



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, 2021

Bolton

Submitted by:

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February 21, 2022

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

Captain Jonathan Atkins
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, 2021

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 2021. The GASB 67 information has been provided as of June 30, 2021 (the GASB 68 measurement date for FY 2021).

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, 2021 (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, 2020 actuarial valuation rolled forward to June 30, 2021. The methods, assumptions, and participant data used are detailed in the July 1, 2020 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, 2021 is contained in the July 1, 2019 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 3.16%. The plan's expected gross rate of investment return of 4.25% has been blended with the 1.92% 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, 2021. 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.

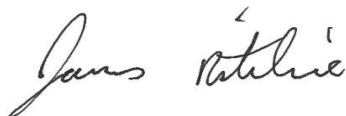
The calculation of actuarial liabilities for valuation purposes is based on a current estimate of future benefit payments. The calculation includes a computation of the "present value" of those estimated future benefit payments using an assumed discount rate; the higher the discount rate assumption, 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, 2020 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, 2021 Measurement Date



Net Pension Liability of the Employer

The components of the net pension liability of the Employer at June 30, 2021, were as follows:

Total pension liability	\$ 13,988,341
Plan fiduciary net position	(2,824,825)
Employer's net pension liability	<u>\$ 11,163,516</u>
Plan fiduciary net position as a percentage of the total pension liability	20.19%

Actuarial assumptions. The total pension liability was determined by an actuarial valuation as of July 1, 2020 rolled forward to June 30, 2021 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)	3.62%
Single discount rate (EOY)	3.16%
Investment rate of return (BOY)	4.50%, 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)	2.45%
Long-term municipal bond rate (EOY)	1.92%
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	2038

The above is a summary of key actuarial assumptions. Full descriptions of the actuarial assumptions are available in the July 1, 2020 actuarial valuation report.

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

	1% Decrease 2.16%	Current Discount Rate 3.16%	1% Increase 4.16%
Employer's net pension liability	\$ 13,985,480	\$ 11,163,516	\$ 8,991,236

City of Nitro, West Virginia Firemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2021 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 6/30/20	\$ 13,129,107	\$ 2,199,783	\$ 10,929,324
Changes for the year:			
Service cost	529,645		529,645
Interest	468,088		468,088
Changes of benefit terms	-		-
Differences between expected and actual experience	149,610		149,610
Changes of assumptions	108,934		108,934
Contributions - employer (including Premium Tax Allocation)		598,540	(598,540)
Contributions - member		74,063	(74,063)
Net investment income		349,482	(349,482)
Benefit payments, including refunds of member contributions	(397,043)	(397,043)	-
Administrative expense		-	-
Other		-	-
Net Changes	<u>859,234</u>	<u>625,042</u>	<u>234,192</u>
Balances at 6/30/21	<u>\$ 13,988,341</u>	<u>\$ 2,824,825</u>	<u>\$ 11,163,516</u>
Return on Investments		15.0%	

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, 2021

Note	Description	Amount
A	Service cost	\$ 529,645
B	Interest on the total pension liability	468,088
A	Changes of benefit terms	-
C	Differences between expected and actual experience	10,329
C	Changes of assumptions	274,755
A	Employee contributions	(74,063)
D	Projected earnings on pension plan investments	(105,190)
C	Differences between expected and actual earnings on plan investments	(40,800)
A	Pension plan administrative expense	-
A	Other changes in fiduciary net position	-
Total Pension Expense		\$ 1,062,764

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	\$ 13,129,107	100%	3.62%	\$ 475,274
Service cost (End of Year)	529,645	0%	3.62%	-
Benefit payments, including refunds of employee contributions	(397,043)	50%	3.62%	(7,186)
Total interest on the total pension liability				\$ 468,088

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	\$ 2,199,783	100%	4.50%	\$ 98,990
Employer contributions	598,540	50%	4.50%	13,467
Employee contributions	74,063	50%	4.50%	1,666
Benefit payments, including refunds of employee contributions	(397,043)	50%	4.50%	(8,933)
Administrative expense and other	-	50%	4.50%	-
Total Projected Earnings				\$ 105,190

City of Nitro, West Virginia Firemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2021 Measurement Date



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

At June 30, 2021, 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	\$ 510,440	\$ 177,662
Changes of assumptions	662,305	283,803
Net difference between projected and actual earnings on pension plan investments	-	154,847
Total	\$ 1,172,745	\$ 616,312

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:	
2022	\$ 111,499
2023	83,179
2024	147,671
2025	60,712
2026	116,438
Thereafter	36,934

City of Nitro, West Virginia Firemen's Pension and Relief Fund
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Changes in the Employer's Net Pension Liability and Related Ratios
 Last 10 Fiscal Years

