North Dakota
Retiree Health Insurance Credit Fund
Actuarial Valuation as of July 1, 2023

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October 18, 2023

Board Members
North Dakota Retiree Health Insurance Credit Fund
Bismarck, North Dakota

Members of the Board:

We are pleased to provide our formal annual Actuarial Valuation Report as of July 1, 2023, for the North Dakota Retiree Health Insurance Credit Fund ("RHIC"). The actuarial valuation was performed at the request of the Board and is intended for use by the Board and RHIC and those designated by the Board and RHIC. This report may be provided to parties other than the Board and RHIC only in its entirety and only with the permission of the Board and RHIC. GRS is not responsible for unauthorized use of this report.

The purposes of this actuarial valuation are to measure the funding progress of RHIC and to determine the actuarial employer contribution rate for the RHIC for the Plan Year commencing July 1, 2023, and ending on July 1, 2024, and to compare it to the statutory employer contribution rate. This actuarial valuation also provides information required by GASB Statement No. 74. Information required by GASB Statement No. 75 and the employer allocation of the Net OPEB Liability are provided in a separate report. This report should not be relied on for any purpose other than the purposes described herein. Determinations of financial results, associated with the benefits described in this report, for purposes other than those identified above may be significantly different.

The actuarial employer contribution rate in this report is determined using the actuarial assumptions and methods disclosed in Section D of this report. This report includes general risk metrics on page A-5 but does not include a more robust assessment of the risks of future experience not meeting the actuarial assumptions. Additional assessment of risks was outside the scope of this assignment.

This actuarial valuation assumed the continuing ability of the plan sponsor to make the contributions necessary to fund this plan. A determination regarding whether or not the plan sponsor is actually able to do so is outside our scope of expertise and was not performed.

The actuarial valuation was based upon information furnished by the North Dakota Public Employees' Retirement System ("NDPERS") Staff, concerning benefits provided by the North Dakota Retiree Health Insurance Credit Fund, financial transactions, plan provisions and census data for active members, retirees and beneficiaries as of July 1, 2023. We checked for internal and year-to-year consistency, but did not audit the data. We are not responsible for the accuracy or completeness of the information provided by the NDPERS Staff.

This report was prepared using actuarial assumptions adopted by the Board as authorized under North Dakota Administrative Code Section 71-06. All assumptions are unchanged since the last valuation and were based on an experience review for the period from July 1, 2014 to July 1, 2019. The assumptions were adopted for first use commencing with the actuarial valuation as of July 1, 2020. In addition, the investment return assumption was decreased from 6.50 percent to 5.75 percent beginning with the July 1, 2022 actuarial valuation. All actuarial assumptions used in this report are generally reasonable for the purposes of this actuarial valuation. Additional information about the actuarial assumptions are included in Section D of this report.

Beginning January 1, 2020, members first enrolled in the NDPERS Main System and the Defined Contribution Plan on or after that date will not be eligible to participate in RHIC. Therefore, RHIC has become, for the most part, a closed plan. The RHIC employer contributions for members first enrolled in the NDPERS Main System on or after January 1, 2020 are made as additional contributions to the NDPERS Main System. The RHIC employer contributions for members first enrolled in the NDPERS Defined Contribution Plan on or after January 1, 2020 are made as additional contributions to the members' defined contribution accounts. The plan provisions are unchanged since the last actuarial valuation, performed as of July 1, 2022.

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge, the information contained in this report is accurate and fairly presents the actuarial position of the North Dakota Retiree Health Insurance Credit Fund as of the actuarial valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board.

This report was prepared using our proprietary valuation model and related software which, in our professional judgment, has the capability to provide results that are consistent with the purposes of the valuation and has no material limitations or known weaknesses. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

Bonita J. Wurst and Abra D. Hill are Members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

The signing actuaries are independent of the plan sponsor.

Gabriel, Roeder, Smith & Company will be pleased to review this actuarial valuation report with the Board of Trustees and to answer any questions pertaining to the actuarial valuation.

Respectfully submitted,

Gabriel, Roeder, Smith & Company

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SECTION A

ACTUARIAL VALUATION RESULTS

Comments on the Actuarial Valuation

Purpose

At your request, we have performed an actuarial valuation of the North Dakota Retiree Health Insurance Credit Fund as of July 1, 2023.

The purposes of this actuarial valuation are as follows:

- To determine the funding status of the RHIC as of the actuarial valuation date;
- To determine the actuarial employer contribution rate for the fiscal year beginning July 1, 2023; and
- To provide other data required for RHIC.

OPEB plan financial reporting under GASB Statement No. 74 is provided in Section F of this report. Employer financial reporting under GASB Statement No. 75 is provided in a separate report.

Membership Data

We received the member data from the NDPERS Staff. We performed certain checks for reasonableness and found the member data to be complete and reliable for actuarial valuation purposes. However, we did not audit the data.

A total of 17,283 active members were included in the actuarial valuation as of July 1, 2023. Between the 2022 and 2023 actuarial valuations, the number of active employees decreased by 1,735 members, or 9.1 percent. The average annual valuation pay increased by 7.1 percent, from $54,286 to $58,160 between the 2022 and 2023 actuarial valuations.

The number of eligible current benefit recipients increased from 14,290 to 14,996, or 4.9 percent, since the last actuarial valuation. All eligible retirees, including those not enrolled in the NDPERS health insurance plan, were included beginning with the 2016 actuarial valuation.

The average monthly benefit available remained at $98. The assumed average monthly benefit utilized was $89.

A total of 7,992 terminated vested members were included in the actuarial valuation as of July 1, 2023. Terminated vested liabilities were first reflected in the July 1, 2020 actuarial valuation.

Section C summarizes the membership data.

Plan Provisions

Section E outlines the principal benefit provisions of the RHIC. Beginning January 1, 2020, members first enrolled in the NDPERS Main System and the Defined Contribution Plan on or after that date are not eligible to participate in RHIC. Therefore, RHIC has become, for the most part, a closed plan. The RHIC employer contributions for members first enrolled in the NDPERS Main System on or after January 1, 2020 are made as additional contributions to the NDPERS Main System. The RHIC employer contributions for members first enrolled in the NDPERS Defined Contribution plan on or after January 1, 2020 are made as additional contributions to the members' defined contribution accounts. There were no changes in plan provisions since the previous actuarial valuation.

Actuarial Assumptions and Methods

This report was prepared using actuarial assumptions adopted by the Board as authorized under North Dakota Administrative Code Section 71-06. All actuarial assumptions used in this report are generally reasonable for the purposes of this actuarial valuation.

Most of the actuarial assumptions used in the actuarial valuation as of July 1, 2023 were based on an experience review for the five-year period ending July 1, 2019. The actuarial assumptions were first adopted for use commencing with the actuarial valuation as of July 1, 2020. In addition, the investment return assumption was decreased from 6.50 percent to 5.75 percent beginning with the July 1, 2022 actuarial valuation.

Section D outlines the actuarial assumptions and methods used in the actuarial valuation.

The assumption for administrative expenses is equal to the prior years' administrative expenses, adjusted for inflation. In total, the administrative expense assumption decreased from $392,086 to $363,698.

Prior to the actuarial valuation as of July 1, 2019, the actuarial contribution rate was calculated using a 40-year closed period (beginning July 1, 1990) level-percentage of pay amortization of the unfunded liability. First effective with the actuarial valuation as of July 1, 2019, the Board adopted a change in the method used to calculate the actuarial rate to a modified version of the Aggregate Actuarial Cost Method in order to be more consistent with projected contributions to a mostly closed plan. The actuarial rate is equal to the rate needed to pay off the unfunded liability and future Normal Cost contributions at the end of 20 years (June 30, 2039) as a level percent of closed group (decreasing) payroll. The remaining amortization period as of the July 1, 2023 actuarial valuation is 16 years.

Gain/Loss Analysis

During the plan year ending June 30, 2023, the Unfunded Actuarial Accrued Liability ("UAAL") decreased from $93,323,552 as of June 30, 2022, to $92,754,158 as of July 1, 2023, which is a decrease of $569,394. The expected UAAL as of July 1, 2023, if all actuarial assumptions were realized and if contributions using the actuarial rate of 1.35 percent were made was $88,498,506. The UAAL was higher than expected due to asset experience and statutory contributions less than actuarial contributions. The increase was partially offset by demographic experience. The UAAL based on the market value of assets is $99,975,124.

Comments on the Actuarial Valuation

Plan Asset Return

On a market value basis, RHIC assets had an investment return of approximately 10.41 percent (net of investment expenses). On an actuarial value of asset basis, RHIC assets had an investment return of approximately 4.15 percent, which compares to the prior year assumed rate of return of 5.75 percent.

The actuarial value of assets is currently 104.3 percent of the market value of assets. There are $7,220,966 in net asset losses currently being deferred that will be phased into the actuarial value of assets over the next four years.

Funded Ratio

The funded ratio measures the portion of the actuarial accrued liability (calculated based on the actuarial assumptions disclosed in this report) that is currently funded. The funded ratio is 65.4 percent on an actuarial value of assets basis and 62.7 percent on a market value of assets basis.

The funded ratio and unfunded actuarial accrued liability are appropriate for assessing the need for and the amount of future unfunded liability contributions (excludes normal cost contributions). They are not appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the Plan's benefit obligations.

Comments on the Actuarial Valuation

Employer Contributions

First effective with the actuarial valuation as of July 1, 2019, the actuarially determined contribution rate is calculated as the rate needed to pay off the unfunded liability and future Normal Cost contributions at the end of 20 years (June 30, 2039) as a level percent of closed group (decreasing) payroll. If employers contributed the actuarial contribution rate, the contribution rate would be expected to remain level over the 20-year period (assuming the actuarial assumptions are realized, including a 5.75 percent return on the actuarial value of assets). A closed amortization period is expected to increase the funded ratio to 100 percent by the end of the closed period (assuming no actuarial gains or losses). The contributions that are made by employers are based on fixed contribution rates that are set by statute (and not based on the actuarially determined rate). The statutory contribution rate of 1.14 percent is lower than the actuarial contribution rate of 1.38 percent.

The statutory contribution is not expected to fully fund the current unfunded liability (assuming the actuarial assumptions are realized, including a 5.75 percent return on the actuarial value of assets) within the expected future service of the current active members (approximately 60 years).

Historical Trends

The funded ratio increased from 66.8 percent in 2014, to a high of 69.4 percent in 2015, and then decreased to the current funded ratio of 65.4 percent.

The ratio of active members to retired members has decreased from 4.7 active members for each retired member in 2014 to 1.2 in 2023. The ratio decreased from 4.5 in 2015 to 2.3 in 2016 due to the change of no longer requiring enrollment in the NDPERS health insurance plan to receive payments from the RHIC.

Risks Associated with Measuring the Accrued Liability and Contributions

The determination of the accrued liability and the statutory and actuarially determined contribution requires the use of actuarial assumptions regarding future economic and demographic experience. Risk measures, as illustrated in this report, are intended to aid in the understanding of the effects of future experience differing from the actuarial assumptions used in the course of the actuarial valuation. Risk measures may also help with illustrating the potential volatility in the accrued liability and the statutory and actuarially determined contribution that result from the differences between actual experience and the actuarial assumptions.

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 due to changing conditions; 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 scope of an actuarial valuation does not include an analysis of the potential range of such future measurements.

Examples of risk that may reasonably be anticipated to significantly affect the plan's future financial condition include:

1. **Investment Risk** – actual investment returns may differ from the expected returns;
2. **Asset/Liability Mismatch** – changes in asset values may not match changes in liabilities, thereby altering the gap between the accrued liability and assets and consequently altering the funded status and contribution requirements;
3. **Contribution Risk** – actual contributions may differ from expected future contributions. For example, actual contributions may not be made in accordance with the plan's funding policy or material changes may occur in the anticipated number of covered employees, covered payroll, or other relevant contribution base;
4. **Salary and Payroll Risk** – actual salaries and total payroll may differ from expected, resulting in actual future accrued liability and contributions differing from expected;
5. **Longevity Risk** – members may live longer or shorter than expected and receive pensions for a period of time other than assumed; and
6. **Other Demographic Risks** – members may terminate, retire or become disabled at times or with benefits other than assumed resulting in actual future accrued liability and contributions differing from expected.

The effects of certain trends in experience can generally be anticipated. For example, if the investment return since the most recent actuarial valuation is less (or more) than the assumed rate, the cost of the plan can be expected to increase (or decrease). Likewise if longevity is improving (or worsening), increases (or decreases) in cost can be anticipated.

Risk Measures

The statutory contribution may be considered as a minimum contribution that complies with State statute. The timely receipt of contributions is critical to support the financial health of the plan. Users of this report should be aware that contributions made in accordance with the funding policy do not necessarily guarantee benefit security.

Plan Maturity Measures

Risks facing a pension plan evolve over time. A young plan with virtually no investments and paying few benefits may experience little investment risk. An older plan with a large number of members in pay status and a significant trust may be much more exposed to investment risk. Generally accepted plan maturity measures include the following:

	2019	2020	2021	2022	2023
Ratio of the Market Value of Assets to Payroll	0.12	0.13	0.17	0.15	0.17
Ratio of Actuarial Accrued Liability to Payroll	0.20	0.20	0.22	0.26	0.27
Ratio of Actives to Retirees and Beneficiaries	1.92	1.79	1.54	1.33	1.15
Ratio of Non-Investment Cash Flow to Market Value of Assets	1.04%	0.83%	0.10%	-0.71%	-1.27%

Ratio of Market Value of Assets to Payroll

The relationship between assets and payroll is a useful indicator of the potential volatility of contributions. For example, if the market value of assets is 2.0 times the payroll, a return on assets 5% different than assumed would equal 10% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in plan sponsor contributions as a percentage of payroll.

