

Wyoming Retirement System Paid Firemen's Retirement Fund Plan A

GASB Statement Nos. 67 and 68 Accounting and Financial
Reporting for Pensions
For the Measurement Date as of December 31, 2023





March 27, 2024

Board of Trustees
Wyoming Paid Firemen's Retirement Fund Plan A

Dear Board Members:

This report provides information required by the Wyoming Paid Firemen's Retirement Fund Plan A (WRS) in connection with the Governmental Accounting Standards Board (GASB) Statement No. 67 and 68 for the Wyoming Retirement System ("WRS"). These calculations have been made on a basis that is consistent with our understanding of these Statements.

GASB Statement No. 67 is the accounting standard that applies to the stand-alone financial reports issued by retirement systems. GASB Statement No. 68 establishes accounting and financial reporting for state and local government employers who provide their employees (including former employees) pension benefits through a trust.

Our calculation of the liability associated with the benefits described in this report was performed for the purpose of providing reporting and disclosure information that satisfies the requirements of GASB Statement Nos. 67 and 68. The Net Pension Liability is not an appropriate measure for measuring the sufficiency of plan assets to cover the estimated cost of settling the employer's benefit obligation. The Net Pension Liability is not an appropriate measure for assessing the need for or amount of future employer contributions. A calculation of the plan's liability for purposes other than satisfying the requirements of GASB Statement Nos. 67 and 68 may produce significantly different results. This report may be provided to parties other than the Wyoming Paid Firemen's Retirement Fund Plan A only in its entirety and only with the permission of WRS. GRS is not responsible for unauthorized use of this report.

This report is based upon information, furnished to us by WRS, concerning retirement and ancillary benefits, active members, deferred vested members, retirees and beneficiaries, and financial data. We checked for internal reasonability 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 WRS.

This report complements the actuarial valuation report that was provided to WRS and should be considered in conjunction with that report. Please see the actuarial valuation report as of January 1, 2023 for additional discussion of the nature of actuarial calculations and more information related to participant data, economic and demographic assumptions, and benefit provisions. Furthermore, this report includes the assumptions adopted by the Board at the November 17, 2021 and the February 17, 2022 meetings. For a detailed description of the experience related to these assumptions, as well as the rationale for any changes, please see our latest Wyoming Retirement System Actuarial Experience Study Report that covered the five-year investigation period ending December 31, 2020.

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.

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 Wyoming Paid Firemen's Retirement Fund Plan A as of the valuation date.

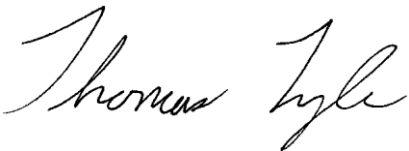
All calculations have been made in conformity with generally accepted actuarial principles and practices as well as with the Actuarial Standards of Practice issued by the Actuarial Standards Board.


Paul T. Wood, Thomas A. Lyle, Dana Woolfrey, and Karli Fehrman are members of the American Academy of Actuaries (MAAA) and are experienced in performing valuations for public retirement systems. These actuaries meet the Academy's Qualification Standards to render the actuarial opinions contained herein. The signing actuaries are independent of the plan sponsor.

Respectfully submitted,

Gabriel, Roeder, Smith & Company

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SECTION A

EXECUTIVE SUMMARY

Executive Summary as of December 31, 2023

	2023
Actuarial Valuation Date	January 1, 2023
Measurement Date of the Net Pension Liability	December 31, 2023
Employer's Fiscal Year Ending Date (Reporting Date)	December 31, 2023

Membership

Number of	
- Retirees and Beneficiaries	251
- Inactive, Nonretired Members	1
- Active Members	0
- Total	252
Covered Payroll	\$ 0

Net Pension Liability

Total Pension Liability	\$ 145,954,487
Plan Fiduciary Net Position	130,436,678
Net Pension Liability	\$ 15,517,809
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	89.37 %
Net Pension Liability as a Percentage of Covered Payroll	N/A

Development of the Single Discount Rate

Single Discount Rate	6.80 %
Long-Term Expected Rate of Investment Return	6.80 %
Long-Term Municipal Bond Rate*	3.77 %
Last year ending December 31 in the 2023 to 2122 projection period for which projected benefit payments are fully funded	2122

Total Pension Expense	\$ (12,103,837)
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Deferred Outflows and Deferred Inflows of Resources by Source to be recognized in Future Pension Expenses

	Deferred Outflows of Resources	Deferred Inflows of Resources
Difference between expected and actual experience	\$ 0	\$ 0
Changes in assumptions	0	0
Net difference between projected and actual earnings on pension plan investments	8,852,394	6,830,542
Total	\$ 8,852,394	\$ 6,830,542

**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 December 31, 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.*



Discussion

Accounting Standard

For pension plans that are administered through trusts or equivalent arrangements, Governmental Accounting Standards Board (GASB) Statement No. 67 establishes standards of financial reporting for separately issued financial reports and specifies the required approach for measuring the pension liability. Similarly, GASB Statement No. 68 establishes standards for state and local government employers (as well as non-employer contributing entities) to account for and disclose the net pension liability, pension expense, and other information associated with providing retirement benefits to their employees (and former employees) on their basic financial statements.

The following discussion provides a summary of the information that is required to be disclosed under these accounting standards. A number of these disclosure items are provided in this report. However, certain information, such as notes regarding accounting policies and investments, is not included in this report and the retirement system and/or plan sponsor will be responsible for preparing and disclosing that information to comply with these accounting standards.

Financial Statements

GASB Statement No. 68 requires state or local governments to recognize the net pension liability and the pension expense on their financial statements. The net pension liability is the difference between the total pension liability and the plan's fiduciary net position. In traditional actuarial terms, this is analogous to 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).

Paragraph 34 of GASB Statement No. 68 states, "Contributions to the pension plan from the employer subsequent to the measurement date of the collective net pension liability and before the end of the employer's reporting period should be reported as a deferred outflow of resources related to pensions." The information contained in this report does not incorporate any contributions made to WRS subsequent to the measurement date of December 31, 2023.

The pension expense recognized each fiscal year is equal to the change in the net pension liability from the beginning of the year to the end of the year, adjusted for deferred recognition of the liability and investment experience.

Pension plans that prepare their own, stand-alone financial statements are required to present two financial statements – a statement of fiduciary net position and a statement of changes in fiduciary net position in accordance with GASB Statement No. 67. The *statement of fiduciary net position* presents the assets and liabilities of the pension plan at the end of the pension plan's reporting period. The *statement of changes in fiduciary net position* presents the additions, such as contributions and investment income, and deductions, such as benefit payments and expenses, and net increase or decrease in the fiduciary net position.



Notes to Financial Statements

GASB Statement No. 68 requires the notes of the employer's financial statements to disclose the total pension expense, the pension plan's liabilities and assets, and deferred outflows and inflows of resources related to pensions.

GASB Statement Nos. 67 and 68 require the notes of the financial statements for the employers and pension plans to include certain additional information. The list of disclosure items should include:

- a description of benefits provided by the plan;
- the type of employees and number of members covered by the pension plan;
- a description of the plan's funding policy, which includes member and employer contribution requirements;
- the pension plan's investment policies;
- the pension plan's fiduciary net position and the net pension liability;
- the net pension liability using a discount rate that is 1% higher and 1% lower than used to calculate the total pension liability and net pension liability for financial reporting purposes;
- significant assumptions and methods used to calculate the total pension liability;
- inputs to the discount rates; and
- certain information about mortality assumptions and the dates of experience studies.

Retirement systems that issue stand-alone financial statements are required to disclose additional information in accordance with GASB Statement No. 67. This information includes:

- the composition of the pension plan's Board and the authority under which benefit terms may be amended;
- a description of how fair value is determined;
- information regarding certain reserves and investments, which include concentrations of investments greater than or equal to 5%, receivables, and insurance contracts excluded from plan assets;
- annual money-weighted rate of return.

Required Supplementary Information

GASB Statement No. 67 requires a 10-year fiscal history of:

- sources of changes in the net pension liability;
- information about the components of the net pension liability and related ratios, including the pension plan's fiduciary net position as a percentage of the total pension liability, and the net pension liability as a percent of covered-employee payroll; and
- a comparison of the actual employer contributions to the actuarially determined contributions based on the plan's funding policy.



General Implications of Contribution Allocation Procedure or Funding Policy on Future Expected Plan Contributions and Funded Status

Given the Plan's contribution allocation procedure, if all actuarial assumptions are met (including the assumption of the plan earning 6.80% on the actuarial value of assets), then the funded status of the plan is expected to increase to a 100% funded ratio.

This funding policy results in no expected crossover date and a GASB single discount rate of 6.80%. This funding policy results in the expectation that the plan's assets will be able to fully pay for promised benefits through at least 2122. The projections in this report are strictly for the purpose of determining the GASB single discount rate and are different from a funding projection for the ongoing plan.

Timing of the Valuation

An actuarial valuation to determine the total pension liability is required to be performed at least every two years. The net pension liability and pension expense should be measured as of the pension plan's fiscal year end (measurement date) on a date that is within the employer's prior fiscal year. If the actuarial valuation used to determine the total pension liability is not calculated as of the measurement date, the total pension liability is required to be rolled forward from the actuarial valuation date to the measurement date.

