

Wyoming Volunteer Firefighter, EMT, and Search and Rescue Pension Plan

GASB Statement Nos. 67 and 68 Accounting and Financial
Reporting for Pensions

For Measurement Date as of December 31, 2023





March 27, 2024

Board of Trustees
Wyoming Volunteer Firefighter, EMT, and Search and Rescue Pension Plan

Dear Board Members:

This report provides information required by the Wyoming Volunteer Firefighter, EMT, and Search and Rescue Pension Plan (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 Volunteer Firefighter, EMT, and Search and Rescue Pension Plan ("WRS") 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 Volunteer Firefighter, EMT, and Search and Rescue Pension Plan as of the valuation date.

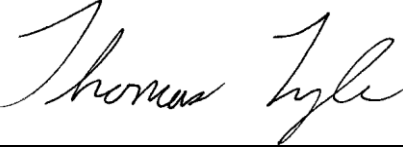
All calculations have been made in conformity with generally accepted actuarial principles and practices as well as with the Actuarial Standards of Practice issued by the Actuarial Standards Board.


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

By 
Paul T. Wood, ASA, FCA, MAAA

By 
Thomas A. Lyle, FSA, EA, FCA, MAAA

By 
Dana Woolfrey, FSA, EA, FCA, MAAA


By 
Karli Fehrman, ASA, MAAA



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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	1,678
- Inactive, Nonretired Members	2,398
- Active Members	2,324
- Total	6,400
Covered Payroll	N/A

Net Pension Liability

Total Pension Liability	\$ 125,062,947
Plan Fiduciary Net Position	117,524,714
Net Pension Liability	\$ 7,538,233
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	93.97 %
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	\$ 102,856
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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	\$ 54,683	\$ 606,126
Changes in assumptions	233,891	0
Net difference between projected and actual earnings on pension plan investments	8,695,796	9,510,949
Total	\$ 8,984,370	\$ 10,117,075

*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 following outcomes are expected:

1. The employer normal cost is expected to decrease for several years before stabilizing to a level dollar amount.
2. The unfunded liability is expected to be fully amortized during the lifetimes of current members.
3. The funded status of the plan is expected to increase gradually towards 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 Volunteer Firefighter, EMT, and Search and Rescue Pension Plan. 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	\$	1,787,399
2. Interest on the Total Pension Liability		8,151,557
3. Current-Period Benefit Changes		0
4. Employee Contributions (made negative for addition here)		(593,507)
5. Projected Earnings on Plan Investments (made negative for addition here)		(6,884,070)
6. Pension Plan Administrative Expense		116,979
7. Other Changes in Plan Fiduciary Net Position		7,654
8. Recognition of Outflow (Inflow) of Resources due to Liabilities		40,931
9. Recognition of Outflow (Inflow) of Resources due to Assets		(2,524,087)
10. Total Pension Expense	\$	102,856 *

* 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	\$	(266,212)
2. Assumption Changes (gains) or losses	\$	0
3. Recognition period for Liabilities: Average of the expected remaining service lives of all employees {in years}		4.2606
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	\$	(62,482)
5. Outflow (Inflow) of Resources to be recognized in the current pension expense for assumption changes	\$	0
6. Outflow (Inflow) of Resources to be recognized in the current pension expense due to Liabilities	\$	(62,482)
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	\$	(203,730)
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	\$	(203,730)

B. Outflows (Inflows) of Resources due to Assets

1. Net difference between projected and actual earnings on pension plan investments (gains) or losses	\$	(6,529,546)
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	\$	(1,305,909)
4. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Assets	\$	(5,223,637)



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	7.2249	3.7588	3.7634	4.2211	4.0727	4.0494	3.9911	4.7012	4.4937	4.2606		Deferred Net (Inflows)/Outflows at Measurement Date
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total	
Total	\$ -	\$ (211,035)	\$ (479,308)	\$ (3,538,907)	\$ (1,397,503)	\$ 441,209	\$ 361,487	\$ 151,112	\$ (725,126)	\$ (266,212)	\$ (5,664,283)	
2014	-	-	-	-	-	-	-	-	-	-	-	-
2015	-	(56,144)	-	-	-	-	-	-	-	-	(56,144)	(56,144)
2016	-	(56,144)	(127,360)	-	-	-	-	-	-	-	(183,504)	(183,504)
2017	-	(56,144)	(127,360)	(838,385)	-	-	-	-	-	-	(1,021,889)	(1,021,889)
2018	-	(42,603)	(127,360)	(838,385)	(343,139)	-	-	-	-	-	(1,351,487)	(1,351,487)
2019	-	-	(97,228)	(838,385)	(343,139)	108,957	-	-	-	-	(1,169,795)	(1,169,795)
2020	-	-	-	(838,385)	(343,139)	108,957	90,573	-	-	-	(981,994)	(981,994)
2021	-	-	-	(185,367)	(343,139)	108,957	90,573	32,143	-	-	(296,833)	(296,833)
2022	-	-	-	-	(24,947)	108,957	90,573	32,143	(161,365)	-	45,361	45,361
2023	-	-	-	-	-	-	89,768	32,143	(161,365)	(62,482)	(96,555)	(96,555)
2024	-	-	-	-	-	5,381	-	32,143	(161,365)	(62,482)	(191,704)	(191,704)
2025	-	-	-	-	-	-	-	22,540	(161,365)	(62,482)	(201,307)	(201,307)
2026	-	-	-	-	-	-	-	-	(79,666)	(62,482)	(142,148)	(142,148)
2027	-	-	-	-	-	-	-	-	-	(16,284)	(16,284)	(16,284)
2028	-	-	-	-	-	-	-	-	-	-	-	-
Thereafter	-	-	-	-	-	-	-	-	-	-	-	-
Total	\$ -	\$ (211,035)	\$ (479,308)	\$ (3,538,907)	\$ (1,397,503)	\$ 441,209	\$ 361,487	\$ 151,112	\$ (725,126)	\$ (266,212)	\$ (5,664,283)	\$ (551,443)

Assumption changes - Net (inflows)/outflows of resources

Recognition Period	7.2249	3.7588	3.7634	4.2211	4.0727	4.0494	3.9911	4.7012	4.4937	4.2606		Deferred Net (Inflows)/Outflows at Measurement Date
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total	
Total	\$ 389,295	\$ (472,252)	\$ -	\$ 5,273,789	\$ -	\$ -	\$ -	\$ 646,349	\$ -	\$ -	\$ 5,837,181	
2014	53,882	-	-	-	-	-	-	-	-	-	53,882	53,882
2015	53,882	(125,639)	-	-	-	-	-	-	-	-	(71,757)	(71,757)
2016	53,882	(125,639)	-	-	-	-	-	-	-	-	(71,757)	(71,757)
2017	53,882	(125,639)	-	1,249,387	-	-	-	-	-	-	1,177,630	1,177,630
2018	53,882	(95,335)	-	1,249,387	-	-	-	-	-	-	1,207,934	1,207,934
2019	53,882	-	-	1,249,387	-	-	-	-	-	-	1,303,269	1,303,269
2020	53,882	-	-	1,249,387	-	-	-	-	-	-	1,303,269	1,303,269
2021	12,121	-	-	276,241	-	-	-	-	-	-	425,848	425,848
2022	-	-	-	-	-	-	-	137,486	-	-	137,486	137,486
2023	-	-	-	-	-	-	-	137,486	-	-	137,486	137,486
2024	-	-	-	-	-	-	-	137,486	-	-	137,486	137,486
2025	-	-	-	-	-	-	-	96,405	-	-	96,405	96,405
2026	-	-	-	-	-	-	-	-	-	-	-	-
2027	-	-	-	-	-	-	-	-	-	-	-	-
2028	-	-	-	-	-	-	-	-	-	-	-	-
Thereafter	-	-	-	-	-	-	-	-	-	-	-	-
Total	\$ 389,295	\$ (472,252)	\$ -	\$ 5,273,789	\$ -	\$ -	\$ -	\$ 646,349	\$ -	\$ -	\$ 5,837,181	\$ 233,891



