440	\$	729,805	\$	295	\$	376	\$ 671	\$	2,733	\$	750,204	\$	752,937	\$	-	\$	-	\$	-
2051	\$ 2,146	\$ 1,127,898	\$ 1,130,044	\$	615	\$	372,776	\$	373,391	\$	1,531	\$	755,122	\$	756,653	\$	292	\$	396	\$ 688	\$	1,870	\$	778,758	\$	780,628	\$	-	\$	-	\$	-
2052	\$ 1,060	\$ 1,172,327	\$ 1,173,387	\$	293	\$	387,107	\$	387,400	\$	767	\$	785,220	\$	785,987	\$	299	\$	406	705	\$	1,090	\$	809,792	\$	810,882	\$	-	\$	-	\$	-
2053	\$ 601		\$ 1,218,970		163	\$	401,954	\$	402,117	\$	438	\$		\$	816,853	\$		\$	427	723	\$	747	\$. ,	\$	842,715	\$	-	\$	-	\$	-
2054	\$ 330		\$ 1,265,236		88	\$	416,998		417,086	\$	242	\$		\$	848,150	\$	292		449	741	\$		\$		\$	874,995	\$	-	\$	-	\$	-
2055	\$ 177			\$	46		432,582	\$	432,628	\$		\$		\$	880,493	\$		\$	461	760	\$	434		907,917		908,351	\$	-	\$	-	\$	-
2056	\$ 104		\$ 1,363,278		26	\$	448,887	\$	448,913	\$	78	\$		\$	914,365	\$	295	\$	484	779	\$		\$	942,909	\$	943,285	\$	-	\$	-	\$	-
2057	\$ 38	\$ 1,411,563		\$	10		464,777	\$	464,787	\$	28	\$		\$	946,814	\$	290	\$	508	798	\$	319	•	,	\$	976,752	\$	-	\$	-	\$	-
2058	\$ 21	\$ 1,462,414			5	\$	481,638	\$	481,643	\$	16	\$		\$	980,792	\$		\$	546	831	\$,011,507		1,011,808	\$	-	\$	-	\$	-
2059	\$ 13	\$ 1,514,441			3	\$	498,920		498,923	\$					1,015,531	\$	292		560	852	\$		•	,047,335		1,047,638	\$	-	\$	-	\$	-
2060	\$ 8	\$ 1,561,542			2	\$	515,100		515,102	\$	6		1,046,442			\$		\$	587	873	\$,079,235		1,079,527	\$	-	\$	-	\$	-
2061	\$ -		\$ 1,612,642		-	\$	532,698	\$	532,698	\$	-				1,079,944	\$	280	\$	615	895	\$,113,796		1,114,075	\$	-	Φ	-	\$	-
2062	\$ -	\$ 1,666,233	\$ 1,666,233	\$	-	\$	551,049	\$	551,049	\$	-	\$ 1	1,115,184	\$	1,115,184	\$	287	\$	645	\$ 932	\$	287	\$ 1	,150,150	\$	1,150,437	\$	-	\$	-	\$	-

City of Bluefield, West Virginia Policemen's Pension and Relief Fund Actuarial Information to Include in the Financial Statements