The total pension liability shown in this report is based on an actuarial valuation performed as of January 1, 2023 and rolled forward to a measurement date of December 31, 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 pension 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 (which is published by the Federal Reserve) 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 valuation, the expected rate of return on pension plan investments is 6.80%; the municipal bond rate is 3.77% (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 6.80%.

Effective Date and Transition

GASB Statement Nos. 67 and 68 are effective for fiscal years beginning after June 15, 2013, and June 15, 2014 respectively, earlier application is encouraged by the GASB.



SECTION B

FINANCIAL STATEMENTS

Auditor's Note – This information is intended to assist in preparation of the financial statements of the Wyoming Paid Firemen's Retirement Fund Plan A. Financial statements are the responsibility of management, subject to the auditor's review. Please let us know if the auditor recommends any changes.

Statement of Pension Expense under GASB Statement No. 68

Fiscal Year Ended December 31, 2023

A. Expense

1. Service Cost	\$	0
2. Interest on the Total Pension Liability		9,795,952
3. Current-Period Benefit Changes		0
4. Employee Contributions (made negative for addition here)		0
5. Projected Earnings on Plan Investments (made negative for addition here)		(8,219,894)
6. Pension Plan Administrative Expense		46,626
7. Other Changes in Plan Fiduciary Net Position		4,133
8. Recognition of Outflow (Inflow) of Resources due to Liabilities		(12,578,317)
9. Recognition of Outflow (Inflow) of Resources due to Assets		(1,152,337)
10. Total Pension Expense	\$	(12,103,837) *

* In accordance with GASB 71, employers may need to illustrate contributions made after the measurement date.

Statement of Outflows and Inflows Arising from Current Reporting Period Fiscal Year Ended December 31, 2023

A. Outflows (Inflows) of Resources due to Liabilities

1. Difference between expected and actual experience of the Total Pension Liability (gains) or losses	\$ (7,360,353)
2. Assumption Changes (gains) or losses	\$ (5,217,964)
3. Recognition period for Liabilities: Average of the expected remaining service lives of all employees {in years}	1.0000
4. Outflow (Inflow) of Resources to be recognized in the current pension expense for the difference between expected and actual experience of the Total Pension Liability	\$ (7,360,353)
5. Outflow (Inflow) of Resources to be recognized in the current pension expense for assumption changes	\$ (5,217,964)
6. Outflow (Inflow) of Resources to be recognized in the current pension expense due to Liabilities	<u>\$ (12,578,317)</u>
7. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses for the difference between expected and actual experience of the Total Pension Liability	\$ 0
8. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses for assumption changes	\$ 0
9. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Liabilities	<u>\$ 0</u>

B. Outflows (Inflows) of Resources due to Assets

1. Net difference between projected and actual earnings on pension plan investments (gains) or losses	\$ (7,971,716)
2. Recognition period for Assets {in years}	5.0000
3. Outflow (Inflow) of Resources to be recognized in the current pension expense due to Assets	\$ (1,594,343)
4. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Assets	\$ (6,377,373)



History of Deferred Outflows and Inflows of Resources by Source

Fiscal Year Ended December 31, 2023

Differences between expected and actual experience - Net (inflows)/outflows of resources

Recognition Period	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		Deferred Net (Inflows)/Outflows at Measurement Date
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total		
Total	\$ -	\$ (2,479,196)	\$ (1,825,288)	\$ 1,188,594	\$ (1,673,790)	\$ (3,107,578)	\$ (378,431)	\$ (271,077)	\$ (2,079,617)	\$ (7,360,353)			
2014	-	-	-	-	-	-	-	-	-	-	-	-	-
2015	-	(2,479,196)	-	-	-	-	-	-	-	-	-	(2,479,196)	-
2016	-	-	(1,825,288)	-	-	-	-	-	-	-	-	(1,825,288)	-
2017	-	-	-	1,188,594	-	-	-	-	-	-	-	1,188,594	-
2018	-	-	-	-	(1,673,790)	-	-	-	-	-	-	(1,673,790)	-
2019	-	-	-	-	-	(3,107,578)	-	-	-	-	-	(3,107,578)	-
2020	-	-	-	-	-	-	(378,431)	-	-	-	-	(378,431)	-
2021	-	-	-	-	-	-	-	(271,077)	-	-	-	(271,077)	-
2022	-	-	-	-	-	-	-	-	(2,079,617)	-	-	(2,079,617)	-
2023	-	-	-	-	-	-	-	-	-	(7,360,353)	-	(7,360,353)	-
2024	-	-	-	-	-	-	-	-	-	-	-	-	\$ -
2025	-	-	-	-	-	-	-	-	-	-	-	-	-
2026	-	-	-	-	-	-	-	-	-	-	-	-	-
2027	-	-	-	-	-	-	-	-	-	-	-	-	-
2028	-	-	-	-	-	-	-	-	-	-	-	-	-
Thereafter	-	-	-	-	-	-	-	-	-	-	-	-	-
	\$ -	\$ (2,479,196)	\$ (1,825,288)	\$ 1,188,594	\$ (1,673,790)	\$ (3,107,578)	\$ (378,431)	\$ (271,077)	\$ (2,079,617)	\$ (7,360,353)	\$ (17,986,736)		

Assumption changes - Net (inflows)/outflows of resources

Recognition Period	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total	
Total	\$ 99,327,064	\$ 9,056,601	\$ (5,166,271)	\$ 41,599,453	\$ (11,600,861)	\$ 42,477,504	\$ 63,922,039	\$ (185,384,651)	\$ -	\$ (5,217,964)		
2014	99,327,064	-	-	-	-	-	-	-	-	-	99,327,064	-
2015	-	9,056,601	-	-	-	-	-	-	-	-	9,056,601	-
2016	-	-	(5,166,271)	-	-	-	-	-	-	-	(5,166,271)	-
2017	-	-	-	41,599,453	-	-	-	-	-	-	41,599,453	-
2018	-	-	-	-	(11,600,861)	-	-	-	-	-	(11,600,861)	-
2019	-	-	-	-	-	42,477,504	-	-	-	-	42,477,504	-
2020	-	-	-	-	-	-	63,922,039	-	-	-	63,922,039	-
2021	-	-	-	-	-	-	-	(185,384,651)	-	-	(185,384,651)	-
2022	-	-	-	-	-	-	-	-	-	-	-	-
2023	-	-	-	-	-	-	-	-	-	(5,217,964)	(5,217,964)	-
2024	-	-	-	-	-	-	-	-	-	-	-	\$ -
2025	-	-	-	-	-	-	-	-	-	-	-	-
2026	-	-	-	-	-	-	-	-	-	-	-	-
2027	-	-	-	-	-	-	-	-	-	-	-	-
2028	-	-	-	-	-	-	-	-	-	-	-	-
Thereafter	-	-	-	-	-	-	-	-	-	-	-	-
	\$ 99,327,064	\$ 9,056,601	\$ (5,166,271)	\$ 41,599,453	\$ (11,600,861)	\$ 42,477,504	\$ 63,922,039	\$ (185,384,651)	\$ -	\$ (5,217,964)	\$ 49,012,914	



History of Deferred Outflows and Inflows of Resources by Source Fiscal Year Ended December 31, 2023 (continued)

Net Difference between projected and actual earnings on pension plan investments - Net (inflows)/outflows of resources

Recognition Period	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	Deferred Net (Inflows)/Outflows at Measurement Date
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total	
Total	\$ 3,803,304	\$ 11,373,619	\$ 853,305	\$ (7,714,751)	\$ 11,201,969	\$ (10,674,946)	\$ (2,265,845)	\$ 1,190,512	\$ 13,960,314	\$ (7,971,716)		
2014	760,661										760,661	
2015	760,661	2,274,724									3,035,385	
2016	760,661	2,274,724	170,661								3,206,046	
2017	760,661	2,274,724	170,661	(1,542,950)							1,663,096	
2018	760,660	2,274,724	170,661	(1,542,950)	2,240,394						3,903,489	
2019	-	2,274,723	170,661	(1,542,950)	2,240,394	(2,134,989)					1,007,839	
2020	-	-	170,661	(1,542,950)	2,240,394	(2,134,989)	(453,169)				(1,720,053)	
2021	-	-	-	(1,542,951)	2,240,394	(2,134,989)	(453,169)	238,102			(1,652,613)	
2022	-	-	-	-	2,240,393	(2,134,989)	(453,169)	238,102	2,792,063		2,682,400	
2023	-	-	-	-	-	(2,134,990)	(453,169)	238,102	2,792,063	(1,594,343)	(1,152,337)	
2024	-	-	-	-	-	-	(453,169)	238,102	2,792,063	(1,594,343)	982,653	\$ 2,021,852
2025	-	-	-	-	-	-	-	238,104	2,792,063	(1,594,343)	1,435,824	
2026	-	-	-	-	-	-	-	-	2,792,062	(1,594,343)	1,197,719	
2027	-	-	-	-	-	-	-	-	-	(1,594,344)	(1,594,344)	
2028	-	-	-	-	-	-	-	-	-	-	-	
Thereafter	-	-	-	-	-	-	-	-	-	-	-	
	\$ 3,803,304	\$ 11,373,619	\$ 853,305	\$ (7,714,751)	\$ 11,201,969	\$ (10,674,946)	\$ (2,265,845)	\$ 1,190,512	\$ 13,960,314	\$ (7,971,716)	\$ 13,755,765	