History of Deferred Outflows and Inflows of Resources by Source

Fiscal Year Ended December 31, 2023

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	\$ 2,065,788	\$ 6,323,926	\$ 491,432	\$ (4,929,730)	\$ 8,416,656	\$ (8,468,230)	\$ (2,794,755)	\$ (9,320,901)	\$ 14,492,994	\$ (6,529,546)		
2014	413,158										413,158	
2015	413,158	1,264,785									1,677,943	
2016	413,158	1,264,785	98,286								1,776,229	
2017	413,158	1,264,785	98,286	(985,946)							790,283	
2018	413,156	1,264,785	98,286	(985,946)	1,683,331						2,473,612	
2019	-	1,264,786	98,286	(985,946)	1,683,331	(1,693,646)					366,811	
2020	-	-	98,288	(985,946)	1,683,331	(1,693,646)	(558,951)				(1,456,924)	
2021	-	-	-	(985,946)	1,683,331	(1,693,646)	(558,951)	(1,864,180)			(3,419,392)	
2022	-	-	-	-	1,683,332	(1,693,646)	(558,951)	(1,864,180)	2,898,599		465,154	
2023	-	-	-	-	-	(1,693,646)	(558,951)	(1,864,180)	2,898,599	(1,305,909)	(2,524,087)	
2024	-	-	-	-	-	-	(558,951)	(1,864,180)	2,898,599	(1,305,909)	(830,441)	\$ (815,153)
2025	-	-	-	-	-	-	-	(1,864,181)	2,898,599	(1,305,909)	(271,491)	
2026	-	-	-	-	-	-	-	-	2,898,598	(1,305,909)	1,592,689	
2027	-	-	-	-	-	-	-	-	-	(1,305,910)	(1,305,910)	
2028	-	-	-	-	-	-	-	-	-	-	-	
Thereafter	-	-	-	-	-	-	-	-	-	-	-	
	\$ 2,065,788	\$ 6,323,926	\$ 491,432	\$ (4,929,730)	\$ 8,416,656	\$ (8,468,230)	\$ (2,794,755)	\$ (9,320,901)	\$ 14,492,994	\$ (6,529,546)	\$ (252,366)	

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

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total	
Total	\$ 2,455,083	\$ 5,640,639	\$ 12,124	\$ (3,194,848)	\$ 7,019,153	\$ (8,027,021)	\$ (2,433,268)	\$ (8,523,440)	\$ 13,767,868	\$ (6,795,758)		
2014	467,040										467,040	
2015	467,040	1,083,002									1,550,042	
2016	467,040	1,083,002	(29,074)								1,520,968	
2017	467,040	1,083,002	(29,074)	(574,944)							946,024	
2018	467,038	1,126,847	(29,074)	(574,944)	1,340,192						2,330,059	
2019	53,882	1,264,786	1,058	(574,944)	1,340,192	(1,584,689)					500,285	
2020	53,882	-	98,288	(574,944)	1,340,192	(1,584,689)	(468,378)				(1,135,649)	
2021	12,121	-	-	(895,072)	1,340,192	(1,584,689)	(468,378)	(1,694,551)			(3,290,377)	
2022	-	-	-	-	1,658,385	(1,584,689)	(468,378)	(1,694,551)	2,737,234		648,001	
2023	-	-	-	-	-	(1,688,265)	(469,183)	(1,694,551)	2,737,234	(1,368,391)	(2,483,156)	
2024	-	-	-	-	-	-	(558,951)	(1,694,551)	2,737,234	(1,368,391)	(884,659)	\$ (1,132,705)
2025	-	-	-	-	-	-	-	(1,745,236)	2,737,234	(1,368,391)	(376,393)	
2026	-	-	-	-	-	-	-	-	2,818,932	(1,368,391)	1,450,541	
2027	-	-	-	-	-	-	-	-	-	(1,322,194)	(1,322,194)	
2028	-	-	-	-	-	-	-	-	-	-	-	
Thereafter	-	-	-	-	-	-	-	-	-	-	-	
	\$ 2,455,083	\$ 5,640,639	\$ 12,124	\$ (3,194,848)	\$ 7,019,153	\$ (8,027,021)	\$ (2,433,268)	\$ (8,523,440)	\$ 13,767,868	\$ (6,795,758)	\$ (79,468)	



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	\$ 264,778	\$ 223,847	\$ 40,931
2. Due to Assets	2,898,599	5,422,686	(2,524,087)
3. Total	\$ 3,163,377	\$ 5,646,533	\$ (2,483,156)

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	\$ 127,292	\$ 223,847	\$ (96,555)
2. Assumption Changes	137,486	0	137,486
3. Net Difference between projected and actual earnings on pension plan investments	2,898,599	5,422,686	(2,524,087)
4. Total	\$ 3,163,377	\$ 5,646,533	\$ (2,483,156)

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	\$ 54,683	\$ 606,126	\$ (551,443)
2. Assumption Changes	233,891	0	233,891
3. Net Difference between projected and actual earnings on pension plan investments	8,695,796	9,510,949	(815,153)
4. Total	\$ 8,984,370	\$ 10,117,075	\$ (1,132,705)

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	\$ (884,659)
2025	(376,393)
2026	1,450,541
2027	(1,322,194)
2028	0
Thereafter	0
Total	\$ (1,132,705)



Statement of Fiduciary Net Position as of December 31, 2023

	2023
Assets	
Cash and Deposits	\$ 4,938,530
Receivables	
Accounts Receivable - Sale of Investments	\$ 2,657,528
Accrued Interest and Other Dividends	227,951
Contributions	39,904
Accounts Receivable - Other	8,323,146
Total Receivables	\$ 11,248,529
Investments	
Fixed Income	\$ 18,191,305
Equities	54,081,098
Private Markets	14,868,330
Marketable Alternatives	21,613,925
Security Lending Collateral	3,246,035
Capital Assets, at Cost, Net of Accumulated Depreciation	38,027
Total Investments	\$ 112,038,720
Total Assets	\$ 128,225,779
Liabilities	
Payables	
Accounts Payable - Purchase of Investments	\$ 10,513,761
Accrued Expenses	187,290
Accounts Payable - Other	14
Total Liabilities	\$ 10,701,065
Net Position Restricted for Pensions	\$ 117,524,714