Ratio of Actuarial Accrued Liability to Payroll

The relationship between actuarial accrued liability and payroll is a useful indicator of the potential volatility of contributions for a fully funded plan. A funding policy that targets a funded ratio of 100% is expected to result in the ratio of assets to payroll and the ratio of liability to payroll converging over time. The ratio of liability to payroll may also be used as a measure of sensitivity of the liability itself. For example, if the actuarial accrued liability is 2.5 times the payroll, a change in liability 2% other than assumed would equal 5% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in liability (and also plan sponsor contributions) as a percentage of payroll.

Ratio of Actives to Retirees and Beneficiaries

A young plan with many active members and few retirees will have a high ratio of actives to retirees. A mature open plan may have close to the same number of actives to retirees resulting in a ratio near 1.0. A super-mature or closed plan may have significantly more retirees than actives resulting in a ratio below 1.0.

Risk Measures

Ratio of Net Cash Flow to Market Value of Assets

A positive net cash flow means contributions exceed benefits and expenses. A negative cash flow means benefits and expenses exceed contributions, and existing funds may be used to make payments. A certain amount of negative net cash flow is generally expected to occur when benefits are prefunded through a qualified trust. Large negative net cash flows as a percent of assets may indicate a super-mature plan or a need for additional contributions.

Additional Risk Assessment

Additional risk assessment is outside the scope of the annual actuarial valuation. Additional assessment may include scenario tests, sensitivity tests, stochastic modeling, stress tests and a comparison of the present value of accrued benefits at low-risk discount rates with the actuarial accrued liability.

Summary of Actuarial Valuation Results

	Valuation as of July 1, 2022		Valuation as of July 1, 2023	
	Total	% of Payroll[1]	Total	% of Payroll[1]
Active Members				
Number	19,018		17,283	
Average Age	47.9		48.3	
Average Years of Benefit Service	11.7		12.5	
Average Years of Vesting Service	11.8		12.6	
Total Payroll	$ 1,032,405,030		$ 1,005,182,784	
Projected Annual Compensation	1,090,047,485		1,061,236,658	
Terminated Vested Members[2]				
Number	7,639		7,992	
Retired Members and Beneficiaries				
Number	14,290		14,996	
Total Annualized Benefits	$ 15,435,776		$ 16,040,935	
Total Membership	40,947		40,271	
Actuarial Accrued Liability				
Active Members	$ 81,374,449		$ 79,106,910	
Terminated Vested Members	16,753,630		17,313,448	
Retired Members and Beneficiaries	165,840,306		171,872,818	
Total	263,968,385		268,293,176	
Actuarial Value of Assets	170,644,833		175,539,018	
Unfunded Actuarial Accrued Liability	93,323,552		92,754,158	
Funded Ratio (Actuarial Value of Assets)	64.6%		65.4%	
Present Value of Future Benefits (PVFB)	$ 304,022,148		$ 305,478,650	
Present Value of Future Salaries (PVFS)	11,713,794,441		11,384,723,990	
Present Value of Future Salaries over Remaining Amortization Period	9,846,185,407		9,396,364,070	
Unfunded Present Value of Future Benefits	133,377,315		129,939,632	
Unfunded PVFB/PVFS over Remaining Amortization Period	1.35%		1.38%	
Annual Gross Normal Cost				
Benefits	$ 4,463,581	0.41%	$ 4,160,052	0.39%
Expenses of Administration	392,086	0.04%	363,698	0.04%
Total	4,855,667	0.45%	4,523,750	0.43%
Actuarial Contribution	14,765,881	1.35%	14,675,538	1.38%
Statutory Employer Contribution	12,426,541	1.14%	12,098,098	1.14%
Statutory Contribution Deficit/(Surplus)	2,339,340	0.21%	2,577,440	0.24%
PVFS to Pay Off Unfunded PVFB Based on Statutory Rate of 1.14%	11,699,764,455		11,398,213,355	
Amortization Period from Statutory Rate (Years)	60+		60+	

[1] *Rates are calculated as a percentage of projected annual compensation.*
[2] *Terminated vested member liabilities first reflected in 2020.*

Summary of Actuarial Valuation Results

	Valuation as of July 1, 2022		Valuation as of July 1, 2023	
	Total	% of Payroll[1]	Total	% of Payroll[1]
Results Based on Market Value of Assets				
Market Value of Assets	$ 154,483,072		$ 168,318,052	
Unfunded Actuarial Accrued Liability	109,485,313		99,975,124	
Funded Ratio (Market Value of Assets)	58.5%		62.7%	
Present Value of Future Benefits (PVFB)	$ 304,022,148		$ 305,478,650	
Present Value of Future Salaries (PVFS)	11,713,794,441		11,384,723,990	
Present Value of Future Salaries over Remaining Amortization Period	9,846,185,407		9,396,364,070	
Unfunded Present Value of Future Benefits	$ 149,539,076		$ 137,160,598	
Unfunded PVFB/PVFS over Remaining Amortization Period	1.52%		1.46%	
Total Annual Gross Normal Cost	4,855,667	0.45%	4,523,750	0.43%
Actuarial Contribution	16,555,111	1.52%	15,491,083	1.46%
Statutory Employer Contribution	12,426,541	1.14%	12,098,098	1.14%
Statutory Contribution Deficit/(Surplus)	4,128,570	0.38%	3,392,985	0.32%
PVFS to Pay Off Unfunded PVFB Based on Statutory Rate of 1.14%	13,117,462,807		12,031,631,425	
Amortization Period from Statutory Rate (Years)	60+		60+	

[1] *Rates are calculated as a percentage of projected annual compensation.*

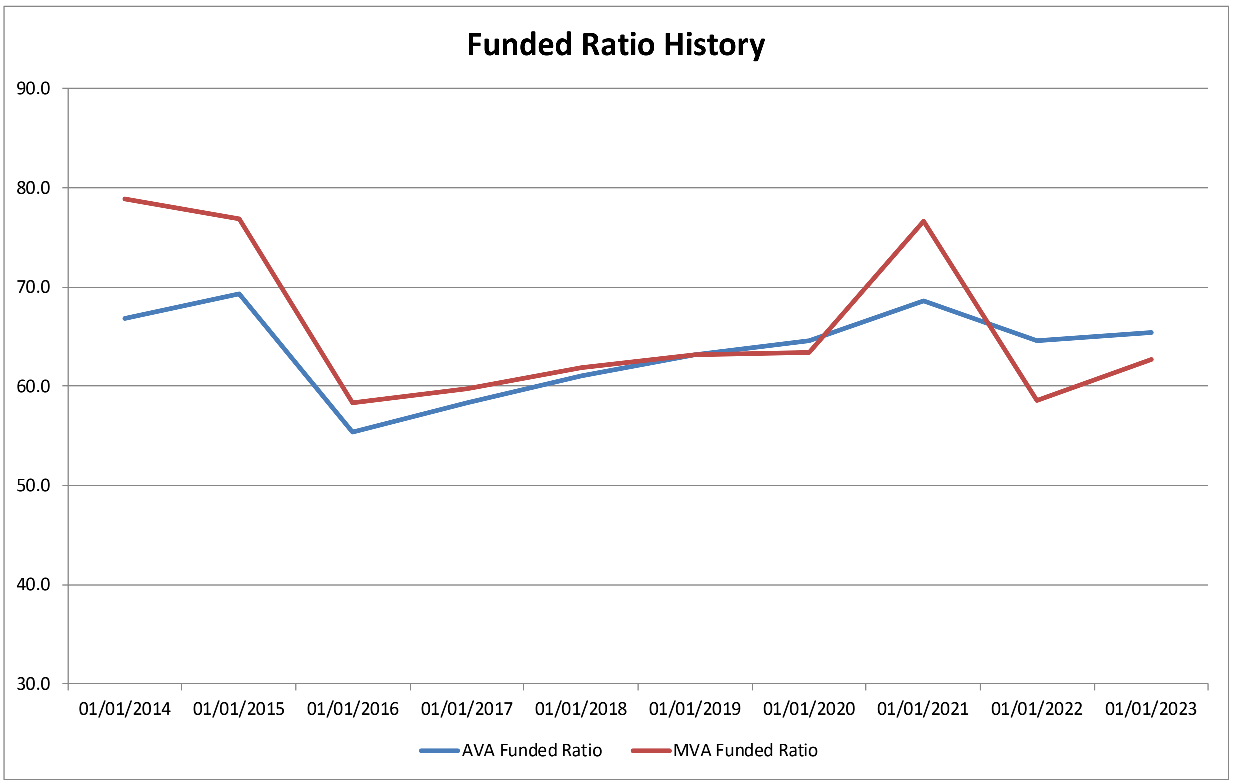
Actuarial Valuation Results
Gain/Loss Analysis

Unfunded liability at previous valuation	$	93,323,552
Expected unfunded liability at current valuation		
Normal cost for plan year		4,855,667
Interest on unfunded liability and normal cost		5,503,754
Contributions using actuarial rate with interest to current valuation date		15,184,467
Total expected change in unfunded liability at current valuation		(4,825,046)
Total expected unfunded liability at current valuation		88,498,506
Change due to:		
Amount of contributions (statutory vs actuarial contributions)		2,691,871
Amount of administrative expenses		(37,423)
Recognition of asset (gains)/losses		2,717,133
Salary experience		-
Retirement experience		268,219
Withdrawal experience		(323,430)
Disability experience		(77,117)
Death-in-Service experience		(106,232)
Death After Retirement experience		(1,116,650)
New entrants/Rehires		557,709
Data changes and other experience		(318,428)
Change in actuarial assumptions		-
Changes in plan provisions		-
Total change		4,255,652
Unfunded liability at current valuation	$	92,754,158

FY 2023 Actuarial Employer Contribution Rate	1.35%
Expected FY 2024 Employer Contribution Rate	1.35%
Expected FY 2024 Employer Contribution Rate with New Pay Base	1.34%
Impact due to New Pay Base	-0.01%
Change due to:	
Amount of contributions (statutory vs actuarial contributions)	0.03%
Amount of administrative expenses	0.00%
Recognition of asset (gains)/losses	0.03%
Demographic, Data Changes, and Other Experience	-0.02%
Change in actuarial assumptions	0.00%
Changes in plan provisions	0.00%
Total change	0.04%
FY 2024 Actuarial Employer Contribution Rate	1.38%
FY 2024 Statutory Contribution Rate	1.14%

Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (AVA) (a)	Actuarial Accrued Liability (AAL) (b)	AVA Unfunded AAL (UAAL) (b – a)	AVA Funded Ratio (a / b)	Market Value of Assets (MVA) (c)	MVA Unfunded AAL (UAAL) (b – c)	MVA Funded Ratio (a / b)
7/1/2014	$ 77,925,234	$ 116,633,623	$ 38,708,389	66.8	$ 92,013,709	$ 24,619,914	78.9 %
7/1/2015	89,433,998	128,940,013	39,506,015	69.4	99,142,050	29,797,963	76.9
7/1/2016	97,782,124	176,592,907	78,810,783	55.4	102,921,075	73,671,832	58.3
7/1/2017	114,602,927	196,694,770	82,091,843	58.3	117,593,690	79,101,080	59.8
7/1/2018	126,211,715	206,662,795	80,451,080	61.1	127,905,982	78,756,813	61.9
7/1/2019	137,601,769	217,831,024	80,229,255	63.2	137,512,286	80,318,738	63.1
7/1/2020	148,513,691	229,740,674	81,226,983	64.6	145,620,917	84,119,757	63.4
7/1/2021	163,278,611	237,951,735	74,673,124	68.6	182,334,446	55,617,289	76.6
7/1/2022	170,644,833	263,968,385	93,323,552	64.6	154,483,072	109,485,313	58.5
7/1/2023	175,539,018	268,293,176	92,754,158	65.4	168,318,052	99,975,124	62.7



There was a change in the covered number of retirees as a result of no longer requiring enrollment in the NDPERS health insurance plan. The participation rates that apply to future retirees were changed in the actuarial valuation as of July 1, 2015, in conjunction with this Plan change. The change for current retirees was first reflected in the actuarial valuation as of July 1, 2016.

