



**Municipal Pensions
Oversight Board**

**City of Nitro
West Virginia
Firemen's Pension and Relief Fund**

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

Bolton

Submitted by:

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November 29, 2022

Mr. John Young
City Treasurer
City of Nitro
2009 20th Street
Nitro, WV 25143

Lieutenant Garrett Kiser
Pension Board Secretary
City of Nitro
Firemen's Pension and Relief Fund

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

Dear John,

The following report contains the GASB 67 and GASB 68 actuarial information for the City of Nitro Firemen'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 a blended discount rate of 4.03%. The plan's expected gross rate of investment return of 4.25% 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.

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 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.



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



Jordan McClane, FSA, EA, FCA, MAAA



City of Nitro, West Virginia Firemen's Pension and Relief Fund
 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	\$ 13,492,860
Plan fiduciary net position	(2,626,265)
Employer's net pension liability	<u>\$ 10,866,595</u>
Plan fiduciary net position as a percentage of the total pension liability	19.46%

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)	3.16%
Single discount rate (EOY)	4.03%
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)	1.92%
Long-term municipal 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	2063
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, 2021 actuarial valuation report.

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

	1% Decrease 3.03%	Current Discount Rate 4.03%	1% Increase 5.03%
Employer's net pension liability	\$ 13,391,267	\$ 10,866,595	\$ 8,894,555

City of Nitro, West Virginia Firemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2022 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 6/30/21	\$ 13,988,341	\$ 2,824,825	\$ 11,163,516
Changes for the year:			
Service cost	679,913		679,913
Interest	435,940		435,940
Changes of benefit terms	-		-
Differences between expected and actual experience	932,996		932,996
Changes of assumptions	(2,158,762)		(2,158,762)
Contributions - employer (including Premium Tax Allocation)		370,177	(370,177)
Contributions - member		79,663	(79,663)
Net investment income		(262,832)	262,832
Benefit payments, including refunds of member contributions	(385,568)	(385,568)	-
Administrative expense		-	-
Other		-	-
Net Changes	<u>(495,481)</u>	<u>(198,560)</u>	<u>(296,921)</u>
Balances at 6/30/22	<u>\$ 13,492,860</u>	<u>\$ 2,626,265</u>	<u>\$ 10,866,595</u>
Return on Investments		(9.2%)	

City of Nitro, West Virginia Firemen's Pension and Relief Fund
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Components of Employer's Pension Expense for the Fiscal Year Ended June 30, 2022

Note	Description	Amount
A	Service cost	\$ 679,913
B	Interest on the total pension liability	435,940
A	Changes of benefit terms	-
C	Differences between expected and actual experience	170,253
C	Changes of assumptions	(197,986)
A	Employee contributions	(79,663)
D	Projected earnings on pension plan investments	(121,421)
C	Differences between expected and actual earnings on plan investments	40,973
A	Pension plan administrative expense	-
A	Other changes in fiduciary net position	-
Total Pension Expense		\$ 928,009

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	\$ 13,988,341	100%	3.16%	\$ 442,032
Service cost (End of Year)	679,913	0%	3.16%	-
Benefit payments, including refunds of employee contributions	(385,568)	50%	3.16%	(6,092)
Total interest on the total pension liability				\$ 435,940

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	\$ 2,824,825	100%	4.25%	\$ 120,055
Employer contributions	370,177	50%	4.25%	7,866
Employee contributions	79,663	50%	4.25%	1,693
Benefit payments, including refunds of employee contributions	(385,568)	50%	4.25%	(8,193)
Administrative expense and other	-	50%	4.25%	-
Total Projected Earnings				\$ 121,421

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



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:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 1,152,097	\$ 56,576
Changes of assumptions	358,878	1,941,152
Net difference between projected and actual earnings on pension plan investments	188,433	-
Total	\$ 1,699,408	\$ 1,997,728

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	\$ (15,080)
2024	49,412
2025	(37,547)
2026	18,177
2027	(138,176)
Thereafter	(175,106)

