



**Municipal Pensions
Oversight Board**

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

GASB 68 Actuarial Information for the
Measurement Period Ending
June 30, 2020

Bolton

Submitted by:

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Employee Benefits, Actuarial & Investment Consulting

October 27, 2020

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

Sgt. Christopher Hastings
Pension Board Secretary
City of Nitro
Policemen's Pension and Relief Fund

Re: City of Nitro Policemen's Pension and Relief Fund
GASB 68 Actuarial Information for the Measurement Period Ending June 30, 2020

Dear John,

The following report contains the GASB 67 and GASB 68 actuarial information for the City of Nitro Policemen's Pension and Relief Fund to be included in the City's financial statements for FY 2020. The GASB 67 information has been provided as of June 30, 2020 (the GASB 68 measurement date for FY 2020).

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, 2020 (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, 2019 actuarial valuation rolled forward to June 30, 2020. The methods, assumptions, and participant data used are detailed in the July 1, 2019 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, 2020 is contained in the July 1, 2018 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 4.37%. The plan's expected gross rate of investment return of 5.00% has been blended with the 2.45% 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, 2020. 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 fund's current funding ratio, liquidity ratio, equity exposure and expected funded status in 15 years.

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. These calculations are complex. Despite our best efforts, we may make a mistake. 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.

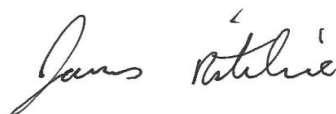
The calculation of actuarial liabilities for valuation purposes is based on a current estimate of future benefit payments. The calculation includes a computation of the "present value" of those estimated future benefit payments using an assumed discount rate; the higher the discount rate assumption, 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, 2019 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 Policemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2020 Measurement Date



Net Pension Liability of the Employer

The components of the net pension liability of the Employer at June 30, 2020, were as follows:

Total pension liability	\$ 14,033,164
Plan fiduciary net position	(4,571,366)
Employer's net pension liability	<u>\$ 9,461,798</u>
Plan fiduciary net position as a percentage of the total pension liability	32.58%

Actuarial assumptions. The total pension liability was determined by an actuarial valuation as of July 1, 2019 rolled forward to June 30, 2020 using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.75 percent
Salary increases	Rates vary by years of service
Single discount rate (BOY)	4.22%
Single discount rate (EOY)	4.37%
Investment rate of return (BOY)	5.00%, net of pension plan investment expense, including inflation
Investment rate of return (EOY)	5.00%, net of pension plan investment expense, including inflation
Long-term municipal bond rate (BOY)	3.13%
Long-term municipal bond rate (EOY)	2.45%
Mortality	RP-2014 Blue Collar Mortality Table with generational projection using Scale MP-2014
Year Fund is projected to be fully funded	2062
Year assets are expected to be depleted for a closed plan	2049

The above is a summary of key actuarial assumptions. Full descriptions of the actuarial assumptions are available in the July 1, 2019 actuarial valuation report.

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

	1% Decrease 3.37%	Current Discount Rate 4.37%	1% Increase 5.37%
Employer's net pension liability	\$ 12,251,382	\$ 9,461,798	\$ 7,315,567

City of Nitro, West Virginia Policemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2020 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 6/30/19	\$ 13,909,848	\$ 4,456,305	\$ 9,453,543
Changes for the year:			
Service cost	590,211		590,211
Interest	578,426		578,426
Changes of benefit terms	-		-
Differences between expected and actual experience	(266,968)		(266,968)
Changes of assumptions	(372,208)		(372,208)
Contributions - employer (including Premium Tax Allocation)		379,443	(379,443)
Contributions - member		94,589	(94,589)
Net investment income		49,751	(49,751)
Benefit payments, including refunds of member contributions	(406,145)	(406,145)	-
Administrative expense		(2,577)	2,577
Other		-	-
Net Changes	<u>123,316</u>	<u>115,061</u>	<u>8,255</u>
Balances at 6/30/20	<u>\$ 14,033,164</u>	<u>\$ 4,571,366</u>	<u>\$ 9,461,798</u>
Return on Investments		1.1%	

City of Nitro, West Virginia Policemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2020 Measurement Date



Components of Employer's Pension Expense for the Fiscal Year Ended June 30, 2020

Note	Description	Amount
A	Service cost	\$ 590,211
B	Interest on the total pension liability	578,426
A	Changes of benefit terms	-
C	Differences between expected and actual experience	(108,404)
C	Changes of assumptions	522,352
A	Employee contributions	(94,589)
D	Projected earnings on pension plan investments	(224,448)
C	Differences between expected and actual earnings on plan investments	(37,587)
A	Pension plan administrative expense	2,577
A	Other changes in fiduciary net position	-
Total Pension Expense		\$ 1,228,538

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	\$ 13,909,848	100%	4.22%	\$ 586,996
Service cost (End of Year)	590,211	0%	4.22%	-
Benefit payments, including refunds of employee contributions	(406,145)	50%	4.22%	(8,570)
Total interest on the total pension liability				\$ 578,426

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	\$ 4,456,305	100%	5.00%	\$ 222,815
Employer contributions	379,443	50%	5.00%	9,486
Employee contributions	94,589	50%	5.00%	2,365
Benefit payments, including refunds of employee contributions	(406,145)	50%	5.00%	(10,154)
Administrative expense and other	(2,577)	50%	5.00%	(64)
Total Projected Earnings				\$ 224,448

City of Nitro, West Virginia Policemen’s Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2020 Measurement Date