Total pension liability	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
Service cost	\$ 529,645	\$ 505,577	\$ 479,667	\$ 422,494	\$ 466,302	\$ 298,577	\$ 274,332	\$ 261,666	\$ -	\$ -
Interest	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	149,610	70,425	(55,742)	838,380	(486,502)	(425,741)	29,557	-	-	-
Changes of assumptions	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	(397,043)	(372,281)	(327,394)	(346,417)	(306,296)	(277,009)	(294,327)	(268,023)	-	-
Net change in total pension liability	859,234	1,141,796	536,933	1,293,933	(1,181,025)	2,425,188	710,721	703,501	-	-
Total pension liability - beginning	13,129,107	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)	\$ 13,988,341	\$ 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	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
Contributions - employer (including Premium Tax Allocation)	\$ 598,540	\$ 371,369	\$ 586,709	\$ 615,091	\$ 612,325	\$ 288,034	\$ 231,025	\$ 189,307	\$ -	\$ -
Contributions - member	74,063	69,926	67,886	63,299	60,503	55,075	53,084	51,577	-	-
Net investment income	349,482	35,110	67,362	68,316	71,616	19,186	31,201	76,549	-	-
Benefit payments, including refunds of member contributions	(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	\$ 625,042	\$ 104,124	\$ 394,563	\$ 400,199	\$ 438,058	\$ 85,188	\$ 20,983	\$ 48,645	\$ -	\$ -
Plan fiduciary net position - beginning	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)	\$ 2,824,825	\$ 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)	\$ 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	20.19%	16.76%	17.48%	14.86%	12.81%	7.61%	8.73%	9.23%	N/A	N/A
Covered payroll	\$ 842,641	\$ 848,537	\$ 803,028	\$ 719,541	\$ 638,967	\$ 670,368	\$ 666,552	\$ 693,435	N/A	N/A
Employer's net pension liability as a percentage of covered payroll	1324.82%	1288.02%	1231.79%	1354.93%	1385.92%	1562.52%	1220.40%	1073.63%	N/A	N/A
Expected average remaining service years of all participants	7.00	7.00	7.00	6.62	6.43	6.58	6.12	N/A	N/A	N/A

Notes to Schedule:

Benefit changes: There were no changes for FY2021.

Changes of assumptions: The discount rate changed from 3.62% to 3.16%. Changes were made to salary scale assumptions, pay spiking assumptions, inflation, cost-of-living increases, mortality rates, retirement rates, termination rates, disability rates, marital status, and non-spouse beneficiary loads.

City of Nitro, West Virginia Firemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2021 Measurement Date



Schedule of Employer Contributions
 Last 10 Fiscal Years

	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
Actuarially determined contribution	\$ 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	450,000	225,000	450,000	486,000	485,000	144,719	127,574	77,008	111,848	-
State provided	148,540	146,369	136,709	129,091	127,325	143,315	103,451	112,299	114,829	-
Contribution deficiency (excess)	<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>	<u>\$ -</u>
Covered payroll	\$ 842,641	\$ 848,537	\$ 803,028	\$ 719,541	\$ 638,967	\$ 670,368	\$ 666,552	\$ 693,435	\$ 619,388	N/A
Contributions as a percentage of covered employee payroll	71.03%	43.77%	73.06%	85.48%	95.83%	42.97%	34.66%	27.30%	36.60%	N/A

Notes to Schedule

Valuation date:

Actuarially determined contribution amounts are calculated as of the beginning of the fiscal year (July 1) for the year immediately following the fiscal year. Actuarial valuations are performed every year.

Methods and assumptions used to determine contribution rates:

Actuarial cost method	Entry Age Normal
Amortization method	Level Dollar
Remaining amortization period	30.5 years
Asset valuation method	Market Value
Inflation	2.75 percent
Salary increases	Rates vary by years of service
Investment rate of return	4.50%, net of pension plan investment expense, including inflation
Retirement age	Rates vary by age
Mortality	RP-2014 Blue Collar Mortality Table with generational projection using Scale MP-2014

Actuarial Information to Include in the Financial Statements
for the June 30, 2021 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)	2017	2018	2019	2020	2021	2022	2023	2024	2025
2017	\$ (24,606)	5	\$ (4,921)	(4,921)	(4,921)	(4,921)	(4,922)				
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)
Net increase (decrease) in pension expense							\$ (40,800)	\$ (35,878)	\$ (33,399)	\$ (36,710)	\$ (48,860)

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, 2021 (c)	Balances at June 30, 2021	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2017	\$ -	\$ 24,606	\$ 24,606	\$ -	\$ -
2018	-	12,400	9,920	-	2,480
2019	16,549	-	9,930	6,619	-
2020	60,748	-	24,300	36,448	-
2021	-	244,292	48,858	-	195,434
				\$ 43,067	\$ 197,914

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	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Thereafter
Prior	-	-																	
2012	-	-																	
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
Net increase (decrease) in pension expense													\$ 10,329	\$ 36,968	\$ 117,405	\$ 102,131	\$ 23,470	\$ 31,432	\$ 21,372

