



110 West Berry Street
Suite 1300
Fort Wayne, IN 46802

August 31, 2023

Mr. Thomas Causey
Executive Director
State of North Carolina
Department of State Treasurer
Retirement Systems Division
3200 Atlantic Avenue
Raleigh, NC 27604

**North Carolina National Guard Pension Fund
GASB 67 Disclosure for Fiscal Year Ending June 30, 2023
Based on Valuation Date of December 31, 2022**

Dear Mr. Causey:

We have prepared the required accounting information for Governmental Accounting Standards Board (GASB) Statement No. 67 for the North Carolina National Guard Pension Fund (NCNGPF) for fiscal year ending June 30, 2023 based on a valuation date of December 31, 2022.

GASB Statement No. 67

GASB Statement No. 67 set forth certain items of information to be disclosed in the financial statements of the Plan.

1. One such item is a distribution of the number of employees by type of membership, as follows:

Number of Active and Retired Participants as of 12/31/2022	
Retired members and survivors of deceased members currently receiving benefits	4,681
Terminated members and survivors of deceased members entitled to benefits but not yet receiving benefits	2,885
Active members	<u>5,614</u>
Total	13,180

2. Following is the schedule of changes in Net Pension Liability

Schedule of Changes in Net Pension Liability as of June 30, 2023		
Total Pension Liability		
Service Cost	\$	230,000
Interest		9,478,000
Changes in Benefit Terms		0
Differences Between Expected and Actual Experience		(6,970,000)
Changes of Assumptions		0
Benefits Payments, including Refund of Member Contributions		<u>(9,080,000)</u>
Net Change in Total Pension Liability	\$	(6,342,000)
Total Pension Liability – Beginning of Year	\$	150,054,000
Total Pension Liability – End of Year	\$	143,712,000
Plan Fiduciary Net Position		
Employer Contributions	\$	11,032,000
Member Contributions		0
Net Investment Income		8,539,000
Benefit Payments, including Refund of Member Contributions		(9,080,000)
Administrative Expenses		(144,000)
Other		<u>(1,000)</u>
Net Change in Plan Fiduciary Net Pension	\$	10,346,000
Plan Fiduciary Net Pension – Beginning of Year	\$	165,381,000
Plan Fiduciary Net Pension – End of Year	\$	175,727,000

Net Pension Liability/(Asset)		
	June 30, 2023	June 30, 2022
Total Pension Liability	\$ 143,712,000	\$ 150,054,000
Plan Fiduciary Net Pension	<u>175,727,000</u>	<u>165,381,000</u>
Net Pension Liability/(Asset)	\$ (32,015,000)	\$ (15,327,000)
Plan Fiduciary Net Pension as a Percentage of the Total Pension Liability/(Asset)	122.28%	110.21%

3. Following is the sensitivity of the Net Pension Liability to changes in the discount rate.

Sensitivity of the Net Pension Liability to Changes in Discount Rate			
	1% Decrease	Current	1% Increase
Discount Rate	5.50%	6.50%	7.50%
Net Pension Liability (Asset)	\$ (14,784,000)	\$ (32,015,000)	\$ (46,119,000)

4. The discount rate used to measure the total pension liability was 6.50%. The projection of cash flows used to determine the discount rate assumed that System contributions will continue to follow the current funding policy, including “direct-rate smoothing” as adopted by the Board of Trustees on January 28, 2021. Investment earnings are based on actual returns through June 30, 2023, and on the assumed investment rate of return thereafter. Additional State Contribution Rate Stabilization Policy contributions are not included in the projected contributions. Based on those assumptions, the System’s fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Please see Appendix A for additional detail.
5. Methods and assumptions used to calculate the actuarially determined contribution rate are as follows:

Valuation Date	12/31/2022
Actuarial Cost Method	Entry Age
Amortization Method	Level dollar closed
Amortization Period	12-year closed period
Asset Valuation Method	Asset returns in excess of or less than the expected return on market value of assets reflected over a five-year period (not greater than 120% of market value and not less than 80% of market value)
Actuarial Assumptions:	
Investment Rate of Return*	6.50%
Projected Salary Increases	N/A
*Includes Inflation of	2.50%
Cost-of-living Adjustments	N/A

The June 30, 2023 total pension liability was determined by an actuarial valuation as of December 31, 2022, based on the assumptions adopted by the Board of Trustees on January 28, 2021, which are based on the experience study prepared as of December 31, 2019, including a discount rate of 6.50%. The economic assumptions with respect to investment yield and inflation have been based upon a review of the existing portfolio structure as well as recent and anticipated experience.