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

At June 30, 2020, 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	\$ 440,615	\$ 1,073,534
Changes of assumptions	956,861	1,466,513
Net difference between projected and actual earnings on pension plan investments	23,552	-
Total	\$ 1,421,028	\$ 2,540,047

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:	
2021	\$ 327,256
2022	(559,523)
2023	(395,936)
2024	(222,917)
2025	(267,899)
Thereafter	-

City of Nitro, West Virginia Policemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2020 Measurement Date



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

Total pension liability	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Service cost	\$ 590,211	\$ 618,647	\$ 598,321	\$ 711,164	\$ 314,562	\$ 285,508	\$ 255,694	\$ -	\$ -	\$ -
Interest	578,426	570,802	547,497	448,588	487,352	466,748	438,033	-	-	-
Changes of benefit terms	-	-	-	-	-	-	-	-	-	-
Differences between expected and actual experience	(266,968)	(750,724)	830,663	(777,301)	(37,232)	200,889	-	-	-	-
Changes of assumptions	(372,208)	(378,869)	(130,855)	(2,064,480)	5,255,570	656,653	-	-	-	-
Benefit payments, including refunds of member contributions	(406,145)	(354,754)	(285,165)	(289,927)	(289,815)	(318,959)	(287,238)	-	-	-
Net change in total pension liability	123,316	(294,898)	1,560,461	(1,971,956)	5,730,437	1,290,839	406,489	-	-	-
Total pension liability - beginning	13,909,848	14,204,746	12,644,285	14,616,241	8,885,804	7,594,965	7,188,476	-	-	-
Total pension liability - ending (a)	\$ 14,033,164	\$ 13,909,848	\$ 14,204,746	\$ 12,644,285	\$ 14,616,241	\$ 8,885,804	\$ 7,594,965	\$ -	\$ -	\$ -
Plan fiduciary net position	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Contributions - employer (including Premium Tax Allocation)	\$ 379,443	\$ 351,077	\$ 330,950	\$ 315,828	\$ 317,221	\$ 248,577	\$ 192,256	\$ -	\$ -	\$ -
Contributions - member	94,589	91,478	89,265	92,460	79,333	75,139	76,496	-	-	-
Net investment income	49,751	243,964	287,729	349,585	155,340	110,431	287,530	-	-	-
Benefit payments, including refunds of member contributions	(406,145)	(354,754)	(285,165)	(289,927)	(289,815)	(318,959)	(287,238)	-	-	-
Administrative expense	(2,577)	(11,260)	(4,203)	(2,400)	(652)	(2,400)	(2,400)	-	-	-
Other	-	-	-	-	1,992	-	-	-	-	-
Net change in plan fiduciary net position	\$ 115,061	\$ 320,505	\$ 418,576	\$ 465,546	\$ 263,419	\$ 112,788	\$ 266,644	\$ -	\$ -	\$ -
Plan fiduciary net position - beginning	4,456,305	4,135,800	3,717,223	3,251,677	2,988,258	2,875,470	2,608,826	-	-	-
Plan fiduciary net position - ending (b)	\$ 4,571,366	\$ 4,456,305	\$ 4,135,800	\$ 3,717,223	\$ 3,251,677	\$ 2,988,258	\$ 2,875,470	\$ -	\$ -	\$ -
Employer's net pension liability - ending (a)-(b)	<u>\$ 9,461,798</u>	<u>\$ 9,453,543</u>	<u>\$ 10,068,946</u>	<u>\$ 8,927,062</u>	<u>\$ 11,364,564</u>	<u>\$ 5,897,546</u>	<u>\$ 4,719,495</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Plan fiduciary net position as a percentage of the total pension liability	32.58%	32.04%	29.12%	29.40%	22.25%	33.63%	37.86%	0.00%	0.00%	0.00%
Covered payroll	\$ 1,059,432	\$ 1,096,302	\$ 1,003,494	\$ 960,443	\$ 878,065	\$ 919,991	\$ 821,706	\$ -	\$ -	\$ -
Employer's net pension liability as a percentage of covered payroll	893.10%	862.31%	1003.39%	929.47%	1294.27%	641.04%	574.35%	0.00%	0.00%	0.00%
Expected average remaining service years of all participants	6.00	7.00	6.09	6.63	6.02	6.64	-	-	-	-

Notes to Schedule:

Benefit changes: There were no changes for FY2020.

Changes of assumptions: The discount rate changed from 4.22% to 4.37%.

City of Nitro, West Virginia Policemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2020 Measurement Date



Schedule of Employer Contributions
 Last 10 Fiscal Years

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Actuarially determined contribution	\$ 857,475	\$ 851,980	\$ 760,991	\$ 686,729	\$ 737,278	\$ 501,944	\$ 404,846	\$ 385,045	\$ -	\$ -
Contributions in relation to the actuarially determined contribution										
Employer provided	203,595	190,276	177,827	166,193	155,321	138,861	60,683	125,227	-	-
State provided	175,848	160,801	153,124	149,635	161,900	109,716	131,573	283,718	-	-
Contribution deficiency (excess)	<u>\$ 478,032</u>	<u>\$ 500,903</u>	<u>\$ 430,040</u>	<u>\$ 370,901</u>	<u>\$ 420,057</u>	<u>\$ 253,367</u>	<u>\$ 212,590</u>	<u>\$ (23,900)</u>	<u>\$ -</u>	<u>\$ -</u>
Covered payroll	\$ 1,059,432	\$ 1,096,302	\$ 1,003,494	\$ 960,443	\$ 878,065	\$ 919,991	\$ 821,706	\$ 792,843	\$ -	\$ -
Contributions as a percentage of covered employee payroll	35.82%	32.02%	32.98%	32.88%	36.13%	27.02%	23.40%	51.58%	N/A	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	31.5 years
Asset valuation method	Market Value
Inflation	2.75 percent
Salary increases	Rates vary by years of service
Investment rate of return	5.00%, 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

