# 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, 2024





April 8, 2025

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, 2024 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.

Board of Trustees Wyoming Retirement System Paid Firemen's Retirement Fund Plan A April 8, 2025 Page 2

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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Paul T. Wood, ASA, FCA, MAAA

By

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Ву

Dana Woolfrey, FSA, EA, FCA, MAAA

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**EXECUTIVE SUMMARY** 

# **Executive Summary** as of December 31, 2024

		2024
Actuarial Valuation Date		January 1, 2024
Measurement Date of the Net Pension Liability	De	ecember 31, 2024
Employer's Fiscal Year Ending Date (Reporting Date)	De	ecember 31, 2024
Membership		
Number of		
- Retirees and Beneficiaries		248
- Inactive, Nonretired Members		1
- Active Members		0
- Total		249
Covered Payroll	\$	0
Net Pension Liability		
Total Pension Liability	\$	139,562,810
Plan Fiduciary Net Position		130,975,296
Net Pension Liability	\$	8,587,514
Plan Fiduciary Net Position as a Percentage		
of Total Pension Liability		93.85 %
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*		4.08 %
Last year ending December 31 in the 2024 to 2123 projection period		
for which projected benefit payments are fully funded		2123
Total Pension Expense	\$	391,039
Deferred Outflows and Deferred Inflows of Resources by Source to be recognized in Fut De	•	Deferred Inflows

	of Res	ources	of R	esources
Difference between expected and actual experience	\$	0	\$	0
Changes in assumptions		0		0
and the second s				

Net difference between projected and actual earnings
on pension plan investments

5,822,229

8,405,322

Total

\$ 5,822,229 \$ 8,405,322

\*Source: Fixed-income municipal bonds with 20 years to maturity that include only federally tax-exempt municipal bonds as reported in the Bond Buyer "20-GO Bond Index" as of December 31, 2024.



### **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, 2024.

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 2123. 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, 2024 and rolled forward to a measurement date of December 31, 2024.



### **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 4.08% (based on the daily rate closest to but not later than the measurement date of the Bond Buyer "20-GO Bond 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, 2024

#### A. Expense

1. Service Cost	\$ 0	
2. Interest on the Total Pension Liability	9,375,306	
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)	(8,453,595)	
6. Pension Plan Administrative Expense	35,426	
7. Other Changes in Plan Fiduciary Net Position	3,170	
8. Recognition of Outflow (Inflow) of Resources due to Liabilities	(646,348)	
9. Recognition of Outflow (Inflow) of Resources due to Assets	 77,080	
10. Total Pension Expense	\$ 391,039	*

<sup>\*</sup> 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, 2024

A. Outflows (	Inflows)	of Resou	rces d	ue to	Liabilities	

• •		
1. Difference between expected and a	ctual experience of the Total Pension Liability	
(gains) or losses		\$ (646,348)
2. Assumption Changes (gains) or los	sses	\$ 0
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 b	e recognized in the current pension expense for the	
difference between expected and a	octual experience of the Total Pension Liability	\$ (646,348)
5. Outflow (Inflow) of Resources to b	e recognized in the current pension expense for	
assumption changes		\$ 0
6. Outflow (Inflow) of Resources to b	e recognized in the current pension expense	
due to Liabilities		\$ (646,348)
7. Deferred Outflow (Inflow) of Resou	irces to be recognized in future pension expenses for the	
difference between expected and a	actual experience of the Total Pension Liability	\$ 0
8. Deferred Outflow (Inflow) of Resou	rces to be recognized in future pension expenses for	
assumption changes		\$ 0
9. Deferred Outflow (Inflow) of Resou	rces to be recognized in future pension expenses	
due to Liabilities		\$ 0
B. Outflows (Inflows) of Resources due t	o Assets	
1. Net difference between projected a	nd actual earnings on pension plan investments	
(gains) or losses		\$ (4,527,865)
2. Recognition period for Assets {in y	ears}	5.0000
3. Outflow (Inflow) of Resources to b	e recognized in the current pension expense	
due to Assets		\$ (905,573)
4. Deferred Outflow (Inflow) of Resou	irces to be recognized in future pension expenses	
due to Assets		\$ (3,622,292)