Schedule of Funding Progress

Valuation Year	Actuarial Accrued Liabilities	Valuation Assets (AVA)	Unfunded Actuarial Accrued Liabilities	Ratio of Assets to AAL	Active Member Payroll	UAAL as Percent of Active Member Payroll
2014[1]	$ 116,633,623	$ 77,925,234	$ 38,708,389	66.8%	$ 1,001,204,000	3.9%
2015[1]	128,940,013	89,433,998	39,506,015	69.4%	1,052,657,000	3.8%
2016	176,592,907	97,782,124	78,810,783	55.4%	1,066,653,605	7.4%
2017	196,694,770	114,602,927	82,091,843	58.3%	1,081,841,008	7.6%
2018	206,662,795	126,211,715	80,451,080	61.1%	1,094,216,775	7.4%
2019	217,831,024	137,601,769	80,229,255	63.2%	1,115,857,588	7.2%
2020	229,740,674	148,513,691	81,226,983	64.6%	1,139,970,530	7.1%
2021	237,951,735	163,278,611	74,673,124	68.6%	1,090,257,793	6.8%
2022	263,968,385	170,644,833	93,323,552	64.6%	1,032,405,030	9.0%
2023	268,293,176	175,539,018	92,754,158	65.4%	1,005,182,784	9.2%

[1] *The active member payroll is approximated based on figures from the NDPERS Comprehensive Annual Financial Report.*

SECTION B

ASSET EXHIBITS

Statement of Fiduciary Net Position

	Fiscal Year Ending	
Assets	**June 30, 2022**	**June 30, 2023**
Cash	$ 1,441,571	$ 1,627,141
Receivables		
Contribution receivable	792,296	1,351,210
Interest receivable	532	901
Due from other fiduciary funds	0	422,817
Due from Uniform Group Insurance Plan	0	0
Due from other state agencies	199	190
Total receivables	793,027	1,775,118
Investments		
Equities	96,887,675	109,976,710
Fixed income	54,944,364	55,046,287
Real estate	-	-
Mutual funds	-	-
Annuities	-	-
Alternative Investments		
Invested cash	498,576	96,387
Total Investments	152,330,615	165,119,384
Prepaid expenses	-	-
Capital assets (net of depreciation/amortization)	71,755	60,478
Total assets	154,636,968	168,582,121
Liabilities		
Salaries payable	-	-
Accounts payable	153,882	263,984
Due to other fiduciary funds	-	-
Due to Uniform Group Insurance Plan	-	-
Due to other state agencies	14	85
Accrued compensated absences	-	-
Total liabilities	153,896	264,069
Net position restricted for postemployment healthcare benefits	$ 154,483,072	$ 168,318,052

Statement of Changes in Fiduciary Net Position

	Fiscal Year Ending	
	June 30, 2022	**June 30, 2023**
Additions:		
Contributions:		
From employer	$ 12,565,573	$ 12,137,476
From employee	12,234	10,741
Total contributions	12,577,807	12,148,217
Investment income		
Net change in fair value of investments	(30,112,037)	12,315,155
Interest and dividends	3,893,161	4,144,674
Less investment expense	(537,631)	(484,757)
Net investment income	(26,756,507)	15,975,072
Repurchase service credit	456,895	282,185
Miscellaneous Income	(1)	1
Total additions	(13,721,806)	28,405,475
Deductions:		
Benefits paid to participants	-	-
Refunds	2,631	6,234
Prefunded credit applied	13,743,479	14,208,566
Health premiums paid	-	-
	13,746,110	14,214,800
Administrative expenses	383,458	355,695
Total deductions	14,129,568	14,570,495
Change in net position	(27,851,374)	13,834,980
Net position restricted for postemployment healthcare benefits		
Beginning of year	182,334,446	154,483,072
End of year	$ 154,483,072	$ 168,318,052

Development of Actuarial Value of Assets

Fiscal Year Ending	2022	2023	2024	2025	2026	2027
Beginning of Year:						
(1) Market Value of Assets	$ 182,334,446	$ 154,483,072				
(2) Actuarial Value of Assets[1]	163,278,611	170,644,833				
End of Year:						
(3) Market Value of Assets	154,483,072	168,318,052				
(4a) Contributions (Incl. repurchase svc credit)	13,034,701	12,430,403				
(4b) Net Disbursements	14,129,568	14,570,495				
(5) Total Investment Income						
=(3)-(1)-(4a)+(4b)	(26,756,507)	15,975,072				
(6) Projected Rate of Return	6.50%	5.75%				
(7) Projected Investment Income						
=(1)x(6)+([1+(6)]^.5-1)x(4a-4b)	11,816,716	8,822,109				
(8) Asset Adjustment	0	0				
(9) Investment Income in						
Excess of Projected Income	(38,573,223)	7,152,963				
(10) Excess Investment Income Recognized						
This Year (5-year recognition)						
(10a) From This Year	(7,714,645)	$ 1,430,593				
(10b) From One Year Ago	5,411,064	(7,714,645)	$ 1,430,593			
(10c) From Two Years Ago	(621,529)	5,411,064	(7,714,645)	$ 1,430,593		
(10d) From Three Years Ago	(293,315)	(621,529)	5,411,064	(7,714,645)	$ 1,430,593	
(10e) From Four Years Ago	(137,202)	(293,315)	(621,529)	5,411,062	(7,714,643)	$ 1,430,591
(10f) Total Recognized Investment Gain/(Loss)	(3,355,627)	(1,787,832)	(1,494,517)	(872,990)	(6,284,050)	1,430,591
(11) Change in Actuarial Value of Assets						
=(4a)-(4b)+(7)+(8)+(10f)	7,366,222	4,894,185				
End of Year:						
(3) Market Value of Assets	**$ 154,483,072**	**$ 168,318,052**				
(12) Final Actuarial Value of Assets as of 6/30 = (2)+(11)	**$ 170,644,833**	**$ 175,539,018**				
(13) Difference Between Market & Actuarial Values	(16,161,761)	(7,220,966)				
(14) Estimated Market Value Rate of Return on Total Plan Assets	(14.72)%	10.41%				
(15) Actuarial Value Rate of Return	5.20%	4.15%				
(16) Ratio of Actuarial Value to Market Value	110.5%	104.3%				

[1] *Asset gains and losses in FY 2016 and prior were fully recognized as of July 1, 2017, and subsequent asset gains/losses will be smoothed in over a five-year period.*

SECTION C

ACTUARIAL VALUATION DATA

Age/Service/Salary
as of July 1, 2023

Current Age	Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35 and Over	Totals	Valuation Payroll
	Vesting Service as of Valuation Date									
Under 20	12	-	-	-	-	-	-	-	**12**	**$ 443,386**
20-24	202	8	-	-	-	-	-	-	**210**	**10,309,976**
25-29	500	262	4	-	-	-	-	-	**766**	**39,823,616**
30-34	553	832	160	2	-	-	-	-	**1,547**	**87,488,405**
35-39	472	943	542	167	2	-	-	-	**2,126**	**126,766,374**
40-44	435	803	535	460	102	7	-	-	**2,342**	**145,047,318**
45-49	309	708	444	391	305	96	9	-	**2,262**	**136,777,585**
50-54	274	576	454	412	291	261	96	7	**2,371**	**143,143,021**
55-59	248	491	437	372	317	234	184	87	**2,370**	**137,802,266**
60-64	175	483	441	386	335	187	138	199	**2,344**	**130,324,689**
65-69	77	165	134	111	77	53	30	64	**711**	**38,018,946**
70-74	17	49	33	25	13	15	5	11	**168**	**7,603,294**
75 and Over	13	13	9	9	2	2	4	2	**54**	**1,633,907**
Total	**3,287**	**5,333**	**3,193**	**2,335**	**1,444**	**855**	**466**	**370**	**17,283**	**$ 1,005,182,784**

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Previous Valuation		Current Valuation		Change
Average Age:	47.9	Average Age:	48.3	0.4
Average Benefit Service:	11.7	Average Benefit Service:	12.5	0.8
Average Vesting Service:	11.8	Average Vesting Service:	12.6	0.8
Average Annual Pay:	$54,286	Average Annual Pay:	$58,160	$3,874
Vested Participants	17,229	Vested Participants	16,597	(632)
Nonvested Participants	1,789	Nonvested Participants	686	(1,103)
Total Participants	19,018	Total Participants	17,283	(1,735)

Historical Schedule of Active and Retired Member Data through July 1, 2023

Valuation Date July 1,	Number of Active Members*	Number of Terminated Vested Members[1]	Number of Retired Members	Average Annual Benefit	Number of Active Members Per Retiree
2014	22,642		4,828	$ 1,428	4.7
2015	23,237		5,212	1,455	4.5
2016	23,664		10,320	1,199	2.3
2017	23,497		11,232	1,164	2.1
2018	23,747		11,823	1,170	2.0
2019	23,997		12,471	1,174	1.9
2020	23,495	6,734	13,092	1,175	1.8
2021	21,067	7,112	13,697	1,174	1.5
2022	19,018	7,639	14,290	1,179	1.3
2023	17,283	7,992	14,996	1,175	1.2

** Number of active members prior to 7/1/2014 is approximated based on figures from the NDPERS Comprehensive Annual Financial Report.*

[1] Terminated vested member liabilities first reflected in 2020.

Summary of Retired Member Data
as of July 1, 2023

	Monthly Benefit Amount							
Age	**Under $30**	**$30-$59**	**$60-$89**	**$90-$119**	**$120-$149**	**$150-$179**	**$180 and over**	**Total**
Under 50	12	12	6	2	0	2	0	**34**
50 - 54	6	12	14	7	13	30	0	**82**
55 - 59	37	35	33	18	69	138	21	**351**
60 - 64	132	174	136	102	322	342	180	**1,388**
65 - 69	524	804	597	469	571	524	382	**3,871**
70 - 74	500	803	621	504	649	436	319	**3,832**
75 - 79	346	529	423	366	429	246	201	**2,540**
80 - 84	195	318	310	251	238	134	87	**1,533**
85 - 89	107	196	191	122	132	84	67	**899**
90 and Over	46	116	107	81	56	32	28	**466**
Total	**1,905**	**2,999**	**2,438**	**1,922**	**2,479**	**1,968**	**1,285**	**14,996**

	Previous Valuation	Current Valuation	Change
Average Age	73.0	73.1	0.1
Average Monthly Benefit Available	$98	$98	($0)
Assumed Average Monthly Benefit Utilized	$90	$89	($1)
Total Participants	14,290	14,996	706

SECTION D

ACTUARIAL VALUATION PROCEDURES

Actuarial Assumptions in the Valuation Process

Normal cost and the allocation of benefit values between service rendered before and after the actuarial valuation date were determined using the ***Individual Entry Age Normal*** actuarial cost method having the following characteristics:

- The normal cost for each individual active member, payable from the date of employment to the date of retirement, is sufficient to accumulate the value of the member's benefit at the time of retirement; and
- Each annual normal cost is a constant percentage of the member's year by year projected covered pay.

This assumption was adopted by the Board for use beginning with the July 1, 2017 actuarial valuation. The previous actuarial cost method was the Projected Unit Credit actuarial cost method.

Financing of Unfunded Actuarial Accrued Liabilities. First effective with the actuarial valuation as of July 1, 2019, the Board adopted a change in the method used to calculate the actuarial rate to a modified version of the Aggregate Actuarial Cost Method in order to be more consistent with projected contributions to a mostly closed plan. The actuarial rate is equal to the rate needed to pay off the unfunded liability and future Normal Cost contributions at the end of 20 years (June 30, 2039) as a level percent of closed group (decreasing) payroll.

Actuarial Value of Pension Plan Assets. The calculated value is determined by adjusting the market value of assets to reflect the investment gains and losses (the difference between the actual investment return and the expected investment return) during each of the last five years at the rate of 20 percent per year. This asset smoothing method was adopted by the Board for use beginning with the July, 1 2017 actuarial valuation. Net deferred asset gains attributable to fiscal years 2016 and prior were fully recognized as of July 1, 2017.

Actuarial Valuation Assumptions. The contribution and benefit values of the Fund are calculated by applying actuarial assumptions to the benefit provisions and census information furnished, using the actuarial cost method described above.

The principal areas of financial risk which require actuarial assumptions about future experiences are:

- Long-term rates of investment return to be generated by the assets of the Plan;
- Rates of mortality among members, retirees and beneficiaries;
- Rates of withdrawal of active members;
- Rates of disability among members; and
- The age patterns of actual retirement.

In an actuarial valuation, the monetary effect of each assumption is calculated for as long as a present covered person survives; a period of time which can be as long as a century.

Actual experience of the Plan will not coincide exactly with assumed experience. Each actuarial valuation provides a complete recalculation of assumed future experience and takes into account all past differences between assumed and actual experience. The result is a continual series of adjustments (usually small) to the computed contribution rate.

Actuarial Assumptions in the Valuation Process

From time-to-time it becomes appropriate to modify one or more of the actuarial assumptions, to reflect experience trends (but not random year-to-year fluctuations). Thus, an experience review of the North Dakota Public Employees' Retirement System for the period July 1, 2014 to July 1, 2019, was performed to compare the demographic and economic experience against the actuarial assumptions used in the valuations. Most of the actuarial assumptions described in this section were adopted by the Board for use beginning with the July 1, 2020 actuarial valuation.

All actuarial assumptions are expectations of future experience, not current market measures.

The actuarial assumptions were provided by, and are the responsibility of, the NDPERS Board.

Current Actuarial Valuation Assumptions and Methods

The same actuarial assumptions used to value pension benefits for the covered members in the Public Employees Retirement System and the Highway Patrolmen's Retirement System are used in this actuarial valuation. The NDPERS Main System actuarial assumptions are used for the covered members of the Defined Contribution Plan.

The assumed rate of investment return used was 5.75 percent, net of expenses, annually. This assumption was adopted by the Board for use beginning with the July 1, 2022 actuarial valuation.

The assumed rate of price inflation is 2.25 percent. This assumption was adopted by the Board for use beginning with the July 1, 2020 actuarial valuation.

No Cost of Living Adjustments (COLA) are provided to benefits recipients. Therefore, there is no COLA assumption for this actuarial valuation.

The rates of annual salary increase used for individual members are in accordance with the following table. This assumption is used to project a member's current salary.

