



**Municipal Pensions
Oversight Board**

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

GASB 68 Actuarial Information for the
Measurement Period Ending
June 30, 2023

Bolton

Submitted by:

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November 16, 2023

Mr. Kevin Tennant
Finance Director
City of Morgantown
389 Spruce Street
Morgantown, WV 26505

Captain Matthew Solomon
Pension Board Secretary
City of Morgantown
Policemen's Pension and Relief Fund

Re: City of Morgantown Policemen's Pension and Relief Fund
GASB 68 Actuarial Information for the Measurement Period Ending June 30, 2023

Dear Kevin,

The following report contains the GASB 67 and GASB 68 actuarial information for the City of Morgantown Policemen's Pension and Relief Fund to be included in the City's financial statements for FY 2023. The GASB 67 information has been provided as of June 30, 2023 (the GASB 68 measurement date for FY 2023).

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, 2023 (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, 2022 actuarial valuation rolled forward to June 30, 2023. The methods, assumptions, and participant data used are detailed in the July 1, 2022 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, 2023 is contained in the July 1, 2021 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 a blended discount rate of 4.10%. The plan's expected gross rate of investment return of 4.25% has been blended with the 3.86% 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, 2023. The development of the blended discount rate is included within this report.

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.

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 five 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.



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.

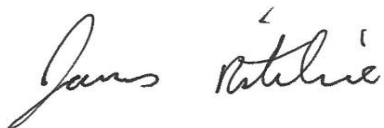
The calculation of actuarial liabilities for valuation purposes is based on a current estimate of future benefit payments. The calculation includes a computation of the "present value" of those estimated future benefit payments using an assumed discount rate; the higher the discount rate assumption, 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, 2022 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, FCA, MAAA



City of Morgantown, West Virginia Policemen’s Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2023 Measurement Date



Net Pension Liability of the Employer

The components of the net pension liability of the Employer at June 30, 2023, were as follows:

Total pension liability	\$ 78,739,847
Plan fiduciary net position	(16,967,721)
Employer's net pension liability	<u>\$ 61,772,126</u>
Plan fiduciary net position as a percentage of the total pension liability	21.55%

Actuarial assumptions. The total pension liability was determined by an actuarial valuation as of July 1, 2022 rolled forward to June 30, 2023 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)	4.02%
Single discount rate (EOY)	4.10%
Investment rate of return (BOY)	4.25%, net of pension plan investment expense, including inflation
Investment rate of return (EOY)	4.25%, net of pension plan investment expense, including inflation
Long-term municipal bond rate (BOY)	3.69%
Long-term municipal bond rate (EOY)	3.86%
Mortality	SOA PubS-2010(B) with generational projection using Scale MP-2019
Year Fund is projected to be fully funded	2058
Year assets are expected to be depleted for a closed plan	2039

The above is a summary of key actuarial assumptions. Full descriptions of the actuarial assumptions are available in the July 1, 2022 actuarial valuation report.

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

	1% Decrease 3.10%	Current Discount Rate 4.10%	1% Increase 5.10%
Employer's net pension liability	\$ 75,159,643	\$ 61,772,126	\$ 51,222,212

City of Morgantown, West Virginia Policemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2023 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 6/30/22	\$ 77,638,288	\$ 16,258,285	\$ 61,380,003
Changes for the year:			
Service cost	1,826,771		1,826,771
Interest	3,062,614		3,062,614
Changes of benefit terms	-		-
Differences between expected and actual experience	75,175		75,175
Changes of assumptions	(955,267)		(955,267)
Contributions - employer (including Premium Tax Allocation)		1,961,835	(1,961,835)
Contributions - member		463,332	(463,332)
Net investment income		1,194,223	(1,194,223)
Benefit payments, including refunds of member contributions	(2,907,734)	(2,907,734)	-
Administrative expense		(2,220)	2,220
Other		-	-
Net Changes	<u>1,101,559</u>	<u>709,436</u>	<u>392,123</u>
Balances at 6/30/23	<u>\$ 78,739,847</u>	<u>\$ 16,967,721</u>	<u>\$ 61,772,126</u>
Return on Investments		7.5%	

City of Morgantown, West Virginia Policemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2023 Measurement Date



Components of Employer's Pension Expense for the Fiscal Year Ended June 30, 2023

Note	Description	Amount
A	Service cost	\$ 1,826,771
B	Interest on the total pension liability	3,062,614
A	Changes of benefit terms	-
C	Differences between expected and actual experience	179,967
C	Changes of assumptions	(2,907,075)
A	Employee contributions	(463,332)
D	Projected earnings on pension plan investments	(680,676)
C	Differences between expected and actual earnings on plan investments	171,909
A	Pension plan administrative expense	2,220
A	Other changes in fiduciary net position	-
Total Pension Expense		\$ 1,192,398

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)	Projected Earnings (a) x (b) x (c)
Beginning total pension liability	\$ 77,638,288	100%	4.02%	\$ 3,121,059
Service cost (End of Year)	1,826,771	0%	4.02%	-
Benefit payments, including refunds of employee contributions	(2,907,734)	50%	4.02%	(58,445)
Total interest on the total pension liability				\$ 3,062,614

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	\$ 16,258,285	100%	4.25%	\$ 690,977
Employer contributions	1,961,835	50%	4.25%	41,689
Employee contributions	463,332	50%	4.25%	9,846
Benefit payments, including refunds of employee contributions	(2,907,734)	50%	4.25%	(61,789)
Administrative expense and other	(2,220)	50%	4.25%	(47)
Total Projected Earnings				\$ 680,676

City of Morgantown, West Virginia Policemen’s Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2023 Measurement Date



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

At June 30, 2023, 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	\$ 1,299,514	\$ 1,339,246
Changes of assumptions	1,877,077	7,122,318
Net difference between projected and actual earnings on pension plan investments	820,338	-
Total	\$ 3,996,929	\$ 8,461,564

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:	
2024	\$ (2,645,266)
2025	(2,152,902)
2026	436,244
2027	(102,711)
2028	-
Thereafter	-