Total net differences from all sources - Net (inflows)/outflows of resources

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total	
Total	\$ 103,130,368	\$ 17,951,024	\$ (6,138,254)	\$ 35,073,296	\$ (2,072,682)	\$ 28,694,980	\$ 61,277,763	\$ (184,465,216)	\$ 11,880,697	\$ (20,550,033)		
2014	100,087,725										100,087,725	
2015	760,661	8,852,129									9,612,790	
2016	760,661	2,274,724	(6,820,898)								(3,785,513)	
2017	760,661	2,274,724	170,661	41,245,097							44,451,143	
2018	760,660	2,274,724	170,661	(1,542,950)	(11,034,257)						(9,371,162)	
2019	-	2,274,723	170,661	(1,542,950)	2,240,394	37,234,937					40,377,765	
2020	-	-	170,661	(1,542,950)	2,240,394	(2,134,989)	63,090,439				61,823,555	
2021	-	-	-	(1,542,951)	2,240,394	(2,134,989)	(453,169)	(185,417,626)			(187,308,341)	
2022	-	-	-	-	2,240,393	(2,134,989)	(453,169)	238,102	712,446		602,783	
2023	-	-	-	-	-	(2,134,990)	(453,169)	238,102	2,792,063	(14,172,660)	(13,730,654)	
2024	-	-	-	-	-	-	(453,169)	238,102	2,792,063	(1,594,343)	982,653	\$ 2,021,852
2025	-	-	-	-	-	-	-	238,104	2,792,063	(1,594,343)	1,435,824	
2026	-	-	-	-	-	-	-	-	2,792,062	(1,594,343)	1,197,719	
2027	-	-	-	-	-	-	-	-	-	(1,594,344)	(1,594,344)	
2028	-	-	-	-	-	-	-	-	-	-	-	
Thereafter	-	-	-	-	-	-	-	-	-	-	-	
	\$ 103,130,368	\$ 17,951,024	\$ (6,138,254)	\$ 35,073,296	\$ (2,072,682)	\$ 28,694,980	\$ 61,277,763	\$ (184,465,216)	\$ 11,880,697	\$ (20,550,033)	\$ 44,781,943	



Statement of Outflows and Inflows Arising from Current and Prior Reporting Periods Fiscal Year Ended December 31, 2023

A. Outflows and Inflows of Resources due to Liabilities and Assets to be Recognized in Current Pension Expense

	Outflows of Resources	Inflows of Resources	Net Outflows of Resources
1. Due to Liabilities	\$ 0	\$ 12,578,317	\$ (12,578,317)
2. Due to Assets	3,030,165	4,182,502	(1,152,337)
3. Total	\$ 3,030,165	\$ 16,760,819	\$ (13,730,654)

B. Outflows and Inflows of Resources by Source to be Recognized in Current Pension Expense

	Outflows of Resources	Inflows of Resources	Net Outflows of Resources
1. Differences between expected and actual experience	\$ 0	\$ 7,360,353	\$ (7,360,353)
2. Assumption Changes	0	5,217,964	(5,217,964)
3. Net Difference between projected and actual earnings on pension plan investments	3,030,165	4,182,502	(1,152,337)
4. Total	\$ 3,030,165	\$ 16,760,819	\$ (13,730,654)

C. Deferred Outflows and Deferred Inflows of Resources by Source to be Recognized in Future Pension Expenses

	Deferred Outflows of Resources	Deferred Inflows of Resources	Net Deferred Outflows of Resources
1. Differences between expected and actual experience	\$ 0	\$ 0	\$ 0
2. Assumption Changes	0	0	0
3. Net Difference between projected and actual earnings on pension plan investments	8,852,394	6,830,542	2,021,852
4. Total	\$ 8,852,394	\$ 6,830,542	\$ 2,021,852

D. Deferred Outflows and Deferred Inflows of Resources by Year to be Recognized in Future Pension Expenses

Year Ending December 31	Net Deferred Outflows of Resources
2024	\$ 982,653
2025	1,435,824
2026	1,197,719
2027	(1,594,344)
2028	0
Thereafter	0
Total	\$ 2,021,852



Statement of Fiduciary Net Position as of December 31, 2023

	2023
Assets	
Cash and Deposits	\$ 5,410,946
Receivables	
Accounts Receivable - Sale of Investments	\$ 2,966,024
Accrued Interest and Other Dividends	253,997
Contributions	0
Accounts Receivable - Other	8,642,167
Total Receivables	\$ 11,862,188
Investments	
Fixed Income	\$ 20,303,019
Equities	60,359,030
Private Markets	16,594,301
Marketable Alternatives	24,122,948
Security Lending Collateral	3,622,847
Capital Assets, at Cost, Net of Accumulated Depreciation	75,065
Total Investments	\$ 125,077,210
Total Assets	\$ 142,350,344
Liabilities	
Payables	
Accounts Payable - Purchase of Investments	\$ 11,734,238
Accrued Expenses	179,428
Accounts Payable - Other	0
Total Liabilities	\$ 11,913,666
Net Position Restricted for Pensions	\$ 130,436,678



Statement of Changes in Fiduciary Net Position for Year Ended December 31, 2023

	2023
Additions	
Contributions	
Employer	\$ 0
Employee	0
Other Employer Contributions	2,537,559
Total Contributions	\$ 2,537,559
Investment Income	
Net Appreciation in Fair Value of Investments	\$ 14,221,732
Interest and Dividends	2,936,347
Less Investment Expense	(966,469)
Net Investment Income	\$ 16,191,610
Other	\$ 0
Total Additions	\$ 18,729,169
 Deductions	
Benefit Payments, including Refunds of Employee Contributions	\$ 15,543,538
Pension Plan Administrative Expense	46,626
Other	4,133
Total Deductions	\$ 15,594,297
Net Increase in Net Position	\$ 3,134,872
 Net Position Restricted for Pensions	
Beginning of Year	\$ 127,301,806
End of Year	\$ 130,436,678



SECTION C

REQUIRED SUPPLEMENTARY INFORMATION

Auditor's Note – This information is intended to assist in preparation of the financial statements of the Wyoming Paid Firemen's Retirement Fund Plan A. Financial statements are the responsibility of management, subject to the auditor's review. Please let us know if the auditor recommends any changes.

Schedule of Changes in Net Pension Liability and Related Ratios

Current Reporting Period

Fiscal Year Ended December 31, 2023

A. Total pension liability	
1. Service cost	\$ 0
2. Interest on the total pension liability	9,795,952
3. Changes of benefit terms	0
4. Difference between expected and actual experience of the total pension liability	(7,360,353)
5. Changes of assumptions	(5,217,964)
6. Benefit payments, including refunds of employee contributions	(15,543,538)
7. Net change in total pension liability	(18,325,903)
8. Total pension liability – beginning	164,280,390
9. Total pension liability – ending	\$ 145,954,487
B. Plan fiduciary net position	
1. Contributions – employer	\$ 2,537,559
2. Contributions – employee	0
3. Net investment income	16,191,610
4. Benefit payments, including refunds of employee contributions	(15,543,538)
5. Pension plan administrative expense	(46,626)
6. Other	(4,133)
7. Net change in plan fiduciary net position	3,134,872
8. Plan fiduciary net position – beginning	127,301,806
9. Plan fiduciary net position – ending	\$ 130,436,678
C. Net pension liability	\$ 15,517,809
D. Plan fiduciary net position as a percentage of the total pension liability	89.37 %
E. Covered-employee payroll	\$ 0
F. Net pension liability as a percentage of covered-employee payroll	N/A



Schedules of Required Supplementary Information

Schedule of Changes in Net Pension Liability and Related Ratios Multiyear

Last 10 Fiscal Years (which may be built prospectively)