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, 2021 (c)	Balances at June 30, 2021	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
Prior	\$ -	\$ -	\$ -	\$ -	\$ -
2012	-	-	-	-	-
2013	-	-	-	-	-
2014	-	-	-	-	-
2015	29,557	-	29,557	-	-
2016	-	425,741	388,254	-	37,487
2017	-	486,502	378,180	-	108,322
2018	838,380	-	506,480	331,900	-
2019	-	55,742	23,889	-	31,853
2020	70,425	-	20,122	50,303	-
2021	149,610	-	21,373	128,237	-
				\$ 510,440	\$ 177,662

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	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Thereafter
Prior	\$ -	-																	-
2012	-	-																	-
2013	-	-																	-
2014	-	-																	-
2015	331,542	6.120708					\$ 54,167	54,167	54,167	54,167	54,167	54,167	6,540						-
2016	2,468,097	6.579335						\$ 375,129	375,129	375,129	375,129	375,129	375,129	217,323					-
2017	(1,201,576)	6.432120							\$ (186,809)	(186,809)	(186,809)	(186,809)	(186,809)	(186,809)	(80,722)				-
2018	(41,108)	6.621210								\$ (6,209)	(6,209)	(6,209)	(6,209)	(6,209)	(6,209)	(3,854)			-
2019	7,705	7.000000									\$ 1,101	1,101	1,101	1,101	1,101	1,101	1,099		-
2020	486,090	7.000000										\$ 69,441	69,441	69,441	69,441	69,441	69,441	69,444	-
2021	108,934	7.000000											\$ 15,562	15,562	15,562	15,562	15,562	15,562	15,562
Net increase (decrease) in pension expense													\$ 274,755	\$ 110,409	\$ (827)	\$ 82,250	\$ 86,102	\$ 85,006	\$ 15,562

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, 2021 (c)	Balances at June 30, 2021	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
Prior	\$ -	\$ -	\$ -	\$ -	\$ -
2012	-	-	-	-	-
2013	-	-	-	-	-
2014	-	-	-	-	-
2015	331,542	-	331,542	-	-
2016	2,468,097	-	2,250,774	217,323	-
2017	-	1,201,576	934,045	-	267,531
2018	-	41,108	24,836	-	16,272
2019	7,705	-	3,303	4,402	-
2020	486,090	-	138,882	347,208	-
2021	108,934	-	15,562	93,372	-
				\$ 662,305	\$ 283,803