City of Morgantown, West Virginia Policemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2023 Measurement Date



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

Total pension liability	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Service cost	\$ 1,826,771	\$ 2,486,762	\$ 3,023,828	\$ 2,805,260	\$ 2,680,359	\$ 2,644,826	\$ 2,861,572	\$ 1,530,284	\$ 1,410,460	\$ 1,376,895
Interest	3,062,614	2,769,438	2,983,210	2,871,014	2,736,305	2,664,956	2,354,181	2,409,970	2,333,177	2,364,924
Changes of benefit terms	-	-	-	-	-	-	-	-	-	-
Differences between expected and actual experience	75,175	(2,446,179)	(464,631)	3,310,369	838,051	1,320,613	(95,360)	440,163	(935,554)	-
Changes of assumptions	(955,267)	(11,386,282)	(2,850,909)	5,490,501	281,487	(474,554)	(6,346,566)	16,140,037	927,148	1,904,795
Benefit payments, including refunds of member contributions	(2,907,734)	(2,851,777)	(2,733,260)	(2,643,614)	(2,452,251)	(2,258,026)	(2,119,629)	(2,098,886)	(2,007,907)	(1,918,832)
Net change in total pension liability	1,101,559	(11,428,038)	(41,762)	11,833,530	4,083,951	3,897,815	(3,345,802)	18,421,568	1,727,324	3,727,782
Total pension liability - beginning	77,638,288	89,066,326	89,108,088	77,274,558	73,190,607	69,292,792	72,638,594	54,217,026	52,489,702	48,761,920
Total pension liability - ending (a)	\$ 78,739,847	\$ 77,638,288	\$ 89,066,326	\$ 89,108,088	\$ 77,274,558	\$ 73,190,607	\$ 69,292,792	\$ 72,638,594	\$ 54,217,026	\$ 52,489,702
Plan fiduciary net position	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Contributions - employer (including Premium Tax Allocation)	\$ 1,961,835	\$ 1,945,569	\$ 1,922,014	\$ 1,957,930	\$ 2,000,979	\$ 1,904,788	\$ 1,703,185	\$ 1,445,898	\$ 1,299,492	\$ 1,236,729
Contributions - member	463,332	427,163	406,609	455,534	465,680	437,588	423,661	360,533	343,444	260,782
Net investment income	1,194,223	(2,967,547)	3,717,867	(6,359)	890,424	466,764	1,349,142	(313,457)	372,888	1,430,259
Benefit payments, including refunds of member contributions	(2,907,734)	(2,851,777)	(2,733,260)	(2,643,614)	(2,452,251)	(2,258,026)	(2,119,629)	(2,098,886)	(2,007,907)	(1,918,832)
Administrative expense	(2,220)	(2,252)	(1,811)	(1,740)	-	(1,620)	(1,560)	(1,994)	(1,344)	(1,275)
Other	-	-	-	-	(2,132)	-	198	267	-	-
Net change in plan fiduciary net position	\$ 709,436	\$ (3,448,844)	\$ 3,311,419	\$ (238,249)	\$ 902,700	\$ 549,494	\$ 1,354,997	\$ (607,639)	\$ 6,573	\$ 1,007,663
Plan fiduciary net position - beginning	16,258,285	19,707,129	16,395,710	16,633,959	15,731,259	15,181,765	13,826,768	14,434,407	14,472,339	13,464,676
Plan fiduciary net position - ending (b)	\$ 16,967,721	\$ 16,258,285	\$ 19,707,129	\$ 16,395,710	\$ 16,633,959	\$ 15,731,259	\$ 15,181,765	\$ 13,826,768	\$ 14,478,912	\$ 14,472,339
Employer's net pension liability - ending (a)-(b)	\$ 61,772,126	\$ 61,380,003	\$ 69,359,197	\$ 72,712,378	\$ 60,640,599	\$ 57,459,348	\$ 54,111,027	\$ 58,811,826	\$ 39,738,114	\$ 38,017,363
Plan fiduciary net position as a percentage of the total pension liability	21.55%	20.94%	22.13%	18.40%	21.53%	21.49%	21.91%	19.04%	26.71%	27.57%
Covered payroll	\$ 3,979,529	\$ 4,261,421	\$ 4,446,616	\$ 4,683,481	\$ 4,424,855	\$ 4,424,620	\$ 4,054,650	\$ 3,527,889	\$ 3,381,767	\$ 3,514,416
Employer's net pension liability as a percentage of covered payroll	1552.25%	1440.36%	1559.82%	1552.53%	1370.45%	1298.63%	1334.54%	1667.05%	1175.07%	1081.75%
Expected average remaining service years of all participants	4.00	4.00	4.00	6.00	6.00	5.88	5.65	5.43	5.20	N/A

Notes to Schedule:

Benefit changes: There were no changes for FY2023.

Changes of assumptions: The discount rate changed from 4.02% to 4.10%.

*Market value of assets as of July 1, 2015, excludes \$44,505, included in the market value of assets as of June 30, 2015, used for the actuarial valuation report for the fiscal year end June 30, 2015.

City of Morgantown, West Virginia Policemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2023 Measurement Date



Schedule of Employer Contributions
 Last 10 Fiscal Years

	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Actuarially determined contribution	\$ 4,913,333	\$ 4,903,381	\$ 5,101,824	\$ 4,709,413	\$ 4,499,599	\$ 3,983,176	\$ 3,675,688	\$ 3,285,978	\$ 2,478,419	\$ 2,480,580
Contributions in relation to the actuarially determined contribution										
Employer provided	1,314,699	1,233,680	1,158,547	1,219,659	1,295,000	1,212,990	1,073,218	848,356	720,778	673,624
State provided	647,136	711,889	763,467	738,271	705,979	691,798	629,967	597,542	578,714	563,105
Contribution deficiency (excess)	<u>\$ 2,951,498</u>	<u>\$ 2,957,812</u>	<u>\$ 3,179,810</u>	<u>\$ 2,751,483</u>	<u>\$ 2,498,620</u>	<u>\$ 2,078,388</u>	<u>\$ 1,972,503</u>	<u>\$ 1,840,080</u>	<u>\$ 1,178,927</u>	<u>\$ 1,243,851</u>
Covered payroll	\$ 3,979,529	\$ 4,261,421	\$ 4,446,616	\$ 4,683,481	\$ 4,424,855	\$ 4,424,620	\$ 4,054,650	\$ 3,527,889	\$ 3,381,767	\$ 3,514,416
Contributions as a percentage of covered employee payroll	49.30%	45.66%	43.22%	41.81%	45.22%	43.05%	42.01%	40.98%	38.43%	35.19%