City of Nitro, West Virginia Policemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
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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)	2016	2017	2018	2019	2020	2021	2022	2023	2024
2016	\$ 11,987	5	\$ 2,397	2,397	2,397	2,397	2,399				
2017	(203,487)	5		\$ (40,697)	(40,697)	(40,697)	(40,697)	(40,699)			
2018	(135,878)	5			\$ (27,176)	(27,176)	(27,176)	(27,176)	(27,174)		
2019	(35,261)	5				\$ (7,052)	(7,052)	(7,052)	(7,052)	(7,053)	
2020	174,697	5					\$ 34,939	34,939	34,939	34,939	34,941
Net increase (decrease) in pension expense							\$ (37,587)	\$ (39,988)	\$ 713	\$ 27,886	\$ 34,941

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, 2020 (c)	Balances at June 30, 2020	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2016	\$ 11,987	\$ -	\$ 11,987	\$ -	\$ -
2017	-	203,487	162,788	-	40,699
2018	-	135,878	81,528	-	54,350
2019	-	35,261	14,104	-	21,157
2020	174,697	-	34,939	139,758	-
				\$ 139,758	\$ 116,206

City of Nitro, West Virginia Policemen'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	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Thereafter
Prior	-	-																	
2011	-	-																	
2012	-	-																	
2013	-	-																	
2014	-	-																	
2015	200,889	6.638436						\$ 30,261	30,261	30,261	30,261	30,261	30,261	19,323					
2016	(37,232)	6.024461						\$ (6,180)	(6,180)	(6,180)	(6,180)	(6,180)	(6,180)	(6,180)	(152)				
2017	(777,301)	6.632187							\$ (117,201)	(117,201)	(117,201)	(117,201)	(117,201)	(117,201)	(117,201)	(74,095)			
2018	830,663	6.087379								\$ 136,457	136,457	136,457	136,457	136,457	136,457	136,457	11,921		
2019	(750,724)	7.000000									\$ (107,246)	(107,246)	(107,246)	(107,246)	(107,246)	(107,246)	(107,246)	(107,248)	-
2020	(266,968)	6.000000										\$ (44,495)	(44,495)	(44,495)	(44,495)	(44,495)	(44,495)	(44,493)	-
Net increase (decrease) in pension expense													\$ (108,404)	\$ (119,342)	\$ (132,637)	\$ (89,379)	\$ (139,820)	\$ (151,741)	\$ -

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, 2020 (c)	Balances at June 30, 2020	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
Prior	\$ -	\$ -	\$ -	\$ -	\$ -
2011	-	-	-	-	-
2012	-	-	-	-	-
2013	-	-	-	-	-
2014	-	-	-	-	-
2015	200,889	-	181,566	19,323	-
2016	-	37,232	30,900	-	6,332
2017	-	777,301	468,804	-	308,497
2018	830,663	-	409,371	421,292	-
2019	-	750,724	214,492	-	536,232
2020	-	266,968	44,495	-	222,473
				\$ 440,615	\$ 1,073,534

City of Nitro, West Virginia Policemen'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	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Thereafter
Prior	\$ -	-																	-
2011	-	-																	-
2012	-	-																	-
2013	-	-																	-
2014	-	-																	-
2015	656,653	6,638,436						\$ 98,917	98,917	98,917	98,917	98,917	98,917	63,151					-
2016	5,255,570	6,024,461						\$ 872,372	872,372	872,372	872,372	872,372	872,372	872,372	21,338				-
2017	(2,064,480)	6,632,187								\$ (311,282)	(311,282)	(311,282)	(311,282)	(311,282)	(311,282)	(196,788)			-
2018	(130,855)	6,087,379								\$ (21,496)	(21,496)	(21,496)	(21,496)	(21,496)	(21,496)	(21,496)	(1,879)		-
2019	(378,869)	7,000,000								\$ (54,124)	(54,124)	(54,124)	(54,124)	(54,124)	(54,124)	(54,124)	(54,124)	(54,125)	-
2020	(372,208)	6,000,000											\$ (62,035)	(62,035)	(62,035)	(62,035)	(62,035)	(62,035)	-
Net increase (decrease) in pension expense													\$ 522,352	\$ 486,586	\$ (427,599)	\$ (334,443)	\$ (118,038)	\$ (116,158)	\$ -

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, 2020 (c)	Balances at June 30, 2020	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
Prior	\$ -	\$ -	\$ -	\$ -	\$ -
2011	-	-	-	-	-
2012	-	-	-	-	-
2013	-	-	-	-	-
2014	-	-	-	-	-
2015	656,653	-	593,502	63,151	-
2016	5,255,570	-	4,361,860	893,710	-
2017	-	2,064,480	1,245,128	-	819,352
2018	-	130,855	64,488	-	66,367
2019	-	378,869	108,248	-	270,621
2020	-	372,208	62,035	-	310,173
			\$ 956,861	\$ 1,466,513	

City of Nitro, West Virginia Policemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2020 Measurement Date