City of Nitro, West Virginia Firemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
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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	\$ 679,913	\$ 529,645	\$ 505,577	\$ 479,667	\$ 422,494	\$ 466,302	\$ 298,577	\$ 274,332	\$ 261,666	\$ -
Interest	435,940	468,088	451,985	432,697	420,584	347,047	361,264	369,617	364,726	-
Changes of benefit terms	-	-	-	-	-	-	-	-	-	-
Differences between expected and actual experience	932,996	149,610	70,425	(55,742)	838,380	(486,502)	(425,741)	29,557	-	-
Changes of assumptions	(2,158,762)	108,934	486,090	7,705	(41,108)	(1,201,576)	2,468,097	331,542	345,132	-
Benefit payments, including refunds of member contributions	(385,568)	(397,043)	(372,281)	(327,394)	(346,417)	(306,296)	(277,009)	(294,327)	(268,023)	-
Net change in total pension liability	(495,481)	859,234	1,141,796	536,933	1,293,933	(1,181,025)	2,425,188	710,721	703,501	-
Total pension liability - beginning	13,988,341	13,129,107	11,987,311	11,450,378	10,156,445	11,337,470	8,912,282	8,201,561	7,498,060	-
Total pension liability - ending (a)	\$ 13,492,860	\$ 13,988,341	\$ 13,129,107	\$ 11,987,311	\$ 11,450,378	\$ 10,156,445	\$ 11,337,470	\$ 8,912,282	\$ 8,201,561	\$ -
Plan fiduciary net position	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Contributions - employer (including Premium Tax Allocation)	\$ 370,177	\$ 598,540	\$ 371,369	\$ 586,709	\$ 615,091	\$ 612,325	\$ 288,034	\$ 231,025	\$ 189,307	\$ -
Contributions - member	79,663	74,063	69,926	67,886	63,299	60,503	55,075	53,084	51,577	-
Net investment income	(262,832)	349,482	35,110	67,362	68,316	71,616	19,186	31,201	76,549	-
Benefit payments, including refunds of member contributions	(385,568)	(397,043)	(372,281)	(327,394)	(346,417)	(306,296)	(277,009)	(294,327)	(268,023)	-
Administrative expense	-	-	-	-	(90)	(90)	(98)	-	(675)	-
Other	-	-	-	-	-	-	-	-	-	-
Net change in plan fiduciary net position	\$ (198,560)	\$ 625,042	\$ 104,124	\$ 394,563	\$ 400,199	\$ 438,058	\$ 85,188	\$ 20,983	\$ 48,645	\$ -
Plan fiduciary net position - beginning	2,824,825	2,199,783	2,095,659	1,701,096	1,300,897	862,839	777,651	756,668	708,023	-
Plan fiduciary net position - ending (b)	\$ 2,626,265	\$ 2,824,825	\$ 2,199,783	\$ 2,095,659	\$ 1,701,096	\$ 1,300,897	\$ 862,839	\$ 777,651	\$ 756,668	\$ -
Employer's net pension liability - ending (a)-(b)	\$ 10,866,595	\$ 11,163,516	\$ 10,929,324	\$ 9,891,652	\$ 9,749,282	\$ 8,855,548	\$ 10,474,631	\$ 8,134,631	\$ 7,444,893	\$ -
Plan fiduciary net position as a percentage of the total pension liability	19.46%	20.19%	16.76%	17.48%	14.86%	12.81%	7.61%	8.73%	9.23%	N/A
Covered payroll	\$ 1,001,915	\$ 842,641	\$ 848,537	\$ 803,028	\$ 719,541	\$ 638,967	\$ 670,368	\$ 666,552	\$ 693,435	N/A
Employer's net pension liability as a percentage of covered payroll	1084.58%	1324.82%	1288.02%	1231.79%	1354.93%	1385.92%	1562.52%	1220.40%	1073.63%	N/A
Expected average remaining service years of all participants	7.00	7.00	7.00	7.00	6.62	6.43	6.58	6.12	N/A	N/A

Notes to Schedule:

Benefit changes: There were no changes for FY2022.

Changes of assumptions: The discount rate changed from 3.16% to 4.03%.

City of Nitro, West Virginia Firemen's Pension and Relief Fund
 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	\$ 936,385	\$ 859,243	\$ 824,018	\$ 782,859	\$ 690,694	\$ 624,038	\$ 616,637	\$ 486,921	\$ 469,302	\$ 422,547
Contributions in relation to the actuarially determined contribution										
Employer provided	227,054	450,000	225,000	450,000	486,000	485,000	144,719	127,574	77,008	111,848
State provided	143,123	148,540	146,369	136,709	129,091	127,325	143,315	103,451	112,299	114,829
Contribution deficiency (excess)	<u>\$ 566,208</u>	<u>\$ 260,703</u>	<u>\$ 452,649</u>	<u>\$ 196,150</u>	<u>\$ 75,603</u>	<u>\$ 11,713</u>	<u>\$ 328,603</u>	<u>\$ 255,896</u>	<u>\$ 279,995</u>	<u>\$ 195,870</u>
Covered payroll	\$ 1,001,915	\$ 842,641	\$ 848,537	\$ 803,028	\$ 719,541	\$ 638,967	\$ 670,368	\$ 666,552	\$ 693,435	\$ 619,388
Contributions as a percentage of covered employee payroll	36.95%	71.03%	43.77%	73.06%	85.48%	95.83%	42.97%	34.66%	27.30%	36.60%

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	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 Nitro, West Virginia Firemen's Pension and Relief Fund
 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.

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)	2018	2019	2020	2021	2022	2023	2024	2025	2026
2018	\$ (12,400)	5	\$ (2,480)	(2,480)	(2,480)	(2,480)	(2,480)				
2019	16,549	5		\$ 3,310	3,310	3,310	3,310	3,309			
2020	60,748	5			\$ 12,150	12,150	12,150	12,150	12,148		
2021	(244,292)	5				\$ (48,858)	(48,858)	(48,858)	(48,858)	(48,860)	
2022	384,253	5					\$ 76,851	76,851	76,851	76,851	76,849
Net increase (decrease) in pension expense							\$ 40,973	\$ 43,452	\$ 40,141	\$ 27,991	\$ 76,849

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, 2022 (c)	Balances at June 30, 2022	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2018	\$ -	\$ 12,400	\$ 12,400	\$ -	\$ -
2019	16,549	-	13,240	3,309	-
2020	60,748	-	36,450	24,298	-
2021	-	244,292	97,716	-	146,576
2022	384,253	-	76,851	307,402	-
				\$ 335,009	\$ 146,576