Service at Beginning of Year	Main System: State Employee	Main System: Non-State Employee	Public Safety	Judges	Highway Patrol
0	10.75%	13.25%	17.75%		10.75%
1	7.50%	8.00%	15.00%		8.75%
2	5.75%	7.25%	12.75%		6.75%
3			7.25%		
4			7.25%		
Age*					
Under 30	5.75%	7.25%	6.75%	3.00%	6.75%
30-34	5.75%	6.75%	6.75%	3.00%	6.75%
35-39	5.75%	6.75%	6.25%	3.00%	6.00%
40-44	5.25%	6.25%	6.25%	3.00%	5.50%
45-49	5.25%	6.25%	5.25%	3.00%	4.75%
50-54	4.75%	5.75%	5.25%	3.00%	4.50%
55-59	4.50%	5.50%	5.25%	3.00%	3.75%
60-64	4.00%	4.75%	5.25%	3.00%	3.75%
65-69	4.00%	4.75%	4.50%	3.00%	3.75%
70+	3.50%	4.50%	4.25%	3.00%	3.75%

* *Age-based salary increase rates apply for employees with three or more years of service in the Main System and the Highway Patrolmen's Retirement System, five or more years of service in the Public Safety Systems and for all employees in the Judges System.*

Actuarial Valuation Assumptions

The assumed rate of payroll growth used in projections for the Judges, Public Safety, and Highway Patrol groups is 3.50 percent. This assumption was adopted by the Board for use beginning with the July 1, 2020 actuarial valuation.

The mortality assumptions are as follows:

Type	Assumption	Male Scaling Factor	Female Scaling Factor
Post-Retirement Non-Disabled	Pub-2010 Healthy Retiree Mortality Table (for General Employees), sex distinct	103%	101%
Post-Retirement Disabled	Pub-2010 Disabled Retiree Mortality Table (for General Employees), sex distinct	117%	112%
Pre-Retirement	Pub-2010 Employee Mortality Table (for General Employees), sex distinct	92%	92%

Mortality is projected from 2010 with generational mortality improvement using the MP-2019 two-dimensional mortality improvement scales.

Following is a table with the life expectancies by age as of the actuarial valuation date.

	Healthy Mortality Future Life Expectancy (Years) in 2023		Disabled Mortality Future Life Expectancy (Years) in 2023	
Age	Male	Female	Male	Female
20	67.30	70.75	49.93	54.52
25	61.92	65.35	45.20	49.38
30	56.55	59.95	40.42	44.28
35	51.22	54.58	36.00	39.57
40	45.94	49.23	31.88	35.26
45	40.68	43.91	27.94	31.23
50	35.56	38.71	24.28	27.53
55	30.67	33.72	21.02	24.23
60	25.95	28.84	18.11	21.18
65	21.45	24.09	15.40	18.09
70	17.17	19.52	12.77	14.86
75	13.23	15.25	10.18	11.70
80	9.75	11.40	7.78	8.87
85	6.90	8.14	5.73	6.59
90	4.80	5.65	4.09	4.90
95	3.38	3.94	2.95	3.56
100	2.41	2.76	2.11	2.48
105	1.82	2.02	1.56	1.79

Rates of separation from active membership are represented by the following table (rates do not apply to members eligible to retire and do not include separation on account of death or disability). This assumption measures the probabilities of members terminating employment.

Service Beginning of Year	Service and Age-Based Rates for First Five Years of Service					
	Main System			Public Safety		
	Age					
	Under 30	30-39	40+	Under 30	30-39	40+
0	28.00%	20.00%	17.00%	27.00%	19.00%	16.00%
1	24.00%	17.00%	14.00%	25.00%	19.00%	16.00%
2	18.00%	14.00%	12.00%	20.00%	16.00%	14.00%
3	16.00%	13.00%	12.00%	17.00%	14.00%	14.00%
4	13.00%	11.00%	11.00%	17.00%	10.00%	10.00%

Age	Age-Based Rates Only After First Five Years of Service	
	Main System	Public Safety
20-24	11.00%	10.00%
25-29	10.00%	10.00%
30-34	6.50%	7.50%
35-39	5.50%	7.50%
40-44	4.50%	5.00%
45-49	4.20%	5.00%
50-54	3.90%	5.00%
55-59	3.60%	5.00%
60+	3.30%	5.00%

No pre-retirement termination is assumed for Judges.

Withdrawal rates end upon eligibility for early retirement.

Early retirement eligibility is as follows:

Main System: Earlier of (i) age 55 and 3 years of service, and (ii) eligibility for Rule of 85. For members hired on or after 1/1/2016, earlier of (i) age 60 and 3 years of service, and (ii) eligibility for Rule of 90.

Public Safety: Age 50 and 3 years of service (10 years for BCI members hired on or after August 1, 2023).

Rates of separation from active membership (Continued)

Highway Patrol

Service Beginning of Year	Service and Age-Based Rates for First Five Years of Service Rates
0	8.00%
1	8.00%
2	7.00%
3	7.00%
4	6.00%

Age	Rates
Under 35	2.50%
35+	1.25%

Withdrawal rates end upon eligibility for early retirement.

Early retirement eligibility is as follows:

Highway Patrol: Age 50 and 10 years of service.

Rates of disability:

Before age 65:	Males: 15.00% of OASDI disability incidence rates. Females: 8.50% of OASDI disability incidence rates.
Age 65 and later:	0.15% per year.

Rates of disability were as follows:

	All Plans	
Age	**Male**	**Female**
20	0.0090%	0.0051%
25	0.0128%	0.0073%
30	0.0165%	0.0094%
35	0.0221%	0.0125%
40	0.0330%	0.0187%
45	0.0539%	0.0306%
50	0.0909%	0.0515%
55	0.1513%	0.0858%
60	0.2440%	0.1383%
65	0.1500%	0.1500%

Rates of retirement for members eligible to retire during the next year were as follows:

Age	Main System			Public Safety		Judges		Highway Patrol	
	Reduced	Unreduced - Rule of 85	Unreduced - Not Rule of 85	Rule of 85	Not Rule of 85	Rule of 85	Not Rule of 85	Rule of 80	Not Rule of 80
50		50%		25%	4%			100%	25%
51		20%		25%	4%			100%	25%
52		20%		25%	4%			100%	25%
53		20%		25%	4%			100%	25%
54		20%		25%	4%			100%	25%
55	1%	8%		25%	10%	10%	2%	100%	75%
56	1%	8%		25%	10%	10%	2%	100%	75%
57	1%	8%		25%	10%	10%	2%	100%	75%
58	1%	9%		25%	10%	10%	2%	100%	75%
59	2%	9%		25%	10%	10%	2%	100%	75%
60	2%	9%		25%	10%	10%	2%	100%	100%
61	4%	15%		25%	10%	10%	2%		
62	8%	20%		50%	25%	10%	2%		
63	8%	20%		50%	25%	10%	2%		
64	8%	20%		50%	25%	10%	2%		
65		35%	20%	50%	50%	100%	10%		
66		35%	20%	50%	50%	100%	10%		
67		20%	15%	50%	50%	100%	10%		
68		20%	15%	50%	50%	100%	10%		
69		20%	15%	50%	50%	100%	10%		
70		20%	15%	100%	50%	100%	20%		
71		20%	15%	100%	50%	100%	20%		
72		20%	15%	100%	50%	100%	20%		
73		20%	15%	100%	50%	100%	20%		
74		20%	15%	100%	50%	100%	20%		
75		50%	50%	100%	100%	100%	100%		
76		50%	50%						
77		50%	50%						
78		50%	50%						
79		50%	50%						
80+		100%	100%						

Rates of retirement for Terminated Vested members eligible to retire during the next year were as follows:

Age	Main System			Public Safety		Judges		Highway Patrol	
	Reduced	Unreduced - Rule of 85	Unreduced - Not Rule of 85	Rule of 85	Not Rule of 85	Rule of 85	Not Rule of 85	Rule of 80	Not Rule of 80
50		70%		25%	10%			100%	25%
51		70%		25%	10%			100%	25%
52		70%		25%	10%			100%	25%
53		70%		25%	10%			100%	25%
54		70%		25%	10%			100%	25%
55	1%	70%		25%	10%	10%	2%	100%	75%
56	1%	70%		25%	10%	10%	2%	100%	75%
57	1%	70%		25%	10%	10%	2%	100%	75%
58	1%	70%		25%	10%	10%	2%	100%	75%
59	2%	70%		25%	10%	10%	2%	100%	75%
60	2%	70%		25%	25%	10%	2%	100%	100%
61	4%	70%		25%	25%	10%	2%		
62	8%	70%		50%	25%	10%	2%		
63	8%	70%		50%	25%	10%	2%		
64	8%	70%		50%	25%	10%	2%		
65		70%	25%	50%	50%	100%	10%		
66		70%	25%	50%	50%	100%	10%		
67		70%	25%	50%	50%	100%	10%		
68		70%	25%	50%	50%	100%	10%		
69		70%	25%	50%	50%	100%	10%		
70		70%	25%	100%	50%	100%	20%		
71		70%	25%	100%	50%	100%	20%		
72		70%	25%	100%	50%	100%	20%		
73		70%	25%	100%	50%	100%	20%		
74		70%	25%	100%	50%	100%	20%		
75		70%	50%	100%	100%	100%	100%		
76		70%	50%						
77		70%	50%						
78		70%	50%						
79		70%	50%						
80+		100%	100%						

Actuarial Valuation Assumptions

Participation Rates for current members eligible to receive a benefit were as follows:

Benefit Status of Eligible Member	Age	Participation Rate
Currently Receiving Benefits	Any	100.0%
Not Currently Receiving Benefits	65 and Over	0.0%
Not Currently Receiving Benefits	Under 65	100% Upon Attainment of Age 65

Participation Rates for current active and terminated vested members were as follows:

Years of Service at Retirement/Termination	Under Age 55	Age 55-64	Age 65+
Less than 5	33.0%	38.5%	55.0%
5-10	42.0%	49.0%	70.0%
10-15	48.0%	56.0%	80.0%
15-20	51.0%	59.5%	85.0%
20-25	54.0%	63.0%	90.0%
25+	54.0%	63.0%	90.0%

Actuarial Valuation Assumptions

Assumed Service Credit: All active members (full time and part time) are assumed to earn one full year of service for each assumed future year of service.

Marital Status: It is assumed that 75 percent of participants in the Main System and Public Safety and 100 percent of Judges and Highway Patrol participants have an eligible spouse at the time of retirement or pre-retirement death. The male spouse is assumed to be three years older than the female spouse. Spouses are assumed to be the opposite sex of the employees and retirees. The relatively low rate of same-sex spouses does not have a material actuarial impact on the actuarial valuation results.

Form of Payment Election Assumption:

Form of Payment	Main System, Public Safety	Judges	Highway Patrol
Life Annuity	50%	0%	0%
50% Joint and Survivor	45%	100%	100%
Refund of Member Contributions	5%	0%	0%

Benefits are valued without reduction for the optional form of payment.

Benefit Service: Exact fractional years of service are used to determine the amount of benefit payable.

Decrement Timing: All decrements are assumed to occur at the middle of the year.

Decrement Operation: Turnover decrements do not operate after the member reaches retirement eligibility (early or normal).

Eligibility Testing: Eligibility for benefits is determined based upon the age nearest birthday and years of service on the date the decrement is assumed to occur.

Pay Increase Timing: Beginning of (fiscal) year.

Expenses: Assumed administrative expenses were added to the Normal Cost and are based on the prior year's expenses, adjusted for inflation. The assumed amount added to the Normal Cost is:

Expenses		
Assumed FY 2023	$	392,086
Actual FY 2023		355,695
Assumed FY 2024		363,698

Assumptions for Missing or Incomplete Data: Pay was annualized for active members who have an entry date after the last actuarial valuation date of July 1, 2022. Pay was annualized by dividing the provided pay by the maximum of one month and calculated service (based on entry date). A minimum pay amount of $10,000 was assumed for all members. Active members in the Main System with $0 pay provided were assumed to have pay of $37,667, the average of non-zero annualized salary of newly hired members. Active members in the Judges System with $0 pay provided were assumed to have pay of $156,622, the average of non-zero annualized salary of newly hired members. Active members in the Public Safety with Prior Service System with $0 pay provided were assumed to have pay of $50,465, the average of non-zero annualized salary of newly hired members. Active members in the Public Safety without Prior Service System with $0 pay provided were assumed to have pay of $45,413, the average of non-zero annualized salary of newly hired members.

Changes in Actuarial Valuation Assumptions and Methods since the Previous Actuarial Valuation

There have been no changes in actuarial assumptions since the previous actuarial valuation as of June 30, 2022.

SECTION E

BENEFIT PROVISIONS

Brief Summary of Plan Provisions

This section summarizes the major benefit provisions of the North Dakota Public Employees Retirement System Retiree Health Insurance Credit Fund as included in the actuarial valuation. It is not intended to be, nor should it be, interpreted as a complete statement of all plan provisions.

1. <u>Covered Employees</u>:

Members of the Public Employees Retirement System, the Highway Patrolmen's Retirement System and the Defined Contribution Retirement Plan who elect coverage. Members first enrolled in the NDPERS Main System and the Defined Contribution Retirement Plan on or after January 1, 2020 are not eligible to participate in RHIC.

2. <u>Eligibility</u>:

Receiving a periodic payment from the Public Employees Retirement System, the Highway Patrolmen's Retirement System or the Defined Contribution Retirement Plan and incurring an eligible insurance premium expense.

3. <u>Normal Retirement</u>:

Age requirement:

Main and DC Systems and Judges:

Age 65, or at any age with age plus service equal to at least 85 (Rule of 85).

For members enrolled after December 31, 2015, into the Main System, attainment of age 65, or at age 60 with age plus service equal to at least 90 (Rule of 90).

Highway Patrol:

Age 55, or at any age with age plus service equal to at least 80 (Rule of 80).

Public Safety:

Age 55, or if not National Guard, at any age with age plus service equal to at least 85 (Rule of 85). National Guard is eligible for Rule of 85 beginning on August 1, 2015.

Service requirement:

Main and DC Systems and Judges:

Three years for the Main System and five years for Judges.

Highway Patrol:

Ten years.

Public Safety:

Three consecutive years (10 years for BCI members hired on or after August 1, 2023).