The plan sponsor selected the assumptions used for the accounting results in this letter. We believe that these assumptions are reasonable and comply with the Actuarial Standards of Practice ("ASOPs") 27 and 35 and the requirements of GASB Statement No. 67. We prepared this letter in accordance with the requirement of this standard.

ASOPs 27 and 35 ask the actuary to disclose the information and analysis used to support the actuary's determination that the assumptions selected by the plan sponsor do not significantly conflict with what, in the actuary's professional judgment, are reasonable for the purpose of the measurement. In the case of the plan sponsor's selection of expected return on assets ("EROA"), the signing actuaries have used economic information and tools provided by the Financial Risk Management ("FRM") practice at Buck, A Gallagher Company (Buck). A spreadsheet tool created by the FRM team converts averages, standard deviations, and correlations from Buck's Capital Markets Assumptions ("CMA") that are used for stochastic forecasting into approximate percentile ranges for the arithmetic and geometric average returns. It is intended to suggest possible reasonable ranges for EROA without attempting to predict or select a specific best estimate rate of return. It takes into account the duration (horizon) of investment and the target allocation of assets in the portfolio to various asset classes. Based on the actuary's analysis, including consistency with other assumptions used in the valuation and the percentiles generated by the spreadsheet described above, the actuary believes the EROA, in the actuary's professional judgment, is reasonable for the purpose of the measurement.

The June 30, 2023 total pension liability is based on the same plan provisions as used in the previous valuation. To the extent there have been changes to NCNGPF provisions enacted by the legislature, they have been reviewed with staff of the Retirement Systems Division and were not considered material to the current valuation. To the extent the legislature enacts additional legislation that has a material impact on the valuation, revised GASB 67 disclosures may be required.

Full summaries of the assumptions, methods and plan provisions used in the previous valuation and for the June 30, 2023 total pension liability were provided in October 2022 in the "Report on the Actuarial Valuation of the North Carolina National Guard Pension Fund Prepared as of December 31, 2021."

The actuarial cost method used to develop the total pension liability is the Entry Age Normal Cost Method, as required by GASB Statement No. 67.

The results of this letter are based upon participant data supplied by the Retirement Systems Division and unaudited financial data supplied by the Financial Operations Division. Buck reviewed the data for reasonableness and consistency with data for the prior valuation but performed no audit of the data. The results of this letter are dependent on the accuracy of the data.

The primary purpose of the letter is to provide information that the Office of the State Controller (OSC) requires for its Annual Comprehensive Financial Report. This letter may also be used in conjunction with other materials for purposes of the pension plan audit. Use of the letter for any other purposes or by anyone other than OSC and its auditors may not be appropriate and may result in mistaken conclusions because of failure to understand applicable assumptions, methods, or inapplicability of the letter for that purpose. Because of the risk of misinterpretation of actuarial results, you should ask us to review any statement you wish to make on the results contained in this report. Buck will not accept any liability for any such statement made without prior review by Buck.

Future actuarial measurements may differ significantly from current measurements due to plan experience differing from that anticipated by the economic and demographic assumptions, increases or decreases expected as part of the natural operation of the methodology used for these measurements, and changes in plan provisions or applicable law. Because of limited scope, Buck performed no analysis of the potential range of such future differences.