City of Nitro, West Virginia Firemen's Pension and Relief Fund
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Schedule of Differences between Expected and Actual Experience

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

Increase (Decrease) in Pension Expense Arising from the Recognition of Differences between Expected and Actual Experience																			
Year	Differences between Expected and Actual Experience	Recognition Period (Years)	Prior	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Thereafter
Prior	-	-																	
2013	-	-																	
2014	-	-																	
2015	29,557	6.120708				\$ 4,829	4,829	4,829	4,829	4,829	4,829	583							
2016	(425,741)	6.579335					\$(64,709)	(64,709)	(64,709)	(64,709)	(64,709)	(64,709)	(37,487)						
2017	(486,502)	6.432120						\$(75,636)	(75,636)	(75,636)	(75,636)	(75,636)	(75,636)	(32,686)					
2018	838,380	6.621210							\$ 126,620	126,620	126,620	126,620	126,620	126,620	78,660				
2019	(55,742)	7.000000								\$(7,963)	(7,963)	(7,963)	(7,963)	(7,963)	(7,963)	(7,964)			
2020	70,425	7.000000									\$ 10,061	10,061	10,061	10,061	10,061	10,061	10,059		
2021	149,610	7.000000										\$ 21,373	21,373	21,373	21,373	21,373	21,373	21,372	-
2022	932,996	7.000000											\$ 133,285	133,285	133,285	133,285	133,285	133,285	133,286
Net increase (decrease) in pension expense													\$ 170,253	\$ 250,690	\$ 235,416	\$ 156,755	\$ 164,717	\$ 154,657	\$ 133,286

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, 2022 (c)	Balances at June 30, 2022	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
Prior	\$ -	\$ -	\$ -	\$ -	\$ -
2013	-	-	-	-	-
2014	-	-	-	-	-
2015	29,557	-	29,557	-	-
2016	-	425,741	425,741	-	-
2017	-	486,502	453,816	-	32,686
2018	838,380	-	633,100	205,280	-
2019	-	55,742	31,852	-	23,890
2020	70,425	-	30,183	40,242	-
2021	149,610	-	42,746	106,864	-
2022	932,996	-	133,285	799,711	-
				\$ 1,152,097	\$ 56,576

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

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

Increase (Decrease) in Pension Expense Arising from the Effects of Changes of Assumptions																			
Year	Changes of Assumptions	Recognition Period (Years)	Prior	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Thereafter
Prior	\$ -	-																	
2013	-	-																	
2014	-	-																	
2015	331,542	6,120,708				\$ 54,167	54,167	54,167	54,167	54,167	54,167	6,540							
2016	2,468,097	6,579,335				\$ 375,129	375,129	375,129	375,129	375,129	375,129	375,129	217,323						
2017	(1,201,576)	6,432,120					\$ (186,809)	(186,809)	(186,809)	(186,809)	(186,809)	(186,809)	(186,809)	(80,722)					
2018	(41,108)	6,621,210						\$ (6,209)	(6,209)	(6,209)	(6,209)	(6,209)	(6,209)	(6,209)	(3,854)				
2019	7,705	7,000,000							\$ 1,101	1,101	1,101	1,101	1,101	1,101	1,101	1,099			
2020	486,090	7,000,000								\$ 69,441	69,441	69,441	69,441	69,441	69,441	69,441	69,444		
2021	108,934	7,000,000									\$ 15,562	15,562	15,562	15,562	15,562	15,562	15,562	15,562	-
2022	(2,158,762)	7,000,000											\$ (308,395)	(308,395)	(308,395)	(308,395)	(308,395)	(308,395)	(308,395)
Net increase (decrease) in pension expense													\$ (197,986)	\$ (309,222)	\$ (226,145)	\$ (222,293)	\$ (223,389)	\$ (292,833)	\$ (308,392)

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, 2022 (c)	Balances at June 30, 2022	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
Prior	\$ -	\$ -	\$ -	\$ -	\$ -
2013	-	-	-	-	-
2014	-	-	-	-	-
2015	331,542	-	331,542	-	-
2016	2,468,097	-	2,468,097	-	-
2017	-	1,201,576	1,120,854	-	80,722
2018	-	41,108	31,045	-	10,063
2019	7,705	-	4,404	3,301	-
2020	486,090	-	208,323	277,767	-
2021	108,934	-	31,124	77,810	-
2022	-	2,158,762	308,395	-	1,850,367
			\$ 358,878	\$ 1,941,152	

City of Nitro, West Virginia Firemen'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