Projection of Pension Plan's Fiduciary Net Position

Fiscal Year	Gross Normal Cost (BOY)			Employee Contributions (BOY)			Employer Normal Cost (BOY)			Expenses (BOY)			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
2020	\$ 460,712	\$ -	\$ 460,712	\$ 90,623	\$ -	\$ 90,623	\$ 370,089	\$ -	\$ 370,089	\$ 2,603	\$ -	\$ 2,603	\$ 203,594	\$ -	\$ 203,594	\$ 175,848	\$ -	\$ 175,848
2021	\$ 470,432	\$ 15,010	\$ 485,442	\$ 92,328	\$ 3,146	\$ 95,474	\$ 378,104	\$ 11,864	\$ 389,968	\$ 2,675	\$ -	\$ 2,675	\$ 205,689	\$ 12,157	\$ 217,846	\$ 186,465	\$ -	\$ 186,465
2022	\$ 473,994	\$ 32,547	\$ 506,541	\$ 92,995	\$ 6,826	\$ 99,821	\$ 380,999	\$ 25,721	\$ 406,720	\$ 2,660	\$ 89	\$ 2,749	\$ 206,650	\$ 26,445	\$ 233,095	\$ 187,878	\$ -	\$ 187,878
2023	\$ 460,815	\$ 56,058	\$ 516,873	\$ 90,921	\$ 11,767	\$ 102,688	\$ 369,894	\$ 44,291	\$ 414,185	\$ 2,733	\$ 180	\$ 2,913	\$ 203,847	\$ 45,565	\$ 249,412	\$ 195,518	\$ -	\$ 195,518
2024	\$ 443,088	\$ 92,508	\$ 535,596	\$ 88,082	\$ 19,436	\$ 107,518	\$ 355,006	\$ 73,072	\$ 428,078	\$ 2,808	\$ 276	\$ 3,084	\$ 191,718	\$ 75,153	\$ 266,871	\$ 200,242	\$ -	\$ 200,242
2025	\$ 436,908	\$ 124,045	\$ 560,953	\$ 87,297	\$ 26,078	\$ 113,375	\$ 349,611	\$ 97,967	\$ 447,578	\$ 2,789	\$ 380	\$ 3,169	\$ 184,786	\$ 100,766	\$ 285,552	\$ 205,097	\$ -	\$ 205,097
2026	\$ 428,529	\$ 152,212	\$ 580,741	\$ 86,276	\$ 32,018	\$ 118,294	\$ 342,253	\$ 120,194	\$ 462,447	\$ 2,866	\$ 486	\$ 3,352	\$ 181,893	\$ 123,648	\$ 305,541	\$ 210,751	\$ -	\$ 210,751
2027	\$ 413,036	\$ 186,833	\$ 599,869	\$ 84,051	\$ 39,327	\$ 123,378	\$ 328,985	\$ 147,506	\$ 476,491	\$ 2,945	\$ 598	\$ 3,543	\$ 175,182	\$ 151,747	\$ 326,929	\$ 215,888	\$ -	\$ 215,888
2028	\$ 385,430	\$ 225,074	\$ 610,504	\$ 79,533	\$ 47,408	\$ 126,941	\$ 305,897	\$ 177,666	\$ 483,563	\$ 2,922	\$ 820	\$ 3,742	\$ 166,941	\$ 182,873	\$ 349,814	\$ 222,669	\$ -	\$ 222,669
2029	\$ 358,308	\$ 274,909	\$ 633,217	\$ 74,977	\$ 57,948	\$ 132,925	\$ 283,331	\$ 216,961	\$ 500,292	\$ 3,110	\$ 839	\$ 3,949	\$ 151,143	\$ 223,158	\$ 374,301	\$ 210,751	\$ -	\$ 210,751
2030	\$ 345,438	\$ 315,912	\$ 661,350	\$ 73,034	\$ 66,625	\$ 139,659	\$ 272,404	\$ 249,287	\$ 521,691	\$ 3,085	\$ 973	\$ 4,058	\$ 144,086	\$ 256,416	\$ 400,502	\$ 234,661	\$ -	\$ 234,661
2031	\$ 334,884	\$ 354,153	\$ 689,037	\$ 71,429	\$ 74,722	\$ 146,151	\$ 263,455	\$ 279,431	\$ 542,886	\$ 3,170	\$ 1,109	\$ 4,279	\$ 141,096	\$ 287,441	\$ 428,537	\$ 240,443	\$ -	\$ 240,443
2032	\$ 324,470	\$ 398,116	\$ 722,586	\$ 69,860	\$ 84,038	\$ 153,898	\$ 254,610	\$ 314,078	\$ 568,688	\$ 3,257	\$ 1,140	\$ 4,397	\$ 135,561	\$ 322,974	\$ 458,535	\$ 246,384	\$ -	\$ 246,384