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

	2023
Additions	
Contributions	
Employer	\$ 0
Employee	569,045
Other Employer Contributions	12,808,014
Other Employee Contributions	24,462
Total Contributions	\$ 13,401,521
Investment Income	
Net Appreciation in Fair Value of Investments	\$ 11,812,464
Interest and Dividends	2,433,295
Less Investment Expense	(832,143)
Net Investment Income	\$ 13,413,616
Other	\$ 0
Total Additions	\$ 26,815,137
 Deductions	
Benefit Payments, including Refunds of Employee Contributions	\$ 7,620,366
Pension Plan Administrative Expense	116,979
Other	7,654
Total Deductions	\$ 7,744,999
Net Increase in Net Position	\$ 19,070,138
 Net Position Restricted for Pensions	
Beginning of Year	\$ 98,454,576
End of Year	\$ 117,524,714



SECTION C

REQUIRED SUPPLEMENTARY INFORMATION

Auditor's Note – This information is intended to assist in preparation of the financial statements of the Wyoming Volunteer Firefighter, EMT, and Search and Rescue Pension Plan. 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	\$ 1,787,399
2. Interest on the total pension liability	8,151,557
3. Changes of benefit terms	0
4. Difference between expected and actual experience of the total pension liability	(266,212)
5. Changes of assumptions	0
6. Benefit payments, including refunds of employee contributions	(7,620,366)
7. Net change in total pension liability	2,052,378
8. Total pension liability – beginning	123,010,569
9. Total pension liability – ending	\$ 125,062,947
B. Plan fiduciary net position	
1. Contributions – employer	\$ 12,808,014
2. Contributions – employee	593,507
3. Net investment income	13,413,616
4. Benefit payments, including refunds of employee contributions	(7,620,366)
5. Pension plan administrative expense	(116,979)
6. Other	(7,654)
7. Net change in plan fiduciary net position	19,070,138
8. Plan fiduciary net position – beginning	98,454,576
9. Plan fiduciary net position – ending	\$ 117,524,714
C. Net pension liability	\$ 7,538,233
D. Plan fiduciary net position as a percentage of the total pension liability	93.97 %
E. Covered-employee payroll	N/A
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
Total pension liability									
Service cost	\$ 1,787,399	\$ 1,792,369	\$ 1,805,233	\$ 1,501,573	\$ 1,432,649	\$ 1,426,154	\$ 1,412,440	\$ 1,285,552	\$ 1,253,883
Interest on the total pension liability	8,151,557	8,011,636	7,891,422	7,885,554	7,685,536	7,474,042	7,372,254	7,761,646	7,520,888
Changes of benefit terms	0	0	0	0	0	0	0	0	21,809,884
Difference between expected and actual experience	(266,212)	(725,126)	151,112	361,487	441,209	(1,397,503)	(3,538,907)	(479,308)	(211,035)
Changes of assumptions	0	0	646,349	0	0	0	5,273,789	0	(472,252)
Benefit payments, including refunds of employee contributions	(7,620,366)	(7,339,619)	(7,059,693)	(6,810,666)	(6,506,775)	(6,145,822)	(5,813,888)	(5,541,861)	(4,867,630)
Net change in total pension liability	2,052,378	1,739,260	3,434,423	2,937,948	3,052,619	1,356,871	4,705,688	3,026,029	25,033,738
Total pension liability - beginning	123,010,569	121,271,309	117,836,886	114,898,938	111,846,319	110,489,448	105,783,760	102,757,731	77,723,993
Total pension liability - ending (a)	\$ 125,062,947	\$ 123,010,569	\$ 121,271,309	\$ 117,836,886	\$ 114,898,938	\$ 111,846,319	\$ 110,489,448	\$ 105,783,760	\$ 102,757,731
Plan fiduciary net position									
Employer contributions	\$ 12,808,014	\$ 3,866,570	\$ 4,670,469	\$ 5,509,382	\$ 3,118,824	\$ 2,959,943	\$ 3,290,994	\$ 3,198,930	\$ 2,238,612
Employee contributions	593,507	558,326	573,113	520,788	437,255	434,522	425,592	459,363	417,406
Pension plan net investment income	13,413,616	(7,203,572)	15,709,526	8,848,756	13,701,406	(2,782,682)	10,035,753	4,939,925	(675,297)
Benefit payments, including refunds of employee contributions	(7,620,366)	(7,339,619)	(7,059,693)	(6,810,666)	(6,506,775)	(6,145,822)	(5,813,888)	(5,541,861)	(4,867,630)
Pension plan administrative expense	(116,979)	(107,648)	(95,155)	(86,519)	(89,451)	(91,195)	(88,835)	(80,904)	(73,412)
Other	(7,654)	(6,300)	(3,410)	(3,290)	(3,455)	(3,201)	(3,453)	(3,453)	(3,470)
Net change in plan fiduciary net position	19,070,138	(10,232,243)	13,794,850	7,978,451	10,657,804	(5,628,435)	7,846,163	2,972,000	(2,963,791)
Plan fiduciary net position - beginning	98,454,576	108,686,819	94,891,969	86,913,518	76,255,714	81,884,149	74,037,986	71,065,986	74,029,777
Plan fiduciary net position - ending (b)	\$ 117,524,714	\$ 98,454,576	\$ 108,686,819	\$ 94,891,969	\$ 86,913,518	\$ 76,255,714	\$ 81,884,149	\$ 74,037,986	\$ 71,065,986
Net pension liability - ending (a) - (b)	\$ 7,538,233	\$ 24,555,993	\$ 12,584,490	\$ 22,944,917	\$ 27,985,420	\$ 35,590,605	\$ 28,605,299	\$ 31,745,774	\$ 31,691,745
Plan fiduciary net position as a percentage of total pension liability	93.97 %	80.04 %	89.62 %	80.53 %	75.64 %	68.18 %	74.11 %	69.99 %	69.16 %
Covered-employee payroll	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Net pension liability as a percentage of covered-employee payroll	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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.