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
2022	\$ 485,515	\$ -	\$ 485,515	\$ 79,663	\$ -	\$ 79,663	\$ 405,852	\$ -	\$ 405,852	\$ -	\$ -	\$ -	\$ 227,054	\$ -	\$ 227,054	\$ 143,123	\$ -	\$ 143,123
2023	\$ 480,278	\$ 31,687	\$ 511,965	\$ 81,048	\$ 5,980	\$ 87,028	\$ 399,230	\$ 25,707	\$ 424,937	\$ -	\$ -	\$ -	\$ 206,137	\$ 26,248	\$ 232,385	\$ 134,413	\$ -	\$ 134,413
2024	\$ 471,986	\$ 65,724	\$ 537,710	\$ 78,965	\$ 12,381	\$ 91,346	\$ 393,021	\$ 53,343	\$ 446,364	\$ -	\$ -	\$ -	\$ 194,187	\$ 54,465	\$ 248,652	\$ 135,306	\$ -	\$ 135,306
2025	\$ 464,508	\$ 99,758	\$ 564,266	\$ 76,994	\$ 18,821	\$ 95,815	\$ 387,514	\$ 80,937	\$ 468,451	\$ -	\$ -	\$ -	\$ 183,419	\$ 82,639	\$ 266,058	\$ 141,856	\$ -	\$ 141,856
2026	\$ 460,185	\$ 132,382	\$ 592,567	\$ 75,498	\$ 25,116	\$ 100,614	\$ 384,687	\$ 107,266	\$ 491,953	\$ -	\$ -	\$ -	\$ 175,160	\$ 109,522	\$ 284,682	\$ 145,045	\$ -	\$ 145,045
2027	\$ 433,625	\$ 159,730	\$ 593,355	\$ 70,947	\$ 30,483	\$ 101,430	\$ 362,678	\$ 129,247	\$ 491,925	\$ -	\$ -	\$ -	\$ 172,645	\$ 131,965	\$ 304,610	\$ 149,348	\$ -	\$ 149,348
2028	\$ 390,423	\$ 208,746	\$ 599,169	\$ 64,360	\$ 39,699	\$ 104,059	\$ 326,063	\$ 169,044	\$ 495,110	\$ -	\$ -	\$ -	\$ 153,331	\$ 172,602	\$ 325,933	\$ 154,751	\$ -	\$ 154,751
2029	\$ 352,449	\$ 251,195	\$ 603,644	\$ 58,906	\$ 47,854	\$ 106,760	\$ 293,543	\$ 203,341	\$ 496,884	\$ -	\$ -	\$ -	\$ 141,131	\$ 207,617	\$ 348,748	\$ 160,288	\$ -	\$ 160,288
2030	\$ 311,971	\$ 298,179	\$ 610,150	\$ 53,126	\$ 56,709	\$ 109,835	\$ 258,845	\$ 241,470	\$ 500,315	\$ -	\$ -	\$ -	\$ 126,612	\$ 246,548	\$ 373,160	\$ 163,911	\$ -	\$ 163,911
2031	\$ 282,221	\$ 348,518	\$ 630,739	\$ 48,683	\$ 66,032	\$ 114,715	\$ 233,538	\$ 282,486	\$ 516,024	\$ -	\$ -	\$ -	\$ 110,855	\$ 288,426	\$ 399,281	\$ 167,624	\$ -	\$ 167,624
2032	\$ 265,376	\$ 391,585	\$ 656,961	\$ 46,060	\$ 74,061	\$ 120,121	\$ 219,316	\$ 317,524	\$ 536,840	\$ -	\$ -	\$ -	\$ 103,030	\$ 324,201	\$ 427,231	\$ 171,430	\$ -	\$ 171,430
2033	\$ 253,795	\$ 431,592	\$ 685,387	\$ 44,170	\$ 81,542	\$ 125,712	\$ 209,625	\$ 350,050	\$ 559,675	\$ -	\$ -	\$ -	\$ 99,726	\$ 357,411	\$ 457,137	\$ 178,118	\$ -	\$ 178,118
2034	\$ 245,209	\$ 469,804	\$ 715,013	\$ 42,690	\$ 88,710	\$ 131,400	\$ 202,519	\$ 381,094	\$ 583,613	\$ -	\$ -	\$ -	\$ 100,029	\$ 389,108	\$ 489,137	\$ 187,665	\$ -	\$ 187,665
2035	\$ 238,382	\$ 507,870	\$ 746,252	\$ 41,443	\$ 95,859	\$ 137,302	\$ 196,939	\$ 412,011	\$ 608,950	\$ -	\$ -	\$ -	\$ 102,702	\$ 420,675	\$ 523,377	\$ 191,944	\$ -	\$ 191,944