Actuarial Standard of Practice No. 56 ("ASOP 56") provides guidance to actuaries when performing actuarial services with respect to designing, developing, selecting, modifying, using, reviewing, or evaluating models. Buck uses third-party software in the performance of annual actuarial valuations and projections. The model is intended to calculate the liabilities associated with the provisions of the Plan using data and assumptions as of the measurement date under the accounting rules specified in this report. The output from the third-party vendor software is used as input to an internally developed model that applies applicable accounting rules to the liabilities derived and other inputs, such as Plan assets and contributions, to generate many of the exhibits found in this report. Buck has an extensive review process whereby the results of the liability calculations are checked using detailed sample output, changes from year to year are summarized by source, and significant deviations from expectations are investigated. Other accounting outputs and the internal model are similarly reviewed in detail and at a high level for accuracy, reasonability, and consistency with prior results. Buck also reviews the third-party model when significant changes are made to the software. The review is performed by experts within the company who are familiar with applicable accounting rules as well as the manner in which the model generates its output. If significant changes are made to the internal model, extra checking and review are completed. Significant changes to the internal model that are applicable to multiple clients are generally developed, checked and reviewed by multiple experts within the company who are familiar with the details of the required changes.

Where presented, references to "net pension liability" and "fiduciary net position as a percentage of the total pension liability" may be appropriate for evaluating the need and level of future contributions but makes no assessment regarding the funded status of the Fund if the Fund were to settle (i.e., purchase annuities to cover) any portion of its liabilities.

Mr. Thomas Causey
August 31, 2023

This report was prepared under our supervision and in accordance with all applicable Actuarial Standards of Practice. We are Fellows of the Society of Actuaries, Enrolled Actuaries, Members of the American Academy of Actuaries, and Fellows of the Conference of Consulting Actuaries. We meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. We are available to discuss this report with you at your convenience.

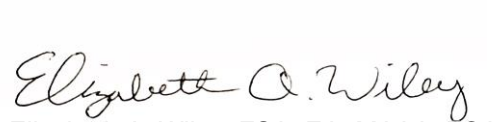
Please let us know if you require additional information.

Sincerely,

Buck, A Gallagher Company

A handwritten signature in dark ink, reading "Michael A. Ribble". The signature is fluid and cursive, with the first name "Michael" being the most prominent.

Michael A. Ribble, FSA, EA, MAAA, FCA
Principal, Consulting Actuary

A handwritten signature in dark ink, reading "Elizabeth A. Wiley". The signature is fluid and cursive, with the first name "Elizabeth" being the most prominent.

Elizabeth A. Wiley, FSA, EA, MAAA, FCA
Senior Actuarial Consultant

Appendix A

Table 1 – Projection of Fiduciary Net Positions

(\$ in Thousands)

Calendar Year	Beginning Fiduciary Position	Member Contributions	Employer Contributions	Benefit Payments	Administrative Expenses	Investment Earnings	Ending Fiduciary Position
2023	\$ 165,623	\$ 0	\$ 5,516	\$ 10,516	\$ 155	\$ 14,725	\$ 175,193
2024	175,193	0	0	10,540	133	11,045	175,565
2025	175,565	0	0	10,543	115	11,071	175,978
2026	175,978	0	0	10,527	99	11,099	176,451
2027	176,451	0	0	10,536	86	11,129	176,958
2028	176,958	0	0	10,552	74	11,163	177,495
2029	177,495	0	0	10,559	64	11,197	178,069
2030	178,069	0	0	10,565	55	11,235	178,684
2031	178,684	0	0	10,552	47	11,275	179,360
2032	179,360	0	0	10,463	40	11,322	180,179
2033	180,179	0	0	10,302	34	11,381	181,224
2034	181,224	0	0	10,154	29	11,454	182,495
2035	182,495	0	0	9,987	24	11,542	184,026
2036	184,026	0	0	9,792	20	11,647	185,861
2037	185,861	0	0	9,574	17	11,775	188,045
2038	188,045	0	0	9,404	14	11,921	190,548
2039	190,548	0	0	9,224	11	12,090	193,403
2040	193,403	0	0	9,125	9	12,279	196,548
2041	196,548	0	0	9,029	8	12,487	199,998
2042	199,998	0	0	8,948	6	12,713	203,757
2043	203,757	0	0	8,866	5	12,960	207,846
2044	207,846	0	0	8,771	4	13,229	212,300
2045	212,300	0	0	8,644	3	13,523	217,176
2046	217,176	0	0	8,513	2	13,844	222,505
2047	222,505	0	0	8,393	2	14,195	228,305
2048	228,305	0	0	8,302	1	14,574	234,576
2049	234,576	0	0	8,222	1	14,984	241,337
2050	241,337	0	0	8,092	1	15,428	248,672
2051	248,672	0	0	7,947	1	15,910	256,634
2052	256,634	0	0	7,737	0	16,434	265,331
2053	265,331	0	0	7,546	0	17,005	274,790
2054	274,790	0	0	7,332	0	17,627	285,085
2055	285,085	0	0	7,107	0	18,302	296,280
2056	296,280	0	0	6,876	0	19,039	308,443
2057	308,443	0	0	6,624	0	19,837	321,656
2058	321,656	0	0	6,349	0	20,704	336,011
2059	336,011	0	0	6,057	0	21,647	351,601
2060	351,601	0	0	5,768	0	22,669	368,502
2061	368,502	0	0	5,485	0	23,778	386,795
2062	386,795	0	0	5,208	0	24,975	406,562
2063	406,562	0	0	4,938	0	26,268	427,892
2064	427,892	0	0	4,675	0	27,663	450,880
2065	450,880	0	0	4,418	0	29,166	475,628
2066	475,628	0	0	4,168	0	30,782	502,242
2067	502,242	0	0	3,924	0	32,521	530,839
2068	530,839	0	0	3,686	0	34,386	561,539
2069	561,539	0	0	3,455	0	36,389	594,473
2070	594,473	0	0	3,229	0	38,537	629,781
2071	629,781	0	0	3,010	0	40,840	667,611
2072	667,611	0	0	2,797	0	43,306	708,120