Benefit amount:

A monthly stipend equal to $5.00 times service.

4. ***Early Retirement:***

Age requirement:

Main and DC Systems and Judges:

Age 55. (Age 60 for members enrolled after December 31, 2015 into the Main System)

Highway Patrol and Public Safety:

Age 50.

Service requirement:

Main and DC Systems and Public Safety:

Three years (10 years for BCI members hired on or after August 1, 2023).

Judges:

Five years.

Highway Patrol:

Ten years.

Benefit amount:

Main and DC Systems and Judges:

The Normal Retirement Benefit reduced by 3% for retirements at age 64 and an additional 6% for each year by which retirement precedes age 64.

Benefits are unreduced upon the fulfillment of the Rule of 85 or Rule of 90 with a minimum of age 60 (if applicable).

Highway Patrol and Public Safety:

The Normal Retirement Benefit reduced by 3% for retirements at age 54 and an additional 6% for each year by which retirement precedes age 54.

Benefits are unreduced upon the fulfillment of the Rule of 80 for Highway Patrol and Rule of 85 for Public Safety.

5. ***Disability Retirement:***

Age requirement:

None.

Service requirement:

Six months.

Other requirements:

As required by applicable pension plan.

Benefit amount:

Same as Normal Retirement Benefit.

6. <u>Pre-Retirement Death Benefit</u>:

Age requirement:

None.

Service requirement:

Main and DC Systems and Public Safety:
Three years (10 years for BCI members hired on or after August 1, 2023).

Judges:
Five years.

Highway Patrol:
Ten years.

Benefit amount:

Same as Normal Retirement Benefit accrued to the date of the member's death, payable for as long as benefits are payable to the spouse from the Retirement System under the standard option.

7. <u>Post-Retirement Death Benefit</u>:

Following a retired member's death, the Retiree Health Insurance Credit Fund will: (1) continue benefits to the member's spouse if the spouse continues to receive a monthly pension from a member's Retirement System or (2) provide benefits to the member's spouse if the member selected a joint and survivor option from the Retiree Health Insurance Credit Fund.

8. <u>Alternative Options</u>:

If benefits from the member's Retirement System are paid under the single life, level Social Security, or 10- or 20-year term certain options (without a continuation to the spouse after the certain period ends), actuarially reduced health credit benefits may be elected for the spouse. Alternative options in the Retiree Health Insurance Credit Fund include 50% and 100% joint and survivor annuities.

9. <u>Service</u>:

Members receive credit for each year and month of employment.

10. <u>Contributions</u>:

The employer contributes 1.14% of covered salaries and wages for participating employees. The RHIC employer contributions for members first enrolled in the NDPERS Main System on or after January 1, 2020 are made as additional contributions to the NDPERS Main System. The RHIC employer contributions for members first enrolled in the NDPERS Defined Contribution plan on or after January 1, 2020 are made as additional contributions to the members' defined contribution accounts.

<u>Changes in Plan Provisions Since the Previous Actuarial Valuation</u>

There have been no changes in plan provisions since the previous actuarial valuation as of June 30, 2022.

SECTION F

GASB STATEMENT NO. 74 SCHEDULES

GASB Statement No. 74

Accounting Standard

For postemployment (OPEB) benefit plans that are administered through trusts or equivalent arrangements, Governmental Accounting Standards Board (GASB) Statement No. 74, "Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans," replaces the requirements of GASB Statement No. 43, "Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans." GASB Statement No. 74 establishes standards of financial reporting for separately issued financial reports of state and local government OPEB plans.

Reporting under GASB Statement No. 74 is effective for plan fiscal years commencing after June 15, 2016.

The following discussion provides a summary of the information that is required to be disclosed under this new accounting standard. A number of these disclosure items are provided in this report. However, certain non-actuarial information, such as notes regarding accounting policies and investments, is not included in this report, and internal staff will be responsible for preparing that information to comply with this accounting standard.

Financial Statements

GASB Statement No. 74 requires defined benefit OPEB plans to present two financial statements: a statement of fiduciary net position and a statement of changes in fiduciary net position.

The *statement of fiduciary net position* presents the following items as of the end of the OPEB plan's reporting period:

- Assets;
- Receivables (deferred inflows and outflows of resources);
- Investments;
- Liabilities; and
- Fiduciary net position (assets, plus deferred outflows, minus liabilities, minus deferred inflows).

The *statement of changes in fiduciary net position* presents the following for the plan's reporting period:

- Additions, such as contributions and investment income;
- Deductions, such as benefit payments and expenses; and
- Net increase or decrease in the fiduciary net position (the difference between additions and deductions).

Notes to Financial Statements

GASB Statement No. 74 also requires the notes of the plan's financial statements to include additional disclosure information. This disclosure information should include:

- **Plan Description:**
    - The name of the OPEB plan, the administrator of the OPEB plan and the identification of whether the OPEB plan is a single-employer, agent or cost-sharing OPEB plan.
    - The number of participating employers (if agent or cost-sharing OPEB plan) and the number of nonemployer contributing entities.
    - The composition of the OPEB plan's Board and the authority under which benefit terms may be amended.
    - The number of plan members by category and if the plan is closed.
    - The authority under which benefit terms are established or may be changed, the types of benefit provided and the classes of plan members covered. A brief description of the benefits and the description of automatic post-employment benefit changes and the sharing of benefit-related costs with inactive plan members.
    - A brief description of contribution requirements, including: (a) identification of the authority under which contribution requirements of employers, nonemployer contributing entities and plan members are established or may be amended; (b) the contribution rates of the employer, nonemployer contributing entities and plan members; and (c) legal or contractual maximum contribution rates. If the OPEB plan of the entity that administers the OPEB plan has the authority to establish or amend contribution requirements, disclose the basis for determining contributions.
- **Plan Investments:**
    - A description of investment policies, including procedures for making and amending investment decisions; policies for asset allocation; and description of any significant changes in investment policy occurring during the reporting period.
    - Identification of investments that represent 5% or more of the fiduciary net position.
    - The annual money-weighted rate of return on the OPEB plan investments.
- **Receivables:**
    - The terms of any long-term contracts for contributions to the OPEB plan and the outstanding balance on any such long-term contracts.
- **Allocated insurance contracts excluded from OPEB plan assets**
- **Reserves:**
    - A description of the policy related to reserves;
    - The authority for the reserve policy;
    - The conditions under which the reserves can be used; and
    - The balances of the reserves.

GASB Statement No. 74

In addition, Single-Employer and Cost-Sharing OPEB plans should disclose the following information in notes to financial statements:

- The components of the net OPEB liability:
    - The total OPEB liability;
    - The fiduciary net position;
    - The net OPEB liability; and
    - The OPEB plan's fiduciary net position as a percentage of the total OPEB liability.
- Significant actuarial assumptions and other inputs used to measure the total OPEB liability:
    - Significant actuarial assumptions include inflation, healthcare cost trend rates, salary changes, ad hoc postemployment benefit changes and the sharing of benefit-related costs with inactive plan members.
    - If applicable, the patterns of practice relied upon for projecting the sharing of benefit-related costs with inactive plan members.
    - The source of the actuarial assumptions for mortality.
    - The dates of experience studies on which assumption are based.
- Measure of the net OPEB liability using +/- 1% on the healthcare trend rate.
- On the discount rate:
    - The discount rate used and the change in the discount rate since the prior fiscal year end.
    - Actuarial assumptions about projected cash flows.
    - The long-term expected rate of return on OPEB investments and a description of how it was determined.
    - The municipal bond rate used and the source of that rate.
    - The periods of projected benefit payments to which the long-term expected rate of return are used.
    - The assumed asset allocation of the portfolio and the long-term expected real rate of return for each major asset class, and whether the returns are arithmetic or geometric.
    - Measure of the net OPEB liability using +/- 1% on the discount rate.
- The date of the actuarial valuation and, if applicable, the fact that update procedures were used to roll forward the total OPEB liability.

Required Supplementary Information

For Single-Employer and Cost-Sharing OPEB Plans, GASB Statement No. 74 requires a 10-year fiscal history of:

- Sources of changes in the net OPEB liability;
- Information about the components of the net OPEB liability and related ratios, including the OPEB plan's fiduciary net position as a percentage of the total OPEB liability, and the net OPEB liability as a percent of covered-employee payroll;
- Comparison of the actual employer contributions to the actuarially determined contributions based on the plan's funding policy along with the significant methods and actuarial assumptions used in calculating the actuarially determined contributions; and
- The annual money-weighted rate of return on OPEB plan investments for each year.

For Agent OPEB Plans, GASB Statement No. 74 requires a 10-year history of the annual money-weighted rate of return on OPEB plan investments.

Notes to the required schedules should include factors that significantly affect trends in the amounts reported (for example, changes of benefit terms, changes in the size or composition of the population covered or the use of different actuarial assumptions). Information about investment-related factors that significantly affect trends in the amounts reported should be limited to those factors over which the OPEB plan or the participating governments have influence.

Measurement of the Net OPEB Liability

The net OPEB liability is to be measured as the total OPEB liability, less the amount of the OPEB plan's fiduciary net position. In actuarial terms, this will be the accrued liability less the market value of assets (not the smoothed actuarial value of assets that is often encountered in actuarial valuations performed to determine the employer's contribution requirement). The net OPEB liability should be measured as of the OPEB plan's most recent fiscal year end.

Frequency and Timing of the Actuarial Valuation

An actuarial valuation to determine the total OPEB liability is required to be performed at least every two years. If the actuarial valuation is not calculated as of the plan's fiscal year end, the total OPEB liability is required to be rolled forward from the actuarial valuation date to the OPEB plan's fiscal year end. If update procedures are used to roll forward the total OPEB liability, the date of the actuarial valuation must be no more than 24 months earlier than the OPEB plan's most recent fiscal year end.

The total OPEB liability shown in this report is based on an actuarial valuation performed as of July 1, 2023, and a measurement date of June 30, 2023.

Single Discount Rate

Projected benefit payments are required to be discounted to their actuarial present values using a Single Discount Rate that reflects (1) a long-term expected rate of return on OPEB plan investments (to the extent that the plan's fiduciary net position is projected to be sufficient to pay benefits) and (2) tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

For the purpose of this actuarial valuation, the expected rate of return on OPEB plan investments is 5.75%; the municipal bond rate is 3.86% (based on the daily rate closest to but not later than the measurement date of the Fidelity "20-Year Municipal GO AA Index"); and the resulting Single Discount Rate is 5.75%.

Actuarial Assumptions

The actuarial assumptions used to value the liabilities are outlined in detail in Section D.

Future Uncertainty or Risk

Future results may differ from those anticipated in this actuarial valuation. Reasons include, but are not limited to:

- Actual medical trend differing from expected;
- Changes in the healthcare plan designs offered to active and retired members; and
- Participant behavior differing from expected; e.g.,
    - Elections at retirement;
    - One-person versus two-person coverage elections; and
    - Time of retirement or termination.

Benefits Valued

The benefit provisions that were valued are described in Section E. The actuarial valuation is required to be performed on the current benefit terms and existing legal agreements. Consideration is to be given to the written plan document as well as other communications between the employer and plan members and an established pattern of practice for cost sharing. The summary of major plan provisions is designed to outline principal plan benefits. If the plan summary is not in accordance with the actual provisions or administrative practices, please alert the actuaries, so they can be sure the proper provisions are valued.

Effective Date and Transition

GASB Statement No. 74 is effective for an OPEB plan's fiscal years beginning after June 15, 2016.

Executive Summary
as of June 30, 2023

Actuarial Valuation Date		7/1/2023
OPEB Plan's Fiscal Year Ending Date (Reporting Date)		6/30/2023
Membership		
Number of		
- Retirees and Beneficiaries		14,996
- Inactive, Nonretired Members		7,992
- Active Members		17,283
- Total		40,271
Covered Payroll	$	1,005,182,784
Net OPEB Liability		
Total OPEB Liability	$	268,293,176
Plan Fiduciary Net Position		168,318,052
Net OPEB Liability	$	99,975,124
Plan Fiduciary Net Position as a Percentage of Total OPEB Liability		62.74 %
Net OPEB Liability as a Percentage of Covered Payroll		9.95 %
Development of the Single Discount Rate		
Single Discount Rate		5.75 %
Long-Term Expected Rate of Return		5.75 %
Long-Term Municipal Bond Rate*		3.86 %
Last year ending June 30 in the 2023 to 2123 projection period for which projected benefit payments are fully funded		2123

**Source: Fixed-income municipal bonds with 20 years to maturity that include only federally tax-exempt municipal bonds as reported in Fidelity Index's "20-Year Municipal GO AA Index" as of June 30, 2023. In describing this index, Fidelity notes that the municipal curves are constructed using option-adjusted analytics of a diverse population of over 10,000 tax-exempt securities.*

Schedules of Required Supplementary Information
Schedule of Changes in Net OPEB Liability and Related Ratios Multiyear

Last 10 Fiscal Years (which may be built prospectively)

FY Ending June 30,	Total OPEB Liability	Plan Net Position	Net OPEB Liability	Plan Net Position as a % of Total OPEB Liability	Covered Payroll	Net OPEB Liability as a % of Covered Payroll
2017	$ 196,694,770	$ 117,593,690	$ 79,101,080	59.78 %	$ 1,081,841,008	7.31 %
2018	206,662,795	127,905,982	78,756,813	61.89 %	1,094,216,775	7.20 %
2019	217,831,024	137,512,286	80,318,738	63.13 %	1,115,857,588	7.20 %
2020	229,740,674	145,620,917	84,119,757	63.38 %	1,139,970,530	7.38 %
2021	237,951,735	182,334,446	55,617,289	76.63 %	1,090,257,793	5.10 %
2022	274,514,031	154,483,072	120,030,959	56.28 %	1,032,405,030	11.63 %
2023	268,293,176	168,318,052	99,975,124	62.74 %	1,005,182,784	9.95 %

Sensitivity of Net OPEB Liability to the Single Discount Rate Assumption

The following presents the net OPEB liability/(asset) of North Dakota Retiree Health Insurance Credit Fund, calculated using the current discount rate of 5.39%, as well as what the North Dakota Retiree Health Insurance Credit Fund net OPEB liability/(asset) would be if it were calculated using a discount rate that is 1-percentage point lower (4.75%) or is 1-percentage point higher (6.75%) than the current rate.

