

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

**Disability Income Plan of North Carolina
GASB 74 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. 74 for the Disability Income Plan of North Carolina for fiscal year ending June 30, 2023 based on a valuation date of December 31, 2022.

GASB Statement No. 74

GASB Statement No. 74 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	
Disabled members currently receiving extended short-term and long-term disability benefits	4,322
Inactive plan members entitled to, but not currently receiving benefits	0
Active members, including those in the waiting period or on short-term disability	<u>318,895</u>
Total membership	323,217

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

Schedule of Changes in Net OPEB Liability as of June 30, 2023	
Total OPEB Liability	
Service Cost	\$ 23,657,000
Interest	9,641,000
Changes in Benefit Terms	0
Differences Between Expected and Actual Experience	(22,097,000)
Changes of Assumptions	1,473,000
Net Benefits Payments	<u>(37,470,000)</u>
Net Change in Total OPEB Liability	\$ (24,796,000)
Total OPEB Liability – Beginning of Year	\$ 307,964,000
Total OPEB Liability – End of Year	\$ 283,168,000
Plan Fiduciary Net Position	
Employer Contributions	\$ 19,677,000
Member Contributions	N/A
Net Investment Income	(2,853,000)
Net Benefit Payments	(37,470,000)
Administrative Expenses	(968,000)
Other	<u>(30,000)</u>
Net Change in Plan Fiduciary Net Position	\$ (21,644,000)
Plan Fiduciary Net Position – Beginning of Year	\$ 278,216,000
Plan Fiduciary Net Position – End of Year	\$ 256,572,000

Net OPEB Liability (Asset)		
	June 30, 2023	June 30, 2022
Total OPEB Liability	\$ 283,168,000	\$ 307,964,000
Plan Fiduciary Net Position	<u>256,572,000</u>	<u>278,216,000</u>
Net OPEB Liability (Asset)	\$ 26,596,000	\$ 29,748,000
Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability (Asset)	90.61%	90.34%

3. Following is the sensitivity of the Net OPEB liability to changes in the discount rate.

Sensitivity of the Net OPEB Liability/(Asset) to Changes in Discount Rate			
	1% Decrease	Current	1% Increase
Discount Rate	2.00%	3.00%	4.00%
Net OPEB Liability/(Asset)	\$ 31,972,000	\$ 26,596,000	\$ 21,122,000

4. The discount rate used to measure the total OPEB liability was 3.00%. The projection of cash flows used to determine the discount rate assumed that System contributions will continue to follow the current funding policy. Investment earnings are based on actual returns through June 30, 2023, and on the assumed investment rate of return thereafter. The fund is not projected to be depleted, though beginning-of-year assets are projected to be insufficient for the full year of benefit payments beginning in 2047.

Based on those assumptions, and the assumed investment return of 3.00% used in the actuarial valuation as of December 31, 2022, the System's fiduciary net position was not projected to be available to make all projected future benefit payments of current plan members. In order to develop the blended GASB discount rate of 3.00%, 3.00% was used during the period that the Plan was projected to have a fiduciary net position that is higher than expected benefit payments, and a municipal bond rate of 3.65% was used during the period that the Plan was projected to have a fiduciary net position that is lower than expected benefit payments. The unfunded benefit payments were sufficiently small that the blended discount rate is equal to the assumed investment rate of return. The change in blended discount rate from 3.08% as of June 30, 2022 to 3.00% as of June 30, 2023 resulted in a loss of \$459,000. The 3.65% rate is based on the Bond Buyer 20-Bond GO Index as of June 30, 2023. Please see Appendix A for additional detail.

The assumed timing of the IBNR benefit payments was adjusted to remove a one-year delay. This change resulted in a loss of \$1,014,000.