City of Nitro, West Virginia Firemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2021 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
2021	\$ 413,785	\$ -	\$ 413,785	\$ 57,784	\$ -	\$ 57,784	\$ 356,001	\$ -	\$ 356,001	\$ -	\$ -	\$ -	\$ 202,974	\$ -	\$ 202,974	\$ 148,540	\$ -	\$ 148,540
2022	\$ 408,769	\$ 28,553	\$ 437,322	\$ 56,749	\$ 4,923	\$ 61,672	\$ 352,020	\$ 23,630	\$ 375,650	\$ -	\$ -	\$ -	\$ 193,055	\$ 24,127	\$ 217,182	\$ 143,123	\$ -	\$ 143,123
2023	\$ 402,327	\$ 57,806	\$ 460,133	\$ 55,505	\$ 9,981	\$ 65,486	\$ 346,822	\$ 47,825	\$ 394,647	\$ -	\$ -	\$ -	\$ 183,554	\$ 48,831	\$ 232,385	\$ 144,155	\$ -	\$ 144,155
2024	\$ 395,885	\$ 87,589	\$ 483,474	\$ 54,255	\$ 15,153	\$ 69,408	\$ 341,630	\$ 72,436	\$ 414,066	\$ -	\$ -	\$ -	\$ 174,693	\$ 73,959	\$ 248,652	\$ 150,227	\$ -	\$ 150,227
2025	\$ 390,193	\$ 117,181	\$ 507,374	\$ 53,090	\$ 20,335	\$ 73,425	\$ 337,103	\$ 96,846	\$ 433,949	\$ -	\$ -	\$ -	\$ 167,175	\$ 98,883	\$ 266,058	\$ 153,646	\$ -	\$ 153,646
2026	\$ 386,922	\$ 146,538	\$ 533,460	\$ 52,184	\$ 25,556	\$ 77,740	\$ 334,738	\$ 120,982	\$ 455,720	\$ -	\$ -	\$ -	\$ 161,156	\$ 123,526	\$ 284,682	\$ 157,151	\$ -	\$ 157,151
2027	\$ 366,712	\$ 171,006	\$ 537,718	\$ 48,994	\$ 29,913	\$ 78,907	\$ 317,718	\$ 141,093	\$ 458,811	\$ -	\$ -	\$ -	\$ 160,550	\$ 144,060	\$ 304,610	\$ 161,055	\$ -	\$ 161,055
2028	\$ 333,732	\$ 218,496	\$ 552,228	\$ 44,278	\$ 38,359	\$ 82,637	\$ 289,454	\$ 180,137	\$ 469,591	\$ -	\$ -	\$ -	\$ 142,008	\$ 183,925	\$ 325,933	\$ 165,815	\$ -	\$ 165,815
2029	\$ 303,137	\$ 259,577	\$ 562,714	\$ 40,099	\$ 45,745	\$ 85,844	\$ 263,038	\$ 213,832	\$ 476,870	\$ -	\$ -	\$ -	\$ 130,419	\$ 218,329	\$ 348,748	\$ 170,280	\$ -	\$ 170,280
2030	\$ 269,445	\$ 305,630	\$ 575,075	\$ 35,504	\$ 53,905	\$ 89,409	\$ 233,941	\$ 251,725	\$ 485,666	\$ -	\$ -	\$ -	\$ 116,142	\$ 257,018	\$ 373,160	\$ 175,363	\$ -	\$ 175,363
2031	\$ 245,289	\$ 355,804	\$ 601,093	\$ 32,123	\$ 62,702	\$ 94,825	\$ 213,166	\$ 293,102	\$ 506,268	\$ -	\$ -	\$ -	\$ 100,015	\$ 299,266	\$ 399,281	\$ 179,395	\$ -	\$ 179,395
2032	\$ 231,626	\$ 398,280	\$ 629,906	\$ 30,175	\$ 70,132	\$ 100,307	\$ 201,451	\$ 328,148	\$ 529,599	\$ -	\$ -	\$ -	\$ 92,182	\$ 335,049	\$ 427,231	\$ 183,528	\$ -	\$ 183,528
2033	\$ 222,313	\$ 437,545	\$ 659,858	\$ 28,805	\$ 76,988	\$ 105,793	\$ 193,508	\$ 360,557	\$ 554,065	\$ -	\$ -	\$ -	\$ 88,998	\$ 368,139	\$ 457,137	\$ 188,257	\$ -	\$ 188,257