2036	\$ 228,062	\$ 545,375	\$ 773,437	\$ 39,965	\$ 102,813	\$ 142,778	\$ 188,097	\$ 442,562	\$ 630,659	\$ -	\$ -	\$ -	\$ 108,144	\$ 451,869	\$ 560,013	\$ 206,311	\$ -	\$ 206,311
2037	\$ 223,302	\$ 585,829	\$ 809,131	\$ 39,080	\$ 110,345	\$ 149,425	\$ 184,222	\$ 475,484	\$ 659,706	\$ -	\$ -	\$ -	\$ 113,731	\$ 485,483	\$ 599,214	\$ 214,423	\$ -	\$ 214,423
2038	\$ 222,506	\$ 626,456	\$ 848,962	\$ 38,601	\$ 118,075	\$ 156,676	\$ 183,905	\$ 508,381	\$ 692,286	\$ -	\$ -	\$ -	\$ 122,087	\$ 519,072	\$ 641,159	\$ 219,318	\$ -	\$ 219,318
2039	\$ 221,166	\$ 666,116	\$ 887,282	\$ 38,051	\$ 125,673	\$ 163,724	\$ 183,115	\$ 540,443	\$ 723,558	\$ -	\$ -	\$ -	\$ 134,232	\$ 551,808	\$ 686,040	\$ 230,820	\$ -	\$ 230,820
2040	\$ 214,679	\$ 703,230	\$ 917,909	\$ 36,409	\$ 132,638	\$ 169,047	\$ 178,270	\$ 570,592	\$ 748,862	\$ -	\$ -	\$ -	\$ 151,472	\$ 582,591	\$ 734,063	\$ 236,110	\$ -	\$ 236,110
2041	\$ 173,808	\$ 730,666	\$ 904,474	\$ 29,150	\$ 136,831	\$ 165,981	\$ 144,658	\$ 593,835	\$ 738,493	\$ -	\$ -	\$ -	\$ 179,124	\$ 606,323	\$ 785,447	\$ 241,532	\$ -	\$ 241,532
2042	\$ 126,915	\$ 809,223	\$ 936,138	\$ 21,202	\$ 149,819	\$ 171,021	\$ 105,713	\$ 659,404	\$ 765,117	\$ -	\$ -	\$ -	\$ 167,157	\$ 673,271	\$ 840,428	\$ 249,035	\$ -	\$ 249,035
2043	\$ 103,467	\$ 864,243	\$ 967,710	\$ 17,138	\$ 159,163	\$ 176,301	\$ 86,329	\$ 705,080	\$ 791,409	\$ -	\$ -	\$ -	\$ 179,351	\$ 719,907	\$ 899,258	\$ 254,782	\$ -	\$ 254,782
2044	\$ 85,432	\$ 923,194	\$ 1,008,626	\$ 14,012	\$ 169,347	\$ 183,359	\$ 71,420	\$ 753,847	\$ 825,267	\$ -	\$ -	\$ -	\$ 192,506	\$ 769,700	\$ 962,206	\$ 267,338	\$ -	\$ 267,338
2045	\$ 71,997	\$ 970,562	\$ 1,042,559	\$ 11,737	\$ 177,697	\$ 189,434	\$ 60,260	\$ 792,865	\$ 853,125	\$ -	\$ -	\$ -	\$ 220,022	\$ 809,538	\$ 1,029,560	\$ 281,130	\$ -	\$ 281,130
2046	\$ 59,679	\$ 1,022,603	\$ 1,082,282	\$ 9,704	\$ 186,992	\$ 196,696	\$ 49,975	\$ 835,611	\$ 885,586	\$ -	\$ -	\$ -	\$ 248,446	\$ 853,183	\$ 1,101,629	\$ 292,269	\$ -	\$ 292,269
2047	\$ 48,882	\$ 1,067,504	\$ 1,116,386	\$ 7,815	\$ 194,805	\$ 202,620	\$ 41,067	\$ 872,699	\$ 913,766	\$ -	\$ -	\$ -	\$ 287,692	\$ 891,051	\$ 1,178,743	\$ 309,403	\$ -	\$ 309,403
2048	\$ 35,738	\$ 1,114,476	\$ 1,150,214	\$ 5,575	\$ 202,776	\$ 208,351	\$ 30,163	\$ 911,700	\$ 941,863	\$ -	\$ -	\$ -	\$ 330,383	\$ 930,872	\$ 1,261,255	\$ 316,604	\$ -	\$ 316,604
2049	\$ 26,774	\$ 1,168,425	\$ 1,195,199	\$ 4,121	\$ 212,307	\$ 216,428	\$ 22,653	\$ 956,118	\$ 978,771	\$ -	\$ -	\$ -	\$ 373,319	\$ 976,224	\$ 1,349,543	\$ 323,984	\$ -	\$ 323,984
