

Municipal Pensions Oversight Board

City of Moundsville West Virginia Firemen's Pension and Relief Fund

GASB 67 Actuarial Information for the Fiscal Year Ending June 30, 2024

GASB 68 Actuarial Information for the Fiscal Year Ending June 30, 2024 (Measurement Period Ending June 30, 2024)

Bolton

Submitted by:

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November 27, 2024

Ms. Lacey Williams City Treasurer City of Moundsville 800 Sixth Street, P.O. Box E Moundsville, WV 26041 Mrs. Karen Ankrom Pension Board Secretary City of Moundsville Firemen's Pension and Relief Fund

Re: City of Moundsville Firemen's Pension and Relief Fund GASB 67 and GASB 68 Actuarial Information for the Measurement Period Ending June 30, 2024

Dear Lacey,

The following report contains the GASB 67 actuarial information to be included with the plan's financial statements for the plan year ending June 30, 2024 and the GASB 68 actuarial information to be included with the City's financial statements for the fiscal year ending June 30, 2024. The GASB 68 information has been provided as of the June 30, 2024 measurement date for FY 2024.

Methodology, Reliance and Certification

This report was prepared for the internal use of the City and its auditors in connection with our actuarial valuations of the pension plan as required by GASB 68. The purpose of this report is to provide the GASB 67 actuarial information for use in the plan's financial statements for the plan year ending June 30, 2024 and the GASB 68 information for use in the City's financial statements for the fiscal year ending June 30, 2024. It is neither intended nor necessarily suitable for other purposes. Bolton is not responsible for the consequences of any other use or the reliance upon this report by any other party.

These calculations are applicable for the valuation date only. This valuation does not provide any guarantee that the plan will be able to provide the promised benefits in the future.

The total pension liability is based on the July 1, 2023 actuarial valuation rolled forward to June 30, 2024. Our understanding is that there have been no substantial changes affecting the liabilities of the plan since July 1, 2023 that would cause our estimates of the June 30, 2024 liabilities to not reasonably reflect the condition of the plan. The methods, assumptions, and participant data used are detailed in the July 1, 2023 actuarial valuation report. These calculations are based on the Entry Age Normal cost method as required by GASB 67. The calculation of the actuarially determined contribution for the fiscal year ended June 30, 2024 is contained in the July 1, 2022 actuarial valuation may be different if a blended rate is used for GASB purposes.

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 level of plan assets, the expected future employer and employee contributions, and the expected future investment earnings are expected to be sufficient to cover all expected future benefits and expenses. Thus, these GASB results were developed using the long-term investment return assumption as the discount rate.

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.

Ms. Lacey Williams November 27, 2024 Page 2

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. We have not audited the census data provided; however, based on our review, the data appears to be reasonable and consistent with previously provided information. Unless otherwise noted in our report, we believe the information provided is sufficiently complete and reliable for purposes of the results presented in this report. The accuracy of the results presented in this report is dependent upon the accuracy and completeness of the underlying information. The City is solely responsible for the validity and completeness of this information.

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.

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. 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.

Different assumptions or scenarios within the range of possibilities may also be reasonable and results based on those assumptions would be different. As a result of the uncertainty inherent in a forward-looking projection over a very long period of time, no one projection is uniquely "correct" and many alternative projections of the future could also be regarded as reasonable. Two different actuaries could, quite reasonably, arrive at different results based on the same data and different views of the future.

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.

In addition, decisions regarding benefit improvements, benefit changes, the trust's investment policy, and similar issues should not be based on this valuation. These issues are complex and other factors should be considered when making such decisions. Other factors might include the anticipated vitality of the local economy and future growth expectations, as well as other economic and financial factors.

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.



Ms. Lacey Williams November 27, 2024 Page 3

Methodology, Reliance and Certification (cont.)

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 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.

The calculations in this report 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.

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.