2034	\$ 215,423	\$ 475,071	\$ 690,494	\$ 27,753	\$ 83,538	\$ 111,291	\$ 187,670	\$ 391,533	\$ 579,203	\$ -	\$ -	\$ -	\$ 89,370	\$ 399,767	\$ 489,137	\$ 193,926	\$ -	\$ 193,926
2035	\$ 209,958	\$ 512,539	\$ 722,497	\$ 26,881	\$ 90,081	\$ 116,962	\$ 183,077	\$ 422,458	\$ 605,535	\$ -	\$ -	\$ -	\$ 92,035	\$ 431,342	\$ 523,377	\$ 199,213	\$ -	\$ 199,213
2036	\$ 202,144	\$ 549,561	\$ 751,705	\$ 25,857	\$ 96,461	\$ 122,318	\$ 176,287	\$ 453,100	\$ 629,387	\$ -	\$ -	\$ -	\$ 97,385	\$ 462,628	\$ 560,013	\$ 210,222	\$ -	\$ 210,222
2037	\$ 198,583	\$ 589,201	\$ 787,784	\$ 25,249	\$ 103,316	\$ 128,565	\$ 173,334	\$ 485,885	\$ 659,219	\$ -	\$ -	\$ -	\$ 103,111	\$ 496,103	\$ 599,214	\$ 217,409	\$ -	\$ 217,409
2038	\$ 198,085	\$ 629,039	\$ 827,124	\$ 24,934	\$ 110,323	\$ 135,257	\$ 173,151	\$ 518,716	\$ 691,867	\$ -	\$ -	\$ -	\$ 111,535	\$ 529,624	\$ 641,159	\$ 222,458	\$ -	\$ 222,458
2039	\$ 197,070	\$ 667,857	\$ 864,927	\$ 24,544	\$ 117,178	\$ 141,722	\$ 172,526	\$ 550,679	\$ 723,205	\$ -	\$ -	\$ -	\$ 123,781	\$ 562,259	\$ 686,040	\$ 233,090	\$ -	\$ 233,090
2040	\$ 191,483	\$ 704,250	\$ 895,733	\$ 23,443	\$ 123,686	\$ 147,129	\$ 168,040	\$ 580,564	\$ 748,604	\$ -	\$ -	\$ -	\$ 141,290	\$ 592,773	\$ 734,063	\$ 238,516	\$ -	\$ 238,516
2041	\$ 149,433	\$ 728,170	\$ 877,603	\$ 18,091	\$ 128,476	\$ 146,567	\$ 131,342	\$ 599,694	\$ 731,036	\$ -	\$ -	\$ -	\$ 173,142	\$ 612,305	\$ 785,447	\$ 244,078	\$ -	\$ 244,078
2042	\$ 100,255	\$ 811,674	\$ 911,929	\$ 12,128	\$ 144,024	\$ 156,152	\$ 88,127	\$ 667,650	\$ 755,777	\$ -	\$ -	\$ -	\$ 158,738	\$ 681,690	\$ 840,428	\$ 249,779	\$ -	\$ 249,779
2043	\$ 76,943	\$ 869,439	\$ 946,382	\$ 9,256	\$ 154,644	\$ 163,900	\$ 67,687	\$ 714,795	\$ 782,482	\$ -	\$ -	\$ -	\$ 169,432	\$ 729,826	\$ 899,258	\$ 262,678	\$ -	\$ 262,678
2044	\$ 59,625	\$ 925,747	\$ 985,372	\$ 7,137	\$ 165,001	\$ 172,138	\$ 52,488	\$ 760,746	\$ 813,234	\$ -	\$ -	\$ -	\$ 185,462	\$ 776,744	\$ 962,206	\$ 268,833	\$ -	\$ 268,833
2045	\$ 51,195	\$ 977,341	\$ 1,028,536	\$ 6,090	\$ 174,427	\$ 180,517	\$ 45,105	\$ 802,914	\$ 848,019	\$ -	\$ -	\$ -	\$ 209,762	\$ 819,798	\$ 1,029,560	\$ 277,868	\$ -	\$ 277,868
2046	\$ 45,403	\$ 1,025,372	\$ 1,070,775	\$ 5,366	\$ 183,191	\$ 188,557	\$ 40,037	\$ 842,181	\$ 882,218	\$ -	\$ -	\$ -	\$ 241,738	\$ 859,891	\$ 1,101,629	\$ 296,066	\$ -	\$ 296,066
2047	\$ 37,743	\$ 1,069,238	\$ 1,106,981	\$ 4,372	\$ 191,141	\$ 195,513	\$ 33,371	\$ 878,097	\$ 911,468	\$ -	\$ -	\$ -	\$ 282,181	\$ 896,562	\$ 1,178,743	\$ 307,352	\$ -	\$ 307,352