2033	\$ 322,591	\$ 437,822	\$ 760,413	\$ 69,847	\$ 92,455	\$ 162,302	\$ 252,744	\$ 345,367	\$ 598,111	\$ 3,347	\$ 1,171	\$ 4,518	\$ 135,565	\$ 355,067	\$ 490,632	\$ 252,488	\$ -	\$ 252,488
2034	\$ 324,789	\$ 475,839	\$ 800,628	\$ 70,587	\$ 100,516	\$ 171,103	\$ 254,202	\$ 375,323	\$ 629,525	\$ 3,316	\$ 1,445	\$ 4,761	\$ 138,939	\$ 386,037	\$ 524,976	\$ 260,389	\$ -	\$ 260,389
2035	\$ 329,210	\$ 513,268	\$ 842,478	\$ 71,740	\$ 108,455	\$ 180,195	\$ 257,470	\$ 404,813	\$ 662,283	\$ 3,407	\$ 1,485	\$ 4,892	\$ 145,429	\$ 416,295	\$ 561,724	\$ 268,144	\$ -	\$ 268,144
2036	\$ 274,089	\$ 550,957	\$ 825,046	\$ 61,828	\$ 116,452	\$ 178,280	\$ 212,261	\$ 434,505	\$ 646,766	\$ 3,501	\$ 1,526	\$ 5,027	\$ 154,284	\$ 446,761	\$ 601,045	\$ 280,630	\$ -	\$ 280,630
2037	\$ 263,278	\$ 615,163	\$ 878,441	\$ 59,892	\$ 130,097	\$ 189,989	\$ 203,386	\$ 485,066	\$ 688,452	\$ 3,597	\$ 1,697	\$ 5,294	\$ 144,376	\$ 498,742	\$ 643,118	\$ 288,362	\$ -	\$ 288,362
2038	\$ 246,241	\$ 677,420	\$ 923,661	\$ 56,609	\$ 143,331	\$ 199,940	\$ 189,632	\$ 534,089	\$ 723,721	\$ 3,696	\$ 1,744	\$ 5,440	\$ 139,114	\$ 549,022	\$ 688,136	\$ 295,579	\$ -	\$ 295,579
2039	\$ 221,246	\$ 730,719	\$ 951,965	\$ 51,234	\$ 154,659	\$ 205,893	\$ 170,012	\$ 576,060	\$ 746,072	\$ 3,798	\$ 1,792	\$ 5,590	\$ 144,228	\$ 592,078	\$ 736,306	\$ 302,994	\$ -	\$ 302,994
2040	\$ 186,607	\$ 803,594	\$ 990,201	\$ 43,577	\$ 170,166	\$ 213,743	\$ 143,030	\$ 633,428	\$ 776,458	\$ 3,758	\$ 2,126	\$ 5,884	\$ 136,650	\$ 651,197	\$ 787,847	\$ 310,614	\$ -	\$ 310,614
2041	\$ 160,179	\$ 868,943	\$ 1,029,122	\$ 37,757	\$ 184,069	\$ 221,826	\$ 122,422	\$ 684,874	\$ 807,296	\$ 3,713	\$ 2,333	\$ 6,046	\$ 138,876	\$ 704,120	\$ 842,996	\$ 326,348	\$ -	\$ 326,348
2042	\$ 137,100	\$ 938,316	\$ 1,075,416	\$ 32,524	\$ 198,851	\$ 231,375	\$ 104,576	\$ 739,465	\$ 844,041	\$ 3,968	\$ 2,392	\$ 6,360	\$ 141,888	\$ 760,118	\$ 902,006	\$ 334,593	\$ -	\$ 334,593
2043	\$ 123,364	\$ 1,000,969	\$ 1,124,333	\$ 29,475	\$ 212,226	\$ 241,701	\$ 93,889	\$ 788,743	\$ 882,632	\$ 4,077	\$ 2,458	\$ 6,535	\$ 154,467	\$ 810,679	\$ 965,146	\$ 347,882	\$ -	\$ 347,882
2044	\$ 113,589	\$ 1,057,542	\$ 1,171,131	\$ 27,326	\$ 224,344	\$ 251,670	\$ 86,263	\$ 833,198	\$ 919,461	\$ 3,867	\$ 2,848	\$ 6,715	\$ 176,084	\$ 856,622	\$ 1,032,706	\$ 362,499	\$ -	\$ 362,499
2045	\$ 93,874	\$ 1,110,448	\$ 1,204,322	\$ 22,777	\$ 235,710	\$ 258,487	\$ 71,097	\$ 874,738	\$ 945,835	\$ 3,973	\$ 2,927	\$ 6,900	\$ 205,728	\$ 899,267	\$ 1,104,995	\$ 374,645	\$ -	\$ 374,645
2046	\$ 70,733	\$ 1,173,985	\$ 1,244,718	\$ 17,293	\$ 249,382	\$ 266,675	\$ 53,440	\$ 924,603	\$ 978,043	\$ 4,082	\$ 3,173	\$ 7,255	\$ 231,736	\$ 950,609	\$ 1,182,345	\$ 387,824	\$ -	\$ 387,824