1% Decrease 4.75%	Current Single Discount Rate Assumption 5.75%	1% Increase 6.75%
$ 131,391,780	$ 99,975,124	$ 73,526,134

Sensitivity of Net OPEB Liability to the Healthcare Cost Trend Rate Assumption

The benefit provided by the North Dakota Retiree Health Insurance Credit Fund is a fixed dollar subsidy and is not affected by healthcare cost trend. Therefore, a sensitivity analysis was not performed.

GASB Statement No. 74

Schedule of Changes in Net OPEB Liability and Related Ratios Multiyear

Last 10 Fiscal Years (which may be built prospectively)

Fiscal year ending June 30,	2023	2022	2021	2020	2019	2018	2017
Total OPEB liability							
Service cost	$ 4,865,725	$ 4,003,587	$ 4,273,247	$ 4,041,849	$ 3,827,807	$ 3,766,661	$ 3,430,578
Interest on the total OPEB liability	14,547,655	15,155,215	14,657,683	15,498,021	15,217,017	14,485,170	14,327,443
Changes of benefit terms	-	-	-	-	-	-	-
Difference between expected and actual experience[1]	(776,702)	616,158	2,164,642	314,726	(1,374,146)	2,732,254	(2,231,206)
Changes of assumptions	(10,642,733)	30,533,446	-	4,372,129	5,002,621	-	8,860,723
Benefit payments, including refunds of employee contributions	(14,214,800)	(13,746,110)	(12,884,511)	(12,317,075)	(11,505,070)	(11,016,060)	(10,014,370)
Net change in total OPEB liability	(6,220,855)	36,562,296	8,211,061	11,909,650	11,168,229	9,968,025	14,373,168
Total OPEB liability - beginning	274,514,031	237,951,735	229,740,674	217,831,024	206,662,795	196,694,770	182,321,602
Total OPEB liability - ending (a)	$ 268,293,176	$ 274,514,031	$ 237,951,735	$ 229,740,674	$ 217,831,024	$ 206,662,795	$ 196,694,770
Plan fiduciary net position							
Employer contributions	$ 12,137,476	$ 12,565,573	$ 13,110,651	$ 13,392,266	$ 12,977,460	$ 12,834,547	$ 12,575,627
Employee contributions	10,741	12,234	15,481	16,319	15,859	15,984	16,173
Repurchase service credit	282,185	456,895	375,038	556,585	377,329	746,942	464,323
OPEB plan net investment income	15,975,072	(26,756,507)	36,526,655	6,904,869	8,178,932	8,210,898	12,074,082
Benefit payments, including refunds of employee contributions	(14,214,800)	(13,746,110)	(12,884,511)	(12,317,075)	(11,505,070)	(11,016,060)	(10,014,370)
OPEB plan administrative expense	(355,695)	(383,458)	(430,097)	(453,913)	(437,349)	(480,244)	(443,220)
Other	1	(1)	312	9,580	(857)	225	
Net change in plan fiduciary net position	13,834,980	(27,851,374)	36,713,529	8,108,631	9,606,304	10,312,292	14,672,615
Plan fiduciary net position - beginning	154,483,072	182,334,446	145,620,917	137,512,286	127,905,982	117,593,690	102,921,075
Plan fiduciary net position - ending (b)	$ 168,318,052	$ 154,483,072	$ 182,334,446	$ 145,620,917	$ 137,512,286	$ 127,905,982	$ 117,593,690
Net OPEB liability - ending (a) - (b)	$ 99,975,124	$ 120,030,959	$ 55,617,289	$ 84,119,757	$ 80,318,738	$ 78,756,813	$ 79,101,080
Plan fiduciary net position as a percentage of total OPEB liability	62.74 %	56.28 %	76.63 %	63.38 %	63.13 %	61.89 %	59.78 %
Covered-employee payroll	$ 1,005,182,784	$ 1,032,405,030	$ 1,090,257,793	$ 1,139,970,530	$ 1,115,857,588	$ 1,094,216,775	$ 1,081,841,008
Net OPEB liability as a percentage of covered-employee payroll	9.95 %	11.63 %	5.10 %	7.38 %	7.20 %	7.20 %	7.31 %

[1] *Includes liability attributable to service credit repurchases.*

System Asset Allocation

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return	Allocation-Weighted Long-Term Expected Real Rate of Return
S&P 500 Index	33.00 %	5.50 %	1.82 %
US Small Cap Equity	6.00 %	7.65 %	0.46 %
World Equity ex-US	26.00 %	6.82 %	1.77 %
U.S. High Yield	3.00 %	5.32 %	0.16 %
Emerging Markets Debt	4.00 %	6.25 %	0.25 %
Core Fixed Income	28.00 %	4.04 %	1.13 %
Total	100.00 %		5.59 %

Asset allocation and long term (equilibrium) expected arithmetic returns were provided by RIO and are net of inflation of 2.50%.

The discount rate used to measure the total OPEB liability was 5.75%. The projection of cash flows used to determine the discount rate assumed statutory/Board approved employer contributions will be made at the statutory rates described in this report. For this purpose, only employer contributions that are intended to fund benefits of current plan members and their beneficiaries are included. Projected employer contributions that are intended to fund the service costs of future plan members and their beneficiaries are not included. Based on those actuarial assumptions, the OPEB plan's fiduciary net position was projected to be sufficient to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on OPEB plan investments was applied to all periods of projected benefit payments to determine the total OPEB liability.

Schedule of Contributions Multiyear
Last 10 Fiscal Years

FY Ending 30-Jun	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Payroll	Actual Contribution as a % of Covered Payroll
2017	$ 11,696,450	$ 12,575,627	$ (879,177)	$ 1,081,841,008	1.16 %
2018	12,251,732	12,834,547	(582,815)	1,094,216,775	1.17 %
2019	12,707,111	12,977,460	(270,349)	1,115,857,588	1.16 %
2020	12,145,328	13,392,266	(1,246,938)	1,139,970,530	1.17 %
2021	13,340,003	13,110,651	229,352	1,090,257,793	1.20 %
2022	12,413,473	12,565,573	(152,100)	1,032,405,030	1.22 %
2023	14,765,881	12,137,476	2,628,405	1,005,182,784	1.21 %

10 fiscal years will be built prospectively.

Valuation Date:	July 1, 2023
Notes	The actuarially determined contribution amount is calculated as of June 30, 12 months prior to the end of the fiscal year in which the contributions are reported.

Methods and Assumptions Used to Determine Actuarially Determined Contribution Rates (for fiscal year 2023 contribution):

Actuarial Cost Method	Entry Age Normal
Amortization Method	NA
Asset Valuation Method	5-Year smoothed market
Inflation	2.25%
Salary Increases	Not Applicable
Investment Rate of Return	5.75%
Retirement Age	Age-based table of rates that are specific to the type of eligibility condition.
Mortality	Pub-2010 Healthy Retiree Mortality table (for General Employees), sex-distinct, with rates multiplied by 103% for males and 101% for females. Pub-2010 Disabled Retiree Mortality table (for General Employees), sex-distinct, with rates multiplied by 117% for males and 112% for females. Pub-2010 Employee Mortality table (for General Employees), sex-distinct, with rates multiplied by 92% for both males and females. Mortality rates are projected from 2010 using the MP-2019 scale.

Other Information:

Notes	Beginning January 1, 2020, members first enrolled in the NDPERS Main System and the Defined Contribution Plan on or after that date will not be eligible to participate in RHIC. Therefore, RHIC will become for the most part a closed plan. There were no other benefit changes during the year. The investment return assumption was decreased from 6.50% to 5.75% beginning with the actuarial valuation as of July 1, 2022. All other actuarial assumptions were adopted by the Board based on an experience study covering the period July 1, 2015, through June 30, 2019. The determination of the actuarial rate was changed effective July 1, 2019 to equal the rate needed to pay off the unfunded liability and future NC contributions at the end of 20 years as a level percent of closed group (decreasing) payroll. The employer rate to the System is the statutory contribution rate of 1.14% of payroll.

Methods and Assumptions Used to Determine GASB 74/75 Net OPEB Liability:

Actuarial Cost Method	Entry Age Normal
Asset Valuation Method	Plan Fiduciary Net Position (Market value of assets, no asset smoothing)
Inflation	2.25%
Salary Increases	Not Applicable
Investment Rate of Return	5.75%
Retirement Age	Age-based table of rates that are specific to the type of eligibility condition.
Mortality	Pub-2010 Healthy Retiree Mortality table (for General Employees), sex-distinct, with rates multiplied by 103% for males and 101% for females. Pub-2010 Disabled Retiree Mortality table (for General Employees), sex-distinct, with rates multiplied by 117% for males and 112% for females. Pub-2010 Employee Mortality table (for General Employees), sex-distinct, with rates multiplied by 92% for both males and females. Mortality rates are projected from 2010 using the MP-2019 scale.

Other Information:

Notes	RHIC is for the most part a closed plan. There were no benefit changes during the year. The investment return assumption was decreased from 6.50% to 5.75% beginning with the actuarial valuation as of July 1, 2022. All other actuarial assumptions were adopted by the Board based on an experience study covering the period July 1, 2015, through June 30, 2019. The employer rate to the System is the statutory contribution rate of 1.14% of payroll.

SECTION G

CALCULATION OF THE GASB STATEMENT NOS. 67 AND 68 SINGLE DISCOUNT RATE

Calculation of the Single Discount Rate

GASB Statement No. 74 includes a specific requirement for the discount rate that is used for the purpose of the measurement of the Total OPEB Liability. This rate considers the ability of the System to meet benefit obligations in the future. To make this determination, employer contributions, employee contributions, benefit payments, expenses and investment returns are projected into the future. The current employer and employee fixed rate contributions are assumed to be made in each future year. The Plan Net Position (assets) in future years can then be determined and compared to its obligation to make benefit payments in those years. As long as assets are projected to be on hand in a future year, the assumed actuarial valuation discount rate is used. In years where assets are not projected to be sufficient to meet benefit payments, the use of a municipal bond rate is required, as described in the following paragraph.

The Single Discount Rate (SDR) is equivalent to applying these two rates to the benefits that are projected to be paid during the different time periods. The SDR reflects (1) the long-term expected rate of return on pension plan investments (during the period in which the fiduciary net position is projected to be sufficient to pay benefits) and (2) a tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

For the purpose of this actuarial valuation, the expected rate of return on OPEB plan investments is 5.75 percent; the municipal bond rate is 3.86 percent; and the resulting Single Discount Rate is 5.75 percent.

The tables in this section provide detailed information on the development of the Single Discount Rate for the RHIC plan.

The **Projection of Contributions** table shows the development of expected contributions in future years. Normal Cost contributions for future hires are not included (nor are their liabilities).

The **Projection of Plan Fiduciary Net Position** table shows the development of expected asset levels in future years.

The **Present Values of Projected Benefit Payments** table shows the development of the Single Discount Rate. It breaks down the benefit payments into present values for funded and unfunded portions and shows the equivalent total at the SDR.