Fiscal year ending December 31,	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Total pension liability										
Service cost	\$ 0	\$ 0	\$ 54,935	\$ 65,959	\$ 40,886	\$ 61,278	\$ 122,812	\$ 147,314	\$ 162,541	\$ 188,951
Interest on the total pension liability	9,795,952	10,971,932	11,422,459	8,068,467	10,996,219	12,801,237	12,582,433	12,906,407	12,910,372	13,337,846
Changes of benefit terms	0	0	(52,317,927)	0	0	0	0	0	0	0
Difference between expected and actual experience	(7,360,353)	(2,079,617)	(271,077)	(378,431)	(3,107,578)	(1,673,790)	1,188,594	(1,825,288)	(2,479,196)	0
Changes of assumptions	(5,217,964)	0	(185,384,651)	63,922,039	42,477,504	(11,600,861)	41,599,453	(5,166,271)	9,056,601	99,327,064
Benefit payments, including refunds of employee contributions	(15,543,538)	(15,826,693)	(16,160,140)	(16,341,689)	(16,093,422)	(15,788,064)	(15,410,878)	(15,075,912)	(14,824,715)	(14,581,980)
Net change in total pension liability	(18,325,903)	(6,934,378)	(242,656,401)	55,336,345	34,313,609	(16,200,200)	40,082,414	(9,013,750)	4,825,603	98,271,881
Total pension liability - beginning	164,280,390	171,214,768	413,871,169	358,534,824	324,221,215	340,421,415	300,339,001	309,352,751	304,527,148	206,255,267
Total pension liability - ending (a)	\$ 145,954,487	\$ 164,280,390	\$ 171,214,768	\$ 413,871,169	\$ 358,534,824	\$ 324,221,215	\$ 340,421,415	\$ 300,339,001	\$ 309,352,751	\$ 304,527,148
Plan fiduciary net position										
Employer contributions	\$ 2,537,559	\$ 76,679,037	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Employee contributions	0	0	0	0	0	0	0	0	0	0
Pension plan net investment income	16,191,610	(6,933,233)	(370,823)	8,557,543	16,923,518	(3,580,279)	15,351,989	8,160,117	(1,107,007)	7,064,066
Benefit payments, including refunds of employee contributions	(15,543,538)	(15,826,693)	(16,160,140)	(16,341,689)	(16,093,422)	(15,788,064)	(15,410,878)	(15,075,912)	(14,824,715)	(14,581,980)
Pension plan administrative expense	(46,626)	(56,600)	(105,199)	(88,626)	(87,238)	(98,669)	(108,773)	(110,274)	(102,903)	(113,705)
Other	(4,133)	(4,257)	(3,237)	(3,708)	(4,405)	(4,562)	(6,020)	(6,019)	(6,559)	(1,701)
Net change in plan fiduciary net position	3,134,872	53,858,254	(16,639,399)	(7,876,480)	738,453	(19,471,574)	(173,682)	(7,032,088)	(16,041,184)	(7,633,320)
Plan fiduciary net position - beginning	127,301,806	73,443,552	90,082,951	97,959,431	97,220,978	116,692,552	116,866,234	123,898,322	139,939,506	147,572,826
Plan fiduciary net position - ending (b)	\$ 130,436,678	\$ 127,301,806	\$ 73,443,552	\$ 90,082,951	\$ 97,959,431	\$ 97,220,978	\$ 116,692,552	\$ 116,866,234	\$ 123,898,322	\$ 139,939,506
Net pension liability - ending (a) - (b)	\$ 15,517,809	\$ 36,978,584	\$ 97,771,216	\$ 323,788,218	\$ 260,575,393	\$ 227,000,237	\$ 223,728,863	\$ 183,472,767	\$ 185,454,429	\$ 164,587,642
Plan fiduciary net position as a percentage of total pension liability	89.37 %	77.49 %	42.90 %	21.77 %	27.32 %	29.99 %	34.28 %	38.91 %	40.05 %	45.95 %
Covered-employee payroll	\$ 0	\$ 0	\$ 65,621	\$ 65,621	\$ 65,621	\$ 134,155	\$ 195,221	\$ 195,221	\$ 179,486	\$ 198,404
Projected Valuation Payroll	\$ 0	\$ 0	\$ 65,621	\$ 65,621	\$ 65,621	\$ 134,155	\$ 195,221	\$ 195,221	\$ 179,486	\$ 198,404
Net pension liability as a percentage of covered-employee payroll	N/A	N/A	148,994.79 %	493,424.95 %	397,094.13 %	169,207.64 %	114,602.87 %	93,982.30 %	103,325.47 %	82,955.64 %

Notes to Schedule:

For 2023, 2022, 2021, 2020, 2019, 2018, 2017, 2016 and 2015, "Other" changes to Plan Fiduciary Net Position includes other funding sources and depreciation expenses.
 For 2014, "Other" changes also may include member redeposits and member service purchase contributions.



Schedules of Required Supplementary Information

Schedule of Net Pension Liability Multiyear

FY Ending December 31,	Total Pension Liability	Plan Net Position	Net Pension Liability	Plan Net Position as a % of Total Pension Liability	Covered Payroll*	Net Pension Liability as a % of Covered Payroll
2014	\$ 304,527,148	\$ 139,939,506	\$ 164,587,642	45.95 %	\$ 198,404	82,955.64 %
2015	309,352,751	123,898,322	185,454,429	40.05 %	179,486	103,325.47 %
2016	300,339,001	116,866,234	183,472,767	38.91 %	195,221	93,982.30 %
2017	340,421,415	116,692,552	223,728,863	34.28 %	195,221	114,602.87 %
2018	324,221,215	97,220,978	227,000,237	29.99 %	134,155	169,207.64 %
2019	358,534,824	97,959,431	260,575,393	27.32 %	65,621	397,094.13 %
2020	413,871,169	90,082,951	323,788,218	21.77 %	65,621	493,424.95 %
2021	171,214,768	73,443,552	97,771,216	42.90 %	65,621	148,994.79 %
2022	164,280,390	127,301,806	36,978,584	77.49 %	0	N/A
2023	145,954,487	130,436,678	15,517,809	89.37 %	0	N/A

* Covered payroll is the total of first class firefighter salaries in force as of the valuation date and may differ from the actual payroll paid during the year.



Schedule of Contributions Multiyear Last 10 Fiscal Years

FY Ending December 31,	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Payroll*	Actual Contribution as a % of Covered Payroll
2014	\$ 9,458,093	\$ 0	\$ 9,458,093	\$ 198,404	0.00 %
2015	9,714,697	0	9,714,697	179,486	0.00 %
2016	10,663,740	0	10,663,740	195,221	0.00 %
2017	11,734,389	0	11,734,389	195,221	0.00 %
2018	15,597,369	0	15,597,369	134,155	0.00 %
2019	16,974,397	0	16,974,397	65,621	0.00 %
2020	18,379,604	0	18,379,604	65,621	0.00 %
2021	41,595,929	0	41,595,929	65,621	0.00 %
2022	13,498,555	76,679,037	(63,180,482)	0	N/A
2023	2,212,001	2,537,559	(325,558)	0	N/A

* Covered payroll is the total of first class firefighter salaries in force as of the valuation date and may differ from the actual payroll paid during the year.



Notes to Schedule of Contributions

Valuation Date: January 1, 2023
Notes Actuarially determined contribution rates are calculated as of July 1 each year for implementation the following fiscal year.

Methods and Assumptions Used to Determine Contribution Rates:

Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Dollar, Open
Remaining Amortization Period	10 years
Asset Valuation Method	5-Year smoothed market
Inflation	2.25%
Cost-of-Living Increase	0.00%
Investment Rate of Return	6.80%
Post-Retirement Mortality	Pub-2010 Safety Healthy Annuitant Mortality Table, amount-weighted, fully generational, projected with the MP-2020 Ultimate Scale Males: No set back with a multiplier of 100% Females: No set back with a multiplier of 100%

Other Information:

Notes The roll-forward methodology employed for purposes of the GASB disclosures is based on generally accepted actuarial methods.



Schedule of Investment Returns Multiyear Last 10 Fiscal Years

<u>FY Ending December 31,</u>	<u>Annual Return¹</u>
2014	4.70 %
2015	(0.26)%
2016	7.60 %
2017	14.20 %
2018	(3.52)%
2019	18.72 %
2020	11.03 %
2021	(0.45)%
2022	(6.99)%
2023	13.84 %

¹ Annual money-weighted rate of return, net of investment expenses.



SECTION D

NOTES TO FINANCIAL STATEMENTS

Auditor's Note – This information is intended to assist in preparation of the financial statements of the Wyoming Paid Firemen's Retirement Fund Plan A. Financial statements are the responsibility of management, subject to the auditor's review. Please let us know if the auditor recommends any changes.

Single Discount Rate

A Single Discount Rate of 6.80% was used to measure the total pension liability. This Single Discount Rate was based on an expected rate of return on pension plan investments of 6.80% and a municipal bond rate of 3.77%. The projection of cash flows used to determine this Single Discount Rate assumed future contributions will be made in accordance with the legislation that passed during the year which outlines the updated funding strategy of the plan. Based on these assumptions, the pension plan's fiduciary net position and future contributions were projected to be sufficient to finance all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of Results

Regarding the sensitivity of the net pension liability to changes in the Single Discount Rate, the following presents the plan's net pension liability, calculated using a Single Discount Rate of 6.80%, as well as what the plan's net pension liability would be if it were calculated using a Single Discount Rate that is one percent lower or one percent higher:

Sensitivity of Net Pension Liability to the Single Discount Rate Assumption

1% Decrease	Current Single Discount Rate Assumption	1% Increase
5.80%	6.80%	7.80%
\$ 27,122,024	\$ 15,517,809	\$ 5,396,712

Summary of Population Statistics

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	251
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	1
Active Plan Members	<u>0</u>
Total Plan Members	252

SECTION E

SUMMARY OF BENEFITS

Summary of Benefits

Covered Members	Any person who is a member of Wyoming Paid Firemen's Retirement Fund Plan A. This plan only covers members hired prior to July 1, 1981.
Fireman First Class	The highest salary grade which a fireman can obtain within his department without any promotion in rank. The term specifically excludes chiefs, officers, engineers, fire equipment operators, secretaries, mechanics, inspectors and all other specialized grades, ratings and ranks.
Form of Payment	Monthly benefit for life. Upon death, 100% of the benefit continues to be paid to the beneficiary.
Service Retirement	
Eligibility	20 or more years of service.
Monthly Benefit	75.0% of the maximum salary for a fireman first class for 20 years of service plus 1.5% of the maximum salary for a fireman first class for each year of service in excess of 20 years.
Vesting	Any employee who has left the service with at least 10 years of service, and who has not withdrawn accumulated contributions, is eligible to receive a monthly benefit of 3.75% of final average salary per year of service payable upon the 20 th anniversary of employment, or can elect to receive a lump-sum refund of 99.5% of contributions. An employee who terminates with less than ten years of service is only eligible for the lump-sum benefit.
Disability Retirement	
Eligibility	No age or service eligibility requirements. Partial or total disability resulting from an individual and specific act, the type of which would normally occur only while employed as an employee, or as otherwise defined under W.S. 15-5-204.
Monthly Benefit	75.0% of the maximum salary for a fireman first class for 20 years of service plus 1.5% of the maximum salary for a fireman first class for each year of service in excess of 20 years.