# History of Deferred Outflows and Inflows of Resources by Source Fiscal Year Ended December 31, 2024

ecognition Period		1.0000		1.0000		1.0000		1.0000		1.0000		1.0000	1.0000	1.0000		1.0000		1.0000		
																				Deferred Net (Inflows)/Outflows
		2015		2016		2017		2018		2019		2020	2021	2022		2023		2024	Total	Measurement Dat
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)	\$	(646,348)		
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		_		_		_		_		_		_	_	_		-		(646,348)	(646,348)	
2025		_		-		_		_		_		_	_	_		_		-	-	\$ -
2026		_		_		_		_		_		_	_	_		_		_	_	*
2027		_		_		_		_		_		_	_	_		_		_	_	
2028		_		_		_		_		_		_	_	_		_		_	_	
2029		_		_		_		_		_		_	_	_		_		_	_	
		-		-		-		-		-		-	_	-		-		-	-	
																		-	-	
Thereafter	,	(2.470.100)	_	/1.025.200\	_	1 100 504	_	(4 (72 700)	-	(2.407.570)	_	(270 424)	ć /274.077	 (2.070.017)	ć	(7.300.353)	-	(CAC 240)	ć (10.633.004)	
\$		(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)	\$	(646,348)	\$ (18,633,084)	
· ·			•		\$	1,188,594	\$	(1,673,790)	\$	(3,107,578)	\$	(378,431)	\$ (271,077)	\$ (2,079,617)	\$	(7,360,353)	\$	(646,348)	\$ (18,633,084)	
ssumption changes -	Ne		•		\$	<b>1,188,594</b> 1.0000	\$	<b>(1,673,790)</b> 1.0000	\$	(3,107,578) 1.0000	\$	(378,431)	\$ (271,077)	\$ <b>(2,079,617)</b> 1.0000	\$	( <b>7,360,353</b> ) 1.0000	\$	(646,348) 1.0000	\$ (18,633,084)	
\$	Ne	t (inflows)/ou	•	s of resources	\$		\$		\$		\$			\$	\$		\$		\$ (18,633,084)	
sumption changes -	· Ne	t (inflows)/ou 1.0000	•	s of resources	\$	1.0000		1.0000 2018	\$	1.0000	\$	1.0000	1.0000	 1.0000	\$	1.0000	\$	1.0000	, , ,	
sumption changes -	· Ne	t (inflows)/ou 1.0000 2015	itflow	1.0000 2016		1.0000 2017		1.0000 2018	_	1.0000 2019	_	1.0000 2020	1.0000	 1.0000 2022		1.0000 2023		1.0000 2024	, , ,	
sumption changes - cognition Period Total	· Ne	1.0000 2015 9,056,601	itflow	1.0000 2016 (5,166,271)		1.0000 2017		1.0000 2018	_	1.0000 2019	_	1.0000 2020	1.0000	 1.0000 2022		1.0000 2023		1.0000 2024	Total	
sumption changes - cognition Period Total \$	· Ne	1.0000 2015 9,056,601	itflow	1.0000 2016		1.0000 2017 <b>41,599,453</b>		1.0000 2018	_	1.0000 2019	_	1.0000 2020	1.0000	 1.0000 2022		1.0000 2023		1.0000 2024		
sumption changes - cognition Period  Total \$ 2015 2016 2017	· Ne	1.0000 2015 9,056,601	itflow	1.0000 2016 (5,166,271) (5,166,271)		1.0000 2017		1.0000 2018 (11,600,861)	_	1.0000 2019	_	1.0000 2020	1.0000	 1.0000 2022		1.0000 2023		1.0000 2024	Total 9,056,601 (5,166,271) 41,599,453	
sumption changes - cognition Period  Total \$ 2015 2016 2017 2018	· Ne	1.0000 2015 9,056,601	itflow	1.0000 2016 (5,166,271) (5,166,271)		1.0000 2017 <b>41,599,453</b>		1.0000 2018	_	1.0000 2019 <b>42,477,504</b>	_	1.0000 2020	1.0000	 1.0000 2022		1.0000 2023		1.0000 2024	Total 9,056,601 (5,166,271) 41,599,453 (11,600,861)	
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sumption changes - cognition Period  Total 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027	· Ne	1.0000 2015 9,056,601	itflow	1.0000 2016 (5,166,271) (5,166,271)		1.0000 2017 <b>41,599,453</b>		1.0000 2018 (11,600,861)	_	1.0000 2019 <b>42,477,504</b>	_	1.0000 2020 <b>63,922,039</b>	1.0000 2021 \$ (185,384,651)	\$ 1.0000 2022		1.0000 2023 (5,217,964)		1.0000 2024	9,056,601 (5,166,271) 41,599,453 (11,600,861) 42,477,504 63,922,039 (185,384,651)	\$
sumption changes cognition Period  Total 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028	· Ne	1.0000 2015 9,056,601	itflow	1.0000 2016 (5,166,271) (5,166,271)		1.0000 2017 <b>41,599,453</b>		1.0000 2018 (11,600,861)	_	1.0000 2019 <b>42,477,504</b>	_	1.0000 2020 <b>63,922,039</b>	1.0000 2021 \$ (185,384,651)	\$ 1.0000 2022		1.0000 2023 (5,217,964)		1.0000 2024	9,056,601 (5,166,271) 41,599,453 (11,600,861) 42,477,504 63,922,039 (185,384,651)	\$ -
Total \$ 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027	· Ne	1.0000 2015 9,056,601	itflow	1.0000 2016 (5,166,271) (5,166,271)		1.0000 2017 <b>41,599,453</b>		1.0000 2018 (11,600,861)	_	1.0000 2019 <b>42,477,504</b>	_	1.0000 2020 <b>63,922,039</b>	1.0000 2021 \$ (185,384,651)	\$ 1.0000 2022		1.0000 2023 (5,217,964)		1.0000 2024	9,056,601 (5,166,271) 41,599,453 (11,600,861) 42,477,504 63,922,039 (185,384,651)	\$ -