Projection of Contributions

Year	Projected Contributions from Current Employees	Projected Service Cost and Expense Contributions	Projected UAL Contributions	Projected Total Contributions	Admin Expenses	Total EANC
2024	$ -	$ 4,520,269	$ 7,574,348	$ 12,094,616	$ 360,217	$ 4,160,052
2025	-	4,329,223	7,533,366	11,862,588	365,016	3,964,207
2026	-	4,160,190	7,488,944	11,649,134	369,951	3,790,239
2027	-	3,995,782	7,449,728	11,445,509	374,937	3,620,845
2028	-	3,829,697	7,402,908	11,232,605	379,740	3,449,957
2029	-	3,664,632	7,353,545	11,018,177	384,458	3,280,174
2030	-	3,500,765	7,297,129	10,797,894	389,099	3,111,666
2031	-	3,338,866	7,231,383	10,570,249	393,545	2,945,321
2032	-	3,176,822	7,153,825	10,330,647	397,707	2,779,115
2033	-	3,014,046	7,066,841	10,080,886	401,257	2,612,789
2034	-	2,851,370	6,970,288	9,821,658	404,390	2,446,980
2035	-	2,690,331	6,861,819	9,552,150	407,018	2,283,313
2036	-	2,529,704	6,740,478	9,270,182	408,855	2,120,849
2037	-	2,372,995	6,612,625	8,985,621	409,945	1,963,050
2038	-	2,219,691	6,471,469	8,691,160	409,631	1,810,060
2039	-	2,069,880	6,322,118	8,391,998	408,555	1,661,325
2040	-	1,923,731	6,156,669	8,080,400	405,986	1,517,745
2041	-	1,782,831	5,981,883	7,764,714	402,112	1,380,719
2042	-	1,648,020	5,797,253	7,445,273	396,599	1,251,421
2043	-	1,518,000	5,609,040	7,127,039	388,847	1,129,153
2044	-	1,391,057	5,413,767	6,804,824	379,085	1,011,972
2045	-	1,268,830	5,210,455	6,479,285	367,633	901,197
2046	-	1,151,656	5,008,233	6,159,889	353,062	798,594
2047	-	1,035,560	4,803,721	5,839,282	336,085	699,475
2048	-	922,304	4,594,225	5,516,529	316,204	606,100
2049	-	815,478	4,398,725	5,214,203	295,205	520,273
2050	-	716,770	4,223,675	4,940,445	272,299	444,471
2051	-	624,666	4,065,964	4,690,630	248,203	376,463
2052	-	539,499	3,922,612	4,462,111	223,294	316,205
2053	-	462,124	3,798,481	4,260,605	198,221	263,903
2054	-	391,411	3,695,910	4,087,321	173,230	218,181
2055	-	326,947	3,613,157	3,940,105	148,439	178,508
2056	-	268,731	3,547,164	3,815,894	124,636	144,095
2057	-	217,182	3,499,474	3,716,656	102,794	114,388
2058	-	173,439	3,474,999	3,648,438	83,356	90,083
2059	-	136,597	3,473,936	3,610,533	66,497	70,100
2060	-	105,996	3,493,509	3,599,505	52,045	53,951
2061	-	81,106	3,532,640	3,613,746	40,166	40,940
2062	-	61,514	3,590,335	3,651,849	30,670	30,844
2063	-	46,223	3,666,600	3,712,823	23,278	22,945
2064	-	34,597	3,759,399	3,793,996	17,580	17,017
2065	-	25,638	3,864,837	3,890,475	13,091	12,547
2066	-	18,783	3,981,182	3,999,965	9,640	9,143
2067	-	13,594	4,107,756	4,121,350	7,016	6,578
2068	-	9,639	4,244,457	4,254,095	5,005	4,634
2069	-	6,606	4,390,844	4,397,450	3,479	3,127
2070	-	4,385	4,545,493	4,549,878	2,316	2,069
2071	-	2,899	4,707,844	4,710,743	1,493	1,406
2072	-	1,734	4,879,002	4,880,736	917	817
2073	-	970	5,059,040	5,060,009	545	425

Projection of Plan Fiduciary Net Position

Year		Projected Beginning Plan Fiduciary Net Position		Projected Total Contributions		Projected Benefit Payments		Projected Administrative Expenses		Projected Investment Earnings at 5.750%		Projected Ending Plan Fiduciary Net Position
		(a)		(b)		(c)		(d)		(e)		(f)=(a)+(b)-(c)-(d)+(e)
2024	$	168,318,052	$	12,094,616	$	15,780,964	$	360,217	$	9,563,575	$	173,835,063
2025		173,835,063		11,862,588		16,434,822		365,016		9,855,554		178,753,368
2026		178,753,368		11,649,134		16,985,056		369,951		10,116,568		183,164,063
2027		183,164,063		11,445,509		17,501,595		374,937		10,349,626		187,082,667
2028		187,082,667		11,232,605		17,991,995		379,740		10,554,872		190,498,409
2029		190,498,409		11,018,177		18,440,554		384,458		10,732,349		193,423,922
2030		193,423,922		10,797,894		18,842,655		389,099		10,882,791		195,872,853
2031		195,872,853		10,570,249		19,209,600		393,545		11,006,623		197,846,580
2032		197,846,580		10,330,647		19,551,095		397,707		11,103,521		199,331,947
2033		199,331,947		10,080,886		19,855,350		401,257		11,173,124		200,329,350
2034		200,329,350		9,821,658		20,120,153		404,390		11,215,530		200,841,994
2035		200,841,994		9,552,150		20,358,729		407,018		11,230,529		200,858,927
2036		200,858,927		9,270,182		20,558,476		408,855		11,217,795		200,379,573
2037		200,379,573		8,985,621		20,721,369		409,945		11,177,517		199,411,396
2038		199,411,396		8,691,160		20,833,534		409,631		11,110,329		197,969,721
2039		197,969,721		8,391,998		20,896,873		408,555		11,017,187		196,073,477
2040		196,073,477		8,080,400		20,921,656		405,986		10,898,690		193,724,925
2041		193,724,925		7,764,714		20,900,168		402,112		10,755,418		190,942,776
2042		190,942,776		7,445,273		20,825,041		396,599		10,588,675		187,755,084
2043		187,755,084		7,127,039		20,704,100		388,847		10,400,009		184,189,186
2044		184,189,186		6,804,824		20,545,012		379,085		10,190,622		180,260,535
2045		180,260,535		6,479,285		20,340,801		367,633		9,961,610		175,992,996
2046		175,992,996		6,159,889		20,101,316		353,062		9,714,374		171,412,882
2047		171,412,882		5,839,282		19,824,705		336,085		9,450,252		166,541,625
2048		166,541,625		5,516,529		19,505,772		316,204		9,170,610		161,406,788
2049		161,406,788		5,214,203		19,138,888		295,205		8,877,782		156,064,680
2050		156,064,680		4,940,445		18,733,361		272,299		8,574,996		150,574,461
2051		150,574,461		4,690,630		18,292,332		248,203		8,265,412		144,989,967
2052		144,989,967		4,462,111		17,809,155		223,294		7,952,229		139,371,859
2053		139,371,859		4,260,605		17,292,758		198,221		7,638,825		133,780,309
2054		133,780,309		4,087,321		16,744,345		173,230		7,328,653		128,278,709
2055		128,278,709		3,940,105		16,177,655		148,439		7,024,905		122,917,625
2056		122,917,625		3,815,894		15,603,738		124,636		6,730,066		117,735,212
2057		117,735,212		3,716,656		15,017,080		102,794		6,446,514		112,778,509
2058		112,778,509		3,648,438		14,421,322		83,356		6,177,009		108,099,278
2059		108,099,278		3,610,533		13,819,433		66,497		5,924,420		103,748,301
2060		103,748,301		3,599,505		13,213,637		52,045		5,691,509		99,773,633
2061		99,773,633		3,613,746		12,607,499		40,166		5,480,889		96,220,603
2062		96,220,603		3,651,849		12,002,056		30,670		5,295,102		93,134,828
2063		93,134,828		3,712,823		11,402,644		23,278		5,136,600		90,558,329
2064		90,558,329		3,793,996		10,813,477		17,580		5,007,616		88,528,883
2065		88,528,883		3,890,475		10,235,705		13,091		4,910,164		87,080,726
2066		87,080,726		3,999,965		9,669,437		9,640		4,846,149		86,247,764
2067		86,247,764		4,121,350		9,116,227		7,016		4,817,452		86,063,322
2068		86,063,322		4,254,095		8,577,430		5,005		4,825,940		86,560,923
2069		86,560,923		4,397,450		8,053,916		3,479		4,873,500		87,774,478
2070		87,774,478		4,549,878		7,545,974		2,316		4,962,033		89,738,099
2071		89,738,099		4,710,743		7,053,504		1,493		5,093,485		92,487,330
2072		92,487,330		4,880,736		6,576,576		917		5,269,922		96,060,495
2073		96,060,495		5,060,009		6,115,373		545		5,493,545		100,498,132

Projection of Plan Fiduciary Net Position (Continued)

Year	Projected Beginning Plan Fiduciary Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Administrative Expenses	Projected Investment Earnings at 5.750%	Projected Ending Plan Fiduciary Net Position
	(a)	(b)	(c)	(d)	(e)	(f)=(a)+(b)-(c)-(d)+(e)
2074	$ 100,498,132	$ 5,248,003	$ 5,670,011	$ 296	$ 5,766,671	105,842,500
2075	105,842,500	5,444,000	5,240,672	149	6,091,703	112,137,382
2076	112,137,382	5,646,977	4,827,576	69	6,471,126	119,427,839
2077	119,427,839	5,858,210	4,431,013	30	6,907,558	127,762,565
2078	127,762,565	6,078,486	4,051,322	12	7,403,814	137,193,529
2079	137,193,529	6,305,953	3,688,877	4	7,962,817	147,773,419
2080	147,773,419	6,541,348	3,344,061	1	8,587,609	159,558,314
2081	159,558,314	6,784,700	3,017,246	0	9,281,404	172,607,171
2082	172,607,171	7,037,759	2,708,770	0	10,047,631	186,983,791
2083	186,983,791	7,300,046	2,418,929	0	10,889,939	202,754,848
2084	202,754,848	7,570,924	2,147,952	0	11,812,135	219,989,955
2085	219,989,955	7,851,698	1,895,992	0	12,818,256	238,763,918
2086	238,763,918	8,142,325	1,663,097	0	13,912,600	259,155,745
2087	259,155,745	8,443,608	1,449,174	0	15,099,735	281,249,915
2088	281,249,915	8,756,220	1,253,974	0	16,384,545	305,136,705
2089	305,136,705	9,079,446	1,077,108	0	17,772,212	330,911,256
2090	330,911,256	9,413,532	918,037	0	19,268,229	358,674,981
2091	358,674,981	9,759,980	776,085	0	20,878,489	388,537,364
2092	388,537,364	10,119,570	650,447	0	22,609,331	420,615,819
2093	420,615,819	10,491,975	540,207	0	24,467,524	455,035,111
2094	455,035,111	10,877,506	444,367	0	26,460,279	491,928,530
2095	491,928,530	11,276,213	361,855	0	28,595,293	531,438,180
2096	531,438,180	11,690,061	291,548	0	30,880,823	573,717,516
2097	573,717,516	12,119,831	232,286	0	33,325,748	618,930,808
2098	618,930,808	12,564,586	182,908	0	35,939,520	667,252,005
2099	667,252,005	13,025,332	142,263	0	38,732,202	718,867,276
2100	718,867,276	13,502,672	109,231	0	41,714,548	773,975,266
2101	773,975,266	13,998,318	82,742	0	44,898,059	832,788,901
2102	832,788,901	14,512,310	61,796	0	48,295,008	895,534,422
2103	895,534,422	15,044,228	45,477	0	51,918,417	962,451,590
2104	962,451,590	15,594,932	32,955	0	55,782,120	1,033,795,688
2105	1,033,795,688	16,165,224	23,500	0	59,900,841	1,109,838,253
2106	1,109,838,253	16,756,559	16,477	0	64,290,251	1,190,868,585
2107	1,190,868,585	17,368,927	11,352	0	68,966,999	1,277,193,159
2108	1,277,193,159	18,002,246	7,678	0	73,948,720	1,369,136,447
2109	1,369,136,447	18,657,527	5,095	0	79,254,108	1,467,042,988
2110	1,467,042,988	19,336,405	3,313	0	84,903,030	1,571,279,110
2111	1,571,279,110	20,039,685	2,109	0	90,916,578	1,682,233,264
2112	1,682,233,264	20,767,545	1,313	0	97,317,098	1,800,316,594
2113	1,800,316,594	21,520,768	799	0	104,128,256	1,925,964,819
2114	1,925,964,819	22,299,981	474	0	111,375,128	2,059,639,454
2115	2,059,639,454	23,107,308	274	0	119,084,311	2,201,830,799
2116	2,201,830,799	23,943,836	154	0	127,284,031	2,353,058,512
2117	2,353,058,512	24,809,384	85	0	136,004,163	2,513,871,974
2118	2,513,871,974	25,705,265	45	0	145,276,335	2,684,853,529
2119	2,684,853,529	26,632,737	23	0	155,134,067	2,866,620,309
2120	2,866,620,309	27,594,012	12	0	165,612,908	3,059,827,217
2121	3,059,827,217	28,589,879	6	0	176,750,536	3,265,167,627
2122	3,265,167,627	29,620,728	3	0	188,586,833	3,483,375,186
2123	3,483,375,186	30,688,051	2	0	201,164,024	3,715,227,259