5. The actuarially determined contribution rate for the fiscal year ending 6/30/2024 is documented in the Disability Income Plan of North Carolina Report on the Annual Valuation Prepared as of December 31, 2021, dated October 2022. Methods and assumptions used to calculate the projected actuarially determined contribution rates for fiscal years ending after 6/30/2024 are as follows:

Valuation Date	12/31/2022
Actuarial Cost Method	Aggregate
Amortization Method	Level percent of pay
Amortization Period	The aggregate cost method does not identify or separately amortize unfunded liabilities.
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*	3.00%
Projected Salary Increases**	3.25% - 8.05%
*Includes Inflation of	2.50%

**Includes Inflation and Productivity of	3.25%
Cost-of-living Adjustments	3.25% for gross long-term disability benefits. Disabilities that occurred before January 1, 1988 do not have cost-of-living adjustments.
Expected Administrative Expenses Included in Normal Cost	0.01% of payroll

The June 30, 2023 total OPEB 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. The economic assumptions with respect to investment yield, salary increase, 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 requirements of GASB Statement No. 74. We prepared this letter in accordance with the requirements of this standard.

The June 30, 2023 total OPEB liability is based on the same plan provisions as used in the previous valuation. To the extent there have been changes to DIPNC 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 74 disclosure may be required.

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

The actuarial cost method used to develop the total OPEB liability is the Entry Age Normal Cost method as required by GASB Statement No. 74. The funding span is from first funding age to the last age with a future benefit.

The results of this letter are based upon participant data supplied by the Retirement Systems Division and financial data supplied by the Financial Operations Division. Buck, a Gallagher Company (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 this 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 plan audit. Use of this 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 other than the sensitivity to changes in the discount rate required by GASB Statement No. 74.

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 OPEB liability" and "fiduciary net position as a percentage of the total OPEB 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.

This report was prepared under our supervision and in accordance with all applicable Actuarial Standards of Practice. Barry is an Associate of the Society of Actuaries, a Member of the American Academy of Actuaries, and a Fellow of the Conference of Consulting Actuaries. Christian is an Associate of the Society of Actuaries, and a Member of the American Academy of 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



Barry J. Goldberg, ASA, MAAA, FCA
Principal, Consulting Actuary



Christian Hershey, ASA, MAAA
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 Expense	Investment Earnings	Ending Fiduciary Position
2023	\$ 261,531	\$ 0	\$ 20,929	\$ 55,063	\$ 968	\$ 8,077	\$ 234,506
2024	234,506	0	20,547	54,579	865	6,516	206,125
2025	206,125	0	19,287	50,852	773	5,702	179,489
2026	179,489	0	18,997	46,061	696	4,971	156,700
2027	156,700	0	19,500	42,816	628	4,344	137,100
2028	137,100	0	19,169	39,953	568	3,795	119,543
2029	119,543	0	18,104	37,058	514	3,296	103,371
2030	103,371	0	17,064	33,851	464	2,844	88,964
2031	88,964	0	16,044	30,594	419	2,446	76,441
2032	76,441	0	15,043	27,440	377	2,103	65,770
2033	65,770	0	13,513	24,646	339	1,802	56,100
2034	56,100	0	12,070	22,155	304	1,528	47,239
2035	47,239	0	11,191	19,654	271	1,287	39,792
2036	39,792	0	10,331	17,436	241	1,084	33,530
2037	33,530	0	9,503	15,489	214	914	28,244
2038	28,244	0	8,340	13,615	189	766	23,546
2039	23,546	0	7,311	12,154	168	632	19,167
2040	19,167	0	6,672	10,741	148	512	15,462
2041	15,462	0	5,769	9,360	130	408	12,149
2042	12,149	0	4,934	7,997	113	317	9,290
2043	9,290	0	4,372	6,723	98	242	7,083
2044	7,083	0	3,633	5,567	83	182	5,248
2045	5,248	0	2,974	4,517	70	133	3,768
2046	3,768	0	2,395	3,592	58	94	2,607
2047	2,607	0	1,882	2,698	47	65	1,809
2048	1,809	0	1,445	1,979	38	46	1,283
2049	1,283	0	1,006	1,479	30	31	811
2050	811	0	667	1,069	23	18	404
2051	404	0	413	703	17	8	105
2052	105	0	223	281	11	2	38
2053	38	0	102	8	7	2	127
2054	127	0	41	4	4	4	164
2055	164	0	18	2	3	5	182
2056	182	0	13	0	0	6	201
2057	201	0	9	0	0	6	216
2058	216	0	6	0	0	7	229
2059	229	0	4	0	0	7	240
2060	240	0	3	0	0	7	250
2061	250	0	2	0	0	8	260
2062	260	0	1	0	0	8	269
2063	269	0	1	0	0	8	278
2064	278	0	1	0	0	8	287
2065	287	0	0	0	0	9	296
2066	296	0	0	0	0	9	305
2067	305	0	0	0	0	9	314
2068	314	0	0	0	0	9	323
2069	323	0	0	0	0	10	333
2070	333	0	0	0	0	10	343