Bolton does not practice law and, therefore, cannot and does not provide legal advice. Any statutory interpretation on which this report is based reflects Bolton's understanding as an actuarial firm. Bolton recommends that recipients of this report consult with legal counsel when making any decisions regarding compliance with ERISA, the Internal Revenue Code, or any other statute or regulation.

The City should notify Bolton promptly after receipt of this report if the City disagrees with anything contained in the report or is aware of any information that would affect the results of the report that has not been communicated to Bolton or incorporated herein. The report will be deemed final and acceptable to the City unless the City promptly provides such notice to Bolton.

The undersigned enrolled actuaries meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. The July 1, 2023 actuarial valuation report contains information that is integral to the results contained herein and a copy may be provided upon request.

Sincerely,

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James Ritchie, ASA, EA, FCA, MAAA

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Jordan McClane, FSA, EA, FCA, MAAA





Net Pension Liability of the Employer

The components of the net pension liability of the Employer at June 30, 2024, were as follows:

Total pension liability	\$ 2,725,596
Plan fiduciary net position	 (1,776,275)
Employer's net pension liability	\$ 949,321
Plan fiduciary net position as a percentage	65.17%
of the total pension liability	

Actuarial assumptions. The total pension liability was determined by an actuarial valuation as of July 1, 2023 rolled forward to June 30, 2024 using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.50%
Salary increases	Rates vary by years of service
Single discount rate (BOY)	5.75%
Single discount rate (EOY)	6.50%
Investment rate of return (BOY)	5.75%, net of pension plan investment expense, including inflation
Investment rate of return (EOY)	6.50%, net of pension plan investment expense, including inflation
Long-term municpal bond rate (BOY)	3.86%
Long-term municpal bond rate (EOY)	3.97%
Mortality	SOA PubS-2010(B) with generational projection using Scale MP-2021
Year Fund is projected to be fully funded	2040
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, 2023 actuarial valuation report.

Sensitivity of the Net Pension Liability to Changes in the Discount Rate

	1%	Decrease 5.50%	Current count Rate 6.50%	Increase 7.50%
Employer's net pension liability	\$	1,215,022	\$ 949,321	\$ 723,893



Changes in the Net Pension Liability

		l	ncrea	ase (Decrease	e)	
	То	tal Pension Liability (a)		an Fiduciary et Position (b)	N	et Pension Liability (a) - (b)
Balances at 6/30/23	\$	2,864,557	\$	1,656,999	\$	1,207,558
Changes for the year:						
Service cost		54,154				54,154
Interest		158,381				158,381
Changes of benefit terms		-				-
Differences between expected and actual experience		91,344				91,344
Changes of assumptions		(222,642)				(222,642)
Contributions - employer (including Premium Tax Allocation)				140,355		(140,355)
Contributions - member				10,254		(10,254)
Net investment income				188,865		(188,865)
Benefit payments, including refunds of member contributions		(220,198)		(220,198)		-
Administrative expense				-		-
Other				-		-
Net Changes		(138,961)		119,276		(258,237)
Balances at 6/30/24	\$	2,725,596	\$	1,776,275	\$	949,321
Return on Investments				11.6%		



Components of Employer's Pension Expense for the Fiscal Year Ended June 30, 2024

Note	Description	Amount
А	Service cost	\$ 54,154
В	Interest on the total pension liability	158,381
А	Changes of benefit terms	-
С	Differences between expected and actual experience	91,344
С	Changes of assumptions	(222,642)
А	Employee contributions	(10,254)
D	Projected earnings on pension plan investments	(93,276)
С	Differences between expected and actual earnings on plan investments	(26,145)
А	Pension plan administrative expense	-
А	Other changes in fiduciary net position	-
	Total Pension Expense	\$ (48,438)

Notes:

- A Provided in the Changes in Net Pension Liability exhibit.
- B Based on the following calculation:

	ļ	Amount for Period (a)	Portion of Period (b)	Interest Rate (c)	E	rojected arnings x (b) x (c)
Beginning total pension liability	\$	2,864,557	100%	5.75%	\$	164,712
Service cost (end of year)		54,154	0%	5.75%		-
Benefit payments, including refunds of employee contributions		(220,198)	50%	5.75%		(6,331)
Total interest on the total pension liability					\$	158,381

C Provided in the Schedules of Deferrals.