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 7/1/2021 actuarial valuation to calculate the FY2023 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 27.5 years
Asset valuation method	4-year smoothed market
Inflation	2.50 percent
Salary increases	Rates vary by years of service
Investment rate of return	4.25%, 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

City of Morgantown, West Virginia Policemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2023 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)	2019	2020	2021	2022	2023	2024	2025	2026	2027
2019	\$ (182,241)	5	\$ (36,448)	(36,448)	(36,448)	(36,448)	(36,449)				
2020	749,670	5		\$ 149,934	149,934	149,934	149,934	149,934			
2021	(2,989,205)	5			\$ (597,841)	(597,841)	(597,841)	(597,841)	(597,841)		
2022	3,794,872	5				\$ 758,974	758,974	758,974	758,974	758,976	
2023	(513,547)	5					\$ (102,709)	(102,709)	(102,709)	(102,709)	(102,711)
Net increase (decrease) in pension expense							\$ 171,909	\$ 208,358	\$ 58,424	\$ 656,267	\$ (102,711)

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, 2023 (c)	Balances at June 30, 2023	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2019	\$ -	\$ 182,241	\$ 182,241	\$ -	\$ -
2020	749,670	-	599,736	149,934	-
2021	-	2,989,205	1,793,523	-	1,195,682
2022	3,794,872	-	1,517,948	2,276,924	-
2023	-	513,547	102,709	-	410,838
				\$ 2,426,858	\$ 1,606,520



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	2025	2026	2027	2028	Thereafter
Prior	-	-																	
2014	-	-																	
2015	(935,554)	5.198539			\$ (179,965)	(179,965)	(179,965)	(179,965)	(179,965)	(35,729)									
2016	440,163	5.430906				\$ 81,048	81,048	81,048	81,048	81,048	34,923								
2017	(95,360)	5.645252					\$ (16,892)	(16,892)	(16,892)	(16,892)	(16,892)	(10,900)							
2018	1,320,613	5.879103						\$ 224,628	224,628	224,628	224,628	224,628	197,473						
2019	838,051	6.000000							\$ 139,675	139,675	139,675	139,675	139,675	139,676					
2020	3,310,369	6.000000								\$ 551,728	551,728	551,728	551,728	551,728	551,728	551,728			
2021	(464,631)	4.000000									\$ (116,158)	(116,158)	(116,158)	(116,157)					
2022	(2,446,179)	4.000000										\$ (611,545)	(611,545)	(611,545)	(611,544)				
2023	75,175	4.000000											\$ 18,794	18,794	18,794	18,793			
Net increase (decrease) in pension expense													\$ 179,967	\$ (17,504)	\$ (41,021)	\$ 18,793	\$ -	\$ -	\$ -

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, 2023 (c)	Balances at June 30, 2023	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
Prior	\$ -	\$ -	\$ -	\$ -	\$ -
2014	-	-	-	-	-
2015	-	935,554	935,554	-	-
2016	440,163	-	440,163	-	-
2017	-	95,360	95,360	-	-
2018	1,320,613	-	1,320,613	-	-
2019	838,051	-	698,375	139,676	-
2020	3,310,369	-	2,206,912	1,103,457	-
2021	-	464,631	348,474	-	116,157
2022	-	2,446,179	1,223,090	-	1,223,089
2023	75,175	-	18,794	56,381	-
				\$ 1,299,514	\$ 1,339,246



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.

Year	Changes of Assumptions	Recognition Period (Years)	Increase (Decrease) in Pension Expense Arising from the Effects of Changes of Assumptions																
			Prior	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Thereafter
Prior	\$ -	-																	
2014	-	-																	
2015	927,148	5.198539			\$ 178,348	178,348	178,348	178,348	178,348	35,408									
2016	16,140,037	5.430906				\$ 2,971,887	2,971,887	2,971,887	2,971,887	2,971,887	1,280,602								
2017	(6,346,566)	5.645252						\$ (1,124,231)	(1,124,231)	(1,124,231)	(1,124,231)	(725,411)							
2018	(474,554)	5.879103						\$ (80,719)	(80,719)	(80,719)	(80,719)	(80,719)	(70,959)						
2019	281,487	6.000000							\$ 46,915	46,915	46,915	46,915	46,915	46,912					
2020	5,490,501	6.000000								\$ 915,084	915,084	915,084	915,084	915,084	915,081				
2021	(2,850,909)	4.000000									\$ (712,727)	(712,727)	(712,727)	(712,728)					
2022	(11,386,282)	4.000000										\$ (2,846,571)	(2,846,571)	(2,846,571)	(2,846,569)				
2023	(955,267)	4.000000											\$ (238,817)	(238,817)	(238,817)	(238,816)			
Net increase (decrease) in pension expense													\$ (2,907,075)	\$ (2,836,120)	\$ (2,170,305)	\$ (238,816)	\$ -	\$ -	\$ -

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, 2023 (c)	Balances at June 30, 2023	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
Prior	\$ -	\$ -	\$ -	\$ -	\$ -
2014	-	-	-	-	-
2015	927,148	-	927,148	-	-
2016	16,140,037	-	16,140,037	-	-
2017	-	6,346,566	6,346,566	-	-
2018	-	474,554	474,554	-	-
2019	281,487	-	234,575	46,912	-
2020	5,490,501	-	3,660,336	1,830,165	-
2021	-	2,850,909	2,138,181	-	712,728
2022	-	11,386,282	5,693,142	-	5,693,140
2023	-	955,267	238,817	-	716,450
				\$ 1,877,077	\$ 7,122,318