# History of Deferred Outflows and Inflows of Resources by Source Fiscal Year Ended December 31, 2024 (continued)

ecognition Period		5.0000		5.0000		5.0000		5.0000		5.0000		5.0000	5.0000		5.0000	5.0000	5.0000		eferred Net ws)/Outflows at
		2015		2016		2017		2018		2019		2020	2021		2022	2023	2024	Total	surement Date
Total	\$	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)	\$ (4,527,865)	 	
2015		2,274,724																2,274,724	
2016		2,274,724		170,661														2,445,385	
2017		2,274,724		170,661		(1,542,950)												902,435	
2018		2,274,724		170,661		(1,542,950)		2,240,394										3,142,829	
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)	(905,573)	77,080	
2025		-		-		-		-		-		-	238,104		2,792,063	(1,594,343)	(905,573)	530,251	\$ (2,583,093)
2026		-		-		-		-		-		-	-		2,792,062	(1,594,343)	(905,573)	292,146	
2027		_		_		-		_		_		-	_		-	(1,594,344)	(905,573)	(2,499,917)	
2028		-		-		-		-		-		-	-		-	-	(905,573)	(905,573)	
2029		_		_		-		_		_		-	_		_	-	-	-	
Thereafter		_		_		_		_		_		_	_		-	_	-	_	
<del>-</del>		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)	\$ (4,527,865)	\$ 5,424,596	
otal net differences	s fron	n all sources - 2015	Net (	inflows)/outflo	ows of	resources	_	2018	_	2019	_	2020	2021		2022	 2023	 2024	\$ <b>5,424,596</b> Total	
otal net differences  Total	s fron	n all sources - 2015 17,951,024		inflows)/outflo		resources	\$	, ,	\$	2019	\$	., , ,			, ,		\$	\$ Total	
otal net differences  Total  2015	s fron	2015 17,951,024 8,852,129	Net (	2016 (6,138,254)	ows of	resources	_	2018	_	2019	_	2020	2021		2022	 2023	 2024	\$ Total 8,852,129	
otal net differences  Total 2015 2016	s fron	2015 17,951,024 8,852,129 2,274,724	Net (	2016 (6,138,254) (6,820,898)	ows of	resources 2017 35,073,296	_	2018	_	2019	_	2020	2021		2022	 2023	 2024	\$ Total 8,852,129 (4,546,174)	
Total net differences  Total 2015 2016 2017	s fron	2015 17,951,024 8,852,129 2,274,724 2,274,724	Net (	2016 (6,138,254) (6,820,898) 170,661	ows of	resources 2017 35,073,296 41,245,097	_	2018 (2,072,682)	_	2019	_	2020	2021		2022	 2023	 2024	 Total 8,852,129 (4,546,174) 43,690,482	
Total 2015 2016 2017 2018	s fron	2015 17,951,024 8,852,129 2,274,724 2,274,724 2,274,724	Net (	2016 (6,138,254) (6,820,898) 170,661 170,661	ows of	resources 2017 35,073,296 41,245,097 (1,542,950)	_	2018 (2,072,682) (11,034,257)	_	2019 28,694,980	_	2020	2021		2022	 2023	 2024	 Total 8,852,129 (4,546,174) 43,690,482 (10,131,822)	
Total 2015 2016 2017 2018 2019	s fron	2015 17,951,024 8,852,129 2,274,724 2,274,724	Net (	2016 (6,138,254) (6,820,898) 170,661 170,661 170,661	ows of	resources 2017 35,073,296 41,245,097 (1,542,950) (1,542,950)	_	2018 (2,072,682) (11,034,257) 2,240,394	_	2019 28,694,980 37,234,937	_	2020 <b>61,277,763</b>	2021		2022	 2023	 2024	 Total 8,852,129 (4,546,174) 43,690,482 (10,131,822) 40,377,765	
Total 2015 2016 2017 2018 2019 2020	s fron	2015 17,951,024 8,852,129 2,274,724 2,274,724 2,274,724	Net (	2016 (6,138,254) (6,820,898) 170,661 170,661	ows of	resources 2017 35,073,296 41,245,097 (1,542,950) (1,542,950) (1,542,950)	_	2018 (2,072,682) (11,034,257) 2,240,394 2,240,394	_	2019 28,694,980 37,234,937 (2,134,989)	_	2020 <b>61,277,763</b> 63,090,439	2021 \$ (184,465,216	\$	2022	 2023	 2024	 Total 8,852,129 (4,546,174) 43,690,482 (10,131,822) 40,377,765 61,823,555	