2047	\$ 51,502	\$ 1,229,116	\$ 1,280,618	\$ 12,706	\$ 261,273	\$ 273,979	\$ 38,796	\$ 967,843	\$ 1,006,639	\$ 4,194	\$ 3,261	\$ 7,455	\$ 270,104	\$ 995,005	\$ 1,265,109	\$ 397,705	\$ -	\$ 397,705
2048	\$ 33,291	\$ 1,289,662	\$ 1,322,953	\$ 8,262	\$ 274,323	\$ 282,585	\$ 25,029	\$ 1,015,339	\$ 1,040,368	\$ 4,130	\$ 3,530	\$ 7,660	\$ 309,724	\$ 1,043,943	\$ 1,353,667	\$ 421,180	\$ -	\$ 421,180
2049	\$ 22,445	\$ 1,347,739	\$ 1,370,184	\$ 5,586	\$ 286,896	\$ 292,442	\$ 16,859	\$ 1,060,883	\$ 1,077,742	\$ 4,244	\$ 3,806	\$ 8,050	\$ 357,536	\$ 1,090,888	\$ 1,448,424	\$ 431,951	\$ -	\$ 431,951
2050	\$ 16,217	\$ 1,402,438	\$ 1,418,655	\$ 4,036	\$ 298,692	\$ 302,728	\$ 12,181	\$ 1,103,746	\$ 1,115,927	\$ 4,171	\$ 4,100	\$ 8,271	\$ 414,711	\$ 1,135,103	\$ 1,549,814	\$ 573,497	\$ -	\$ 573,497
2051	\$ 10,926	\$ 1,455,403	\$ 1,466,329	\$ 2,725	\$ 310,164	\$ 312,889	\$ 8,201	\$ 1,145,239	\$ 1,153,440	\$ 4,286	\$ 4,212	\$ 8,498	\$ 480,568	\$ 1,177,733	\$ 1,658,301	\$ 599,737	\$ -	\$ 599,737
2052	\$ 7,671	\$ 1,507,867	\$ 1,515,538	\$ 1,915	\$ 321,528	\$ 323,443	\$ 5,756	\$ 1,186,339	\$ 1,192,095	\$ 4,204	\$ 4,722	\$ 8,926	\$ 554,024	\$ 1,220,358	\$ 1,774,382	\$ 619,448	\$ -	\$ 619,448
2053	\$ 5,313	\$ 1,563,451	\$ 1,568,764	\$ 1,328	\$ 333,541	\$ 334,869	\$ 3,985	\$ 1,229,910	\$ 1,233,895	\$ 4,320	\$ 4,851	\$ 9,171	\$ 633,455	\$ 1,265,134	\$ 1,898,589	\$ 742,012	\$ -	\$ 742,012
2054	\$ 3,566	\$ 1,622,400	\$ 1,625,966	\$ 891	\$ 346,270	\$ 347,161	\$ 2,675	\$ 1,276,130	\$ 1,278,805	\$ 4,439	\$ 4,984	\$ 9,423	\$ 718,862	\$ 1,312,628	\$ 2,031,490	\$ 1,532,163	\$ -	\$ 1,532,163
2055	\$ 1,195	\$ 1,683,838	\$ 1,685,033	\$ 309	\$ 359,523	\$ 359,832	\$ 886	\$ 1,324,315	\$ 1,325,201	\$ 4,344	\$ 5,338	\$ 9,682	\$ 811,337	\$ 1,362,357	\$ 2,173,694	\$ 1,572,957	\$ -	\$ 1,572,957
2056	\$ 802	\$ 1,750,295	\$ 1,751,097	\$ 207	\$ 373,829	\$ 374,036	\$ 595	\$ 1,376,466	\$ 1,377,061	\$ 4,463	\$ 5,702	\$ 10,165	\$ 909,693	\$ 1,416,160	\$ 2,325,853	\$ 1,614,873	\$ -	\$ 1,614,873
2057	\$ -	\$ 1,820,870	\$ 1,820,870	\$ -	\$ 389,005	\$ 389,005	\$ -	\$ 1,431,865	\$ 1,431,865	\$ 4,356	\$ 6,089	\$ 10,445	\$ 1,015,349	\$ 1,473,314	\$ 2,488,663	\$ 1,910,845	\$ -	\$ 1,910,845
2058	\$ -	\$ 1,893,883	\$ 1,893,883	\$ -	\$ 404,714	\$ 404,714	\$ -	\$ 1,489,169	\$ 1,489,169	\$ 4,476	\$ 6,256	\$ 10,732	\$ 1,130,669	\$ 1,532,200	\$ 2,662,869	\$ 2,039,167	\$ -	\$ 2,039,167
2059	\$ -	\$ 1,968,480	\$ 1,968,480	\$ -	\$ 420,778	\$ 420,778	\$ -	\$ 1,547,702	\$ 1,547,702	\$ 4,357	\$ 6,670	\$ 11,027	\$ 1,256,677	\$ 1,592,593	\$ 2,849,270	\$ 2,363,168	\$ -	\$ 2,363,168
2060	\$ -	\$ 2,041,222	\$ 2,041,222	\$ -	\$ 436,445	\$ 436,445	\$ -	\$ 1,604,777	\$ 1,604,777	\$ 4,477	\$ 6,853	\$ 11,330	\$ 1,397,459	\$ 1,651,260	\$ 3,048,719	\$ 2,426,764	\$ -	\$ 2,426,764