Pre-retirement Death Benefit

Eligibility	No age or service requirements.
Monthly Benefit	75.0% of the maximum salary for a fireman first class for 20 years of service plus 1.5% of the maximum salary for a fireman first class for each year of service in excess of 20 years.

Contributions

Employee	None
Employer	40% of gross fire insurance premium taxes paid on fire insurance policies in Wyoming.
Interest	None

Cost-Of-Living Improvements

The current cost-of-living improvement is 0% per Enrolled Act No. 6, effective April 1, 2022.



SECTION F

ACTUARIAL COST METHOD AND ACTUARIAL ASSUMPTIONS

Summary of Actuarial Assumptions and Methods

The following methods and assumptions were used in preparing the January 1, 2023 actuarial valuation for GASB reporting purposes and are based on assumptions adopted by the Board at the November 17, 2021 and the February 17, 2022 meetings.

1. Valuation Date

The valuation date for any given year is January 1st, the first day of each plan year. This is the date as of which the actuarial present value of future benefits and the actuarial value of assets are determined.

2. Actuarial Cost Method

The actuarial valuation uses the Entry Age Normal (EAN) actuarial cost method, amortized as a level percentage of payroll. Under this method, the employer contribution rate is the sum of (i) the employer normal cost rate, and (ii) the rate that will amortize the unfunded actuarial accrued liability (UAAL).

- a. The valuation is prepared on the projected benefit basis, under which the present value, at the investment return rate assumed to be earned in the future (currently 6.80%), of each participant's expected benefit payable at retirement or death is determined, based on his/her age, service, sex and compensation. The calculations take into account the probability of a participant's death or termination of employment prior to becoming eligible for a benefit, as well as the possibility of his/her terminating with a service, disability, or survivor's benefit. Future salary increases are also anticipated. The present value of the expected benefits payable for the active participants is added to the present value of the expected future payments to retired participants and beneficiaries to obtain the present value of all expected benefits payable from the Fund on account of the present group of participants and beneficiaries.
- b. The employer contributions required to support the benefits of the Fund are determined using a level funding approach, and consist of a normal cost contribution and an accrued liability contribution.
- c. The normal cost contribution is determined using the "entry age normal" actuarial cost method. Under this method, a calculation is made to determine the average uniform and constant percentage rate of employer contribution which, if applied to the compensation of each new participant during the entire period of his/her anticipated covered service, would be required to meet the cost of all benefits payable on his/her behalf based on the benefits provisions applicable for the individual member.
- d. The unfunded actuarial accrued liability contributions are determined by subtracting the actuarial value of assets from the actuarial accrued liability and amortizing the result over 10 years from the valuation date.



3. Actuarial Value of Assets

The actuarial value of assets is based on the market value of assets with a five-year phase-in of actual investment return in excess of (less than) expected investment income, with interest, dividends, and other income recognized immediately. Expected investment income is determined using the assumed investment return rate and the market value of assets (adjusted for receipts and disbursements during the year). The returns are computed net of administrative and investment expenses. An adjustment is made if the actuarial value is not within 20% of the Market Value. For any year following a year in which the 20% of market value adjustment was applied, the actuarial value is determined as if the adjustment was not applied in the previous year.

4. Economic Assumptions

a. Investment return

6.80% per year, compounded annually. This rate represents the assumed return, net of investment expenses.

b. Inflation

2.25% per year

c. Salary increase rate

4.50% per year

d. Payroll growth rate

In the amortization of the unfunded actuarial accrued liability, payroll is not assumed to increase. The assumed payroll growth in a closed plan is 0%.

5. Demographic Assumptions

a. Mortality

Healthy Post-Retirement Mortality:

Pub-2010 Safety Healthy Retiree Mortality Table, amount-weighted, fully generational, projected with the MP-2020 Ultimate Scale

Males: No set back with a multiplier of 100%

Females: No set back with a multiplier of 100%

Disabled Mortality

Pub-2010 Safety Disabled Retiree Mortality Table, amount-weighted, fully generational, projected with the MP-2020 Ultimate Scale

Males: No set back with a multiplier of 100%

Females: No set back with a multiplier of 100%

Age	Pre-Retirement		Post-Retirement		Disabled	
	Projected to 2023 using Scale MP-2017					
	Male	Female	Male	Female	Male	Female
20	0.04%	0.02%	0.04%	0.01%	0.04%	0.02%
25	0.05%	0.02%	0.06%	0.03%	0.19%	0.09%
30	0.05%	0.02%	0.08%	0.05%	0.49%	0.23%
35	0.06%	0.03%	0.13%	0.09%	0.91%	0.45%
40	0.07%	0.04%	0.19%	0.14%	1.32%	0.68%
45	0.09%	0.06%	0.26%	0.18%	1.62%	0.89%
50	0.15%	0.10%	0.37%	0.23%	1.86%	1.12%
55	0.26%	0.16%	0.53%	0.31%	2.16%	1.40%
60	0.45%	0.24%	0.75%	0.46%	2.58%	1.70%
65	0.81%	0.36%	1.08%	0.69%	3.11%	2.03%
70	1.32%	0.59%	1.60%	1.05%	3.85%	2.62%
75			2.48%	1.69%	5.02%	3.76%
80			4.11%	2.84%	7.04%	5.66%
85			7.16%	5.01%	10.47%	8.51%
90			12.69%	8.95%	16.15%	12.59%
95			20.42%	14.95%	23.10%	18.59%
100			29.85%	22.92%	31.06%	26.75%

6. Other Assumptions

- a. Percent married: For members who have not provided beneficiary information, 100% are assumed to be married. (No beneficiaries other than the spouse assumed.)
- b. Age difference: Male members are assumed to be three years older than their spouses, and female members are assumed to be three years younger than their spouses.
- c. Percent electing annuity on death (when eligible): All of the spouses of vested, married participants are assumed to elect an annuity
- d. Percent electing deferred termination benefit: Vested terminating members are assumed to elect a refund or a deferred benefit, whichever is more valuable at the time of termination.
- e. Assumed age for commencement of deferred benefits: Members electing to receive a deferred benefit are assumed to commence receipt at the first age at which unreduced benefits are available, which for this plan is 20 years after hire date.
- f. No benefit amount data is available for members entitled to deferred benefits. The benefit is estimated using the final average compensation and service provided by WRS.
- g. There will be no recoveries once disabled.
- h. Administrative expenses: Assumed to be the average of the prior two years, with each year projected at 2.50% to the valuation date.
- i. Decrement timing: Decrements of all types are assumed to occur mid-year.
- j. Eligibility testing: Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.

Experience Analysis

An experience study was conducted on behalf of all WRS' plans covering the five year period ending December 31, 2020. That study provided a detailed analysis concerning the development of the long term inflation rate, real rate of return and discount rate. The study also analyzed each major actuarial assumption (e.g. mortality, salary increases, retirement, termination and disability) and proposed assumptions consistent with the findings. For further information on the experience study and related assumption recommendation, the reader is directed to request the December 31, 2020 Wyoming Retirement System Experience Study.

SECTION G

CALCULATION OF THE SINGLE DISCOUNT RATE

Calculation of the Single Discount Rate

GASB Statement No. 67 includes a specific requirement for the discount rate that is used for the purpose of the measurement of the Total Pension Liability. This rate considers the ability of the Fund 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 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 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) tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating (which is published by the Federal Reserve) 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 valuation, the expected rate of return on pension plan investments is 6.80%; the municipal bond rate is 3.77%; and the resulting Single Discount Rate is 6.80%.

The tables in this section provide background for the development of the Single Discount Rate.

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 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 (SDR). It breaks down the benefit payments into present values for funded and unfunded portions and shows the equivalent total at the SDR.

The projections in this report are strictly for the purpose of determining the GASB single discount rate and are different from a funding projection for the ongoing plan.