Total 2015 2016 2017 2018 2020 2021	s fron	2015 17,951,024 8,852,129 2,274,724 2,274,724 2,274,724	Net (	2016 (6,138,254) (6,820,898) 170,661 170,661 170,661	ows of	resources 2017 35,073,296 41,245,097 (1,542,950) (1,542,950)	_	2018 (2,072,682) (11,034,257) 2,240,394 2,240,394 2,240,394	_	2019 28,694,980 37,234,937 (2,134,989) (2,134,989)	_	2020 61,277,763 63,090,439 (453,169)	2021 \$ (184,465,216	\$	2022 11,880,697	 2023	 2024	 Total  8,852,129 (4,546,174) 43,690,482 (10,131,822) 40,377,765 61,823,555 (187,308,341)	
Total 2015 2016 2017 2018 2019 2020 2021 2022	s fron	2015 17,951,024 8,852,129 2,274,724 2,274,724 2,274,724	Net (	2016 (6,138,254) (6,820,898) 170,661 170,661 170,661	ows of	resources 2017 35,073,296 41,245,097 (1,542,950) (1,542,950) (1,542,950)	_	2018 (2,072,682) (11,034,257) 2,240,394 2,240,394	_	2019 28,694,980 37,234,937 (2,134,989) (2,134,989) (2,134,989)	_	2020 61,277,763 63,090,439 (453,169) (453,169)	2021 \$ (184,465,216 (185,417,626 238,102	<del>,</del> <del>,</del>	2022 11,880,697	 2023 (20,550,033)	 2024	Total  8,852,129 (4,546,174) 43,690,482 (10,131,822) 40,377,765 61,823,555 (187,308,341) 602,783	
Total 2015 2016 2017 2018 2019 2020 2021 2022 2023	s fron	2015 17,951,024 8,852,129 2,274,724 2,274,724 2,274,724	Net (	2016 (6,138,254) (6,820,898) 170,661 170,661 170,661	ows of	resources 2017 35,073,296 41,245,097 (1,542,950) (1,542,950) (1,542,950)	_	2018 (2,072,682) (11,034,257) 2,240,394 2,240,394 2,240,394	_	2019 28,694,980 37,234,937 (2,134,989) (2,134,989)	_	2020 61,277,763 63,090,439 (453,169) (453,169)	2021 \$ (184,465,216 (185,417,626 238,102 238,102	<del>,</del> <del>,</del>	2022 11,880,697 712,446 2,792,063	 2023 (20,550,033)	 2024 (5,174,213)	Total  8,852,129 (4,546,174) 43,690,482 (10,131,822) 40,377,765 61,823,555 (187,308,341) 602,783 (13,730,654)	
Total 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024	s fron	2015 17,951,024 8,852,129 2,274,724 2,274,724 2,274,724	Net (	2016 (6,138,254) (6,820,898) 170,661 170,661 170,661	ows of	resources 2017 35,073,296 41,245,097 (1,542,950) (1,542,950) (1,542,950)	_	2018 (2,072,682) (11,034,257) 2,240,394 2,240,394 2,240,394	_	2019 28,694,980 37,234,937 (2,134,989) (2,134,989) (2,134,989)	_	2020 61,277,763 63,090,439 (453,169) (453,169)	2021 \$ (184,465,216 (185,417,626 238,102 238,102 238,102	<del>,</del> <del>,</del>	2022 11,880,697 712,446 2,792,063 2,792,063	 2023 (20,550,033) (14,172,660) (1,594,343)	 2024 (5,174,213)	Total  8,852,129 (4,546,174) 43,690,482 (10,131,822) 40,377,765 61,823,555 (187,308,341) 602,783 (13,730,654) (569,268)	
Total 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025	s fron	2015 17,951,024 8,852,129 2,274,724 2,274,724 2,274,724	Net (	2016 (6,138,254) (6,820,898) 170,661 170,661 170,661	ows of	resources 2017 35,073,296 41,245,097 (1,542,950) (1,542,950) (1,542,950)	_	2018 (2,072,682) (11,034,257) 2,240,394 2,240,394 2,240,394	_	2019 28,694,980 37,234,937 (2,134,989) (2,134,989) (2,134,989)	_	2020 61,277,763 63,090,439 (453,169) (453,169)	2021 \$ (184,465,216 (185,417,626 238,102 238,102	<del>,</del> <del>,</del>	2022 11,880,697 712,446 2,792,063 2,792,063 2,792,063	 2023 (20,550,033) (14,172,660) (1,594,343) (1,594,343)	 2024 (5,174,213) (1,551,921) (905,573)	Total  8,852,129 (4,546,174) 43,690,482 (10,131,822) 40,377,765 61,823,555 (187,308,341) 602,783 (13,730,654) (569,268) 530,251	\$ (2,583,093)