D Based on the following calculation:

	A	mount for Period (a)	Portion of Period (b)	Projected Rate of Return (c)	Ea	ojected arnings x (b) x (c)
Beginning plan fiduciary net position	\$	1,656,999	100%	5.75%	\$	95,277
Employer contributions		140,355	50%	5.75%		4,035
Employee contributions		10,254	50%	5.75%		295
Benefit payments, including refunds of employee contributions		(220,198)	50%	5.75%		(6,331)
Administrative expense and other		-	50%	5.75%		-
Total Projected Earnings					\$	93,276



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

At June 30, 2024, the Employer reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	 Outflows ources	rred Inflows Resources
Differences between expected and actual experience	\$ -	\$ -
Changes of assumptions	-	-
Net difference between projected and actual earnings	-	
on pension plan investments		53,081
Total	\$ -	\$ 53,081

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:	
2025	\$ (50,426)
2026	44,306
2027	(27,844)
2028	(19,117)
2029	-
Thereafter	-

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

Total pension liability	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Service cost	\$ 54,154	\$ 45,856	\$ 49,909	\$ 56,985	\$ 54,263	\$ 48,822	\$ 101,821	\$ 96,740	\$ 75,523	\$ 92,565
Interest	158,381	158,565	157,156	188,842	191,401	244,768	235,811	236,470	234,662	242,694
Changes of benefit terms	-	-	-	-	-	-	-	-	-	-
Differences between expected and actual experience	91,344	99,546	(119,426)	(452,981)	(40,219)	(1,075,646)	10,959	(51,794)	(160,444)	51,635
Changes of assumptions	(222,642)	130,457	(191,498)	(484,500)	-	-	(286,013)	-	619,918	-
Benefit payments, including refunds of member contributions	(220,198)	(213,814)	(219,184)	(236,372)	(276,902)	(293,649)	(397,537)	(325,193)	(329,316)	(324,578)
Net change in total pension liability	(138,961)	220,610	(323,043)	(928,026)	(71,457)	(1,075,705)	(334,959)	(43,777)	440,343	62,316
Total pension liability - beginning	2,864,557	2,643,947	2,966,990	3,895,016	3,966,473	5,042,178	5,377,137	5,420,914	4,980,571	4,918,255
Total pension liability - ending (a)	\$ 2,725,596	\$ 2,864,557	\$ 2,643,947	\$ 2,966,990	\$ 3,895,016	\$ 3,966,473	\$ 5,042,178	\$ 5,377,137	\$ 5,420,914	\$ 4,980,571