City of Morgantown, West Virginia Policemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2023 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
2023	\$ 1,650,799	\$ -	\$ 1,650,799	\$ 463,332	\$ -	\$ 463,332	\$ 1,187,467	\$ -	\$ 1,187,467	\$ 2,220	\$ -	\$ 2,220	\$ 1,314,699	\$ -	\$ 1,314,699	\$ 647,136	\$ -	\$ 647,136
2024	\$ 1,548,769	\$ 104,360	\$ 1,653,129	\$ 348,557	\$ 21,980	\$ 370,537	\$ 1,200,212	\$ 82,380	\$ 1,282,592	\$ 2,135	\$ -	\$ 2,135	\$ 1,317,277	\$ 84,112	\$ 1,401,389	\$ 737,407	\$ -	\$ 737,407
2025	\$ 1,464,544	\$ 250,370	\$ 1,714,914	\$ 330,111	\$ 52,696	\$ 382,807	\$ 1,134,433	\$ 197,674	\$ 1,332,107	\$ 2,135	\$ 105	\$ 2,240	\$ 1,292,211	\$ 201,936	\$ 1,494,147	\$ 743,104	\$ -	\$ 743,104
2026	\$ 1,400,749	\$ 361,120	\$ 1,761,869	\$ 317,250	\$ 75,916	\$ 393,166	\$ 1,083,499	\$ 285,204	\$ 1,368,703	\$ 2,134	\$ 162	\$ 2,296	\$ 1,301,650	\$ 291,364	\$ 1,593,014	\$ 779,819	\$ -	\$ 779,819
2027	\$ 1,318,329	\$ 485,530	\$ 1,803,859	\$ 301,204	\$ 101,989	\$ 403,193	\$ 1,017,125	\$ 383,541	\$ 1,400,666	\$ 2,131	\$ 258	\$ 2,389	\$ 1,306,889	\$ 391,864	\$ 1,698,753	\$ 798,787	\$ -	\$ 798,787
2028	\$ 1,245,721	\$ 613,023	\$ 1,858,744	\$ 286,613	\$ 128,658	\$ 415,271	\$ 959,108	\$ 484,365	\$ 1,443,473	\$ 2,146	\$ 321	\$ 2,467	\$ 1,316,900	\$ 494,872	\$ 1,811,772	\$ 818,230	\$ -	\$ 818,230
2029	\$ 1,187,641	\$ 734,925	\$ 1,922,566	\$ 274,341	\$ 154,074	\$ 428,415	\$ 913,300	\$ 580,851	\$ 1,494,151	\$ 2,141	\$ 388	\$ 2,529	\$ 1,339,061	\$ 593,454	\$ 1,932,515	\$ 838,159	\$ -	\$ 838,159
2030	\$ 1,113,369	\$ 851,744	\$ 1,965,113	\$ 256,885	\$ 178,357	\$ 435,242	\$ 856,484	\$ 673,387	\$ 1,529,871	\$ 2,154	\$ 458	\$ 2,612	\$ 1,373,610	\$ 688,006	\$ 2,061,616	\$ 865,012	\$ -	\$ 865,012
2031	\$ 1,036,133	\$ 1,001,993	\$ 2,038,126	\$ 238,645	\$ 209,673	\$ 448,318	\$ 797,488	\$ 792,320	\$ 1,589,808	\$ 2,167	\$ 530	\$ 2,697	\$ 1,390,158	\$ 809,512	\$ 2,199,670	\$ 888,216	\$ -	\$ 888,216
2032	\$ 983,490	\$ 1,130,462	\$ 2,113,952	\$ 227,392	\$ 236,316	\$ 463,708	\$ 756,098	\$ 894,146	\$ 1,650,244	\$ 2,179	\$ 606	\$ 2,785	\$ 1,433,606	\$ 913,555	\$ 2,347,161	\$ 916,023	\$ -	\$ 916,023
2033	\$ 935,091	\$ 1,255,529	\$ 2,190,620	\$ 216,990	\$ 262,190	\$ 479,180	\$ 718,101	\$ 993,339	\$ 1,711,440	\$ 2,190	\$ 665	\$ 2,855	\$ 1,490,032	\$ 1,014,893	\$ 2,504,925	\$ 938,341	\$ -	\$ 938,341
2034	\$ 871,768	\$ 1,389,340	\$ 2,261,108	\$ 202,573	\$ 289,859	\$ 492,432	\$ 669,195	\$ 1,099,481	\$ 1,768,676	\$ 2,200	\$ 726	\$ 2,926	\$ 1,550,288	\$ 1,123,328	\$ 2,673,616	\$ 964,027	\$ -	\$ 964,027
2035	\$ 787,053	\$ 1,539,078	\$ 2,326,131	\$ 183,038	\$ 320,832	\$ 503,870	\$ 604,015	\$ 1,218,246	\$ 1,822,261	\$ 2,232	\$ 789	\$ 3,021	\$ 1,609,360	\$ 1,244,653	\$ 2,854,013	\$ 992,819	\$ -	\$ 992,819