Total 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026	s fron	2015 17,951,024 8,852,129 2,274,724 2,274,724 2,274,724	Net (	2016 (6,138,254) (6,820,898) 170,661 170,661 170,661	ows of	resources 2017 35,073,296 41,245,097 (1,542,950) (1,542,950) (1,542,950)	_	2018 (2,072,682) (11,034,257) 2,240,394 2,240,394 2,240,394	_	2019 28,694,980 37,234,937 (2,134,989) (2,134,989) (2,134,989)	_	2020 61,277,763 63,090,439 (453,169) (453,169) (453,169)	2021 \$ (184,465,216 (185,417,626 238,102 238,102 238,102	<del>,</del> <del>,</del>	2022 11,880,697 712,446 2,792,063 2,792,063	 2023 (20,550,033) (14,172,660) (1,594,343) (1,594,343) (1,594,343)	 2024 (5,174,213) (1,551,921) (905,573) (905,573)	Total  8,852,129 (4,546,174) 43,690,482 (10,131,822) 40,377,765 61,823,555 (187,308,341) 602,783 (13,730,654) (569,268) 530,251 292,146	\$ (2,583,093)
Total 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027	s fron	2015 17,951,024 8,852,129 2,274,724 2,274,724 2,274,724	Net (	2016 (6,138,254) (6,820,898) 170,661 170,661 170,661	ows of	resources 2017 35,073,296 41,245,097 (1,542,950) (1,542,950) (1,542,950)	_	2018 (2,072,682) (11,034,257) 2,240,394 2,240,394 2,240,394	_	2019 28,694,980 37,234,937 (2,134,989) (2,134,989) (2,134,989)	_	2020 61,277,763 63,090,439 (453,169) (453,169) (453,169)	2021 \$ (184,465,216 (185,417,626 238,102 238,102 238,102	<del>,</del> <del>,</del>	2022 11,880,697 712,446 2,792,063 2,792,063 2,792,063	 2023 (20,550,033) (14,172,660) (1,594,343) (1,594,343)	 2024 (5,174,213) (1,551,921) (905,573) (905,573) (905,573)	Total  8,852,129 (4,546,174) 43,690,482 (10,131,822) 40,377,765 61,823,555 (187,308,341) 602,783 (13,730,654) (569,268) 530,251 292,146 (2,499,917)	\$ (2,583,093)
Total 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028	s fron	2015 17,951,024 8,852,129 2,274,724 2,274,724 2,274,724	Net (	2016 (6,138,254) (6,820,898) 170,661 170,661 170,661	ows of	resources 2017 35,073,296 41,245,097 (1,542,950) (1,542,950) (1,542,950)	_	2018 (2,072,682) (11,034,257) 2,240,394 2,240,394 2,240,394	_	2019 28,694,980 37,234,937 (2,134,989) (2,134,989) (2,134,989)	_	2020 61,277,763 63,090,439 (453,169) (453,169) (453,169)	2021 \$ (184,465,216 (185,417,626 238,102 238,102 238,102	<del>,</del> <del>,</del>	2022 11,880,697 712,446 2,792,063 2,792,063 2,792,063 2,792,062	 2023 (20,550,033) (14,172,660) (1,594,343) (1,594,343) (1,594,343)	 2024 (5,174,213) (1,551,921) (905,573) (905,573)	Total  8,852,129 (4,546,174) 43,690,482 (10,131,822) 40,377,765 61,823,555 (187,308,341) 602,783 (13,730,654) (569,268) 530,251 292,146	\$ (2,583,093)
Total 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027	s fron	2015 17,951,024 8,852,129 2,274,724 2,274,724 2,274,724	Net (	2016 (6,138,254) (6,820,898) 170,661 170,661 170,661	ows of	resources 2017 35,073,296 41,245,097 (1,542,950) (1,542,950) (1,542,950)	_	2018 (2,072,682) (11,034,257) 2,240,394 2,240,394 2,240,394	_	2019 28,694,980 37,234,937 (2,134,989) (2,134,989) (2,134,989)	_	2020 61,277,763 63,090,439 (453,169) (453,169) (453,169)	2021 \$ (184,465,216 (185,417,626 238,102 238,102 238,102	<del>,</del> <del>,</del>	2022 11,880,697 712,446 2,792,063 2,792,063 2,792,063	 2023 (20,550,033) (14,172,660) (1,594,343) (1,594,343) (1,594,344)	 2024 (5,174,213) (1,551,921) (905,573) (905,573) (905,573)	Total  8,852,129 (4,546,174) 43,690,482 (10,131,822) 40,377,765 61,823,555 (187,308,341) 602,783 (13,730,654) (569,268) 530,251 292,146 (2,499,917)	\$ (2,583,093)