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
2015	\$ 102,757,731	\$ 71,065,986	\$ 31,691,745	69.16 %	N/A	N/A
2016	105,783,760	74,037,986	31,745,774	69.99 %	N/A	N/A
2017	110,489,448	81,884,149	28,605,299	74.11 %	N/A	N/A
2018	111,846,319	76,255,714	35,590,605	68.18 %	N/A	N/A
2019	114,898,938	86,913,518	27,985,420	75.64 %	N/A	N/A
2020	117,836,886	94,891,969	22,944,917	80.53 %	N/A	N/A
2021	121,271,309	108,686,819	12,584,490	89.62 %	N/A	N/A
2022	123,010,569	98,454,576	24,555,993	80.04 %	N/A	N/A
2023	125,062,947	117,524,714	7,538,233	93.97 %	N/A	N/A



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
2015	\$ 1,139,454	\$ 2,238,612	\$ (1,099,158)	N/A	N/A
2016	3,128,272	3,198,930	(70,658)	N/A	N/A
2017	2,923,585	3,290,994	(367,409)	N/A	N/A
2018	3,275,465	2,959,943	315,522	N/A	N/A
2019	3,543,372	3,118,824	424,548	N/A	N/A
2020	3,669,138	5,509,382	(1,840,244)	N/A	N/A
2021	3,318,686	4,670,469	(1,351,783)	N/A	N/A
2022	3,130,017	3,866,570	(736,553)	N/A	N/A
2023	3,034,771	12,808,014	(9,773,243)	N/A	N/A

* The Volunteer Firefighter, EMT, and Search and Rescue Retirement System is a new plan with new benefit provisions formed as of July 1, 2015 from the discontinued prior Volunteer Firemen's Pension Plan and the Volunteer EMT Pension Plan. The Actuarially Determined Contribution for 2015 is the sum of the amounts for the prior plans determined as of their respective January 1, 2015 actuarial valuations.

** Includes other funding sources but excludes member redeposits and member service purchase contributions.



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, Closed
Remaining Amortization Period	27 years
Asset Valuation Method	5-Year smoothed market
Inflation	2.25%
Salary Increases	0.00%
Investment Rate of Return	6.80%
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the 2022 valuation pursuant to an experience study of the period 2016 - 2020.
Post-Retirement Mortality	Pub-2010 General 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 103%
Pre-Retirement Mortality	Pub-2010 General Employee 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 Volunteer Firefighter, EMT, and Search and Rescue Retirement System is a new plan with new benefit provisions formed as of July 1, 2015 from the discontinued prior Volunteer Firemen's Pension Plan and the Volunteer EMT Pension Plan. 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>
2015	(0.26)%
2016	7.60 %
2017	14.20 %
2018	(3.52)%
2019	18.72 %
2020	11.03 %
2021	17.19 %
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 Volunteer Firefighter, EMT, and Search and Rescue Pension Plan. 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 the expected rate of return on pension plan investments of 6.80%. The projection of cash flows used to determine this Single Discount Rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the estimated fire tax rates, projected with inflation. Based on these assumptions, the pension plan's fiduciary net position was projected to be available to make 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 Result

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%
\$ 22,430,017	\$ 7,538,233	\$ (4,823,067)



Summary of Population Statistics

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	1,678
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	2,398
Active Plan Members	<u>2,324</u>
Total Plan Members	6,400



SECTION E

SUMMARY OF BENEFITS

Summary of Benefits

Covered Members	Any volunteer firefighter, EMT, or search and rescue employee for whom payments are received by the Volunteer Firefighter, EMT, and Search and Rescue pension account as prescribed in W.S. 35-9-621(e).
Service Retirement	
Eligibility	Age 60 with 5 years of service.
Monthly Benefit	<p>\$16 per month for each of the first 10 years of service and \$19 per month for each year of service over 10.</p> <p>Normal Form of Payment is a 66% Joint & Survivor Annuity for married retirees and life annuity for unmarried retirees.</p> <p>Any contributing member of the discontinued Volunteer Firefighter Pension Plan and the Volunteer Emergency Medical Technician Pension Plan on June 30, 2015 is grandfathered in certain provisions of the discontinued plans, including receiving the greater of the benefit under the previous plan and the service retirement benefit under this plan.</p>
Vesting	Any member with five or more years of service who has left employment, and who has not withdrawn accumulated contributions, is eligible to receive the above benefit or can elect to receive a lump-sum refund of contributions with interest. In addition, a member with at least ten years of service may gain extra years of service by continuing to contribute, up to a maximum number of months served as an active member. A member who terminates with less than five years of service is only eligible for the lump-sum benefit.
Pre-retirement Death Benefit	
Eligibility	No age or service requirements.
Monthly Benefit	Upon the death of any participating member, the board shall authorize a monthly payment to the surviving spouse of the member during the spouse's remaining lifetime of an amount equal to 66% of the amount calculated above based on actual years of service, or five years of service if greater. Benefits are also payable to children under age 21, equal to 33% of the amount calculated above, upon death of the member and spouse.



Post-retirement Death Benefit

Monthly Benefit 66% of the member's benefit payable prior to the member's death. Benefits are also payable to children under age 21, equal to 33% of the amount calculated above, upon death of the member and spouse.

Lump Sum Death Benefit

Benefit A lump sum payment of \$5,000, or \$2,500 for members who contributed \$5.00 per month before July 1, 1989, less the amount of the monthly benefits paid to the estate upon the spouse's death. For a deceased member without an eligible survivor, the greater of the deceased member's account or \$5,000 (\$2,500 for certain members) is payable to the estate of the deceased member.

Contributions

Employee \$18.75 per month for volunteer firefighters and EMT
\$37.50 per month for search and rescue members

State 60% of gross fire insurance premium taxes paid on fire insurance policies in Wyoming.

Interest 3.00% annually.

Cost-of-Living Improvements W.S. 9-3-454 prohibits benefit changes, including cost-of-living increases, unless the funded ratio stays above 100% plus a margin for adverse experience throughout the life of the benefit change.



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 dollar amount. Under this method, the employer contribution amount is the sum of (i) the employer normal cost amount, and (ii) the amount 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, and sex. 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, or survivor's benefit. 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 unfunded 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 employer contribution amount which, if applied to 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 27 years from the valuation date. The Board's policy consists of amortizing the unfunded liability as of January 1, 2018, over a closed 30-year period with each subsequent amortization base created as a result of year to year experience changes over individual 20-year closed periods. The current year amortization base is determined by taking the current unfunded liability less the outstanding amounts of prior year bases.



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

Investment return: 6.80% per year, compounded annually, composed of an assumed 2.25% inflation rate and a 4.55% net real rate of return. This rate represents the assumed return, net of investment expenses.

5. Demographic Assumptions

a. Rates Before Retirement

Healthy Pre-Retirement Mortality:

Pub-2010 General Healthy Active 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%

Healthy Post-Retirement Mortality:

Pub-2010 General 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 103%

Age	Pre-Retirement		Post-Retirement	
	Projected to 2023 using the MP-2020 Ultimate Scale			
	Male	Female	Male	Female
20	0.03%	0.01%	0.03%	0.01%
25	0.02%	0.01%	0.02%	0.01%
30	0.03%	0.01%	0.03%	0.01%
35	0.04%	0.02%	0.04%	0.02%
40	0.06%	0.03%	0.06%	0.03%
45	0.08%	0.05%	0.09%	0.06%
50	0.12%	0.07%	0.25%	0.19%
55	0.18%	0.10%	0.36%	0.25%
60	0.27%	0.16%	0.52%	0.33%
65	0.39%	0.25%	0.77%	0.53%
70	0.60%	0.42%	1.30%	0.93%
75			2.29%	1.66%
80			4.13%	3.00%
85			7.67%	5.70%
90			13.51%	10.90%
95			21.73%	18.41%
100			31.36%	27.89%



b. Withdrawal Rates

Age	Withdrawal	
	Ultimate	
	Male	Female
20	10.00%	10.00%
25	6.00%	6.00%
30	5.00%	5.00%
35	4.00%	4.00%
40	4.00%	4.00%
45	3.00%	3.00%
50	2.50%	2.50%
55	1.50%	1.50%
60	1.00%	1.00%

c. Retirement Rates

Age	Rates
<60	0.00%
60	55.00%
61	25.00%
62	15.00%
63	15.00%
64	15.00%
65	25.00%
66	30.00%
67	20.00%
68	20.00%
69	20.00%
70	100.00%