Single Discount Rate Development Projection of Contributions Ending December 31 for 2023 to 2072

Year	Payroll for Current Employees (a)	Payroll for Future Employees (b)=max(0,(c)-(a))	Total Employee Payroll (c)	Contributions from Current Employees (d)	Employer Contributions for Current Employees (e)=(a)*ER%	Employer Contributions Related to Payroll of Future Employees (f) = (b)*netER%	Total Contributions (g)=(d)+(e)+(f)
2023	\$ 0	\$ 0	\$ 0	\$ 0	\$ 2,537,292	\$ 0	\$ 0
2024	0	0	0	0	2,594,381	0	0
2025	0	0	0	0	2,652,755	0	0
2026	0	0	0	0	2,712,442	0	0
2027	0	0	0	0	2,773,472	0	0
2028	0	0	0	0	2,835,875	0	0
2029	0	0	0	0	2,899,682	0	0
2030	0	0	0	0	2,964,925	0	0
2031	0	0	0	0	3,031,635	0	0
2032	0	0	0	0	0	0	0
2033	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0
2035	0	0	0	0	0	0	0
2036	0	0	0	0	0	0	0
2037	0	0	0	0	0	0	0
2038	0	0	0	0	0	0	0
2039	0	0	0	0	0	0	0
2040	0	0	0	0	0	0	0
2041	0	0	0	0	0	0	0
2042	0	0	0	0	0	0	0
2043	0	0	0	0	0	0	0
2044	0	0	0	0	0	0	0
2045	0	0	0	0	0	0	0
2046	0	0	0	0	0	0	0
2047	0	0	0	0	0	0	0
2048	0	0	0	0	0	0	0
2049	0	0	0	0	0	0	0
2050	0	0	0	0	0	0	0
2051	0	0	0	0	0	0	0
2052	0	0	0	0	0	0	0
2053	0	0	0	0	0	0	0
2054	0	0	0	0	0	0	0
2055	0	0	0	0	0	0	0
2056	0	0	0	0	0	0	0
2057	0	0	0	0	0	0	0
2058	0	0	0	0	0	0	0
2059	0	0	0	0	0	0	0
2060	0	0	0	0	0	0	0
2061	0	0	0	0	0	0	0
2062	0	0	0	0	0	0	0
2063	0	0	0	0	0	0	0
2064	0	0	0	0	0	0	0
2065	0	0	0	0	0	0	0
2066	0	0	0	0	0	0	0
2067	0	0	0	0	0	0	0
2068	0	0	0	0	0	0	0
2069	0	0	0	0	0	0	0
2070	0	0	0	0	0	0	0
2071	0	0	0	0	0	0	0
2072	0	0	0	0	0	0	0



Single Discount Rate Development Projection of Contributions Ending December 31 for 2073 to 2122 (concluded)

Year	Payroll for Current	Payroll for Future	Total Employee	Contributions from	Employer	Employer Contributions	Total Contributions
	Employees	Employees	Payroll	Current Employees	Contributions for	Related to Payroll of	
	(a)	(b)=max(0,(c)-(a))	(c)	(d)	(e)=(a)*ER%	(f) = (b)*netER%	(g)=(d)+(e)+(f)
2073	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
2074	0	0	0	0	0	0	0
2075	0	0	0	0	0	0	0
2076	0	0	0	0	0	0	0
2077	0	0	0	0	0	0	0
2078	0	0	0	0	0	0	0
2079	0	0	0	0	0	0	0
2080	0	0	0	0	0	0	0
2081	0	0	0	0	0	0	0
2082	0	0	0	0	0	0	0
2083	0	0	0	0	0	0	0
2084	0	0	0	0	0	0	0
2085	0	0	0	0	0	0	0
2086	0	0	0	0	0	0	0
2087	0	0	0	0	0	0	0
2088	0	0	0	0	0	0	0
2089	0	0	0	0	0	0	0
2090	0	0	0	0	0	0	0
2091	0	0	0	0	0	0	0
2092	0	0	0	0	0	0	0
2093	0	0	0	0	0	0	0
2094	0	0	0	0	0	0	0
2095	0	0	0	0	0	0	0
2096	0	0	0	0	0	0	0
2097	0	0	0	0	0	0	0
2098	0	0	0	0	0	0	0
2099	0	0	0	0	0	0	0
2100	0	0	0	0	0	0	0
2101	0	0	0	0	0	0	0
2102	0	0	0	0	0	0	0
2103	0	0	0	0	0	0	0
2104	0	0	0	0	0	0	0
2105	0	0	0	0	0	0	0
2106	0	0	0	0	0	0	0
2107	0	0	0	0	0	0	0
2108	0	0	0	0	0	0	0
2109	0	0	0	0	0	0	0
2110	0	0	0	0	0	0	0
2111	0	0	0	0	0	0	0
2112	0	0	0	0	0	0	0
2113	0	0	0	0	0	0	0
2114	0	0	0	0	0	0	0
2115	0	0	0	0	0	0	0
2116	0	0	0	0	0	0	0
2117	0	0	0	0	0	0	0
2118	0	0	0	0	0	0	0
2119	0	0	0	0	0	0	0
2120	0	0	0	0	0	0	0
2121	0	0	0	0	0	0	0
2122	0	0	0	0	0	0	0



Single Discount Rate Development Projection of Plan Net Position Ending December 31 for 2023 to 2072

Year	Projected Beginning Plan Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Administrative Expenses	Projected Investment Earnings at 6.80%	Projected Ending Plan Net Position
	(a)	(b)	(c)	(d)	(e)	(f)=(a)+(b)-(c)-(d)+(e)
2023	\$ 127,301,806	\$ 2,537,292	\$ 15,413,838	\$ 50,759	\$ 16,191,610	\$ 130,566,111
2024	130,566,111	2,594,381	15,177,281	88,200	8,454,763	126,349,774
2025	126,349,774	2,652,755	14,908,057	88,200	8,179,007	122,185,279
2026	122,185,279	2,712,442	14,606,272	88,200	7,907,910	118,111,159
2027	118,111,159	2,773,472	14,277,805	88,200	7,643,895	114,162,520
2028	114,162,520	2,835,875	13,924,275	88,200	7,389,296	110,375,216
2029	110,375,216	2,899,682	13,545,231	88,200	7,146,569	106,788,035
2030	106,788,035	2,964,925	13,145,515	88,200	6,918,189	103,437,434
2031	103,437,434	3,031,635	12,724,936	88,200	6,706,644	100,362,578
2032	100,362,578	0	12,284,758	88,200	6,410,893	94,400,513
2033	94,400,513	0	11,828,172	88,200	6,020,741	88,504,882
2034	88,504,882	0	11,356,075	88,200	5,635,626	82,696,232
2035	82,696,232	0	10,871,291	88,200	5,256,849	76,993,590
2036	76,993,590	0	10,374,851	88,200	4,885,671	71,416,210
2037	71,416,210	0	9,870,337	88,200	4,523,280	65,980,954
2038	65,980,954	0	9,358,765	88,200	4,170,790	60,704,779
2039	60,704,779	0	8,840,076	88,200	3,829,356	55,605,859
2040	55,605,859	0	8,315,210	88,200	3,500,181	50,702,630
2041	50,702,630	0	7,783,629	88,200	3,184,538	46,015,339
2042	46,015,339	0	7,248,108	88,200	2,883,711	41,562,741
2043	41,562,741	0	6,710,814	88,200	2,598,902	37,362,629
2044	37,362,629	0	6,174,455	88,200	2,331,230	33,431,204
2045	33,431,204	0	5,642,204	88,200	2,081,692	29,782,493
2046	29,782,493	0	5,117,583	88,200	1,851,124	26,427,833
2047	26,427,833	0	4,604,395	88,200	1,640,168	23,375,407
2048	23,375,407	0	4,106,751	88,200	1,449,245	20,629,700
2049	20,629,700	0	3,628,930	88,200	1,278,516	18,191,086
2050	18,191,086	0	3,175,266	88,200	1,127,861	16,055,481
2051	16,055,481	0	2,749,737	88,200	996,870	14,214,413
2052	14,214,413	0	2,355,699	88,200	884,854	12,655,369
2053	12,655,369	0	1,995,798	88,200	790,874	11,362,245
2054	11,362,245	0	1,671,755	88,200	713,778	10,316,068
2055	10,316,068	0	1,384,333	88,200	652,250	9,495,785
2056	9,495,785	0	1,133,182	88,200	604,869	8,879,272
2057	8,879,272	0	916,966	88,200	570,177	8,444,283
2058	8,444,283	0	733,719	88,200	546,726	8,169,090
2059	8,169,090	0	580,934	88,200	533,122	8,033,078
2060	8,033,078	0	455,677	88,200	528,062	8,017,262
2061	8,017,262	0	354,766	88,200	530,361	8,104,657
2062	8,104,657	0	274,869	88,200	538,975	8,280,563
2063	8,280,563	0	212,678	88,200	553,017	8,532,702
2064	8,532,702	0	165,069	88,200	571,754	8,851,187
2065	8,851,187	0	129,173	88,200	594,612	9,228,426
2066	9,228,426	0	102,493	88,200	621,156	9,658,889
2067	9,658,889	0	82,889	88,200	651,083	10,138,883
2068	10,138,883	0	68,543	88,200	684,202	10,666,342
2069	10,666,342	0	57,982	88,200	720,423	11,240,583
2070	11,240,583	0	50,043	88,200	759,737	11,862,077
2071	11,862,077	0	43,854	88,200	802,205	12,532,228
2072	12,532,228	0	38,776	88,200	847,945	13,253,197



Single Discount Rate Development

Projection of Plan Net Position

Ending December 31 for 2073 to 2122 (concluded)