2048	\$ 26,244	\$ 1,114,425	\$ 1,140,669	\$ 2,912	\$ 199,364	\$ 202,276	\$ 23,332	\$ 915,061	\$ 938,393	\$ -	\$ -	\$ -	\$ 326,951	\$ 934,304	\$ 1,261,255	\$ 325,286	\$ -	\$ 325,286
2049	\$ 17,368	\$ 1,166,518	\$ 1,183,886	\$ 1,828	\$ 208,896	\$ 210,724	\$ 15,540	\$ 957,622	\$ 973,162	\$ -	\$ -	\$ -	\$ 371,783	\$ 977,760	\$ 1,349,543	\$ 334,396	\$ -	\$ 334,396
2050	\$ 12,049	\$ 1,204,907	\$ 1,216,956	\$ 1,221	\$ 216,054	\$ 217,275	\$ 10,828	\$ 988,853	\$ 999,681	\$ -	\$ -	\$ -	\$ 434,364	\$ 1,009,647	\$ 1,444,011	\$ 452,532	\$ -	\$ 452,532
2051	\$ 5,064	\$ 1,249,035	\$ 1,254,099	\$ 554	\$ 224,125	\$ 224,679	\$ 4,510	\$ 1,024,910	\$ 1,029,420	\$ -	\$ -	\$ -	\$ 498,629	\$ 1,046,463	\$ 1,545,092	\$ 466,357	\$ -	\$ 466,357
2052	\$ 3,890	\$ 1,294,829	\$ 1,298,719	\$ 412	\$ 232,595	\$ 233,007	\$ 3,478	\$ 1,062,234	\$ 1,065,712	\$ -	\$ -	\$ -	\$ 568,676	\$ 1,084,572	\$ 1,653,248	\$ 487,572	\$ -	\$ 487,572
2053	\$ 2,438	\$ 1,340,715	\$ 1,343,153	\$ 258	\$ 240,993	\$ 241,251	\$ 2,180	\$ 1,099,722	\$ 1,101,902	\$ -	\$ -	\$ -	\$ 646,127	\$ 1,122,848	\$ 1,768,975	\$ 502,794	\$ -	\$ 502,794
2054	\$ 1,892	\$ 1,393,435	\$ 1,395,327	\$ 194	\$ 250,521	\$ 250,715	\$ 1,698	\$ 1,142,914	\$ 1,144,612	\$ -	\$ -	\$ -	\$ 725,855	\$ 1,166,948	\$ 1,892,803	\$ 1,136,434	\$ -	\$ 1,136,434
2055	\$ 1,468	\$ 1,447,005	\$ 1,448,473	\$ 145	\$ 260,146	\$ 260,291	\$ 1,323	\$ 1,186,859	\$ 1,188,182	\$ -	\$ -	\$ -	\$ 813,482	\$ 1,211,817	\$ 2,025,299	\$ 1,295,087	\$ -	\$ 1,295,087
2056	\$ 1,136	\$ 1,501,739	\$ 1,502,875	\$ 109	\$ 269,890	\$ 269,999	\$ 1,027	\$ 1,231,849	\$ 1,232,876	\$ -	\$ -	\$ -	\$ 909,317	\$ 1,257,753	\$ 2,167,070	\$ 1,327,009	\$ -	\$ 1,327,009
2057	\$ 491	\$ 1,559,669	\$ 1,560,160	\$ 45	\$ 280,103	\$ 280,148	\$ 446	\$ 1,279,566	\$ 1,280,012	\$ -	\$ -	\$ -	\$ 1,012,291	\$ 1,306,474	\$ 2,318,765	\$ 1,598,129	\$ -	\$ 1,598,129
2058	\$ -	\$ 1,620,491	\$ 1,620,491	\$ -	\$ 290,810	\$ 290,810	\$ -	\$ 1,329,681	\$ 1,329,681	\$ -	\$ -	\$ -	\$ 1,123,436	\$ 1,357,643	\$ 2,481,079	\$ 1,716,135	\$ -	\$ 1,716,135
2059	\$ -	\$ 1,684,987	\$ 1,684,987	\$ -	\$ 302,123	\$ 302,123	\$ -	\$ 1,382,864	\$ 1,382,864	\$ -	\$ -	\$ -	\$ 1,242,811	\$ 1,411,944	\$ 2,654,755	\$ 1,949,262	\$ -	\$ 1,949,262
2060	\$ -	\$ 1,753,136	\$ 1,753,136	\$ -	\$ 314,052	\$ 314,052	\$ -	\$ 1,439,084	\$ 1,439,084	\$ -	\$ -	\$ -	\$ 1,371,242	\$ 1,469,346	\$ 2,840,588	\$ 2,332,719	\$ -	\$ 2,332,719
2061	\$ -	\$ 1,822,694	\$ 1,822,694	\$ -	\$ 326,272	\$ 326,272	\$ -	\$ 1,496,422	\$ 1,496,422	\$ -	\$ -	\$ -	\$ 1,511,539	\$ 1,527,890	\$ 3,039,429	\$ 2,390,452	\$ -	\$ 2,390,452