# Statement of Outflows and Inflows Arising from Current and Prior Reporting Periods Fiscal Year Ended December 31, 2024

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

	of	of	Resources	of Resources		
1. Due to Liabilities	\$	0	\$	646,348	\$	(646,348)
2. Due to Assets		3,030,165		2,953,085		77,080
3. Total	\$	3,030,165	\$	3,599,433	\$	(569,268)

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

	 Outflows of Resources	Inflows of Resources	et Outflows Resources
1. Differences between expected and actual experience	\$ 0	\$ 646,348	\$ (646,348)
2. Assumption Changes	0	0	0
3. Net Difference between projected and actual			
earnings on pension plan investments	 3,030,165	 2,953,085	77,080
4. Total	\$ 3,030,165	\$ 3,599,433	\$ (569,268)

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

	 rred Outflows Resources	 eferred Inflows of Resources	eferred Outflows f 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	 5,822,229	 8,405,322	 (2,583,093)
4. Total	\$ 5,822,229	\$ 8,405,322	\$ (2,583,093)

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

Year Ending December 31	ferred Outflows Resources
2025	\$ 530,251
2026	292,146
2027	(2,499,917)
2028	(905,573)
2029	0
Thereafter	 0
Total	\$ (2,583,093)



# Statement of Fiduciary Net Position as of December 31, 2024

	 2024
Assets	
Cash and Deposits	\$ 6,065,595
Receivables	
Accounts Receivable - Sale of Investments	\$ 1,160,425
Accrued Interest and Other Dividends	255,558
Contributions	0
Accounts Receivable - Other	 8,530,414
Total Receivables	\$ 9,946,397
Investments	
Fixed Income	\$ 21,042,947
Equities	62,240,365
Private Markets	16,147,158
Marketable Alternatives	23,382,830
Security Lending Collateral	4,614,682
Capital Assets, at Cost, Net of Accumulated Depreciation	 72,612
Total Investments	\$ 127,500,594
Total Assets	\$ 143,512,586
Liabilities	
Payables	
Accounts Payable - Purchase of Investments	\$ 12,371,058
Accrued Expenses	166,232
Accounts Payable - Other	 0
Total Liabilities	\$ 12,537,290
Net Position Restricted for Pensions	\$ 130,975,296



# **Statement of Changes in Fiduciary Net Position for Year Ended December 31, 2024**

	 2024
Additions	
Contributions	
Employer	\$ 0
Employee	0
Other Employer Contributions	 2,716,389
Total Contributions	\$ 2,716,389
Investment Income	
Net Appreciation in Fair Value of Investments	\$ 11,235,016
Interest and Dividends	2,700,628
Less Investment Expense	(954,184)
Net Investment Income	\$ 12,981,460
Other	\$ 0
Total Additions	\$ 15,697,849
Deductions	
Benefit Payments, including Refunds of Employee Contributions	\$ 15,120,635
Pension Plan Administrative Expense	35,426
Other	 3,170
Total Deductions	\$ 15,159,231
Net Increase in Net Position	\$ 538,618
Net Position Restricted for Pensions	
Beginning of Year	\$ 130,436,678
End of Year	\$ 130,975,296