2050	\$ 21,037	\$ 1,218,255	\$ 1,239,292	\$ 3,229	\$ 221,243	\$ 224,472	\$ 17,808	\$ 997,012	\$ 1,014,820	\$ -	\$ -	\$ -	\$ 426,033	\$ 1,017,978	\$ 1,444,011	\$ 449,409	\$ -	\$ 449,409
2051	\$ 14,067	\$ 1,257,834	\$ 1,271,901	\$ 2,291	\$ 228,324	\$ 230,615	\$ 11,776	\$ 1,029,510	\$ 1,041,286	\$ -	\$ -	\$ -	\$ 493,933	\$ 1,051,159	\$ 1,545,092	\$ 459,992	\$ -	\$ 459,992
2052	\$ 10,560	\$ 1,303,920	\$ 1,314,480	\$ 1,668	\$ 236,641	\$ 238,309	\$ 8,892	\$ 1,067,279	\$ 1,076,171	\$ -	\$ -	\$ -	\$ 563,525	\$ 1,089,723	\$ 1,653,248	\$ 510,751	\$ -	\$ 510,751
2053	\$ 6,098	\$ 1,352,723	\$ 1,358,821	\$ 925	\$ 245,249	\$ 246,174	\$ 5,173	\$ 1,107,474	\$ 1,112,647	\$ -	\$ -	\$ -	\$ 638,212	\$ 1,130,763	\$ 1,768,975	\$ 589,784	\$ -	\$ 589,784
2054	\$ 4,409	\$ 1,403,523	\$ 1,407,932	\$ 641	\$ 254,422	\$ 255,063	\$ 3,768	\$ 1,149,101	\$ 1,152,869	\$ -	\$ -	\$ -	\$ 719,538	\$ 1,173,265	\$ 1,892,803	\$ 1,160,572	\$ -	\$ 1,160,572
2055	\$ 2,722	\$ 1,458,094	\$ 1,460,816	\$ 398	\$ 264,203	\$ 264,601	\$ 2,324	\$ 1,193,891	\$ 1,196,215	\$ -	\$ -	\$ -	\$ 806,302	\$ 1,218,997	\$ 2,025,299	\$ 1,188,963	\$ -	\$ 1,188,963
2056	\$ 2,094	\$ 1,514,001	\$ 1,516,095	\$ 296	\$ 274,204	\$ 274,500	\$ 1,798	\$ 1,239,797	\$ 1,241,595	\$ -	\$ -	\$ -	\$ 901,201	\$ 1,265,869	\$ 2,167,070	\$ 1,331,684	\$ -	\$ 1,331,684
2057	\$ 1,140	\$ 1,572,264	\$ 1,573,404	\$ 159	\$ 284,482	\$ 284,641	\$ 981	\$ 1,287,782	\$ 1,288,763	\$ -	\$ -	\$ -	\$ 1,003,902	\$ 1,314,863	\$ 2,318,765	\$ 1,532,011	\$ -	\$ 1,532,011
2058	\$ 585	\$ 1,633,254	\$ 1,633,839	\$ 87	\$ 295,268	\$ 295,355	\$ 498	\$ 1,337,986	\$ 1,338,484	\$ -	\$ -	\$ -	\$ 1,114,957	\$ 1,366,122	\$ 2,481,079	\$ 1,647,194	\$ -	\$ 1,647,194
2059	\$ 453	\$ 1,697,817	\$ 1,698,270	\$ 65	\$ 306,670	\$ 306,735	\$ 388	\$ 1,391,147	\$ 1,391,535	\$ -	\$ -	\$ -	\$ 1,234,354	\$ 1,420,401	\$ 2,654,755	\$ 1,882,934	\$ -	\$ 1,882,934
2060	\$ 351	\$ 1,765,495	\$ 1,765,846	\$ 48	\$ 318,617	\$ 318,665	\$ 303	\$ 1,446,878	\$ 1,447,181	\$ -	\$ -	\$ -	\$ 1,363,284	\$ 1,477,304	\$ 2,840,588	\$ 1,929,267	\$ -	\$ 1,929,267
2061	\$ 271	\$ 1,834,673	\$ 1,834,944	\$ 36	\$ 330,868	\$ 330,904	\$ 235	\$ 1,503,805	\$ 1,504,040	\$ -	\$ -	\$ -	\$ 1,504,001	\$ 1,535,428	\$ 3,039,429	\$ 1,976,757	\$ -	\$ 1,976,757
2062	\$ -	\$ 1,896,724	\$ 1,896,724	\$ -	\$ 342,006	\$ 342,006	\$ -	\$ 1,554,718	\$ 1,554,718	\$ -	\$ -	\$ -	\$ 1,664,777	\$ 1,587,412	\$ 3,252,189	\$ 4,124,061	\$ -	\$ 4,124,061