City of Nitro, West Virginia Policemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2020 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
2020	\$ 11,953,498	\$ -	\$ 11,953,498	\$ 4,456,305	37.28%	\$ 92,861	\$ 379,442	\$ 426,742	\$ 2,603	\$ 223,876
2021	\$ 12,595,631	\$ -	\$ 12,595,631	\$ 4,723,139	37.50%	\$ 94,608	\$ 392,154	\$ 371,423	\$ 2,675	\$ 238,939
2022	\$ 13,338,771	\$ 15,634	\$ 13,354,405	\$ 5,074,742	38.05%	\$ 95,292	\$ 394,528	\$ 384,288	\$ 2,660	\$ 256,278
2023	\$ 14,109,625	\$ 50,122	\$ 14,159,747	\$ 5,433,892	38.51%	\$ 93,166	\$ 399,365	\$ 422,805	\$ 2,733	\$ 273,349
2024	\$ 14,865,716	\$ 110,421	\$ 14,976,137	\$ 5,774,234	38.84%	\$ 90,257	\$ 391,960	\$ 465,965	\$ 2,808	\$ 289,044
2025	\$ 15,596,772	\$ 211,040	\$ 15,807,812	\$ 6,076,723	38.96%	\$ 89,453	\$ 389,883	\$ 493,474	\$ 2,789	\$ 303,418
2026	\$ 16,329,704	\$ 348,432	\$ 16,678,136	\$ 6,363,213	38.97%	\$ 88,407	\$ 392,644	\$ 523,936	\$ 2,866	\$ 317,031
2027	\$ 17,059,270	\$ 520,609	\$ 17,579,879	\$ 6,634,493	38.89%	\$ 86,127	\$ 391,070	\$ 571,893	\$ 2,945	\$ 329,313
2028	\$ 17,759,905	\$ 735,748	\$ 18,495,653	\$ 6,866,165	38.66%	\$ 81,497	\$ 389,610	\$ 644,339	\$ 2,922	\$ 338,958
2029	\$ 18,392,351	\$ 999,492	\$ 19,391,843	\$ 7,028,969	38.22%	\$ 76,829	\$ 380,176	\$ 707,361	\$ 3,110	\$ 345,189
2030	\$ 18,963,363	\$ 1,326,121	\$ 20,289,484	\$ 7,120,692	37.55%	\$ 74,838	\$ 378,747	\$ 749,622	\$ 3,085	\$ 348,648
2031	\$ 19,506,107	\$ 1,709,298	\$ 21,215,405	\$ 7,170,218	36.76%	\$ 73,193	\$ 381,539	\$ 793,763	\$ 3,170	\$ 350,060
2032	\$ 20,019,676	\$ 2,148,900	\$ 22,168,576	\$ 7,178,077	35.86%	\$ 71,585	\$ 381,945	\$ 830,711	\$ 3,257	\$ 349,509
2033	\$ 20,510,128	\$ 2,653,486	\$ 23,163,614	\$ 7,147,148	34.85%	\$ 71,572	\$ 388,053	\$ 856,099	\$ 3,347	\$ 347,484
2034	\$ 20,997,115	\$ 3,221,520	\$ 24,218,635	\$ 7,094,811	33.79%	\$ 72,330	\$ 399,328	\$ 873,172	\$ 3,316	\$ 344,743
2035	\$ 21,493,264	\$ 3,854,083	\$ 25,347,347	\$ 7,034,725	32.73%	\$ 73,512	\$ 413,573	\$ 890,336	\$ 3,407	\$ 341,694
2036	\$ 22,001,275	\$ 4,553,315	\$ 26,554,590	\$ 6,969,761	31.68%	\$ 63,355	\$ 434,914	\$ 967,411	\$ 3,501	\$ 336,816
2037	\$ 22,397,831	\$ 5,322,540	\$ 27,720,371	\$ 6,833,934	30.51%	\$ 61,371	\$ 432,738	\$ 1,002,927	\$ 3,597	\$ 329,043
2038	\$ 22,766,470	\$ 6,192,584	\$ 28,959,054	\$ 6,650,562	29.21%	\$ 58,007	\$ 434,693	\$ 1,039,121	\$ 3,696	\$ 318,943
2039	\$ 23,098,564	\$ 7,165,675	\$ 30,264,239	\$ 6,419,387	27.79%	\$ 52,499	\$ 447,222	\$ 1,104,880	\$ 3,798	\$ 305,931
2040	\$ 23,353,635	\$ 8,236,834	\$ 31,590,469	\$ 6,116,362	26.19%	\$ 44,653	\$ 447,264	\$ 1,171,608	\$ 3,758	\$ 288,940
2041	\$ 23,516,713	\$ 9,430,506	\$ 32,947,219	\$ 5,721,853	24.33%	\$ 38,689	\$ 465,224	\$ 1,232,150	\$ 3,713	\$ 268,017
2042	\$ 23,598,159	\$ 10,745,385	\$ 34,343,544	\$ 5,257,920	22.28%	\$ 33,327	\$ 476,481	\$ 1,279,091	\$ 3,968	\$ 243,801
2043	\$ 23,611,344	\$ 12,188,826	\$ 35,800,170	\$ 4,728,470	20.03%	\$ 30,203	\$ 502,349	\$ 1,308,935	\$ 4,077	\$ 217,150
2044	\$ 23,580,184	\$ 13,755,279	\$ 37,335,463	\$ 4,165,160	17.66%	\$ 28,001	\$ 538,583	\$ 1,330,499	\$ 3,867	\$ 189,298
2045	\$ 23,515,106	\$ 15,433,455	\$ 38,948,561	\$ 3,586,676	15.25%	\$ 23,339	\$ 580,373	\$ 1,379,896	\$ 3,973	\$ 160,068
2046	\$ 23,375,456	\$ 17,210,337	\$ 40,585,793	\$ 2,966,587	12.69%	\$ 17,720	\$ 619,560	\$ 1,421,465	\$ 4,082	\$ 128,863
2047	\$ 23,161,930	\$ 19,089,029	\$ 42,250,959	\$ 2,307,183	9.96%	\$ 13,020	\$ 667,809	\$ 1,462,416	\$ 4,194	\$ 95,954
2048	\$ 22,875,573	\$ 21,052,060	\$ 43,927,633	\$ 1,617,356	7.07%	\$ 8,466	\$ 730,904	\$ 1,492,556	\$ 4,130	\$ 62,166
2049	\$ 22,524,892	\$ 23,100,460	\$ 45,625,352	\$ 922,206	4.09%	\$ 5,724	\$ 789,487	\$ 1,507,853	\$ 4,244	\$ 28,407
2050	\$ 22,129,614	\$ 25,232,599	\$ 47,362,213	\$ 233,728	1.06%	\$ 4,136	\$ 988,208	\$ 1,513,147	\$ 4,171	\$ -
2051	\$ 21,702,608	\$ 27,438,704	\$ 49,141,312	\$ -	0.00%	\$ 2,792	\$ 1,080,305	\$ 1,515,255	\$ 4,286	\$ -
2052	\$ 21,246,536	\$ 29,709,930	\$ 50,956,466	\$ -	0.00%	\$ 1,962	\$ 1,173,472	\$ 1,512,288	\$ 4,204	\$ -
2053	\$ 20,767,283	\$ 32,039,303	\$ 52,806,586	\$ -	0.00%	\$ 1,361	\$ 1,375,467	\$ 1,506,391	\$ 4,320	\$ -
2054	\$ 20,267,634	\$ 34,428,923	\$ 54,696,557	\$ -	0.00%	\$ 913	\$ 2,251,025	\$ 1,498,196	\$ 4,439	\$ 18,504
2055	\$ 19,749,566	\$ 36,886,116	\$ 56,635,682	\$ 767,807	3.89%	\$ 317	\$ 2,384,294	\$ 1,489,912	\$ 4,344	\$ 60,378
2056	\$ 19,211,594	\$ 39,415,625	\$ 58,627,219	\$ 1,718,540	8.95%	\$ 212	\$ 2,524,566	\$ 1,476,923	\$ 4,463	\$ 111,694
2057	\$ 18,659,620	\$ 42,027,663	\$ 60,687,283	\$ 2,873,626	15.40%	\$ -	\$ 2,926,194	\$ 1,463,590	\$ 4,356	\$ 179,693
2058	\$ 18,092,868	\$ 44,736,761	\$ 62,829,629	\$ 4,511,567	24.94%	\$ -	\$ 3,169,836	\$ 1,447,516	\$ 4,476	\$ 268,001
2059	\$ 17,514,249	\$ 47,549,509	\$ 65,063,758	\$ 6,497,412	37.10%	\$ -	\$ 3,619,845	\$ 1,430,217	\$ 4,357	\$ 378,836
2060	\$ 16,924,425	\$ 50,467,411	\$ 67,391,836	\$ 9,061,519	53.54%	\$ -	\$ 3,824,223	\$ 1,411,652	\$ 4,477	\$ 512,544