2036	\$ 697,929	\$ 1,707,027	\$ 2,404,956	\$ 162,346	\$ 355,590	\$ 517,936	\$ 535,583	\$ 1,351,437	\$ 1,887,020	\$ 2,218	\$ 879	\$ 3,097	\$ 1,666,218	\$ 1,380,735	\$ 3,046,953	\$ 1,020,827	\$ -	\$ 1,020,827
2037	\$ 599,241	\$ 1,873,575	\$ 2,472,816	\$ 138,961	\$ 389,969	\$ 528,930	\$ 460,280	\$ 1,483,606	\$ 1,943,886	\$ 2,226	\$ 971	\$ 3,197	\$ 1,737,554	\$ 1,515,776	\$ 3,253,330	\$ 1,051,877	\$ -	\$ 1,051,877
2038	\$ 515,977	\$ 2,063,322	\$ 2,579,299	\$ 119,509	\$ 429,186	\$ 548,695	\$ 396,468	\$ 1,634,136	\$ 2,030,604	\$ 2,257	\$ 1,044	\$ 3,301	\$ 1,804,633	\$ 1,669,544	\$ 3,474,177	\$ 1,106,525	\$ -	\$ 1,106,525
2039	\$ 453,580	\$ 2,219,290	\$ 2,672,870	\$ 106,771	\$ 461,098	\$ 567,869	\$ 346,809	\$ 1,758,192	\$ 2,105,001	\$ 2,238	\$ 1,121	\$ 3,359	\$ 1,914,232	\$ 1,796,286	\$ 3,710,518	\$ 1,133,513	\$ -	\$ 1,133,513
2040	\$ 415,950	\$ 2,377,563	\$ 2,793,513	\$ 98,666	\$ 493,379	\$ 592,045	\$ 317,284	\$ 1,884,184	\$ 2,201,468	\$ 2,268	\$ 1,175	\$ 3,443	\$ 2,038,391	\$ 1,924,981	\$ 3,963,372	\$ 1,161,175	\$ -	\$ 1,161,175
2041	\$ 374,297	\$ 2,531,145	\$ 2,905,442	\$ 89,029	\$ 524,541	\$ 613,570	\$ 285,268	\$ 2,006,604	\$ 2,291,872	\$ 2,245	\$ 1,259	\$ 3,504	\$ 2,184,003	\$ 2,050,060	\$ 4,234,063	\$ 1,189,529	\$ -	\$ 1,189,529
2042	\$ 323,406	\$ 2,694,164	\$ 3,017,570	\$ 77,091	\$ 557,595	\$ 634,686	\$ 246,315	\$ 2,136,569	\$ 2,382,884	\$ 2,247	\$ 1,319	\$ 3,566	\$ 2,341,028	\$ 2,182,818	\$ 4,523,846	\$ 1,246,491	\$ -	\$ 1,246,491
2043	\$ 269,927	\$ 2,868,706	\$ 3,138,633	\$ 65,124	\$ 592,984	\$ 658,108	\$ 204,803	\$ 2,275,722	\$ 2,480,525	\$ 2,275	\$ 1,380	\$ 3,655	\$ 2,509,105	\$ 2,324,958	\$ 4,834,063	\$ 1,281,953	\$ -	\$ 1,281,953
2044	\$ 223,530	\$ 3,027,716	\$ 3,251,246	\$ 54,288	\$ 625,648	\$ 679,936	\$ 169,242	\$ 2,402,068	\$ 2,571,310	\$ 2,275	\$ 1,444	\$ 3,719	\$ 2,712,200	\$ 2,454,025	\$ 5,166,225	\$ 1,333,027	\$ -	\$ 1,333,027
2045	\$ 174,719	\$ 3,176,705	\$ 3,351,424	\$ 42,564	\$ 657,216	\$ 699,780	\$ 132,155	\$ 2,519,489	\$ 2,651,644	\$ 2,274	\$ 1,510	\$ 3,784	\$ 2,947,890	\$ 2,573,981	\$ 5,521,871	\$ 1,365,614	\$ -	\$ 1,365,614
2046	\$ 130,952	\$ 3,338,477	\$ 3,469,429	\$ 32,289	\$ 691,867	\$ 724,156	\$ 98,663	\$ 2,646,610	\$ 2,745,273	\$ 2,271	\$ 1,608	\$ 3,879	\$ 3,198,770	\$ 2,703,873	\$ 5,902,643	\$ 1,430,737	\$ -	\$ 1,430,737
2047	\$ 102,704	\$ 3,491,826	\$ 3,594,530	\$ 25,555	\$ 724,826	\$ 750,381	\$ 77,149	\$ 2,767,000	\$ 2,844,149	\$ 2,267	\$ 1,709	\$ 3,976	\$ 3,483,557	\$ 2,826,896	\$ 6,310,453	\$ 1,465,803	\$ -	\$ 1,465,803
2048	\$ 67,006	\$ 3,630,903	\$ 3,697,909	\$ 16,752	\$ 755,165	\$ 771,917	\$ 50,254	\$ 2,875,738	\$ 2,925,992	\$ 2,261	\$ 1,784	\$ 4,045	\$ 3,809,110	\$ 2,937,996	\$ 6,747,106	\$ 1,501,746	\$ -	\$ 1,501,746
2049	\$ 34,374	\$ 3,787,951	\$ 3,822,325	\$ 8,553	\$ 789,311	\$ 797,864	\$ 25,821	\$ 2,998,640	\$ 3,024,461	\$ 2,253	\$ 1,893	\$ 4,146	\$ 4,151,026	\$ 3,063,591	\$ 7,214,617	\$ 1,575,193	\$ -	\$ 1,575,193