for the June 30, 2022 Measurement Date

Projection of Pension Plan's Fiduciary Net Position



		Actu	arial Accrued Liability (E	воу)	Closed Group Asset Projection												
Fiscal Year	Cu	rrent Members	Future Members	Total	Fi	duciary Net Position (BOY)	Funded Ratio (BOY)		Projected EEC Contributions (MOY)	Pr	rojected ER Contrib + Premium Tax (MOY)		Projected BP (MOY)	Pro	ojected Admin Expenses (MOY)	Pro	jected Investment Earnings
2022	\$	13,266,378	\$ -	\$ 13,266,378	\$	8,817,402	66.46%	\$	129,634	\$	727,979	\$	807,964	\$	300	\$	(744,696)
2023	\$	13,622,178	\$ -	\$ 13,622,178	\$	8,122,055	59.62%	\$	98,346	\$	722,114	\$	814,959	\$	292	\$	507,789
2024	\$	13,972,436	\$ 31,599	\$ 14,004,035	\$	8,635,053	61.80%	\$	91,215	\$	726,446	\$	848,732	\$	289	\$	538,726
2025	\$	14,286,527	\$ 111,147	\$ 14,397,674	\$	9,142,419	63.99%	\$	85,767	\$	750,732	\$	869,516	\$	296	\$	570,376
2026	\$	14,581,762	\$ 230,831	\$ 14,812,593	\$	9,679,482	66.38%	\$	80,752	\$	769,477	\$	882,178	\$	292		603,975
2027	\$	14,866,140	\$ 394,046	\$ 15,260,186	\$	10,251,216	68.96%	\$	76,546	\$	794,776	\$	890,955	\$	288	\$	640,088
2028	\$	15,146,372			\$	10,871,383	71.78%	\$	72,999	\$	826,125	\$	898,310	\$	277		679,478
2029	\$	15,426,323		\$ 16,275,615	\$	11,551,398	74.88%	\$	70,156			\$	904,202	\$	278		722,814
2030	\$	15,710,434	\$ 1,142,633	\$ 16,853,067	\$	12,301,875	78.30%	\$	67,879	\$	898,462	\$	906,957	\$	285	\$	770,686
2031	\$	16,004,555	\$ 1,480,428	\$ 17,484,983	\$	13,131,660	82.05%	\$	65,927	\$	939,063	\$	910,120	\$	286	\$	823,640
2032	\$	16,310,196	\$ 1,864,246	\$ 18,174,442	\$	14,049,884	86.14%	\$	64,186	\$	983,584	\$	905,788	\$	287	\$	882,479
2033	\$	16,636,480	\$ 2,296,558	\$ 18,933,038	\$	15,074,058	90.61%	\$	61,913	\$	1,038,114	\$	912,169	\$	281	\$	947,902
2034	\$	16,971,831	\$ 2,774,825	\$ 19,746,656	\$	16,209,537	95.51%	\$	58,995	\$	898,303	\$	925,378	\$	281	\$	1,014,070
2035	\$	17,307,234	\$ 3,304,734	\$ 20,611,968	\$	17,255,246	99.70%	\$	56,675	\$	160,348	\$	924,028	\$	274	\$	1,056,685
2036	\$	17,659,890	\$ 3,891,254	\$ 21,551,144	\$	17,604,652	99.69%	\$	49,128	\$	137,169	\$	962,909	\$	274	\$	1,076,381
2037	\$	17,962,838	\$ 4,506,491	\$ 22,469,329	\$	17,904,147	99.67%	\$	46,138	\$	130,894	\$	970,124	\$	273	\$	1,094,592
2038	\$	18,267,733	\$ 5,195,747	\$ 23,463,480	\$	18,205,373	99.66%	\$	41,570	\$	118,903	\$	990,807	\$	272	\$	1,112,273
2039	\$	18,553,299	\$ 5,939,346	\$ 24,492,645	\$	18,487,041	99.64%	\$	30,815	\$	82,755	\$	1,060,994	\$	279	\$	1,126,273
2040	\$	18,736,011	\$ 6,699,176	\$ 25,435,187	\$	18,665,611	99.62%	\$	23,875	\$	61,115	\$	1,101,927	\$	286	\$	1,135,294
2041	\$	18,858,481	\$ 7,526,376	\$ 26,384,857	\$	18,783,681	99.60%	\$	19,270	\$	47,590	\$	1,125,846	\$	285	\$	1,141,380
2042	\$	18,945,265	\$ 8,420,791	\$ 27,366,056	\$	18,865,790	99.58%	\$	15,804	\$	38,692	\$	1,141,811	\$	284	\$	1,145,640
2043	\$	19,008,273	\$ 9,388,402	\$ 28,396,675	\$	18,923,831	99.56%	\$	12,756	\$	30,634	\$	1,153,541	\$	291	\$	1,148,564
2044	\$	19,051,672	\$ 10,425,266	\$ 29,476,938	\$	18,961,954	99.53%	\$	10,003	\$	23,632	\$	1,165,593	\$	290	\$	1,150,276
2045	\$	19,075,305	\$ 11,512,027	\$ 30,587,332	\$	18,979,981	99.50%	\$	6,907	\$	16,078	\$	1,182,740	\$	297	\$	1,150,547
2046	\$	19,071,758	\$ 12,636,958	\$ 31,708,716	\$	18,970,476	99.47%	\$	4,896	\$	11,591	\$	1,185,492	\$	295	\$	1,149,668
2047	\$	19,058,455	\$ 13,807,229	\$ 32,865,684	\$	18,950,844	99.44%	\$	3,338	\$	8,115	\$	1,189,006	\$	293	\$	1,148,178
2048	\$	19,035,512	\$ 15,006,736	\$ 34,042,248	\$	18,921,176	99.40%	\$	1,940	\$			1,185,788	\$	291	\$	1,146,282
2049	\$	19,009,742	\$ 16,242,177	\$ 35,251,919	\$	18,888,260	99.36%	\$	1,348	\$	3,539	\$	1,175,415	\$	288	\$	1,144,483
2050	\$	18,991,002			\$	18,861,927	99.32%	\$	1,002	\$	2,733	\$	1,162,324	\$	295	\$	1,143,204
2051	\$	18,983,389	\$ 18,837,957	\$ 37,821,346	\$	18,846,247	99.28%	\$	634	\$	1,870	\$	1,149,740	\$	292	\$	1,142,574
2052	\$	18,987,006			\$	18,841,293	99.23%	\$	302	\$			1,134,984		299	\$	1,142,684
2053	\$	19,004,905			\$	18,850,086	99.19%	\$	168	\$			1,117,940		296	\$	1,143,743
2054	\$	19,041,004			\$	18,876,508	99.14%	\$		\$			1,099,659		292		1,145,949
2055	\$	19,097,915			\$	18,923,139	99.08%	\$	47				1,080,251			\$	1,149,456
2056	\$	19,178,226			\$	18,992,526	99.03%	\$		\$			1,059,833		295		1,154,418
2057	\$	19,284,525			\$	19,087,218	98.98%	\$		\$			1,038,520		290		1,160,990
2058	\$	19,419,366			\$	19,209,728	98.92%	\$		\$			1,016,189		285		1,169,334
2059	\$	19,585,635			\$	19,362,894	98.86%	\$		\$			992,941		292		1,179,622
2060	\$	19,786,251			\$	19,549,589	98.80%	\$	2				968,793		286		1,192,034
2061	s	20,024,291			\$	19,772,838	98.74%	\$	-	\$	279		943,767		280		1,206,757
2062	s s	20,302,996			\$	20.035.827	98.68%	\$	_	\$			917.959		287		1,223,988
2002	Ψ	20,302,390	ψ 50,015,912	Ψ 50,576,900	ψ	20,000,027	30.0076	φ	-	ψ	201	Ÿ	311,339	Ψ	201	Ψ	1,223,300