6. Other Assumptions

- a. Percent married: 85.00% of employees 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. Administrative expenses: Average of actual expenses for the prior two years, with each year projected at 2.50% to the valuation date.
- e. Decrement timing: Decrements of all types are assumed to occur mid-year.
- f. 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.
- g. Incidence of contributions: Contributions are assumed to be received continuously throughout the year.
- h. Benefit service: All members are assumed to accrue one year of service each year.
- i. Premium tax allocation: Provided by staff and based on booked total premium taxes.
- j. Percent of eligible deferred vested members electing a refund: 25% of all future deferred vested members are assumed to leave their contributions in the fund and elect a deferred vested annuity payable commencing at age 60.
- k. No benefit data is available for members entitled to deferred benefits. The benefit is estimated using the final average compensation and service provided by WRS.



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)	Total Employer Contributions (e)	Employer Portion of New Entrant's Normal Cost (f)	Total Contributions (g)=(d)+(e)-(f)
2023	N/A	N/A	N/A	\$ 593,507	\$ 12,808,014	\$ -	\$ 13,401,521
2024	-	-	-	374,233	3,893,694	96,300	4,171,628
2025	-	-	-	347,134	3,981,302	183,946	4,144,491
2026	-	-	-	321,578	4,070,882	270,856	4,121,604
2027	-	-	-	298,124	4,162,477	350,849	4,109,752
2028	-	-	-	276,918	4,256,132	425,183	4,107,867
2029	-	-	-	257,748	4,351,895	489,304	4,120,339
2030	-	-	-	240,012	4,449,813	548,373	4,141,451
2031	-	-	-	223,261	4,549,934	600,959	4,172,236
2032	-	-	-	207,737	4,652,307	651,636	4,208,408
2033	-	-	-	193,318	4,756,984	694,627	4,255,675
2034	-	-	-	179,477	4,864,016	737,004	4,306,489
2035	-	-	-	166,579	4,973,457	774,902	4,365,134
2036	-	-	-	154,518	5,085,359	810,191	4,429,686
2037	-	-	-	142,542	5,199,780	841,655	4,500,667
2038	-	-	-	130,934	5,316,775	875,439	4,572,271
2039	-	-	-	120,039	5,436,402	903,574	4,652,867
2040	-	-	-	109,583	5,558,722	932,193	4,736,112
2041	-	-	-	99,308	5,683,793	956,722	4,826,379
2042	-	-	-	89,052	5,811,678	983,529	4,917,201
2043	-	-	-	79,268	5,942,441	1,007,248	5,014,460
2044	-	-	-	70,229	6,076,146	1,030,649	5,115,726
2045	-	-	-	62,113	6,212,859	1,049,283	5,225,689
2046	-	-	-	54,607	6,352,648	1,066,697	5,340,559
2047	-	-	-	48,081	6,495,583	1,081,159	5,462,505
2048	-	-	-	42,138	6,641,734	1,092,316	5,591,556
2049	-	-	-	36,480	6,791,173	1,103,238	5,724,415
2050	-	-	-	31,572	6,943,974	1,112,751	5,862,795
2051	-	-	-	27,316	7,100,213	1,119,362	6,008,168
2052	-	-	-	23,418	7,259,968	1,125,476	6,157,911
2053	-	-	-	19,794	7,423,318	1,130,449	6,312,662
2054	-	-	-	16,482	7,590,342	1,135,557	6,471,267
2055	-	-	-	13,676	7,761,125	1,139,506	6,635,295
2056	-	-	-	11,315	7,935,750	1,142,432	6,804,634
2057	-	-	-	9,235	8,114,305	1,144,703	6,978,836
2058	-	-	-	7,394	8,296,876	1,147,059	7,157,211
2059	-	-	-	5,895	8,483,556	1,148,935	7,340,516
2060	-	-	-	4,693	8,674,436	1,150,164	7,528,965
2061	-	-	-	3,622	8,869,611	1,151,193	7,722,041
2062	-	-	-	2,683	9,069,177	1,152,630	7,919,230
2063	-	-	-	1,937	9,273,234	1,153,690	8,121,481
2064	-	-	-	1,370	9,481,881	1,154,629	8,328,622
2065	-	-	-	989	9,695,224	1,155,232	8,540,981
2066	-	-	-	718	9,913,366	1,155,569	8,758,515
2067	-	-	-	497	10,136,417	1,155,866	8,981,048
2068	-	-	-	332	10,364,486	1,156,124	9,208,694
2069	-	-	-	221	10,597,687	1,156,248	9,441,660
2070	-	-	-	145	10,836,135	1,156,303	9,679,978
2071	-	-	-	86	11,079,948	1,156,326	9,923,708
2072	-	-	-	43	11,329,247	1,156,369	10,172,921