2050	\$ 20,624	\$ 3,940,815	\$ 3,961,439	\$ 5,135	\$ 822,345	\$ 827,480	\$ 15,489	\$ 3,118,470	\$ 3,133,959	\$ 2,243	\$ 2,007	\$ 4,250	\$ 4,529,238	\$ 3,186,055	\$ 7,715,293	\$ 1,685,669	\$ -	\$ 1,685,669
2051	\$ 11,941	\$ 4,085,122	\$ 4,097,063	\$ 2,985	\$ 853,763	\$ 856,748	\$ 8,956	\$ 3,231,359	\$ 3,240,315	\$ 2,231	\$ 2,093	\$ 4,324	\$ 4,949,960	\$ 3,301,404	\$ 8,251,364	\$ 1,726,996	\$ -	\$ 1,726,996
2052	\$ 6,942	\$ 4,228,321	\$ 4,235,263	\$ 1,741	\$ 884,744	\$ 886,485	\$ 5,201	\$ 3,343,577	\$ 3,348,778	\$ 2,217	\$ 2,215	\$ 4,432	\$ 5,409,268	\$ 3,416,104	\$ 8,825,372	\$ 1,769,355	\$ -	\$ 1,769,355
2053	\$ 3,869	\$ 4,376,315	\$ 4,380,184	\$ 974	\$ 916,114	\$ 917,088	\$ 2,895	\$ 3,460,201	\$ 3,463,096	\$ 2,201	\$ 2,342	\$ 4,543	\$ 5,904,650	\$ 3,535,307	\$ 9,439,957	\$ 1,865,295	\$ -	\$ 1,865,295
2054	\$ 1,989	\$ 4,531,237	\$ 4,533,226	\$ 498	\$ 948,770	\$ 949,268	\$ 1,491	\$ 3,582,467	\$ 3,583,958	\$ 2,183	\$ 2,474	\$ 4,657	\$ 6,437,591	\$ 3,660,276	\$ 10,097,867	\$ 5,875,922	\$ -	\$ 5,875,922
2055	\$ 963	\$ 4,684,147	\$ 4,685,110	\$ 243	\$ 981,115	\$ 981,358	\$ 720	\$ 3,703,032	\$ 3,703,752	\$ 2,163	\$ 2,575	\$ 4,738	\$ 7,018,724	\$ 3,783,478	\$ 10,802,202	\$ 6,023,934	\$ -	\$ 6,023,934
2056	\$ 541	\$ 4,843,062	\$ 4,843,603	\$ 138	\$ 1,014,711	\$ 1,014,849	\$ 403	\$ 3,828,351	\$ 3,828,754	\$ 2,141	\$ 2,715	\$ 4,856	\$ 7,644,621	\$ 3,911,572	\$ 11,556,193	\$ 6,427,475	\$ -	\$ 6,427,475
2057	\$ 288	\$ 5,007,939	\$ 5,008,227	\$ 73	\$ 1,049,649	\$ 1,049,722	\$ 215	\$ 3,958,290	\$ 3,958,505	\$ 2,116	\$ 2,861	\$ 4,977	\$ 8,318,836	\$ 4,044,389	\$ 12,363,225	\$ 8,222,057	\$ -	\$ 8,222,057
2058	\$ -	\$ 5,174,711	\$ 5,174,711	\$ -	\$ 1,085,130	\$ 1,085,130	\$ -	\$ 4,089,581	\$ 4,089,581	\$ 2,089	\$ 3,012	\$ 5,101	\$ 9,048,483	\$ 4,178,592	\$ 13,227,075	\$ 483,826	\$ -	\$ 483,826
2059	\$ -	\$ 5,350,649	\$ 5,350,649	\$ -	\$ 1,122,393	\$ 1,122,393	\$ -	\$ 4,228,256	\$ 4,228,256	\$ 2,059	\$ 3,170	\$ 5,229	\$ 2,058	\$ 4,320,342	\$ 4,322,400	\$ -	\$ -	\$ -
2060	\$ -	\$ 5,536,081	\$ 5,536,081	\$ -	\$ 1,161,320	\$ 1,161,320	\$ -	\$ 4,374,761	\$ 4,374,761	\$ 2,026	\$ 3,293	\$ 5,319	\$ 2,027	\$ 4,470,050	\$ 4,472,077	\$ -	\$ -	\$ -
2061	\$ -	\$ 5,732,388	\$ 5,732,388	\$ -	\$ 1,202,356	\$ 1,202,356	\$ -	\$ 4,530,032	\$ 4,530,032	\$ 1,990	\$ 3,462	\$ 5,452	\$ 1,990	\$ 4,628,756	\$ 4,630,746	\$ -	\$ -	\$ -
2062	\$ -	\$ 5,933,910	\$ 5,933,910	\$ -	\$ 1,244,327	\$ 1,244,327	\$ -	\$ 4,689,583	\$ 4,689,583	\$ 1,951	\$ 3,637	\$ 5,588	\$ 1,951	\$ 4,791,837	\$ 4,793,788	\$ -	\$ -	\$ -
2063	\$ -	\$ 6,147,496	\$ 6,147,496	\$ -	\$ 1,288,602	\$ 1,288,602	\$ -	\$ 4,858,894	\$ 4,858,894	\$ 1,954	\$ 3,774	\$ 5,728	\$ 1,954	\$ 4,964,845	\$ 4,966,799	\$ -	\$ -	\$ -