City of Bluefield, West Virginia Policemen's Pension and Relief Fund Actuarial Information to Include in the Financial Statements for the June 30, 2022 Measurement Date



Projection of Pension Plan's Fiduciary Net Position

				Calcul	Calculation of Single Equivalent Rate											
Fiscal Year	"Fun	ded" Portion of BP	"Unfun	ded" Portion of BP	ı	PV of "Funded" BP	PV	of "Unfunded" BP	PV of BP Using a Single DR							
2022	\$	807,964	\$	-	\$	783,840	\$	-	\$	783,840						
2023	\$	814,959	\$	-	\$	744,119	\$	-	\$	744,119						
2024	\$	848,732	\$	-	\$	729,371	\$	-	\$	729,371						
2025	\$	869,516	\$	-	\$	703,277	\$	-	\$	703,277						
2026	\$	882,178	\$	-	\$	671,546	\$	-	\$	671,546						
2027	\$	890,955	\$	-	\$	638,332	\$	-	\$	638,332						
2028	\$	898,310	\$	-	\$	605,743	\$	-	\$	605,743						
2029	\$	904,202	\$	-	\$	573,850	\$	-	\$	573,850						
2030	\$	906,957	\$	-	\$	541,740	\$	-	\$	541,740						
2031	\$	910,120	\$	-	\$	511,651	\$	-	\$	511,651						
2032	\$	905,788	\$	-	\$	479,262	\$	-	\$	479,262						
2033	\$	912,169	\$	-	\$	454,247	\$	-	\$	454,247						
2034	\$	925,378	\$	-	\$	433,718	\$	-	\$	433,718						
2035	\$	924,028	\$	-	\$	407,610	\$	-	\$	407,610						
2036	\$	962,909	\$	-	\$	399,775	\$	-	\$	399,775						
2037	\$	970,124	\$	-	\$	379,078	\$	-	\$	379,078						
2038	\$	990,807	\$	-	\$	364,386	\$	-	\$	364,386						
2039	\$	1,060,994	\$	-	\$	367,246	\$	-	\$	367,246						
2040	\$	1,101,927	\$	-	\$	358,978	\$	-	\$	358,978						
2041	\$	1,125,846	\$	-	\$	345,195	\$	-	\$	345,195						
2042	\$	1,141,811	\$	-	\$	329,497	\$	-	\$	329,497						
2043	\$	1,153,541	\$	-	\$	313,300	\$	-	\$	313,300						
2044	\$	1,165,593	\$	-	\$	297,952	\$	-	\$	297,952						
2045	\$	1,182,740	\$	-	\$	284,550	\$	-	\$	284,550						
2046	\$	1,185,492	\$	-	\$	268,435	\$	-	\$	268,435						
2047	\$	1,189,006	\$	-	\$	253,394	\$	-	\$	253,394						
2048	\$	1,185,788	\$	-	\$	237,843	\$	-	\$	237,843						
2049	\$	1,175,415	\$	-	\$	221,894	\$	-	\$	221,894						
2050	\$	1,162,324	\$	-	\$	206,515	\$	-	\$	206,515						
2051	\$	1,149,740	\$	-	\$	192,263	\$	=	\$	192,263						
2052	\$	1,134,984	\$	-	\$	178,631	\$	-	\$	178,631						
2053	\$	1,117,940	\$	-	\$	165,599	\$	-	\$	165,599						
2054	\$	1,099,659	\$	-	\$	153,309	\$	-	\$	153,309						
2055	\$	1,080,251	\$	-	\$	141,744	\$	-	\$	141,744						
2056	\$	1,059,833	\$	-	\$	130,885		-	\$	130,885						
2057	\$	1,038,520	\$	-	\$	120,708	\$	-	\$	120,708						
2058	\$	1,016,189	\$	-	\$	111,165	\$	-	\$	111,165						
2059	\$	992,941	\$	-	\$	102,232	\$	-	\$	102,232						
2060	\$	968,793	\$	-	\$	93,879	\$	-	\$	93,879						
2061	\$	943,767	\$	-	\$	86,074		-	\$	86,074						
2062	\$	917,959	\$	-	\$	78,795	\$	-	\$	78,795						