City of Nitro, West Virginia Firemen'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

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
2022	\$ 12,378,889	\$ -	\$ 12,378,889	\$ 2,824,825	22.82%	\$ 79,663	\$ 370,177	\$ 385,568	\$ -	(\$ 262,832)
2023	\$ 13,017,465	\$ -	\$ 13,017,465	\$ 2,626,265	20.17%	\$ 82,752	\$ 340,550	\$ 402,755	\$ -	\$ 112,048
2024	\$ 13,660,173	\$ 32,776	\$ 13,692,949	\$ 2,758,860	20.20%	\$ 80,626	\$ 329,493	\$ 408,936	\$ -	\$ 117,276
2025	\$ 14,315,240	\$ 101,783	\$ 14,417,023	\$ 2,877,320	20.10%	\$ 78,613	\$ 325,275	\$ 413,996	\$ -	\$ 122,074
2026	\$ 14,985,185	\$ 208,158	\$ 15,193,343	\$ 2,989,286	19.95%	\$ 77,086	\$ 320,205	\$ 414,585	\$ -	\$ 126,681
2027	\$ 15,678,495	\$ 351,750	\$ 16,030,245	\$ 3,098,673	19.76%	\$ 72,439	\$ 321,993	\$ 462,642	\$ -	\$ 130,259
2028	\$ 16,324,514	\$ 523,064	\$ 16,847,578	\$ 3,160,722	19.36%	\$ 65,713	\$ 308,082	\$ 523,468	\$ -	\$ 131,183
2029	\$ 16,890,846	\$ 742,279	\$ 17,633,125	\$ 3,142,232	18.60%	\$ 60,145	\$ 301,419	\$ 574,849	\$ -	\$ 129,060
2030	\$ 17,389,198	\$ 1,003,280	\$ 18,392,478	\$ 3,058,007	17.59%	\$ 54,243	\$ 290,523	\$ 636,141	\$ -	\$ 123,838
2031	\$ 17,803,950	\$ 1,308,424	\$ 19,112,374	\$ 2,890,470	16.23%	\$ 49,707	\$ 278,479	\$ 678,071	\$ -	\$ 115,487
2032	\$ 18,162,503	\$ 1,664,699	\$ 19,827,202	\$ 2,656,072	14.62%	\$ 47,029	\$ 274,460	\$ 697,888	\$ -	\$ 104,968
2033	\$ 18,498,500	\$ 2,070,984	\$ 20,569,484	\$ 2,384,641	12.89%	\$ 45,099	\$ 277,844	\$ 711,798	\$ -	\$ 93,170
2034	\$ 18,822,501	\$ 2,527,543	\$ 21,350,044	\$ 2,088,956	11.10%	\$ 43,588	\$ 287,694	\$ 719,880	\$ -	\$ 80,609
2035	\$ 19,143,069	\$ 3,035,251	\$ 22,178,320	\$ 1,780,967	9.30%	\$ 42,315	\$ 294,646	\$ 723,967	\$ -	\$ 67,553
2036	\$ 19,465,971	\$ 3,596,575	\$ 23,062,546	\$ 1,461,513	7.51%	\$ 40,805	\$ 314,455	\$ 733,216	\$ -	\$ 54,166
2037	\$ 19,782,395	\$ 4,210,498	\$ 23,992,893	\$ 1,137,724	5.75%	\$ 39,902	\$ 328,154	\$ 736,188	\$ -	\$ 40,612
2038	\$ 20,104,270	\$ 4,884,560	\$ 24,988,830	\$ 810,204	4.03%	\$ 39,413	\$ 341,405	\$ 735,166	\$ -	\$ 26,982
2039	\$ 20,440,038	\$ 5,623,197	\$ 26,063,235	\$ 482,838	2.36%	\$ 38,851	\$ 365,052	\$ 735,407	\$ -	\$ 13,549
2040	\$ 20,788,433	\$ 6,426,738	\$ 27,215,171	\$ 164,883	0.79%	\$ 37,175	\$ 387,582	\$ 747,451	\$ -	\$ 222
2041	\$ 21,132,575	\$ 7,285,841	\$ 28,418,416	\$ -	0.00%	\$ 29,763	\$ 420,656	\$ 808,177	\$ -	\$ -
2042	\$ 21,386,732	\$ 8,151,900	\$ 29,538,632	\$ -	0.00%	\$ 21,648	\$ 416,192	\$ 863,836	\$ -	\$ -
2043	\$ 21,545,975	\$ 9,078,072	\$ 30,624,047	\$ -	0.00%	\$ 17,498	\$ 434,133	\$ 894,039	\$ -	\$ -
2044	\$ 21,656,704	\$ 10,059,342	\$ 31,716,046	\$ -	0.00%	\$ 14,307	\$ 459,844	\$ 914,529	\$ -	\$ -
2045	\$ 21,732,416	\$ 11,103,730	\$ 32,836,146	\$ -	0.00%	\$ 11,984	\$ 501,152	\$ 928,489	\$ -	\$ -
2046	\$ 21,783,086	\$ 12,202,835	\$ 33,985,921	\$ -	0.00%	\$ 9,908	\$ 540,715	\$ 939,261	\$ -	\$ -
2047	\$ 21,812,070	\$ 13,358,756	\$ 35,170,826	\$ -	0.00%	\$ 7,979	\$ 597,095	\$ 952,426	\$ -	\$ -
2048	\$ 21,817,588	\$ 14,559,198	\$ 36,376,786	\$ -	0.00%	\$ 5,692	\$ 646,987	\$ 965,961	\$ -	\$ -
2049	\$ 21,795,818	\$ 15,796,230	\$ 37,592,048	\$ -	0.00%	\$ 4,208	\$ 697,303	\$ 971,427	\$ -	\$ -
2050	\$ 21,758,197	\$ 17,079,883	\$ 38,838,080	\$ -	0.00%	\$ 3,297	\$ 875,442	\$ 971,716	\$ -	\$ -
2051	\$ 21,712,701	\$ 18,410,171	\$ 40,122,872	\$ -	0.00%	\$ 2,339	\$ 953,925	\$ 971,642	\$ -	\$ -
2052	\$ 21,658,081	\$ 19,762,876	\$ 41,420,957	\$ -	0.00%	\$ 1,703	\$ 1,074,276	\$ 969,511	\$ -	\$ 2,239
2053	\$ 21,599,659	\$ 21,140,177	\$ 42,739,836	\$ 108,707	0.50%	\$ 944	\$ 1,227,996	\$ 965,794	\$ -	\$ 10,154
2054	\$ 21,537,898	\$ 22,539,618	\$ 44,077,516	\$ 382,007	1.77%	\$ 654	\$ 1,880,110	\$ 957,217	\$ -	\$ 35,656
2055	\$ 21,480,509	\$ 23,969,951	\$ 45,450,460	\$ 1,341,210	6.24%	\$ 406	\$ 1,995,265	\$ 947,214	\$ -	\$ 79,049
2056	\$ 21,429,135	\$ 25,439,893	\$ 46,869,028	\$ 2,468,716	11.52%	\$ 302	\$ 2,232,885	\$ 934,990	\$ -	\$ 132,220
2057	\$ 21,387,404	\$ 26,951,044	\$ 48,338,448	\$ 3,899,133	18.23%	\$ 162	\$ 2,535,913	\$ 921,800	\$ -	\$ 199,660
2058	\$ 21,356,373	\$ 28,506,532	\$ 49,862,905	\$ 5,713,069	26.75%	\$ 89	\$ 2,762,151	\$ 906,956	\$ -	\$ 281,820
2059	\$ 21,338,600	\$ 30,111,216	\$ 51,449,816	\$ 7,850,172	36.79%	\$ 66	\$ 3,117,288	\$ 890,534	\$ -	\$ 380,460
2060	\$ 21,336,702	\$ 31,771,442	\$ 53,108,144	\$ 10,457,452	49.01%	\$ 49	\$ 3,292,551	\$ 873,001	\$ -	\$ 495,323
2061	\$ 21,352,519	\$ 33,494,560	\$ 54,847,079	\$ 13,372,374	62.63%	\$ 37	\$ 3,480,758	\$ 854,379	\$ -	\$ 623,556
2062	\$ 21,387,938	\$ 35,286,318	\$ 56,674,256	\$ 16,622,345	77.72%	\$ -	\$ 5,788,838	\$ 834,995	\$ -	\$ 810,624