Appendix A

Table 1 – Projection of Fiduciary Net Positions (continued)

(\$ in Thousands)

Calendar Year	Beginning Fiduciary Position	Member Contributions	Employer Contributions	Benefit Payments	Administrative Expenses	Investment Earnings	Ending Fiduciary Position
2073	\$ 708,120	\$ 0	\$ 0	\$ 2,589	\$ 0	\$ 45,944	\$ 751,475
2074	751,475	0	0	2,389	0	48,770	797,856
2075	797,856	0	0	2,195	0	51,791	847,452
2076	847,452	0	0	2,008	0	55,020	900,464
2077	900,464	0	0	1,828	0	58,472	957,108
2078	957,108	0	0	1,656	0	62,159	1,017,611
2079	1,017,611	0	0	1,491	0	66,097	1,082,217
2080	1,082,217	0	0	1,335	0	70,301	1,151,183
2081	1,151,183	0	0	1,188	0	74,790	1,224,785
2082	1,224,785	0	0	1,050	0	79,578	1,303,313
2083	1,303,313	0	0	921	0	84,686	1,387,078
2084	1,387,078	0	0	802	0	90,134	1,476,410
2085	1,476,410	0	0	692	0	95,944	1,571,662
2086	1,571,662	0	0	593	0	102,139	1,673,208
2087	1,673,208	0	0	503	0	108,743	1,781,448
2088	1,781,448	0	0	423	0	115,781	1,896,806
2089	1,896,806	0	0	352	0	123,281	2,019,735
2090	2,019,735	0	0	289	0	131,274	2,150,720
2091	2,150,720	0	0	235	0	139,789	2,290,274
2092	2,290,274	0	0	189	0	148,862	2,438,947
2093	2,438,947	0	0	149	0	158,527	2,597,325
2094	2,597,325	0	0	116	0	168,822	2,766,031
2095	2,766,031	0	0	89	0	179,788	2,945,730
2096	2,945,730	0	0	67	0	191,470	3,137,133
2097	3,137,133	0	0	50	0	203,912	3,340,995
2098	3,340,995	0	0	36	0	217,164	3,558,123
2099	3,558,123	0	0	26	0	231,277	3,789,374
2100	3,789,374	0	0	18	0	246,309	4,035,665
2101	4,035,665	0	0	12	0	262,317	4,297,970
2102	4,297,970	0	0	8	0	279,368	4,577,330
2103	4,577,330	0	0	5	0	297,526	4,874,851
2104	4,874,851	0	0	3	0	316,865	5,191,713
2105	5,191,713	0	0	2	0	337,462	5,529,173
2106	5,529,173	0	0	1	0	359,396	5,888,568
2107	5,888,568	0	0	1	0	382,757	6,271,324
2108	6,271,324	0	0	0	0	407,636	6,678,960
2109	6,678,960	0	0	0	0	434,132	7,113,092
2110	7,113,092	0	0	0	0	462,351	7,575,443
2111	7,575,443	0	0	0	0	492,404	8,067,847
2112	8,067,847	0	0	0	0	524,410	8,592,257
2113	8,592,257	0	0	0	0	558,496	9,150,753
2114	9,150,753	0	0	0	0	594,799	9,745,552
2115	9,745,552	0	0	0	0	633,461	10,379,013
2116	10,379,013	0	0	0	0	674,636	11,053,649
2117	11,053,649	0	0	0	0	718,487	11,772,136
2118	11,772,136	0	0	0	0	765,189	12,537,325
2119	12,537,325	0	0	0	0	814,926	13,352,251
2120	13,352,251	0	0	0	0	867,896	14,220,147
2121	14,220,147	0	0	0	0	924,310	15,144,457
2122	15,144,457	0	0	0	0	984,390	16,128,847