City of Nitro, West Virginia Firemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2021 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
2021	\$ 11,221,468	\$ -	\$ 11,221,468	\$ 2,199,783	19.60%	\$ 58,999	\$ 351,514	\$ 429,004	\$ -	\$ 93,102
2022	\$ 11,691,726	\$ -	\$ 11,691,726	\$ 2,274,394	19.45%	\$ 57,942	\$ 336,178	\$ 398,591	\$ -	\$ 96,568
2023	\$ 12,207,793	\$ 29,559	\$ 12,237,352	\$ 2,366,491	19.39%	\$ 56,672	\$ 327,709	\$ 403,625	\$ -	\$ 100,171
2024	\$ 12,733,937	\$ 90,361	\$ 12,824,298	\$ 2,447,418	19.22%	\$ 55,396	\$ 324,920	\$ 408,290	\$ -	\$ 103,427
2025	\$ 13,270,964	\$ 183,951	\$ 13,454,915	\$ 2,522,871	19.01%	\$ 54,206	\$ 320,821	\$ 412,599	\$ -	\$ 106,432
2026	\$ 13,820,481	\$ 311,182	\$ 14,131,663	\$ 2,591,732	18.75%	\$ 53,281	\$ 318,307	\$ 412,882	\$ -	\$ 109,280
2027	\$ 14,389,653	\$ 473,067	\$ 14,862,720	\$ 2,659,717	18.48%	\$ 52,024	\$ 321,605	\$ 450,125	\$ -	\$ 111,387
2028	\$ 14,923,920	\$ 660,623	\$ 15,584,543	\$ 2,692,608	18.04%	\$ 45,209	\$ 307,823	\$ 495,631	\$ -	\$ 111,437
2029	\$ 15,400,049	\$ 895,539	\$ 16,295,588	\$ 2,661,446	17.28%	\$ 40,942	\$ 300,699	\$ 536,631	\$ -	\$ 109,011
2030	\$ 15,822,656	\$ 1,171,724	\$ 16,994,380	\$ 2,575,468	16.28%	\$ 36,251	\$ 291,505	\$ 586,405	\$ -	\$ 104,018
2031	\$ 16,177,279	\$ 1,492,171	\$ 17,669,450	\$ 2,420,836	14.96%	\$ 32,799	\$ 279,410	\$ 619,277	\$ -	\$ 96,428
2032	\$ 16,488,227	\$ 1,865,374	\$ 18,353,601	\$ 2,210,197	13.40%	\$ 30,810	\$ 275,710	\$ 634,928	\$ -	\$ 87,027
2033	\$ 16,782,167	\$ 2,289,247	\$ 19,071,414	\$ 1,968,816	11.73%	\$ 29,411	\$ 277,255	\$ 645,752	\$ -	\$ 76,544
2034	\$ 17,067,839	\$ 2,763,869	\$ 19,831,708	\$ 1,706,274	10.00%	\$ 28,337	\$ 283,296	\$ 652,156	\$ -	\$ 65,356
2035	\$ 17,351,931	\$ 3,290,138	\$ 20,642,069	\$ 1,431,107	8.25%	\$ 27,446	\$ 291,248	\$ 655,361	\$ -	\$ 53,742
2036	\$ 17,639,127	\$ 3,870,795	\$ 21,509,922	\$ 1,148,183	6.51%	\$ 26,401	\$ 307,607	\$ 661,806	\$ -	\$ 41,905
2037	\$ 17,923,802	\$ 4,505,230	\$ 22,429,032	\$ 862,289	4.81%	\$ 25,780	\$ 320,520	\$ 664,444	\$ -	\$ 29,957
2038	\$ 18,214,170	\$ 5,200,028	\$ 23,414,198	\$ 574,103	3.15%	\$ 25,458	\$ 333,993	\$ 663,681	\$ -	\$ 18,002
2039	\$ 18,517,138	\$ 5,959,230	\$ 24,476,368	\$ 287,875	1.55%	\$ 25,060	\$ 356,871	\$ 663,915	\$ -	\$ 6,305
2040	\$ 18,831,685	\$ 6,783,134	\$ 25,614,819	\$ 12,196	0.06%	\$ 23,936	\$ 379,806	\$ 674,781	\$ -	\$ -
2041	\$ 19,142,682	\$ 7,663,092	\$ 26,805,774	\$ -	0.00%	\$ 18,471	\$ 417,220	\$ 734,143	\$ -	\$ -
2042	\$ 19,362,449	\$ 8,544,289	\$ 27,906,738	\$ -	0.00%	\$ 12,383	\$ 408,517	\$ 791,380	\$ -	\$ -
2043	\$ 19,481,847	\$ 9,483,883	\$ 28,965,730	\$ -	0.00%	\$ 9,451	\$ 432,110	\$ 820,071	\$ -	\$ -
2044	\$ 19,552,722	\$ 10,476,624	\$ 30,029,346	\$ -	0.00%	\$ 7,287	\$ 454,295	\$ 838,995	\$ -	\$ -
2045	\$ 19,589,234	\$ 11,522,074	\$ 31,111,308	\$ -	0.00%	\$ 6,218	\$ 487,630	\$ 846,394	\$ -	\$ -
2046	\$ 19,610,955	\$ 12,628,159	\$ 32,239,114	\$ -	0.00%	\$ 5,479	\$ 537,804	\$ 850,068	\$ -	\$ -
2047	\$ 19,623,809	\$ 13,792,923	\$ 33,416,732	\$ -	0.00%	\$ 4,464	\$ 589,533	\$ 859,028	\$ -	\$ -
2048	\$ 19,620,076	\$ 15,003,866	\$ 34,623,942	\$ -	0.00%	\$ 2,973	\$ 652,237	\$ 871,552	\$ -	\$ -
2049	\$ 19,591,409	\$ 16,250,778	\$ 35,842,187	\$ -	0.00%	\$ 1,866	\$ 706,179	\$ 877,779	\$ -	\$ -
2050	\$ 19,545,912	\$ 17,542,500	\$ 37,088,412	\$ -	0.00%	\$ 1,247	\$ 886,896	\$ 878,173	\$ -	\$ 210
2051	\$ 19,492,534	\$ 18,857,000	\$ 38,349,534	\$ 10,180	0.05%	\$ 566	\$ 964,986	\$ 878,527	\$ -	\$ 2,263
2052	\$ 19,429,244	\$ 20,198,111	\$ 39,627,355	\$ 99,468	0.51%	\$ 421	\$ 1,056,248	\$ 871,980	\$ -	\$ 8,111
2053	\$ 19,368,725	\$ 21,567,985	\$ 40,936,710	\$ 292,268	1.51%	\$ 263	\$ 1,148,921	\$ 864,672	\$ -	\$ 18,404
2054	\$ 19,311,582	\$ 22,964,398	\$ 42,275,980	\$ 595,184	3.08%	\$ 198	\$ 1,862,289	\$ 855,359	\$ -	\$ 46,474
2055	\$ 19,260,950	\$ 24,401,782	\$ 43,662,732	\$ 1,648,786	8.56%	\$ 148	\$ 2,108,569	\$ 844,862	\$ -	\$ 96,651
2056	\$ 19,218,442	\$ 25,882,649	\$ 45,101,091	\$ 3,009,292	15.66%	\$ 111	\$ 2,236,326	\$ 833,289	\$ -	\$ 157,402
2057	\$ 19,185,598	\$ 27,406,969	\$ 46,592,567	\$ 4,569,841	23.82%	\$ 46	\$ 2,610,420	\$ 820,859	\$ -	\$ 231,852
2058	\$ 19,163,377	\$ 28,979,170	\$ 48,142,547	\$ 6,591,300	34.40%	\$ -	\$ 2,839,571	\$ 807,204	\$ -	\$ 322,869
2059	\$ 19,153,642	\$ 30,604,228	\$ 49,757,870	\$ 8,946,537	46.71%	\$ -	\$ 3,192,073	\$ 792,012	\$ -	\$ 430,698
2060	\$ 19,159,005	\$ 32,289,097	\$ 51,448,102	\$ 11,777,296	61.47%	\$ -	\$ 3,703,961	\$ 775,866	\$ -	\$ 562,110
2061	\$ 19,181,081	\$ 34,042,618	\$ 53,223,699	\$ 15,267,500	79.60%	\$ -	\$ 3,901,991	\$ 758,814	\$ -	\$ 714,966