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

Year	Payroll for Current Employees (a)	Payroll for Future Employees (b)=max(0,(c)-(a))	Total Employee Payroll (c)	Contributions from Current Employees (d)	Total Employer Contributions (e)	Employer Portion of New Entrant's Normal Cost (f)	Total Contributions (g)=(d)+(e)-(f)
2073	\$ -	\$ -	\$ -	\$ 18	\$ 11,584,155	\$ 1,156,358	\$ 10,427,816
2074	-	-	-	5	11,844,799	1,156,337	10,688,466
2075	-	-	-	1	12,111,307	1,156,301	10,955,007
2076	-	-	-	1	12,383,811	1,156,264	11,227,548
2077	-	-	-	-	12,662,447	1,156,240	11,506,206
2078	-	-	-	-	12,947,352	1,156,219	11,791,133
2079	-	-	-	-	13,238,667	1,156,205	12,082,462
2080	-	-	-	-	13,536,537	1,156,202	12,380,336
2081	-	-	-	-	13,841,109	1,156,198	12,684,912
2082	-	-	-	-	14,152,534	1,156,198	12,996,336
2083	-	-	-	-	14,470,966	1,156,198	13,314,769
2084	-	-	-	-	14,796,563	1,156,197	13,640,366
2085	-	-	-	-	15,129,486	1,156,192	13,973,294
2086	-	-	-	-	15,469,899	1,156,185	14,313,714
2087	-	-	-	-	15,817,972	1,156,175	14,661,797
2088	-	-	-	-	16,173,876	1,156,162	15,017,714
2089	-	-	-	-	16,537,789	1,156,148	15,381,641
2090	-	-	-	-	16,909,889	1,156,134	15,753,755
2091	-	-	-	-	17,290,361	1,156,121	16,134,240
2092	-	-	-	-	17,679,395	1,156,111	16,523,283
2093	-	-	-	-	18,077,181	1,156,102	16,921,079
2094	-	-	-	-	18,483,917	1,156,095	17,327,823
2095	-	-	-	-	18,899,806	1,156,092	17,743,714
2096	-	-	-	-	19,325,051	1,156,092	18,168,959
2097	-	-	-	-	19,759,865	1,156,094	18,603,771
2098	-	-	-	-	20,204,462	1,156,097	19,048,365
2099	-	-	-	-	20,659,062	1,156,102	19,502,960
2100	-	-	-	-	21,123,891	1,156,109	19,967,782
2101	-	-	-	-	21,599,179	1,156,116	20,443,062
2102	-	-	-	-	22,085,160	1,156,124	20,929,036
2103	-	-	-	-	22,582,076	1,156,131	21,425,946
2104	-	-	-	-	23,090,173	1,156,137	21,934,036
2105	-	-	-	-	23,609,702	1,156,143	22,453,559
2106	-	-	-	-	24,140,920	1,156,147	22,984,773
2107	-	-	-	-	24,684,091	1,156,150	23,527,941
2108	-	-	-	-	25,239,483	1,156,152	24,083,331
2109	-	-	-	-	25,807,371	1,156,153	24,651,218
2110	-	-	-	-	26,388,037	1,156,154	25,231,883
2111	-	-	-	-	26,981,768	1,156,154	25,825,614
2112	-	-	-	-	27,588,858	1,156,153	26,432,704
2113	-	-	-	-	28,209,607	1,156,153	27,053,455
2114	-	-	-	-	28,844,323	1,156,151	27,688,172
2115	-	-	-	-	29,493,321	1,156,150	28,337,170
2116	-	-	-	-	30,156,920	1,156,149	29,000,771
2117	-	-	-	-	30,835,451	1,156,147	29,679,304
2118	-	-	-	-	31,529,249	1,156,146	30,373,103
2119	-	-	-	-	32,238,657	1,156,145	31,082,512
2120	-	-	-	-	32,964,026	1,156,144	31,807,883
2121	-	-	-	-	33,705,717	1,156,143	32,549,574
2122	-	-	-	-	34,464,096	1,156,142	33,307,954



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 6.800%	Projected Ending Plan Net Position
	(a)	(b)	(c)	(d)	(e)	(f)=(a)+(b)-(c)-(d)+(e)
2023	\$ 98,454,576	\$ 13,401,521	\$ 7,628,020	\$ 110,200	\$ 13,413,616	\$ 117,531,493
2024	117,531,493	4,171,628	8,075,343	112,680	7,857,830	121,372,928
2025	121,372,928	4,144,491	8,364,222	115,215	8,108,395	125,146,376
2026	125,146,376	4,121,604	8,629,286	117,807	8,355,273	128,876,161
2027	128,876,161	4,109,752	8,847,468	120,458	8,601,117	132,619,104
2028	132,619,104	4,107,867	9,041,800	123,168	8,848,985	136,410,989
2029	136,410,989	4,120,339	9,226,214	125,939	9,100,991	140,280,166
2030	140,280,166	4,141,451	9,389,420	128,773	9,359,248	144,262,673
2031	144,262,673	4,172,236	9,547,242	131,670	9,625,714	148,381,710
2032	148,381,710	4,208,408	9,689,987	134,633	9,902,145	152,667,643
2033	152,667,643	4,255,675	9,805,686	137,662	10,191,199	157,171,169
2034	157,171,169	4,306,489	9,908,128	140,759	10,495,609	161,924,380
2035	161,924,380	4,365,134	9,977,486	143,926	10,818,363	166,986,465
2036	166,986,465	4,429,686	10,024,450	147,164	11,163,065	172,407,601
2037	172,407,601	4,500,667	10,096,546	150,475	11,531,554	178,192,801
2038	178,192,801	4,572,271	10,161,928	153,861	11,925,042	184,374,325
2039	184,374,325	4,652,867	10,204,166	157,323	12,346,553	191,012,256
2040	191,012,256	4,736,112	10,229,200	160,863	12,799,760	198,158,066
2041	198,158,066	4,826,379	10,257,298	164,482	13,287,633	205,850,298
2042	205,850,298	4,917,201	10,286,262	168,183	13,812,650	214,125,704
2043	214,125,704	5,014,460	10,310,953	171,967	14,377,678	223,034,922
2044	223,034,922	5,115,726	10,300,029	175,836	14,987,127	232,661,911
2045	232,661,911	5,225,689	10,247,674	179,792	15,647,058	243,107,192
2046	243,107,192	5,340,559	10,179,578	183,837	16,363,320	254,447,656
2047	254,447,656	5,462,505	10,076,400	187,973	17,141,862	266,787,650
2048	266,787,650	5,591,556	9,947,817	192,202	17,989,456	280,228,643
2049	280,228,643	5,724,415	9,816,576	196,527	18,912,130	294,852,085
2050	294,852,085	5,862,795	9,656,452	200,949	19,916,359	310,773,837
2051	310,773,837	6,008,168	9,467,603	205,470	21,010,063	328,118,996
2052	328,118,996	6,157,911	9,273,525	210,093	22,200,877	346,994,166
2053	346,994,166	6,312,662	9,070,577	214,820	23,496,193	367,517,624
2054	367,517,624	6,471,267	8,864,429	219,653	24,903,824	389,808,633
2055	389,808,633	6,635,295	8,642,127	224,595	26,432,366	414,009,571
2056	414,009,571	6,804,634	8,406,177	229,648	28,091,414	440,269,794
2057	440,269,794	6,978,836	8,168,352	234,815	29,890,715	468,736,178
2058	468,736,178	7,157,211	7,927,700	240,098	31,840,265	499,565,857
2059	499,565,857	7,340,516	7,674,742	245,500	33,951,092	532,937,222
2060	532,937,222	7,528,965	7,413,852	251,024	36,235,186	569,036,497
2061	569,036,497	7,722,041	7,156,227	256,672	38,704,820	608,050,458
2062	608,050,458	7,919,230	6,899,165	262,447	41,372,767	650,180,843
2063	650,180,843	8,121,481	6,636,601	268,352	44,252,979	695,650,349
2064	695,650,349	8,328,622	6,369,371	274,390	47,360,567	744,695,777
2065	744,695,777	8,540,981	6,095,753	280,564	50,711,701	797,572,142
2066	797,572,142	8,758,515	5,820,302	286,877	54,323,569	854,547,046
2067	854,547,046	8,981,048	5,546,410	293,332	58,214,247	915,902,599
2068	915,902,599	9,208,694	5,273,118	299,932	62,402,956	981,941,199
2069	981,941,199	9,441,660	5,000,338	306,680	66,910,267	1,052,986,109
2070	1,052,986,109	9,679,978	4,729,010	313,580	71,758,134	1,129,381,629
2071	1,129,381,629	9,923,708	4,460,124	320,636	76,969,935	1,211,494,513
2072	1,211,494,513	10,172,921	4,193,807	327,850	82,570,610	1,299,716,387