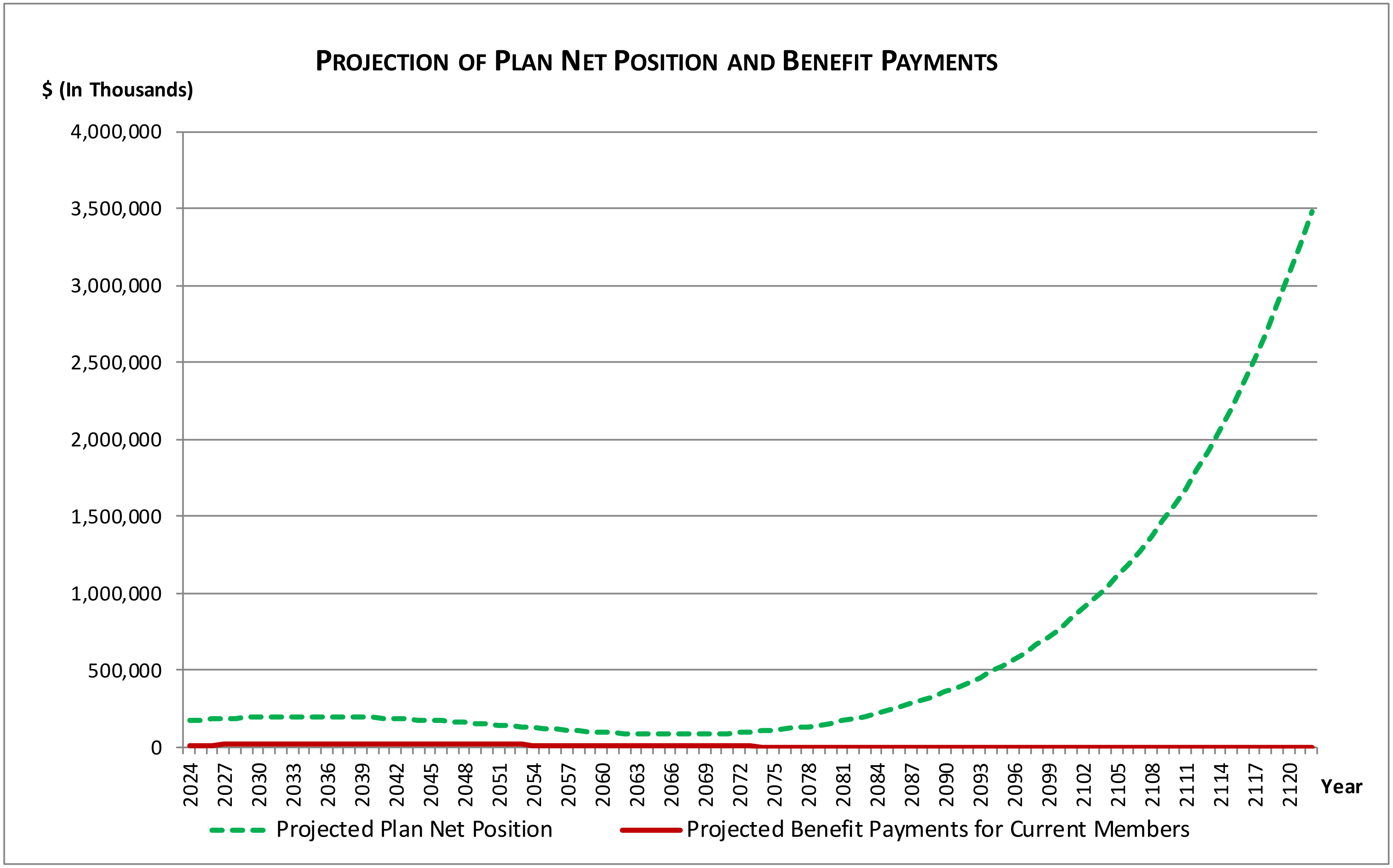
Discount Rate Development
Present Values of Projected Benefits Ending
June 30 for 2024 to 2073

Year	Projected Beginning Plan Fiduciary Net Position	Projected Benefit Payments	Funded Portion of Projected Benefit Payments	Unfunded Portion of Projected Benefit Payments	Present Value of Funded Benefit Payments using Expected Return Rate of 5.75% (v)	Present Value of Unfunded Benefit Payments Using Municipal Bond Rate of 3.86% (vf)	Present Value of All Benefit Payments Using Single Discount Rate (SDR) of 5.75%
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v^((a)-.5)	(g)=(e)*vf ^((a)-.5)	(h)=(c)/(1+SDR)^(a-.5)
2024	$ 168,318,052	$ 15,780,964	$ 15,780,964	$ 0	$ 15,345,934	$ 0	$ 15,345,934
2025	173,835,063	16,434,822	16,434,822	0	15,112,783	0	15,112,783
2026	178,753,368	16,985,056	16,985,056	0	14,769,508	0	14,769,508
2027	183,164,063	17,501,595	17,501,595	0	14,391,177	0	14,391,177
2028	187,082,667	17,991,995	17,991,995	0	13,989,997	0	13,989,997
2029	190,498,409	18,440,554	18,440,554	0	13,559,132	0	13,559,132
2030	193,423,922	18,842,655	18,842,655	0	13,101,458	0	13,101,458
2031	195,872,853	19,209,600	19,209,600	0	12,630,354	0	12,630,354
2032	197,846,580	19,551,095	19,551,095	0	12,155,921	0	12,155,921
2033	199,331,947	19,855,350	19,855,350	0	11,673,847	0	11,673,847
2034	200,329,350	20,120,153	20,120,153	0	11,186,323	0	11,186,323
2035	200,841,994	20,358,729	20,358,729	0	10,703,513	0	10,703,513
2036	200,858,927	20,558,476	20,558,476	0	10,220,831	0	10,220,831
2037	200,379,573	20,721,369	20,721,369	0	9,741,669	0	9,741,669
2038	199,411,396	20,833,534	20,833,534	0	9,261,844	0	9,261,844
2039	197,969,721	20,896,873	20,896,873	0	8,784,873	0	8,784,873
2040	196,073,477	20,921,656	20,921,656	0	8,317,061	0	8,317,061
2041	193,724,925	20,900,168	20,900,168	0	7,856,755	0	7,856,755
2042	190,942,776	20,825,041	20,825,041	0	7,402,849	0	7,402,849
2043	187,755,084	20,704,100	20,704,100	0	6,959,676	0	6,959,676
2044	184,189,186	20,545,012	20,545,012	0	6,530,684	0	6,530,684
2045	180,260,535	20,340,801	20,340,801	0	6,114,204	0	6,114,204
2046	175,992,996	20,101,316	20,101,316	0	5,713,681	0	5,713,681
2047	171,412,882	19,824,705	19,824,705	0	5,328,659	0	5,328,659
2048	166,541,625	19,505,772	19,505,772	0	4,957,856	0	4,957,856
2049	161,406,788	19,138,888	19,138,888	0	4,600,098	0	4,600,098
2050	156,064,680	18,733,361	18,733,361	0	4,257,805	0	4,257,805
2051	150,574,461	18,292,332	18,292,332	0	3,931,504	0	3,931,504
2052	144,989,967	17,809,155	17,809,155	0	3,619,533	0	3,619,533
2053	139,371,859	17,292,758	17,292,758	0	3,323,481	0	3,323,481
2054	133,780,309	16,744,345	16,744,345	0	3,043,103	0	3,043,103
2055	128,278,709	16,177,655	16,177,655	0	2,780,249	0	2,780,249
2056	122,917,625	15,603,738	15,603,738	0	2,535,808	0	2,535,808
2057	117,735,212	15,017,080	15,017,080	0	2,307,772	0	2,307,772
2058	112,778,509	14,421,322	14,421,322	0	2,095,714	0	2,095,714
2059	108,099,278	13,819,433	13,819,433	0	1,899,052	0	1,899,052
2060	103,748,301	13,213,637	13,213,637	0	1,717,073	0	1,717,073
2061	99,773,633	12,607,499	12,607,499	0	1,549,226	0	1,549,226
2062	96,220,603	12,002,056	12,002,056	0	1,394,637	0	1,394,637
2063	93,134,828	11,402,644	11,402,644	0	1,252,941	0	1,252,941
2064	90,558,329	10,813,477	10,813,477	0	1,123,596	0	1,123,596
2065	88,528,883	10,235,705	10,235,705	0	1,005,732	0	1,005,732
2066	87,080,726	9,669,437	9,669,437	0	898,432	0	898,432
2067	86,247,764	9,116,227	9,116,227	0	800,975	0	800,975
2068	86,063,322	8,577,430	8,577,430	0	712,657	0	712,657
2069	86,560,923	8,053,916	8,053,916	0	632,776	0	632,776
2070	87,774,478	7,545,974	7,545,974	0	560,632	0	560,632
2071	89,738,099	7,053,504	7,053,504	0	495,550	0	495,550
2072	92,487,330	6,576,576	6,576,576	0	436,920	0	436,920
2073	96,060,495	6,115,373	6,115,373	0	384,189	0	384,189

Discount Rate Development
Present Values of Projected Benefits Ending
June 30 for 2074 to 2123

Year	Projected Beginning Plan Fiduciary Net Position	Projected Benefit Payments	Funded Portion of Projected Benefit Payments	Unfunded Portion of Projected Benefit Payments	Present Value of Funded Benefit Payments using Expected Return Rate of 5.75% (v)	Present Value of Unfunded Benefit Payments Using Municipal Bond Rate of 3.86% (vf)	Present Value of All Benefit Payments Using Single Discount Rate (SDR) of 5.75%
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v^((a)-.5)	(g)=(e)*vf ^((a)-.5)	(h)=(c)/(1+SDR)^(a-.5)
2074	$ 100,498,132	$ 5,670,011	$ 5,670,011	$ 0	$ 336,841	$ 0	$ 336,841
2075	105,842,500	5,240,672	5,240,672	0	294,407	0	294,407
2076	112,137,382	4,827,576	4,827,576	0	256,454	0	256,454
2077	119,427,839	4,431,013	4,431,013	0	222,589	0	222,589
2078	127,762,565	4,051,322	4,051,322	0	192,449	0	192,449
2079	137,193,529	3,688,877	3,688,877	0	165,704	0	165,704
2080	147,773,419	3,344,061	3,344,061	0	142,047	0	142,047
2081	159,558,314	3,017,246	3,017,246	0	121,196	0	121,196
2082	172,607,171	2,708,770	2,708,770	0	102,889	0	102,889
2083	186,983,791	2,418,929	2,418,929	0	86,884	0	86,884
2084	202,754,848	2,147,952	2,147,952	0	72,956	0	72,956
2085	219,989,955	1,895,992	1,895,992	0	60,897	0	60,897
2086	238,763,918	1,663,097	1,663,097	0	50,512	0	50,512
2087	259,155,745	1,449,174	1,449,174	0	41,621	0	41,621
2088	281,249,915	1,253,974	1,253,974	0	34,057	0	34,057
2089	305,136,705	1,077,108	1,077,108	0	27,663	0	27,663
2090	330,911,256	918,037	918,037	0	22,295	0	22,295
2091	358,674,981	776,085	776,085	0	17,823	0	17,823
2092	388,537,364	650,447	650,447	0	14,126	0	14,126
2093	420,615,819	540,207	540,207	0	11,094	0	11,094
2094	455,035,111	444,367	444,367	0	8,629	0	8,629
2095	491,928,530	361,855	361,855	0	6,645	0	6,645
2096	531,438,180	291,548	291,548	0	5,063	0	5,063
2097	573,717,516	232,286	232,286	0	3,814	0	3,814
2098	618,930,808	182,908	182,908	0	2,840	0	2,840
2099	667,252,005	142,263	142,263	0	2,089	0	2,089
2100	718,867,276	109,231	109,231	0	1,517	0	1,517
2101	773,975,266	82,742	82,742	0	1,086	0	1,086
2102	832,788,901	61,796	61,796	0	767	0	767
2103	895,534,422	45,477	45,477	0	534	0	534
2104	962,451,590	32,955	32,955	0	366	0	366
2105	1,033,795,688	23,500	23,500	0	247	0	247
2106	1,109,838,253	16,477	16,477	0	164	0	164
2107	1,190,868,585	11,352	11,352	0	107	0	107
2108	1,277,193,159	7,678	7,678	0	68	0	68
2109	1,369,136,447	5,095	5,095	0	43	0	43
2110	1,467,042,988	3,313	3,313	0	26	0	26
2111	1,571,279,110	2,109	2,109	0	16	0	16
2112	1,682,233,264	1,313	1,313	0	9	0	9
2113	1,800,316,594	799	799	0	5	0	5
2114	1,925,964,819	474	474	0	3	0	3
2115	2,059,639,454	274	274	0	2	0	2
2116	2,201,830,799	154	154	0	1	0	1
2117	2,353,058,512	85	85	0	0	0	0
2118	2,513,871,974	45	45	0	0	0	0
2119	2,684,853,529	23	23	0	0	0	0
2120	2,866,620,309	12	12	0	0	0	0
2121	3,059,827,217	6	6	0	0	0	0
2122	3,265,167,627	3	3	0	0	0	0
2123	3,483,375,186	2	2	0	0	0	0
					$ 305,478,589	$ 0	$ 305,478,589

Projection of Plan Net Position and Benefit Payments



SECTION H

GLOSSARY OF TERMS

Glossary of Terms

Actuarial Accrued Liability (AAL). The difference between (i) the actuarial present value of future plan benefits, and (ii) the actuarial present value of future normal cost. Sometimes referred to as "accrued liability" or "past service liability."

Actuarial Assumptions. Estimates of future plan experience such as investment return, expected lifetimes and the likelihood of receiving a pension from the Pension Plan. Demographic, or "people" assumptions, include rates of mortality, retirement and separation. Economic, or "money" assumptions, include expected investment return, inflation and salary increases.

Actuarial Cost Method. A mathematical budgeting procedure for allocating the dollar amount of the "actuarial present value of future plan benefits" between the actuarial present value of future normal cost and the actuarial accrued liability. Sometimes referred to as the "actuarial funding method."

Actuarial Present Value of Future Plan Benefits. The amount of funds presently required to provide a payment or series of payments in the future. It is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Actuarial Value of Assets (AVA). Smoothed value of assets that recognizes the difference between the expected investment return using the actuarial valuation assumption of 6.50 percent and the actual investment return over a five-year period. Dampens volatility of asset value over time.

Amortization. Paying off an interest-bearing liability by means of periodic payments of interest and principal, as opposed to paying it off with a lump sum payment.

Annual Required Contribution. The sum of the normal cost and amortization of the unfunded actuarial accrued liability.

Asset Return. The net investment return for the asset divided by the mean asset value. Example: if $1.00 is invested and yields $1.08 after a year, the asset return is 8.00 percent.

Funded Ratio. The actuarial value of assets divided by the actuarial accrued liability. Measures the portion of the actuarial accrued liability that is currently funded.

Market Value of Assets (MVA). The value of assets currently held in the trust available to pay for benefits of the Pension Plan. Each of the investments in the trust is valued at market price which is the price at which buyers and sellers trade similar items in the open market.

Normal Cost (NC). The annual cost assigned, under the actuarial funding method, to current and subsequent plan years. Sometimes referred to as "current service cost." Any payment toward the unfunded actuarial accrued liability is not part of the normal cost.

Unfunded Actuarial Accrued Liability (UAAL). The difference between the actuarial accrued liability and actuarial valuation assets. Sometimes referred to as "unfunded accrued liability."