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 3.00%	Unfunded Payments at 3.65%	Using Single Discount Rate of 3.00%
2023	\$ 261,531	\$ 55,063	\$ 55,063	\$ 0	\$ 54,255	\$ 0	\$ 54,255
2024	234,506	54,579	54,579	0	52,212	0	52,212
2025	206,125	50,852	50,852	0	47,230	0	47,230
2026	179,489	46,061	46,061	0	41,534	0	41,534
2027	156,700	42,816	42,816	0	37,483	0	37,483
2028	137,100	39,953	39,953	0	33,958	0	33,958
2029	119,543	37,058	37,058	0	30,580	0	30,580
2030	103,371	33,851	33,851	0	27,120	0	27,120
2031	88,964	30,594	30,594	0	23,797	0	23,797
2032	76,441	27,440	27,440	0	20,722	0	20,722
2033	65,770	24,646	24,646	0	18,070	0	18,070
2034	56,100	22,155	22,155	0	15,770	0	15,770
2035	47,239	19,654	19,654	0	13,583	0	13,583
2036	39,792	17,436	17,436	0	11,699	0	11,699
2037	33,530	15,489	15,489	0	10,090	0	10,090
2038	28,244	13,615	13,615	0	8,611	0	8,611
2039	23,546	12,154	12,154	0	7,463	0	7,463
2040	19,167	10,741	10,741	0	6,403	0	6,403
2041	15,462	9,360	9,360	0	5,417	0	5,417
2042	12,149	7,997	7,997	0	4,494	0	4,494
2043	9,290	6,723	6,723	0	3,668	0	3,668
2044	7,083	5,567	5,567	0	2,949	0	2,949
2045	5,248	4,517	4,517	0	2,323	0	2,323
2046	3,768	3,592	3,592	0	1,793	0	1,793
2047	2,607	2,698	2,607	91	1,264	38	1,308
2048	1,809	1,979	1,809	170	851	68	931
2049	1,283	1,479	1,283	196	586	76	676
2050	811	1,069	811	258	360	96	474
2051	404	703	404	299	174	108	303
2052	105	281	105	176	44	61	117
2053	38	8	8	0	3	0	3
2054	127	4	4	0	2	0	2
2055	164	2	2	0	1	0	1
2056	182	0	0	0	0	0	0
2057	201	0	0	0	0	0	0
2058	216	0	0	0	0	0	0
2059	229	0	0	0	0	0	0
2060	240	0	0	0	0	0	0
2061	250	0	0	0	0	0	0
2062	260	0	0	0	0	0	0
2063	269	0	0	0	0	0	0
2064	278	0	0	0	0	0	0
2065	287	0	0	0	0	0	0
2066	296	0	0	0	0	0	0
2067	305	0	0	0	0	0	0
2068	314	0	0	0	0	0	0
2069	323	0	0	0	0	0	0
2070	333	0	0	0	0	0	0