City of Morgantown, West Virginia Policemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2023 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
2023	\$ 75,055,615	\$ -	\$ 75,055,615	\$ 16,258,285	21.66%	\$ 463,332	\$ 1,961,835	\$ 2,907,734	\$ 2,220	\$ 1,194,223
2024	\$ 76,997,556	\$ -	\$ 76,997,556	\$ 16,967,721	22.04%	\$ 355,887	\$ 2,054,684	\$ 3,080,309	\$ 2,135	\$ 706,999
2025	\$ 78,739,459	\$ 107,682	\$ 78,847,141	\$ 17,002,847	21.59%	\$ 337,053	\$ 2,035,315	\$ 3,236,858	\$ 2,135	\$ 704,397
2026	\$ 80,307,748	\$ 368,683	\$ 80,676,431	\$ 16,840,619	20.97%	\$ 323,921	\$ 2,081,469	\$ 3,361,316	\$ 2,134	\$ 695,579
2027	\$ 81,749,107	\$ 750,484	\$ 82,499,591	\$ 16,578,138	20.28%	\$ 307,538	\$ 2,105,676	\$ 3,488,531	\$ 2,131	\$ 681,913
2028	\$ 83,035,911	\$ 1,270,594	\$ 84,306,505	\$ 16,182,603	19.49%	\$ 292,640	\$ 2,135,130	\$ 3,601,149	\$ 2,146	\$ 663,041
2029	\$ 84,186,724	\$ 1,936,745	\$ 86,123,469	\$ 15,670,119	18.61%	\$ 280,110	\$ 2,177,220	\$ 3,689,571	\$ 2,141	\$ 640,022
2030	\$ 85,235,617	\$ 2,748,556	\$ 87,984,173	\$ 15,075,759	17.69%	\$ 262,287	\$ 2,238,622	\$ 3,856,677	\$ 2,154	\$ 612,164
2031	\$ 86,081,039	\$ 3,705,105	\$ 89,786,144	\$ 14,330,002	16.65%	\$ 243,663	\$ 2,278,374	\$ 3,985,351	\$ 2,167	\$ 578,208
2032	\$ 86,750,493	\$ 4,845,265	\$ 91,595,758	\$ 13,442,729	15.50%	\$ 232,174	\$ 2,349,629	\$ 4,069,165	\$ 2,179	\$ 539,993
2033	\$ 87,307,942	\$ 6,152,257	\$ 93,460,199	\$ 12,493,181	14.31%	\$ 221,553	\$ 2,428,373	\$ 4,148,053	\$ 2,190	\$ 499,410
2034	\$ 87,758,080	\$ 7,629,045	\$ 95,387,125	\$ 11,492,275	13.10%	\$ 206,833	\$ 2,514,315	\$ 4,278,332	\$ 2,200	\$ 455,630
2035	\$ 88,028,316	\$ 9,291,273	\$ 97,319,589	\$ 10,388,521	11.80%	\$ 186,887	\$ 2,602,179	\$ 4,428,346	\$ 2,232	\$ 406,993
2036	\$ 88,068,553	\$ 11,161,003	\$ 99,229,556	\$ 9,154,001	10.39%	\$ 165,760	\$ 2,687,045	\$ 4,594,113	\$ 2,218	\$ 352,381
2037	\$ 87,848,335	\$ 13,263,654	\$ 101,111,989	\$ 7,762,856	8.84%	\$ 141,883	\$ 2,789,431	\$ 4,781,868	\$ 2,226	\$ 290,959
2038	\$ 87,324,173	\$ 15,605,374	\$ 102,929,547	\$ 6,201,036	7.10%	\$ 122,022	\$ 2,911,158	\$ 4,902,978	\$ 2,257	\$ 224,177
2039	\$ 86,567,274	\$ 18,220,552	\$ 104,787,826	\$ 4,553,157	5.26%	\$ 109,016	\$ 3,047,745	\$ 4,966,505	\$ 2,238	\$ 155,405
2040	\$ 85,648,295	\$ 21,084,203	\$ 106,732,498	\$ 2,896,581	3.38%	\$ 100,741	\$ 3,199,566	\$ 4,992,383	\$ 2,268	\$ 87,474
2041	\$ 84,624,608	\$ 24,206,896	\$ 108,831,504	\$ 1,289,710	1.52%	\$ 90,901	\$ 3,373,532	\$ 5,041,356	\$ 2,245	\$ 21,605
2042	\$ 83,463,988	\$ 27,592,728	\$ 111,056,716	\$ -	0.00%	\$ 78,712	\$ 3,587,519	\$ 5,095,511	\$ 2,247	\$ -
2043	\$ 82,145,694	\$ 31,261,698	\$ 113,407,392	\$ -	0.00%	\$ 66,493	\$ 3,791,058	\$ 5,143,345	\$ 2,275	\$ -
2044	\$ 80,666,781	\$ 35,236,842	\$ 115,903,623	\$ -	0.00%	\$ 55,430	\$ 4,045,227	\$ 5,188,764	\$ 2,275	\$ -
2045	\$ 79,030,271	\$ 39,494,808	\$ 118,525,079	\$ -	0.00%	\$ 43,459	\$ 4,313,504	\$ 5,231,703	\$ 2,274	\$ -
2046	\$ 77,229,482	\$ 44,000,357	\$ 121,229,839	\$ -	0.00%	\$ 32,968	\$ 4,629,507	\$ 5,249,206	\$ 2,271	\$ -
2047	\$ 75,288,661	\$ 48,758,218	\$ 124,046,879	\$ -	0.00%	\$ 26,092	\$ 4,949,360	\$ 5,237,144	\$ 2,267	\$ -
2048	\$ 73,248,223	\$ 53,762,900	\$ 127,011,123	\$ -	0.00%	\$ 17,104	\$ 5,310,856	\$ 5,250,801	\$ 2,261	\$ 1,575
2049	\$ 71,069,907	\$ 58,976,824	\$ 130,046,731	\$ 76,473	0.11%	\$ 8,733	\$ 5,726,219	\$ 5,235,728	\$ 2,253	\$ 13,701
2050	\$ 68,780,383	\$ 64,401,887	\$ 133,182,270	\$ 587,145	0.85%	\$ 5,243	\$ 6,214,907	\$ 5,180,284	\$ 2,243	\$ 46,774
2051	\$ 66,435,830	\$ 70,038,861	\$ 136,474,691	\$ 1,671,542	2.52%	\$ 3,048	\$ 6,676,956	\$ 5,111,127	\$ 2,231	\$ 103,985
2052	\$ 64,053,193	\$ 75,875,383	\$ 139,928,576	\$ 3,342,173	5.22%	\$ 1,778	\$ 7,178,623	\$ 5,031,219	\$ 2,217	\$ 187,191
2053	\$ 61,645,671	\$ 81,886,684	\$ 143,532,355	\$ 5,676,330	9.21%	\$ 994	\$ 7,769,945	\$ 4,943,996	\$ 2,201	\$ 300,645
2054	\$ 59,221,683	\$ 88,061,791	\$ 147,283,474	\$ 8,801,717	14.86%	\$ 508	\$ 12,313,513	\$ 4,850,989	\$ 2,183	\$ 530,966
2055	\$ 56,787,678	\$ 94,407,619	\$ 151,195,297	\$ 16,793,531	29.57%	\$ 248	\$ 13,042,658	\$ 4,752,755	\$ 2,163	\$ 888,012
2056	\$ 54,349,458	\$ 100,911,219	\$ 155,260,677	\$ 25,969,532	47.78%	\$ 141	\$ 14,072,096	\$ 4,649,857	\$ 2,141	\$ 1,301,802
2057	\$ 51,912,236	\$ 107,570,405	\$ 159,482,641	\$ 36,691,573	70.68%	\$ 75	\$ 16,540,893	\$ 4,542,995	\$ 2,116	\$ 1,811,651
2058	\$ 49,480,277	\$ 114,387,535	\$ 163,867,812	\$ 50,499,080	102.06%	\$ -	\$ 9,532,309	\$ 4,432,554	\$ 2,089	\$ 2,253,409
2059	\$ 47,057,423	\$ 121,359,077	\$ 168,416,500	\$ 57,850,155	122.94%	\$ -	\$ 2,058	\$ 4,317,891	\$ 2,059	\$ 2,367,831
2060	\$ 44,648,672	\$ 128,485,188	\$ 173,133,860	\$ 55,900,094	125.20%	\$ -	\$ 2,027	\$ 4,199,674	\$ 2,026	\$ 2,287,440
2061	\$ 42,258,252	\$ 135,778,837	\$ 178,037,089	\$ 53,987,861	127.76%	\$ -	\$ 1,990	\$ 4,078,021	\$ 1,990	\$ 2,208,728
2062	\$ 39,890,450	\$ 143,256,623	\$ 183,147,073	\$ 52,118,568	130.65%	\$ -	\$ 1,951	\$ 3,953,183	\$ 1,951	\$ 2,131,908
2063	\$ 37,549,480	\$ 150,923,144	\$ 188,472,624	\$ 50,297,294	133.95%	\$ -	\$ 1,954	\$ 3,825,447	\$ 1,954	\$ 2,057,190