Appendix A

Table 2 – Actuarial Present Values of Projected Benefit Payments

(\$ in Thousands)

Calendar Year	Beginning Fiduciary Position	Benefit Payments	Funded Benefit Payments	Unfunded Benefit Payments	Present Value of Benefit Payments		
					Funded Payments at 6.50%	Unfunded Payments at 3.65%	Using Single Discount Rate of 6.50%
2023	\$ 165,623	\$ 10,516	\$ 10,516	\$ 0	\$ 10,190	\$ 0	\$ 10,190
2024	175,193	10,540	10,540	0	9,590	0	9,590
2025	175,565	10,543	10,543	0	9,007	0	9,007
2026	175,978	10,527	10,527	0	8,445	0	8,445
2027	176,451	10,536	10,536	0	7,936	0	7,936
2028	176,958	10,552	10,552	0	7,463	0	7,463
2029	177,495	10,559	10,559	0	7,012	0	7,012
2030	178,069	10,565	10,565	0	6,588	0	6,588
2031	178,684	10,552	10,552	0	6,178	0	6,178
2032	179,360	10,463	10,463	0	5,752	0	5,752
2033	180,179	10,302	10,302	0	5,318	0	5,318
2034	181,224	10,154	10,154	0	4,922	0	4,922
2035	182,495	9,987	9,987	0	4,545	0	4,545
2036	184,026	9,792	9,792	0	4,185	0	4,185
2037	185,861	9,574	9,574	0	3,842	0	3,842
2038	188,045	9,404	9,404	0	3,543	0	3,543
2039	190,548	9,224	9,224	0	3,263	0	3,263
2040	193,403	9,125	9,125	0	3,031	0	3,031
2041	196,548	9,029	9,029	0	2,816	0	2,816
2042	199,998	8,948	8,948	0	2,621	0	2,621
2043	203,757	8,866	8,866	0	2,438	0	2,438
2044	207,846	8,771	8,771	0	2,265	0	2,265
2045	212,300	8,644	8,644	0	2,096	0	2,096
2046	217,176	8,513	8,513	0	1,938	0	1,938
2047	222,505	8,393	8,393	0	1,794	0	1,794
2048	228,305	8,302	8,302	0	1,666	0	1,666
2049	234,576	8,222	8,222	0	1,550	0	1,550
2050	241,337	8,092	8,092	0	1,432	0	1,432
2051	248,672	7,947	7,947	0	1,321	0	1,321
2052	256,634	7,737	7,737	0	1,207	0	1,207
2053	265,331	7,546	7,546	0	1,105	0	1,105
2054	274,790	7,332	7,332	0	1,009	0	1,009
2055	285,085	7,107	7,107	0	918	0	918
2056	296,280	6,876	6,876	0	834	0	834
2057	308,443	6,624	6,624	0	754	0	754
2058	321,656	6,349	6,349	0	679	0	679
2059	336,011	6,057	6,057	0	608	0	608
2060	351,601	5,768	5,768	0	544	0	544
2061	368,502	5,485	5,485	0	486	0	486
2062	386,795	5,208	5,208	0	433	0	433
2063	406,562	4,938	4,938	0	385	0	385
2064	427,892	4,675	4,675	0	343	0	343
2065	450,880	4,418	4,418	0	304	0	304
2066	475,628	4,168	4,168	0	269	0	269
2067	502,242	3,924	3,924	0	238	0	238
2068	530,839	3,686	3,686	0	210	0	210
2069	561,539	3,455	3,455	0	185	0	185
2070	594,473	3,229	3,229	0	162	0	162
2071	629,781	3,010	3,010	0	142	0	142
2072	667,611	2,797	2,797	0	124	0	124