Plan fiduciary net position	2024	2023	2022		2021		2020		2019		2018		2017		2016		2015
Contributions - employer (including Premium Tax Allocation)	\$ 140,355	\$ 90,154	\$ 172,514	\$	195,811	\$	202,167	\$	288,637	\$	377,828	\$	318,908	\$	285,308	\$	306,710
Contributions - member	10,254	8,687	8,118		7,545		7,457		7,042		8,867		12,243		10,856		10,969
Net investment income	188,865	141,912	(255,512)		544,321		(45,932)		76,257		114,658		132,513		(15,835)		21,996
Benefit payments, including refunds of member contributions	(220,198)	(213,814)	(219,184)		(236,372)		(276,902)		(293,649)		(397,537)		(325,193)		(329,316)		(324,578)
Administrative expense	-	(62)	(16,823)		(169)		(200)		-		-		(400)		(620)		(46)
Other	 -	 49	 -		-		-		(1,698)		-		-		-		-
Net change in plan fiduciary net position	\$ 119,276	\$ 26,926	\$ (310,887)	\$	511,136	\$	(113,410)	\$	76,589	\$	103,816	\$	138,071	\$	(49,607)	\$	15,051
Plan fiduciary net position - beginning	1,656,999	1,630,073	1,940,960		1,429,824		1,543,234		1,466,645		1,362,829		1,224,758		1,274,365		1,259,314
Plan fiduciary net position - ending (b)	\$ 1,776,275	\$ 1,656,999	\$ 1,630,073	\$	1,940,960	\$	1,429,824	\$	1,543,234	\$	1,466,645	\$	1,362,829	\$	1,224,758	\$	1,274,365
Employer's net pension liability - ending (a)-(b)	\$ 949,321	\$ 1,207,558	\$ 1,013,874	\$	1,026,030	\$	2,465,192	\$	2,423,239	\$	3,575,533	\$	4,014,308	\$	4,196,156	\$	3,706,206
	 	 		_		_		_		_		-		_		_	
Plan fiduciary net position as a percentage of the																	
total pension liability	65.17%	57.84%	61.65%		65.42%		36.71%		38.91%		29.09%		25.34%		22.59%		25.59%
Covered payroll	\$ 129,083	\$ 121,902	\$ 111,753	\$	111,806	\$	107,433	\$	96,810	\$	169,799	\$	160,821	\$	159,715	\$	197,010
Employer's net pension liability as a percentage of																	
covered payroll	735.43%	990.60%	907.25%		917.69%		2294.63%		2503.09%		2105.74%		2496.14%		2627.28%		1881.23%
Expected average remaining service years of all participants	1.00	1.00	1.00		1.00		1.00		1.00		1.75		1.82		1.98		2.49

Notes to Schedule:

Benefit changes: There were no changes for FY2024.

Changes of assumptions: Pursuant to the 2023 Experience Study Report, changes were made to cost-of-living increases, mortality improvement rates, retirement rates, termination rates, and disability rates. Additionally, the discount rate changed from 5.75% to 6.50%.

Schedule of Employer Contributions Last 10 Fiscal Years

	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Actuarially determined contribution	\$ 99,595	\$ 68,998	\$ 110,666	\$ 196,194	\$ 199,887	\$ 307,886	\$ 263,317	\$ 273,465	\$ 266,650	\$ 240,658
Contributions in relation to the actuarially determined contribution										
Employer provided	72,561	35,673	101,048	115,089	125,285	220,347	304,682	246,178	224,370	239,932
State provided	67,794	54,481	71,466	80,722	76,882	68,290	73,146	72,730	60,938	66,778
Contribution deficiency (excess)	\$ (40,760)	\$ (21,156)	\$ (61,848)	\$ 383	\$ (2,280)	\$ 19,249	\$ (114,511)	\$ (45,443)	\$ (18,658)	\$ (66,052)
Covered payroll	\$ 129,083	\$ 121,902	\$ 111,753	\$ 111,806	\$ 107,433	\$ 96,810	\$ 169,799	\$ 160,821	\$ 159,715	\$ 197,010
Contributions as a percentage of covered employee payroll	108.73%	73.96%	154.37%	175.13%	188.18%	298.15%	222.51%	198.30%	178.64%	155.68%

Notes to Schedule

Valuation date:

Actuarial determined contribution (ADC) amounts are calculated as of the beginning of the fiscal year (July 1) for the year immediately following the fiscal year. The assumptions shown below are those used in the 7/1/2022 actuarial valuation to calculate the FY2024 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	13 to 26.5 years
Asset valuation method	4-year smoothed market
Inflation	2.50%
Salary increases	Rates vary by years of service
Investment rate of return	5.75%, 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 Moundsville, West Virginia Firemen's Pension and Relief Fund