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 6.800%	Projected Ending Plan Net Position
	(a)	(b)	(c)	(d)	(e)	(f)=(a)+(b)-(c)-(d)+(e)
2073	\$ 1,299,716,387	\$ 10,427,816	\$ 3,930,251	\$ 335,227	\$ 88,586,788	\$ 1,394,465,512
2074	1,394,465,512	10,688,466	3,670,321	342,770	95,046,885	1,496,187,772
2075	1,496,187,772	10,955,007	3,414,789	350,482	101,981,199	1,605,358,708
2076	1,605,358,708	11,227,548	3,164,753	358,368	109,422,035	1,722,485,170
2077	1,722,485,170	11,506,206	2,921,270	366,431	117,403,825	1,848,107,500
2078	1,848,107,500	11,791,133	2,685,272	374,676	125,963,288	1,982,801,974
2079	1,982,801,974	12,082,462	2,457,740	383,106	135,139,582	2,127,183,172
2080	2,127,183,172	12,380,336	2,239,602	391,726	144,974,471	2,281,906,650
2081	2,281,906,650	12,684,912	2,031,680	400,540	155,512,511	2,447,671,852
2082	2,447,671,852	12,996,336	1,834,656	409,552	166,801,246	2,625,225,227
2083	2,625,225,227	13,314,769	1,649,064	418,767	178,891,423	2,815,363,587
2084	2,815,363,587	13,640,366	1,475,236	428,189	191,837,217	3,018,937,746
2085	3,018,937,746	13,973,294	1,313,334	437,823	205,696,485	3,236,856,368
2086	3,236,856,368	14,313,714	1,163,372	447,674	220,531,021	3,470,090,056
2087	3,470,090,056	14,661,797	1,025,197	457,747	236,406,836	3,719,675,745
2088	3,719,675,745	15,017,714	898,540	468,046	253,394,456	3,986,721,330
2089	3,986,721,330	15,381,641	783,045	478,577	271,569,236	4,272,410,585
2090	4,272,410,585	15,753,755	678,277	489,345	291,011,693	4,578,008,410
2091	4,578,008,410	16,134,240	583,745	500,355	311,807,861	4,904,866,412
2092	4,904,866,412	16,523,283	498,925	511,613	334,049,675	5,254,428,833
2093	5,254,428,833	16,921,079	423,271	523,124	357,835,368	5,628,238,884
2094	5,628,238,884	17,327,823	356,226	534,894	383,269,902	6,027,945,488
2095	6,027,945,488	17,743,714	297,222	546,929	410,465,429	6,455,310,480
2096	6,455,310,480	18,168,959	245,685	559,235	439,541,781	6,912,216,301
2097	6,912,216,301	18,603,771	201,048	571,818	470,626,989	7,400,674,195
2098	7,400,674,195	19,048,365	162,755	584,684	503,857,844	7,922,832,964
2099	7,922,832,964	19,502,960	130,240	597,839	539,380,490	8,480,988,335
2100	8,480,988,335	19,967,782	102,940	611,290	577,351,062	9,077,592,950
2101	9,077,592,950	20,443,062	80,301	625,044	617,936,367	9,715,267,033
2102	9,715,267,033	20,929,036	61,778	639,107	661,314,605	10,396,809,790
2103	10,396,809,790	21,425,946	46,834	653,487	707,676,148	11,125,211,562
2104	11,125,211,562	21,934,036	34,960	668,190	757,224,365	11,903,666,813
2105	11,903,666,813	22,453,559	25,676	683,224	810,176,503	12,735,587,976
2106	12,735,587,976	22,984,773	18,539	698,597	866,764,631	13,624,620,244
2107	13,624,620,244	23,527,941	13,154	714,315	927,236,644	14,574,657,360
2108	14,574,657,360	24,083,331	9,167	730,387	991,857,336	15,589,858,473
2109	15,589,858,473	24,651,218	6,275	746,821	1,060,909,550	16,674,666,144
2110	16,674,666,144	25,231,883	4,221	763,624	1,134,695,396	17,833,825,579
2111	17,833,825,579	25,825,614	2,792	780,806	1,213,537,566	19,072,405,161
2112	19,072,405,161	26,432,704	1,819	798,374	1,297,780,724	20,395,818,397
2113	20,395,818,397	27,053,455	1,171	816,337	1,387,793,003	21,809,847,347
2114	21,809,847,347	27,688,172	747	834,705	1,483,967,598	23,320,667,665
2115	23,320,667,665	28,337,170	475	853,486	1,586,724,463	24,934,875,337
2116	24,934,875,337	29,000,771	302	872,689	1,696,512,140	26,659,515,257
2117	26,659,515,257	29,679,304	193	892,325	1,813,809,692	28,502,111,735
2118	28,502,111,735	30,373,103	125	912,402	1,939,128,785	30,470,701,095
2119	30,470,701,095	31,082,512	81	932,931	2,073,015,900	32,573,866,495
2120	32,573,866,495	31,807,883	53	953,922	2,216,054,703	34,820,775,106
2121	34,820,775,106	32,549,574	34	975,385	2,368,868,574	37,221,217,835
2122	37,221,217,835	33,307,954	24	997,331	2,532,123,307	39,785,651,740