### **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, 2024

A. Total pension liability	
1. Service cost	\$ 0
2. Interest on the total pension liability	9,375,306
3. Changes of benefit terms	0
<ol> <li>Difference between expected and actual experience of the total pension liability</li> </ol>	(646,348)
5. Changes of assumptions	0
6. Benefit payments, including refunds	
of employee contributions	(15,120,635)
7. Net change in total pension liability	(6,391,677)
8. Total pension liability – beginning	145,954,487
9. Total pension liability – ending	\$ 139,562,810
B. Plan fiduciary net position	
1. Contributions – employer	\$ 2,716,389
2. Contributions – employee	0
3. Net investment income	12,981,460
4. Benefit payments, including refunds	
of employee contributions	(15,120,635)
5. Pension plan administrative expense	(35,426)
6. Other	 (3,170)
7. Net change in plan fiduciary net position	538,618
8. Plan fiduciary net position – beginning	 130,436,678
9. Plan fiduciary net position – ending	\$ 130,975,296
C. Net pension liability	\$ 8,587,514
D. Plan fiduciary net position as a percentage	
of the total pension liability	93.85 %
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

Fiscal year ending December 31,	_	2024		2023		2022		2021		2020		2019		2018		2017		2016		2015
Total pension liability																				
Service cost	\$	0	\$	0	\$	0	\$	54,935	\$	65 <i>,</i> 959	\$	40,886	\$	61,278	\$	122,812	5	147,314	\$	162,541
Interest on the total pension liability		9,375,306		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
Changes of benefit terms		0		0		0		(52,317,927)		0		0		0		0		0		0
Difference between expected and																				
actual experience		(646,348)		(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)
Changes of assumptions		0		(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
Benefit payments, including refunds																				
of employee contributions		(15,120,635)		(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)
Net change in total pension liability		(6,391,677)		(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
Total pension liability - beginning		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
Total pension liability - ending (a)	\$	139,562,810	\$	145,954,487	\$	164,280,390	\$	171,214,768	\$	413,871,169	\$	358,534,824	\$	324,221,215	\$	340,421,415	5	300,339,001	\$	309,352,751
Plan fiduciary net position																				
Employer contributions	\$	2,716,389	\$	2,537,559	\$	76,679,037	\$	0	\$	0	\$	0	\$	0	\$	0 \$	5	0	\$	0
Employee contributions		0		0		0		0		0		0		0		0		0		0
Pension plan net investment income		12,981,460		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)
Benefit payments, including refunds																				
of employee contributions		(15,120,635)		(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)
Pension plan administrative expense		(35,426)		(46,626)		(56,600)		(105,199)		(88,626)		(87,238)		(98,669)		(108,773)		(110,274)		(102,903)
Other		(3,170)		(4,133)		(4,257)		(3,237)		(3,708)		(4,405)		(4,562)		(6,020)		(6,019)		(6,559)
Net change in plan fiduciary net position		538,618		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)
Plan fiduciary net position - beginning		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
Plan fiduciary net position - ending (b)	\$	130,975,296	\$	130,436,678	\$	127,301,806	\$	73,443,552	\$	90,082,951	\$	97,959,431	\$	97,220,978	\$	116,692,552	<b>,</b>	116,866,234	\$	123,898,322
Net pension liability - ending (a) - (b)	\$	8,587,514	\$	15,517,809	\$	36,978,584	\$	97,771,216	\$	323,788,218	\$	260,575,393	\$	227,000,237	\$	223,728,863	<b>;</b>	183,472,767	\$	185,454,429
Plan fiduciary net position as a percentage																				
of total pension liability		93.85 %		89.37 %		77.49 %		42.90 %		21.77 %		27.32 %		29.99 %		34.28 %		38.91 %		40.05 %
Covered-employee payroll	\$		\$		\$	0	Ś	65,621	Ś	65,621		65,621	Ś	134,155	Ś	195,221	5	195,221	Ś	179,486
Projected Valuation Payroll	\$		\$	0		0		65,621		65,621		65,621		134,155		195,221		195,221		179,486
Net pension liability as a percentage	7	· ·	*	Ü	7	· ·	7	,	*	,	7	,	7	,		/		,	7	,0
of covered-employee payroll		N/A		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 %

#### Notes to Schedule:

For 2024 through 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	\$ 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
2024	139,562,810	130,975,296	8,587,514	93.85 %	0	N/A

<sup>\*</sup> 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,	D	Actuarially Determined Contribution		Actual tribution	_	ontribution Deficiency (Excess)	 Covered Payroll*	Actual Contribution as a % of Covered Payroll
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	7	76,679,037		(63,180,482)	0	N/A
2023		2,212,001		2,537,559		(325,558)	0	N/A
2024		1,811,966		2,716,389		(904,423)	0	N/A

<sup>\*</sup> 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, 2024

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

Inflation2.25%Cost-of-Living Increase0.00%Investment Rate of Return6.80%

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**

FY Ending	Annual
December 31,	Return <sup>1</sup>
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 %
2024	10.54 %