Year	Projected Beginning Plan Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Administrative Expenses	Projected Investment Earnings at 6.80%	Projected Ending Plan Net Position
	(a)	(b)	(c)	(d)	(e)	(f)=(a)+(b)-(c)-(d)+(e)
2073	\$ 13,253,197	\$ 0	\$ 34,355	\$ 88,200	\$ 897,119	\$ 14,027,761
2074	14,027,761	0	30,313	88,200	949,925	14,859,173
2075	14,859,173	0	26,513	88,200	1,006,588	15,751,047
2076	15,751,047	0	22,896	88,200	1,067,356	16,707,307
2077	16,707,307	0	19,472	88,200	1,132,496	17,732,132
2078	17,732,132	0	16,275	88,200	1,202,291	18,829,948
2079	18,829,948	0	13,352	88,200	1,277,040	20,005,436
2080	20,005,436	0	10,754	88,200	1,357,061	21,263,543
2081	21,263,543	0	8,498	88,200	1,442,687	22,609,532
2082	22,609,532	0	6,576	88,200	1,534,279	24,049,035
2083	24,049,035	0	4,974	88,200	1,632,219	25,588,079
2084	25,588,079	0	3,669	88,200	1,736,917	27,233,128
2085	27,233,128	0	2,635	88,200	1,848,815	28,991,108
2086	28,991,108	0	1,840	88,200	1,968,384	30,869,452
2087	30,869,452	0	1,249	88,200	2,096,131	32,876,135
2088	32,876,135	0	822	88,200	2,232,600	35,019,713
2089	35,019,713	0	524	88,200	2,378,373	37,309,362
2090	37,309,362	0	325	88,200	2,534,076	39,754,914
2091	39,754,914	0	194	88,200	2,700,378	42,366,898
2092	42,366,898	0	112	88,200	2,877,996	45,156,581
2093	45,156,581	0	63	88,200	3,067,696	48,136,014
2094	48,136,014	0	34	88,200	3,270,298	51,318,079
2095	51,318,079	0	18	88,200	3,486,679	54,716,540
2096	54,716,540	0	10	88,200	3,717,775	58,346,105
2097	58,346,105	0	5	88,200	3,964,585	62,222,485
2098	62,222,485	0	3	88,200	4,228,179	66,362,462
2099	66,362,462	0	1	88,200	4,509,698	70,783,959
2100	70,783,959	0	1	88,200	4,810,360	75,506,117
2101	75,506,117	0	0	88,200	5,131,467	80,549,384
2102	80,549,384	0	0	88,200	5,474,409	85,935,593
2103	85,935,593	0	0	88,200	5,840,671	91,688,063
2104	91,688,063	0	0	88,200	6,231,839	97,831,702
2105	97,831,702	0	0	88,200	6,649,606	104,393,109
2106	104,393,109	0	0	88,200	7,095,782	111,400,690
2107	111,400,690	0	0	88,200	7,572,297	118,884,788
2108	118,884,788	0	0	88,200	8,081,216	126,877,804
2109	126,877,804	0	0	88,200	8,624,741	135,414,345
2110	135,414,345	0	0	88,200	9,205,226	144,531,371
2111	144,531,371	0	0	88,200	9,825,184	154,268,355
2112	154,268,355	0	0	88,200	10,487,299	164,667,454
2113	164,667,454	0	0	88,200	11,194,437	175,773,691
2114	175,773,691	0	0	88,200	11,949,662	187,635,152
2115	187,635,152	0	0	88,200	12,756,241	200,303,193
2116	200,303,193	0	0	88,200	13,617,668	213,832,661
2117	213,832,661	0	0	88,200	14,537,671	228,282,132
2118	228,282,132	0	0	88,200	15,520,236	243,714,168
2119	243,714,168	0	0	88,200	16,569,614	260,195,582
2120	260,195,582	0	0	88,200	17,690,350	277,797,732
2121	277,797,732	0	0	88,200	18,887,296	296,596,828
2122	296,596,828	0	0	88,200	20,165,635	316,674,263



Single Discount Rate Development

Present Values of Projected Benefits

Ending December 31 for 2023 to 2072

Year	Projected Plan 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 (v)	Present Value of Unfunded Benefit Payments using Municipal Bond Rate (vf)	Present Value of All Benefit Payments using Single Discount Rate (SDR)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v ^a (a)-.5)	(g)=(e)*vf ^a (a)-.5)	(h)=(c)/(1+SDR) ^a (a)-.5)
2023	\$ 127,301,806	\$ 15,413,838	\$ 15,413,838	\$ 0	\$ 14,915,065	\$ 0	\$ 14,915,065
2024	130,566,111	15,177,281	15,177,281	0	13,751,089	0	13,751,089
2025	126,349,774	14,908,057	14,908,057	0	12,647,157	0	12,647,157
2026	122,185,279	14,606,272	14,606,272	0	11,602,191	0	11,602,191
2027	118,111,159	14,277,805	14,277,805	0	10,619,176	0	10,619,176
2028	114,162,520	13,924,275	13,924,275	0	9,696,851	0	9,696,851
2029	110,375,216	13,545,231	13,545,231	0	8,832,289	0	8,832,289
2030	106,788,035	13,145,515	13,145,515	0	8,025,890	0	8,025,890
2031	103,437,434	12,724,936	12,724,936	0	7,274,447	0	7,274,447
2032	100,362,578	12,284,758	12,284,758	0	6,575,665	0	6,575,665
2033	94,400,513	11,828,172	11,828,172	0	5,928,154	0	5,928,154
2034	88,504,882	11,356,075	11,356,075	0	5,329,161	0	5,329,161
2035	82,696,232	10,871,291	10,871,291	0	4,776,837	0	4,776,837
2036	76,993,590	10,374,851	10,374,851	0	4,268,448	0	4,268,448
2037	71,416,210	9,870,337	9,870,337	0	3,802,321	0	3,802,321
2038	65,980,954	9,358,765	9,358,765	0	3,375,702	0	3,375,702
2039	60,704,779	8,840,076	8,840,076	0	2,985,591	0	2,985,591
2040	55,605,859	8,315,210	8,315,210	0	2,629,519	0	2,629,519
2041	50,702,630	7,783,629	7,783,629	0	2,304,698	0	2,304,698
2042	46,015,339	7,248,108	7,248,108	0	2,009,487	0	2,009,487
2043	41,562,741	6,710,814	6,710,814	0	1,742,066	0	1,742,066
2044	37,362,629	6,174,455	6,174,455	0	1,500,779	0	1,500,779
2045	33,431,204	5,642,204	5,642,204	0	1,284,090	0	1,284,090
2046	29,782,493	5,117,583	5,117,583	0	1,090,537	0	1,090,537
2047	26,427,833	4,604,395	4,604,395	0	918,707	0	918,707
2048	23,375,407	4,106,751	4,106,751	0	767,240	0	767,240
2049	20,629,700	3,628,930	3,628,930	0	634,805	0	634,805
2050	18,191,086	3,175,266	3,175,266	0	520,081	0	520,081
2051	16,055,481	2,749,737	2,749,737	0	421,707	0	421,707
2052	14,214,413	2,355,699	2,355,699	0	338,273	0	338,273
2053	12,655,369	1,995,798	1,995,798	0	268,345	0	268,345
2054	11,362,245	1,671,755	1,671,755	0	210,464	0	210,464
2055	10,316,068	1,384,333	1,384,333	0	163,183	0	163,183
2056	9,495,785	1,133,182	1,133,182	0	125,073	0	125,073
2057	8,879,272	916,966	916,966	0	94,764	0	94,764
2058	8,444,283	733,719	733,719	0	70,999	0	70,999
2059	8,169,090	580,934	580,934	0	52,635	0	52,635
2060	8,033,078	455,677	455,677	0	38,658	0	38,658
2061	8,017,262	354,766	354,766	0	28,181	0	28,181
2062	8,104,657	274,869	274,869	0	20,444	0	20,444
2063	8,280,563	212,678	212,678	0	14,811	0	14,811
2064	8,532,702	165,069	165,069	0	10,764	0	10,764
2065	8,851,187	129,173	129,173	0	7,887	0	7,887
2066	9,228,426	102,493	102,493	0	5,859	0	5,859
2067	9,658,889	82,889	82,889	0	4,437	0	4,437
2068	10,138,883	68,543	68,543	0	3,435	0	3,435
2069	10,666,342	57,982	57,982	0	2,721	0	2,721
2070	11,240,583	50,043	50,043	0	2,199	0	2,199
2071	11,862,077	43,854	43,854	0	1,804	0	1,804
2072	12,532,228	38,776	38,776	0	1,494	0	1,494



Single Discount Rate Development

Present Values of Projected Benefits

Ending December 31 for 2073 to 2122 (concluded)