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)-.5	(g)=(e)*vf^(a)-.5	(h)=[(c)/(1+SDR)^(a)-.5]
2023	\$ 98,454,576	\$ 7,628,020	\$ 7,628,020	\$ 0	\$ 7,381,187	\$ 0	\$ 7,381,187
2024	117,531,493	8,075,343	8,075,343	0	7,316,512	0	7,316,512
2025	121,372,928	8,364,222	8,364,222	0	7,095,736	0	7,095,736
2026	125,146,376	8,629,286	8,629,286	0	6,854,495	0	6,854,495
2027	128,876,161	8,847,468	8,847,468	0	6,580,340	0	6,580,340
2028	132,619,104	9,041,800	9,041,800	0	6,296,700	0	6,296,700
2029	136,410,989	9,226,214	9,226,214	0	6,016,036	0	6,016,036
2030	140,280,166	9,389,420	9,389,420	0	5,732,636	0	5,732,636
2031	144,262,673	9,547,242	9,547,242	0	5,457,859	0	5,457,859
2032	148,381,710	9,689,987	9,689,987	0	5,186,762	0	5,186,762
2033	152,667,643	9,805,686	9,805,686	0	4,914,505	0	4,914,505
2034	157,171,169	9,908,128	9,908,128	0	4,649,671	0	4,649,671
2035	161,924,380	9,977,486	9,977,486	0	4,384,100	0	4,384,100
2036	166,986,465	10,024,450	10,024,450	0	4,124,285	0	4,124,285
2037	172,407,601	10,096,546	10,096,546	0	3,889,463	0	3,889,463
2038	178,192,801	10,161,928	10,161,928	0	3,665,403	0	3,665,403
2039	184,374,325	10,204,166	10,204,166	0	3,446,290	0	3,446,290
2040	191,012,256	10,229,200	10,229,200	0	3,234,780	0	3,234,780
2041	198,158,066	10,257,298	10,257,298	0	3,037,140	0	3,037,140
2042	205,850,298	10,286,262	10,286,262	0	2,851,794	0	2,851,794
2043	214,125,704	10,310,953	10,310,953	0	2,676,629	0	2,676,629
2044	223,034,922	10,300,029	10,300,029	0	2,503,551	0	2,503,551
2045	232,661,911	10,247,674	10,247,674	0	2,332,234	0	2,332,234
2046	243,107,192	10,179,578	10,179,578	0	2,169,229	0	2,169,229
2047	254,447,656	10,076,400	10,076,400	0	2,010,526	0	2,010,526
2048	266,787,650	9,947,817	9,947,817	0	1,858,493	0	1,858,493
2049	280,228,643	9,816,576	9,816,576	0	1,717,204	0	1,717,204
2050	294,852,085	9,656,452	9,656,452	0	1,581,642	0	1,581,642
2051	310,773,837	9,467,603	9,467,603	0	1,451,976	0	1,451,976
2052	328,118,996	9,273,525	9,273,525	0	1,331,659	0	1,331,659
2053	346,994,166	9,070,577	9,070,577	0	1,219,584	0	1,219,584
2054	367,517,624	8,864,429	8,864,429	0	1,115,980	0	1,115,980
2055	389,808,633	8,642,127	8,642,127	0	1,018,720	0	1,018,720
2056	414,009,571	8,406,177	8,406,177	0	927,815	0	927,815
2057	440,269,794	8,168,352	8,168,352	0	844,163	0	844,163
2058	468,736,178	7,927,700	7,927,700	0	767,128	0	767,128
2059	499,565,857	7,674,742	7,674,742	0	695,365	0	695,365
2060	532,937,222	7,413,852	7,413,852	0	628,958	0	628,958
2061	569,036,497	7,156,227	7,156,227	0	568,448	0	568,448
2062	608,050,458	6,899,165	6,899,165	0	513,135	0	513,135
2063	650,180,843	6,636,601	6,636,601	0	462,179	0	462,179
2064	695,650,349	6,369,371	6,369,371	0	415,326	0	415,326
2065	744,695,777	6,095,753	6,095,753	0	372,177	0	372,177
2066	797,572,142	5,820,302	5,820,302	0	332,733	0	332,733
2067	854,547,046	5,546,410	5,546,410	0	296,887	0	296,887
2068	915,902,599	5,273,118	5,273,118	0	264,287	0	264,287
2069	981,941,199	5,000,338	5,000,338	0	234,658	0	234,658
2070	1,052,986,109	4,729,010	4,729,010	0	207,795	0	207,795
2071	1,129,381,629	4,460,124	4,460,124	0	183,502	0	183,502
2072	1,211,494,513	4,193,807	4,193,807	0	161,559	0	161,559



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 ((a)-.5)	(g)=(e)*vf ^a ((a)-.5)	(h)=((c)/(1+SDR) ^a ((a)-.5)
2073	\$ 1,299,716,387	\$ 3,930,251	\$ 3,930,251	\$ 0	\$ 141,766	\$ 0	\$ 141,766
2074	1,394,465,512	3,670,321	3,670,321	0	123,961	0	123,961
2075	1,496,187,772	3,414,789	3,414,789	0	107,987	0	107,987
2076	1,605,358,708	3,164,753	3,164,753	0	93,708	0	93,708
2077	1,722,485,170	2,921,270	2,921,270	0	80,991	0	80,991
2078	1,848,107,500	2,685,272	2,685,272	0	69,708	0	69,708
2079	1,982,801,974	2,457,740	2,457,740	0	59,739	0	59,739
2080	2,127,183,172	2,239,602	2,239,602	0	50,971	0	50,971
2081	2,281,906,650	2,031,680	2,031,680	0	43,295	0	43,295
2082	2,447,671,852	1,834,656	1,834,656	0	36,607	0	36,607
2083	2,625,225,227	1,649,064	1,649,064	0	30,809	0	30,809
2084	2,815,363,587	1,475,236	1,475,236	0	25,807	0	25,807
2085	3,018,937,746	1,313,334	1,313,334	0	21,512	0	21,512
2086	3,236,856,368	1,163,372	1,163,372	0	17,842	0	17,842
2087	3,470,090,056	1,025,197	1,025,197	0	14,722	0	14,722
2088	3,719,675,745	898,540	898,540	0	12,081	0	12,081
2089	3,986,721,330	783,045	783,045	0	9,858	0	9,858
2090	4,272,410,585	678,277	678,277	0	7,996	0	7,996
2091	4,578,008,410	583,745	583,745	0	6,443	0	6,443
2092	4,904,866,412	498,925	498,925	0	5,156	0	5,156
2093	5,254,428,833	423,271	423,271	0	4,096	0	4,096
2094	5,628,238,884	356,226	356,226	0	3,228	0	3,228
2095	6,027,945,488	297,222	297,222	0	2,522	0	2,522
2096	6,455,310,480	245,685	245,685	0	1,952	0	1,952
2097	6,912,216,301	201,048	201,048	0	1,495	0	1,495
2098	7,400,674,195	162,755	162,755	0	1,133	0	1,133
2099	7,922,832,964	130,240	130,240	0	849	0	849
2100	8,480,988,335	102,940	102,940	0	629	0	629
2101	9,077,592,950	80,301	80,301	0	459	0	459
2102	9,715,267,033	61,778	61,778	0	331	0	331
2103	10,396,809,790	46,834	46,834	0	235	0	235
2104	11,125,211,562	34,960	34,960	0	164	0	164
2105	11,903,666,813	25,676	25,676	0	113	0	113
2106	12,735,587,976	18,539	18,539	0	76	0	76
2107	13,624,620,244	13,154	13,154	0	51	0	51
2108	14,574,657,360	9,167	9,167	0	33	0	33
2109	15,589,858,473	6,275	6,275	0	21	0	21
2110	16,674,666,144	4,221	4,221	0	13	0	13
2111	17,833,825,579	2,792	2,792	0	8	0	8
2112	19,072,405,161	1,819	1,819	0	5	0	5
2113	20,395,818,397	1,171	1,171	0	3	0	3
2114	21,809,847,347	747	747	0	2	0	2
2115	23,320,667,665	475	475	0	1	0	1
2116	24,934,875,337	302	302	0	1	0	1
2117	26,659,515,257	193	193	0	0	0	0
2118	28,502,111,735	125	125	0	0	0	0
2119	30,470,701,095	81	81	0	0	0	0
2120	32,573,866,495	53	53	0	0	0	0
2121	34,820,775,106	34	34	0	0	0	0
2122	37,221,217,835	24	24	0	0	0	0
Totals					\$ 133,957,615	\$ 0	\$ 133,957,615



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	<p>The total pension expense is the sum of the following items that are recognized at the end of the employer’s fiscal year:</p> <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.