Actuarial Information to Include in the Financial Statements for the June 30, 2024 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	betwe and Ac on P	fferences een Projected ctual Earnings ension Plan vestments	Recognition Period (Years)			Expense Aris nd Actual Ea 2026		
2020	\$	121,406	5	24,282				
2021		(473,659)	5	(94,732)	(94,731)			
2022		360,741	5	72,148	72,148	72,149		
2023		(43,626)	5	(8,725)	(8,725)	(8,725)	(8,726)	
2024		(95,589)	5	\$ (19,118)	(19,118)	(19,118)	(19,118)	(19,117)
Net increa	ase (dec	rease) in pensio	n expense	\$ (26,145)	\$ (50,426)	\$ 44,306	\$ (27,844)	\$ (19,117)

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

	Investment					Rec	Amounts cognized in	Balances at June 30, 2024 Deferred Deferre			
Earnings Less than		Earnings Greater than	٦	ion Expense Through	Οι	itflows of esources	Inflows of Resources				
Year		Projected (a)	Projected (b)	Jur	June 30, 2024 (c)		(a) - (c)	ĸ	(b) - (c)		
2020	\$	121,406	\$-	\$	121,406	\$	-	\$	-		
2021		-	473,659		378,928		-		94,731		
2022		360,741	-		216,444		144,297		-		
2023		-	43,626		17,450		-		26,176		
2024		-	95,589		19,118		-		76,471		
						\$	144,297	\$	197,378		



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.

	Differences between Expected and Actual	Recognition Period	Incr	ease (Deci	rease) in I	Pension I	Expense Ar	ising	from the Re Experier		tion of Differe	nces	s between Proje	ected and	Actual
Year	Experience	(Years)	2	2024	20	25	2026		2027		2028		2029	The	reafter
2016	(160,444)	1.983489													
2017	(51,794)	1.823080													
2018	10,959	1.751062													
2019	(1,075,646)	1.000000													
2020	(40,219)	1.000000													
2021	(452,981)	1.000000													
2022	(119,426)	1.000000													
2023	99,546	1.000000													
2024	91,344	1.000000	\$	91,344											
let increas	e (decrease) in pensio	on expense	\$	91,344	\$	-	\$	-	\$	-	\$	-	\$-	\$	

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

			Amounts Recognized in	Balan June 3	
Year	Experience Losses (a)	Experience Gains (b)	Pension Expense Through June 30, 2024 (c)	Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2016	-	160,444	160,444	-	-
2017	-	51,794	51,794	-	-
2018	10,959	-	10,959	-	-
2019	-	1,075,646	1,075,646	-	-
2020	-	40,219	40,219	-	-
2021	-	452,981	452,981	-	-
2022	-	119,426	119,426	-	-
2023	99,546	-	99,546	-	-
2024	91,344	-	91,344	-	-
				\$-	\$-

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

for the June 30, 2024 Measurement Date



Schedule of Changes of Assumptions

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

		Recognition	Inci	rease (Dec	rease) i	in Pension I	Expen	se Arising f	irom th	e Effects of C	hanges	s of Assump	tions	
Year	Changes of Assumptions	Period (Years)	2024	202	5	2026		2027		2028		2029	Therea	after
2016	619,918	1.983489												
2017	-	1.823080												
2018	(286,013)	1.751062												
2019	-	1.000000												
2020	-	1.000000												
2021	(484,500)	1.000000												
2022	(191,498)	1.000000												
2023	130,457	1.000000												
2024	(222,642)	1.000000	\$ (222,642)											
Net increas	se (decrease) in pensio	n expense	\$ (222,642)	\$	-	\$	-	\$	-	\$	- \$	-	\$	

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

	Increases	Decreases	Amounts Recognized in	Balances at June 30, 2024				
Year	in the Total Pension Liability (a)	in the Total Pension Liability (b)	Pension Expense Through June 30, 2024 (c)	Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)			
2016	619,918	-	619,918	-	-			
2017	-	-	-	-	-			
2018	-	286,013	286,013	-	-			
2019	-	-	-	-	-			
2020	-	-	-	-	-			
2021	-	484,500	484,500	-	-			
2022	-	191,498	191,498	-	-			
2023	130,457	-	130,457	-	-			
2024	-	222,642	222,642	-	-			
				\$-	\$-			