Appendix A

Table 2 – Actuarial Present Values of Projected Benefit Payments (continued)
(\$ in Thousands)

Calendar Year	Beginning Fiduciary Position	Benefit Payments	Funded Benefit Payments	Unfunded Benefit Payments	Present Value of Benefit Payments		
					Funded Payments at 6.50%	Unfunded Payments at 3.65%	Using Single Discount Rate of 6.50%
2073	\$ 708,120	\$ 2,589	\$ 2,589	\$ 0	\$ 108	\$ 0	\$ 108
2074	751,475	2,389	2,389	0	93	0	93
2075	797,856	2,195	2,195	0	80	0	80
2076	847,452	2,008	2,008	0	69	0	69
2077	900,464	1,828	1,828	0	59	0	59
2078	957,108	1,656	1,656	0	50	0	50
2079	1,017,611	1,491	1,491	0	42	0	42
2080	1,082,217	1,335	1,335	0	36	0	36
2081	1,151,183	1,188	1,188	0	30	0	30
2082	1,224,785	1,050	1,050	0	25	0	25
2083	1,303,313	921	921	0	20	0	20
2084	1,387,078	802	802	0	17	0	17
2085	1,476,410	692	692	0	14	0	14
2086	1,571,662	593	593	0	11	0	11
2087	1,673,208	503	503	0	9	0	9
2088	1,781,448	423	423	0	7	0	7
2089	1,896,806	352	352	0	5	0	5
2090	2,019,735	289	289	0	4	0	4
2091	2,150,720	235	235	0	3	0	3
2092	2,290,274	189	189	0	2	0	2
2093	2,438,947	149	149	0	2	0	2
2094	2,597,325	116	116	0	1	0	1
2095	2,766,031	89	89	0	1	0	1
2096	2,945,730	67	67	0	1	0	1
2097	3,137,133	50	50	0	0	0	0
2098	3,340,995	36	36	0	0	0	0
2099	3,558,123	26	26	0	0	0	0
2100	3,789,374	18	18	0	0	0	0
2101	4,035,665	12	12	0	0	0	0
2102	4,297,970	8	8	0	0	0	0
2103	4,577,330	5	5	0	0	0	0
2104	4,874,851	3	3	0	0	0	0
2105	5,191,713	2	2	0	0	0	0
2106	5,529,173	1	1	0	0	0	0
2107	5,888,568	1	1	0	0	0	0
2108	6,271,324	0	0	0	0	0	0
2109	6,678,960	0	0	0	0	0	0
2110	7,113,092	0	0	0	0	0	0
2111	7,575,443	0	0	0	0	0	0
2112	8,067,847	0	0	0	0	0	0
2113	8,592,257	0	0	0	0	0	0
2114	9,150,753	0	0	0	0	0	0
2115	9,745,552	0	0	0	0	0	0
2116	10,379,013	0	0	0	0	0	0
2117	11,053,649	0	0	0	0	0	0
2118	11,772,136	0	0	0	0	0	0
2119	12,537,325	0	0	0	0	0	0
2120	13,352,251	0	0	0	0	0	0
2121	14,220,147	0	0	0	0	0	0
2122	15,144,457	0	0	0	0	0	0