Year	Projected Beginning Plan 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 (v)	Present Value of Unfunded Benefit Payments using Municipal Bond Rate (vf)	Present Value of All Benefit Payments using Single Discount Rate (SDR)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v^(a)-.5	(g)=(e)*vf^(a)-.5	(h)=((c)/(1+SDR)^(a-.5))
2073	\$ 13,253,197	\$ 34,355	\$ 34,355	\$ 0	\$ 1,239	\$ 0	\$ 1,239
2074	14,027,761	30,313	30,313	0	1,024	0	1,024
2075	14,859,173	26,513	26,513	0	838	0	838
2076	15,751,047	22,896	22,896	0	678	0	678
2077	16,707,307	19,472	19,472	0	540	0	540
2078	17,732,132	16,275	16,275	0	422	0	422
2079	18,829,948	13,352	13,352	0	325	0	325
2080	20,005,436	10,754	10,754	0	245	0	245
2081	21,263,543	8,498	8,498	0	181	0	181
2082	22,609,532	6,576	6,576	0	131	0	131
2083	24,049,035	4,974	4,974	0	93	0	93
2084	25,588,079	3,669	3,669	0	64	0	64
2085	27,233,128	2,635	2,635	0	43	0	43
2086	28,991,108	1,840	1,840	0	28	0	28
2087	30,869,452	1,249	1,249	0	18	0	18
2088	32,876,135	822	822	0	11	0	11
2089	35,019,713	524	524	0	7	0	7
2090	37,309,362	325	325	0	4	0	4
2091	39,754,914	194	194	0	2	0	2
2092	42,366,898	112	112	0	1	0	1
2093	45,156,581	63	63	0	1	0	1
2094	48,136,014	34	34	0	0	0	0
2095	51,318,079	18	18	0	0	0	0
2096	54,716,540	10	10	0	0	0	0
2097	58,346,105	5	5	0	0	0	0
2098	62,222,485	3	3	0	0	0	0
2099	66,362,462	1	1	0	0	0	0
2100	70,783,959	1	1	0	0	0	0
2101	75,506,117	0	0	0	0	0	0
2102	80,549,384	0	0	0	0	0	0
2103	85,935,593	0	0	0	0	0	0
2104	91,688,063	0	0	0	0	0	0
2105	97,831,702	0	0	0	0	0	0
2106	104,393,109	0	0	0	0	0	0
2107	111,400,690	0	0	0	0	0	0
2108	118,884,788	0	0	0	0	0	0
2109	126,877,804	0	0	0	0	0	0
2110	135,414,345	0	0	0	0	0	0
2111	144,531,371	0	0	0	0	0	0
2112	154,268,355	0	0	0	0	0	0
2113	164,667,454	0	0	0	0	0	0
2114	175,773,691	0	0	0	0	0	0
2115	187,635,152	0	0	0	0	0	0
2116	200,303,193	0	0	0	0	0	0
2117	213,832,661	0	0	0	0	0	0
2118	228,282,132	0	0	0	0	0	0
2119	243,714,168	0	0	0	0	0	0
2120	260,195,582	0	0	0	0	0	0
2121	277,797,732	0	0	0	0	0	0
2122	296,596,828	0	0	0	0	0	0
Totals	\$				\$ 151,702,075	\$ 0	\$ 151,702,075



SECTION H

GLOSSARY OF TERMS

Glossary of Terms

Accrued Service	Service credited under the system that was rendered before the date of the actuarial valuation.
Actuarial Accrued Liability (AAL)	The AAL is the difference between the actuarial present value of all benefits and the actuarial value of future normal costs. The definition comes from the fundamental equation of funding which states that the present value of all benefits is the sum of the Actuarial Accrued Liability and the present value of future normal costs. The AAL may also be referred to as "accrued liability" or "actuarial liability."
Actuarial Assumptions	These assumptions are estimates of future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and compensation increases. Actuarial assumptions are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (compensation increases, payroll growth, inflation and investment return) consist of an underlying real rate of return plus an assumption for a long-term average rate of inflation.
Actuarial Cost Method	A mathematical budgeting procedure for allocating the dollar amount of the actuarial present value of the pension trust benefits between future normal cost and actuarial accrued liability. The actuarial cost method may also be referred to as the actuarial funding method.
Actuarial Equivalent	A single amount or series of amounts of equal actuarial value to another single amount or series of amounts, computed on the basis of appropriate actuarial assumptions.
Actuarial Gain (Loss)	The difference in liabilities between actual experience and expected experience during the period between two actuarial valuations is the gain (loss) on the accrued liabilities.
Actuarial Present Value (APV)	The amount of funds currently required to provide a payment or series of payments in the future. The present value is determined by discounting future payments at predetermined rates of interest and probabilities of payment.
Actuarial Valuation	The actuarial valuation report determines, as of the actuarial valuation date, the service cost, total pension liability, and related actuarial present value of projected benefit payments for pensions.
Actuarial Valuation Date	The date as of which an actuarial valuation is performed.
Actuarially Determined Contribution (ADC) or Annual Required Contribution (ARC)	A calculated contribution into a defined benefit pension plan for the reporting period, most often determined based on the funding policy of the plan. Typically, the Actuarially Determined Contribution has a normal cost payment and an amortization payment.



Glossary of Terms

Amortization Method	The method used to determine the periodic amortization payment may be a level dollar amount, or a level percent of pay amount. The period will typically be expressed in years, and the method will either be “open” (meaning, reset each year) or “closed” (the number of years remaining will decline each year).
Amortization Payment	The amortization payment is the periodic payment required to pay off an interest-discounted amount with payments of interest and principal.
Cost-of-Living Adjustments	Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.
Cost-Sharing Multiple-Employer Defined Benefit Pension Plan (cost-sharing pension plan)	A multiple-employer defined benefit pension plan in which the pension obligations to the employees of more than one employer are pooled and pension plan assets can be used to pay the benefits of the employees of any employer that provides pensions through the pension plan.
Covered-Employee Payroll	The payroll of employees that are provided with pensions through the pension plan.
Deferred Inflows and Outflows	The deferred inflows and outflows of pension resources are amounts used under GASB Statement No. 68 in developing the annual pension expense. Deferred inflows and outflows arise with differences between expected and actual experiences; changes of assumptions. The portion of these amounts not included in pension expense should be included in the deferred inflows or outflows of resources.
Deferred Retirement Option Program (DROP)	A program that permits a plan member to elect a calculation of benefit payments based on service credits and salary, as applicable, as of the DROP entry date. The plan member continues to provide service to the employer and is paid for the service by the employer after the DROP entry date; however, the pensions that would have been paid to the plan member are credited to an individual member account within the defined benefit pension plan until the end of the DROP period. Other variations for DROP exist and will be more fully detailed in the plan provision section of the valuation report.

Glossary of Terms

Discount Rate

For GASB purposes, the discount rate is the single rate of return that results in the present value of all projected benefit payments to be equal to the sum of the funded and unfunded projected benefit payments, specifically:

1. The benefit payments to be made while the pension plans' fiduciary net position is projected to be greater than the benefit payments that are projected to be made in the period; and
2. The present value of the benefit payments not in (1) above, discounted using the municipal bond rate.

Entry Age Actuarial Cost Method (EAN)

The EAN is a cost method for allocating the costs of the plan between the normal cost and the accrued liability. The actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis (either level dollar or level percent of pay) over the earnings or service of the individual between entry age and assumed exit ages(s). The portion of the actuarial present value allocated to a valuation year is the normal cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future normal costs is the actuarial accrued liability. The sum of the accrued liability plus the present value of all future normal costs is the present value of all benefits.

Fiduciary Net Position

The fiduciary net position is the market value of the assets of the trust dedicated to the defined benefit provisions.

GASB

The Governmental Accounting Standards Board is an organization that exists in order to promulgate accounting standards for governmental entities.

Money-Weighted Rate of Return

The money-weighted rate of return is a method of calculating the returns that adjusts for the changing amounts actually invested. For purposes of GASB Statement No. 67, money-weighted rate of return is calculated as the internal rate of return on pension plan investments, net of pension plan investment expense.

Multiple-Employer Defined Benefit Pension Plan

A multiple-employer plan is a defined benefit pension plan that is used to provide pensions to the employees of more than one employer.

Municipal Bond Rate

The Municipal Bond Rate is the discount rate to be used for those benefit payments that occur after the assets of the trust have been depleted.

Net Pension Liability (NPL)

The NPL is the liability of employers and non-employer contributing entities to plan members for benefits provided through a defined benefit pension plan.



Glossary of Terms

Other Postemployment Benefits (OPEB)	All postemployment benefits other than retirement income (such as death benefits, life insurance, disability, and long-term care) that are provided separately from a pension plan, as well as postemployment healthcare benefits regardless of the manner in which they are provided. Other post-employment benefits do not include termination benefits.
Real Rate of Return	The real rate of return is the rate of return on an investment after adjustment to eliminate inflation.
Service Cost	The service cost is the portion of the actuarial present value of projected benefit payments that is attributed to a valuation year.
Total Pension Expense	The total pension expense is the sum of the following items that are recognized at the end of the employer's fiscal year: <ol style="list-style-type: none">1. Service Cost2. Interest on the Total Pension Liability3. Current-Period Benefit Changes4. Employee Contributions (made negative for addition here)5. Projected Earnings on Plan Investments (made negative for addition here)6. Pension Plan Administrative Expense7. Other Changes in Plan Fiduciary Net Position8. Recognition of Outflow (Inflow) of Resources due to Liabilities9. Recognition of Outflow (Inflow) of Resources due to Assets
Total Pension Liability (TPL)	The TPL is the portion of the actuarial present value of projected benefit payments that is attributed to past periods of member service.
Unfunded Actuarial Accrued Liability (UAAL)	The UAAL is the difference between actuarial accrued liability and valuation assets.
Valuation Assets	The valuation assets are the assets used in determining the unfunded liability of the plan. For purposes of GASB Statement Nos. 67 and 68, the valuation assets are equal to the market value of assets.