City of Morgantown, West Virginia Policemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2023 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				
2023	\$ 2,907,734	\$ -	\$ 2,847,847	\$ -	\$ 2,849,855				
2024	\$ 3,080,309	\$ -	\$ 2,893,878	\$ -	\$ 2,900,003				
2025	\$ 3,236,858	\$ -	\$ 2,916,980	\$ -	\$ 2,927,277				
2026	\$ 3,361,316	\$ -	\$ 2,905,649	\$ -	\$ 2,920,018				
2027	\$ 3,488,531	\$ -	\$ 2,892,679	\$ -	\$ 2,911,085				
2028	\$ 3,601,149	\$ -	\$ 2,864,328	\$ -	\$ 2,886,619				
2029	\$ 3,689,571	\$ -	\$ 2,815,020	\$ -	\$ 2,840,928				
2030	\$ 3,856,677	\$ -	\$ 2,822,557	\$ -	\$ 2,852,553				
2031	\$ 3,985,351	\$ -	\$ 2,797,822	\$ -	\$ 2,831,543				
2032	\$ 4,069,165	\$ -	\$ 2,740,203	\$ -	\$ 2,777,141				
2033	\$ 4,148,053	\$ -	\$ 2,679,450	\$ -	\$ 2,719,399				
2034	\$ 4,278,332	\$ -	\$ 2,650,939	\$ -	\$ 2,694,258				
2035	\$ 4,428,346	\$ -	\$ 2,632,029	\$ -	\$ 2,678,813				
2036	\$ 4,594,113	\$ -	\$ 2,619,237	\$ -	\$ 2,669,553				
2037	\$ 4,781,868	\$ -	\$ 2,615,138	\$ -	\$ 2,669,135				
2038	\$ 4,902,978	\$ -	\$ 2,572,059	\$ -	\$ 2,628,869				
2039	\$ -	\$ 4,966,505	\$ -	\$ 2,658,604	\$ 2,557,973				
2040	\$ -	\$ 4,992,383	\$ -	\$ 2,573,134	\$ 2,469,955				
2041	\$ -	\$ 5,041,356	\$ -	\$ 2,501,805	\$ 2,395,877				
2042	\$ -	\$ 5,095,511	\$ -	\$ 2,434,700	\$ 2,326,167				
2043	\$ -	\$ 5,143,345	\$ -	\$ 2,366,220	\$ 2,255,459				
2044	\$ -	\$ 5,188,764	\$ -	\$ 2,298,397	\$ 2,185,693				
2045	\$ -	\$ 5,231,703	\$ -	\$ 2,231,289	\$ 2,116,920				
2046	\$ -	\$ 5,249,206	\$ -	\$ 2,155,550	\$ 2,040,286				
2047	\$ -	\$ 5,237,144	\$ -	\$ 2,070,669	\$ 1,955,366				
2048	\$ -	\$ 5,250,801	\$ -	\$ 1,998,911	\$ 1,883,194				
2049	\$ -	\$ 5,235,728	\$ -	\$ 1,919,096	\$ 1,803,776				
2050	\$ -	\$ 5,180,284	\$ -	\$ 1,828,205	\$ 1,714,333				
2051	\$ -	\$ 5,111,127	\$ -	\$ 1,736,759	\$ 1,624,780				
2052	\$ -	\$ 5,031,219	\$ -	\$ 1,646,068	\$ 1,536,339				
2053	\$ 4,943,996	\$ -	\$ 1,389,179	\$ -	\$ 1,450,200				
2054	\$ 4,850,989	\$ -	\$ 1,307,478	\$ -	\$ 1,366,835				
2055	\$ 4,752,755	\$ -	\$ 1,228,778	\$ -	\$ 1,286,375				
2056	\$ 4,649,857	\$ -	\$ 1,153,165	\$ -	\$ 1,208,920				
2057	\$ 4,542,995	\$ -	\$ 1,080,732	\$ -	\$ 1,134,583				
2058	\$ 4,432,554	\$ -	\$ 1,011,472	\$ -	\$ 1,063,370				
2059	\$ 4,317,891	\$ -	\$ 945,138	\$ -	\$ 995,034				
2060	\$ 4,199,674	\$ -	\$ 881,786	\$ -	\$ 929,647				
2061	\$ 4,078,021	\$ -	\$ 821,336	\$ -	\$ 867,137				
2062	\$ 3,953,183	\$ -	\$ 763,734	\$ -	\$ 807,461				
2063	\$ 3,825,447	\$ -	\$ 708,927	\$ -	\$ 750,573				