City of Nitro, West Virginia Firemen'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

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	
2022	\$ 385,568	\$ -	\$ 377,627	\$ -	\$ 378,034	
2023	\$ 402,755	\$ -	\$ 378,379	\$ -	\$ 379,603	
2024	\$ 408,936	\$ -	\$ 368,523	\$ -	\$ 370,513	
2025	\$ 413,996	\$ -	\$ 357,874	\$ -	\$ 360,581	
2026	\$ 414,585	\$ -	\$ 343,773	\$ -	\$ 347,120	
2027	\$ 462,642	\$ -	\$ 367,982	\$ -	\$ 372,367	
2028	\$ 523,468	\$ -	\$ 399,389	\$ -	\$ 405,019	
2029	\$ 574,849	\$ -	\$ 420,710	\$ -	\$ 427,561	
2030	\$ 636,141	\$ -	\$ 446,588	\$ -	\$ 454,838	
2031	\$ 678,071	\$ -	\$ 456,618	\$ -	\$ 466,055	
2032	\$ 697,888	\$ -	\$ 450,803	\$ -	\$ 461,113	
2033	\$ 711,798	\$ -	\$ 441,044	\$ -	\$ 452,103	
2034	\$ 719,880	\$ -	\$ 427,868	\$ -	\$ 439,542	
2035	\$ 723,967	\$ -	\$ 412,755	\$ -	\$ 424,931	
2036	\$ 733,216	\$ -	\$ 400,986	\$ -	\$ 413,705	
2037	\$ 736,188	\$ -	\$ 386,198	\$ -	\$ 399,307	
2038	\$ 735,166	\$ -	\$ 369,939	\$ -	\$ 383,321	
2039	\$ -	\$ 735,407	\$ -	\$ 390,061	\$ 368,607	
2040	\$ -	\$ 747,451	\$ -	\$ 382,341	\$ 360,146	
2041	\$ -	\$ 808,177	\$ -	\$ 398,692	\$ 374,336	
2042	\$ -	\$ 863,836	\$ -	\$ 410,984	\$ 384,632	
2043	\$ -	\$ 894,039	\$ -	\$ 410,217	\$ 382,674	
2044	\$ -	\$ 914,529	\$ -	\$ 404,686	\$ 376,296	
2045	\$ -	\$ 928,489	\$ -	\$ 396,242	\$ 367,255	
2046	\$ -	\$ 939,261	\$ -	\$ 386,574	\$ 357,139	
2047	\$ -	\$ 952,426	\$ -	\$ 378,043	\$ 348,130	
2048	\$ -	\$ 965,961	\$ -	\$ 369,771	\$ 339,413	
2049	\$ -	\$ 971,427	\$ -	\$ 358,630	\$ 328,124	
2050	\$ -	\$ 971,716	\$ -	\$ 345,970	\$ 315,520	
2051	\$ -	\$ 971,642	\$ -	\$ 333,633	\$ 303,286	
2052	\$ -	\$ 969,511	\$ -	\$ 321,054	\$ 290,910	
2053	\$ -	\$ 965,794	\$ -	\$ 308,442	\$ 278,580	
2054	\$ -	\$ 957,217	\$ -	\$ 294,823	\$ 265,421	
2055	\$ 947,214	\$ -	\$ 234,909	\$ -	\$ 252,483	
2056	\$ 934,990	\$ -	\$ 222,425	\$ -	\$ 239,579	
2057	\$ 921,800	\$ -	\$ 210,347	\$ -	\$ 227,059	
2058	\$ 906,956	\$ -	\$ 198,523	\$ -	\$ 214,757	
2059	\$ 890,534	\$ -	\$ 186,981	\$ -	\$ 202,708	
2060	\$ 873,001	\$ -	\$ 175,827	\$ -	\$ 191,027	
2061	\$ 854,379	\$ -	\$ 165,062	\$ -	\$ 179,717	
2062	\$ 834,995	\$ -	\$ 154,740	\$ -	\$ 168,842	