City of Nitro, West Virginia Firemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2021 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
2021	\$ 429,004	\$ -	\$ 420,168	\$ -	\$ 422,375
2022	\$ 398,591	\$ -	\$ 374,467	\$ -	\$ 380,398
2023	\$ 403,625	\$ -	\$ 363,737	\$ -	\$ 373,390
2024	\$ 408,290	\$ -	\$ 352,941	\$ -	\$ 366,123
2025	\$ 412,599	\$ -	\$ 342,126	\$ -	\$ 358,642
2026	\$ 412,882	\$ -	\$ 328,403	\$ -	\$ 347,882
2027	\$ 450,125	\$ -	\$ 343,430	\$ -	\$ 367,632
2028	\$ 495,631	\$ -	\$ 362,734	\$ -	\$ 392,385
2029	\$ 536,631	\$ -	\$ 376,729	\$ -	\$ 411,816
2030	\$ 586,405	\$ -	\$ 394,889	\$ -	\$ 436,214
2031	\$ 619,277	\$ -	\$ 400,024	\$ -	\$ 446,540
2032	\$ 634,928	\$ -	\$ 393,414	\$ -	\$ 443,786
2033	\$ 645,752	\$ -	\$ 383,809	\$ -	\$ 437,511
2034	\$ 652,156	\$ -	\$ 371,813	\$ -	\$ 428,301
2035	\$ 655,361	\$ -	\$ 358,408	\$ -	\$ 417,207
2036	\$ 661,806	\$ -	\$ 347,178	\$ -	\$ 408,391
2037	\$ 664,444	\$ -	\$ 334,352	\$ -	\$ 397,445
2038	\$ -	\$ 663,681	\$ -	\$ 475,795	\$ 384,815
2039	\$ -	\$ 663,915	\$ -	\$ 466,996	\$ 373,146
2040	\$ -	\$ 674,781	\$ -	\$ 465,698	\$ 367,624
2041	\$ -	\$ 734,143	\$ -	\$ 497,122	\$ 387,699
2042	\$ -	\$ 791,380	\$ -	\$ 525,784	\$ 405,110
2043	\$ -	\$ 820,071	\$ -	\$ 534,582	\$ 406,924
2044	\$ -	\$ 838,995	\$ -	\$ 536,615	\$ 403,548
2045	\$ -	\$ 846,394	\$ -	\$ 531,150	\$ 394,623
2046	\$ -	\$ 850,068	\$ -	\$ 523,406	\$ 384,182
2047	\$ -	\$ 859,028	\$ -	\$ 518,959	\$ 376,327
2048	\$ -	\$ 871,552	\$ -	\$ 516,606	\$ 370,105
2049	\$ -	\$ 877,779	\$ -	\$ 510,495	\$ 361,319
2050	\$ -	\$ 878,173	\$ -	\$ 501,103	\$ 350,396
2051	\$ -	\$ 878,527	\$ -	\$ 491,862	\$ 339,788
2052	\$ -	\$ 871,980	\$ -	\$ 478,999	\$ 326,914
2053	\$ -	\$ 864,672	\$ -	\$ 466,037	\$ 314,233
2054	\$ -	\$ 855,359	\$ -	\$ 452,333	\$ 301,317
2055	\$ 844,862	\$ -	\$ 200,984	\$ -	\$ 288,493
2056	\$ 833,289	\$ -	\$ 190,150	\$ -	\$ 275,815
2057	\$ 820,859	\$ -	\$ 179,677	\$ -	\$ 263,369
2058	\$ 807,204	\$ -	\$ 169,485	\$ -	\$ 251,046
2059	\$ 792,012	\$ -	\$ 159,516	\$ -	\$ 238,768
2060	\$ 775,866	\$ -	\$ 149,893	\$ -	\$ 226,728
2061	\$ 758,814	\$ -	\$ 140,622	\$ -	\$ 214,945