City of Nitro, West Virginia Policemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2020 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	
2020	\$ 426,742	\$ -	\$ 416,458	\$ -	\$ 417,709	
2021	\$ 371,423	\$ -	\$ 345,211	\$ -	\$ 348,333	
2022	\$ 384,288	\$ -	\$ 340,160	\$ -	\$ 345,302	
2023	\$ 422,805	\$ -	\$ 356,433	\$ -	\$ 363,998	
2024	\$ 465,965	\$ -	\$ 374,112	\$ -	\$ 384,352	
2025	\$ 493,474	\$ -	\$ 377,332	\$ -	\$ 389,994	
2026	\$ 523,936	\$ -	\$ 381,547	\$ -	\$ 396,724	
2027	\$ 571,893	\$ -	\$ 396,639	\$ -	\$ 414,899	
2028	\$ 644,339	\$ -	\$ 425,604	\$ -	\$ 447,877	
2029	\$ 707,361	\$ -	\$ 444,982	\$ -	\$ 471,088	
2030	\$ 749,622	\$ -	\$ 449,112	\$ -	\$ 478,322	
2031	\$ 793,763	\$ -	\$ 452,912	\$ -	\$ 485,273	
2032	\$ 830,711	\$ -	\$ 451,423	\$ -	\$ 486,589	
2033	\$ 856,099	\$ -	\$ 443,066	\$ -	\$ 480,455	
2034	\$ 873,172	\$ -	\$ 430,383	\$ -	\$ 469,511	
2035	\$ 890,336	\$ -	\$ 417,946	\$ -	\$ 458,687	
2036	\$ 967,411	\$ -	\$ 432,501	\$ -	\$ 477,519	
2037	\$ 1,002,927	\$ -	\$ 427,028	\$ -	\$ 474,314	
2038	\$ 1,039,121	\$ -	\$ 421,370	\$ -	\$ 470,847	
2039	\$ 1,104,880	\$ -	\$ 426,701	\$ -	\$ 479,674	
2040	\$ 1,171,608	\$ -	\$ 430,925	\$ -	\$ 487,338	
2041	\$ 1,232,150	\$ -	\$ 431,612	\$ -	\$ 491,053	
2042	\$ 1,279,091	\$ -	\$ 426,719	\$ -	\$ 488,408	
2043	\$ 1,308,935	\$ -	\$ 415,881	\$ -	\$ 478,869	
2044	\$ 1,330,499	\$ -	\$ 402,603	\$ -	\$ 466,370	
2045	\$ 1,379,896	\$ -	\$ 397,667	\$ -	\$ 463,424	
2046	\$ 1,421,465	\$ -	\$ 390,139	\$ -	\$ 457,389	
2047	\$ 1,462,416	\$ -	\$ 382,266	\$ -	\$ 450,856	
2048	\$ 1,492,556	\$ -	\$ 371,566	\$ -	\$ 440,874	
2049	\$ -	\$ 1,507,853	\$ -	\$ 738,340	\$ 426,736	
2050	\$ -	\$ 1,513,147	\$ -	\$ 723,213	\$ 410,297	
2051	\$ -	\$ 1,515,255	\$ -	\$ 706,901	\$ 393,659	
2052	\$ -	\$ 1,512,288	\$ -	\$ 688,646	\$ 376,431	
2053	\$ -	\$ 1,506,391	\$ -	\$ 669,556	\$ 359,258	
2054	\$ -	\$ 1,498,196	\$ -	\$ 649,989	\$ 342,337	
2055	\$ -	\$ 1,489,912	\$ -	\$ 630,937	\$ 326,184	
2056	\$ 1,476,923	\$ -	\$ 248,856	\$ -	\$ 309,797	
2057	\$ 1,463,590	\$ -	\$ 234,866	\$ -	\$ 294,141	
2058	\$ 1,447,516	\$ -	\$ 221,226	\$ -	\$ 278,725	
2059	\$ 1,430,217	\$ -	\$ 208,173	\$ -	\$ 263,859	
2060	\$ 1,411,652	\$ -	\$ 195,687	\$ -	\$ 249,525	