<sup>&</sup>lt;sup>1</sup> 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 4.08%. 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

Current Single Discount									
1% Decrease	Rate Assumption	1% Increase							
5.80%	6.80%	7.80%							
\$ 19.357.018	\$ 8.587.514	\$ (835,317)							



## **Summary of Population Statistics**

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	248
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	1
Active Plan Members	0
Total Plan Members	249





**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<sup>th</sup> 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

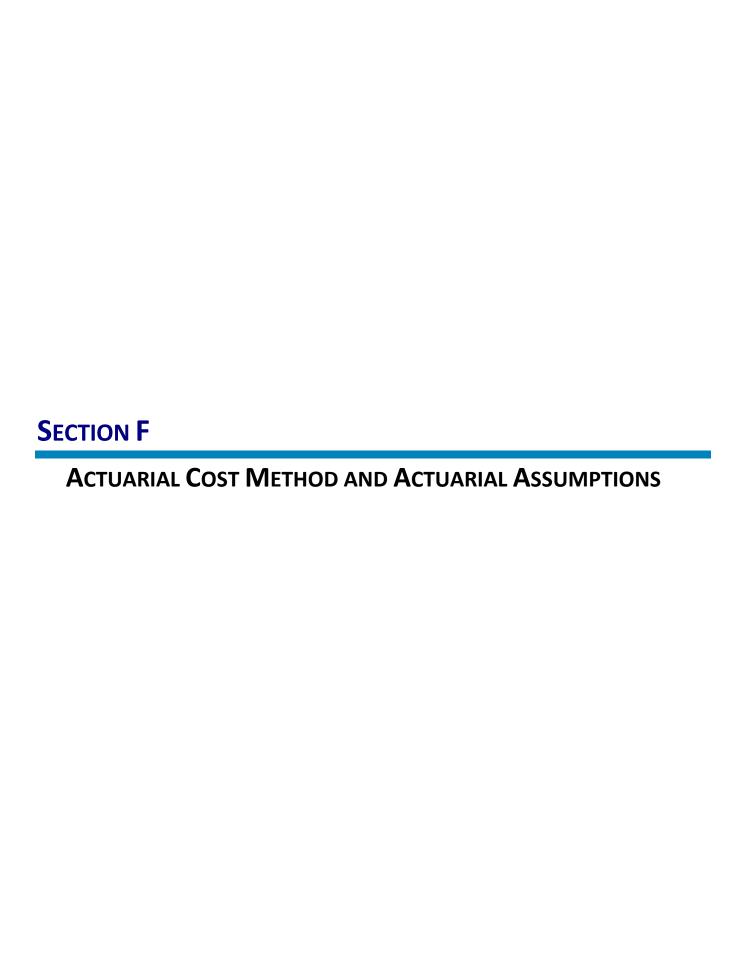
in Wyoming.

Interest None

Cost-Of-Living Improvements The current cost-of-living improvement is 0% per Enrolled Act No. 6,

effective April 1, 2022.





### **Summary of Actuarial Assumptions and Methods**

The following methods and assumptions were used in preparing the January 1, 2024 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 1<sup>st</sup>, 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. <u>Actuarial Cost Method</u>

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 as a level dollar amount.



### 3. <u>Actuarial Value of Assets</u>

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. <u>Economic Assumptions</u>

### 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



### 5. <u>Demographic Assumptions</u>

### 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%

	Pre-Ret	irement	Post-Re	tirement	Disabled						
	Projected to 2024 using the Scale MP-2020 Ultimate Sc										
Age	Male	Female	Male	Female	Male	Female					
20	0.03%	0.01%	0.03%	0.01%	0.10%	0.04%					
25	0.03%	0.02%	0.03%	0.02%	0.09%	0.05%					
30	0.03%	0.02%	0.03%	0.02%	0.10%	0.07%					
35	0.04%	0.03%	0.04%	0.03%	0.11%	0.10%					
40	0.05%	0.04%	0.05%	0.04%	0.14%	0.14%					
45	0.07%	0.06%	0.10%	0.07%	0.20%	0.18%					
50	0.10%	0.08%	0.16%	0.12%	0.29%	0.25%					
55	0.14%	0.10%	0.25%	0.21%	0.40%	0.38%					
60	0.22%	0.14%	0.42%	0.37%	0.61%	0.58%					
65	0.34%	0.19%	0.73%	0.64%	0.99%	0.88%					
70	0.64%	0.38%	1.32%	1.12%	1.60%	1.35%					
75			2.40%	1.95%	2.75%	2.07%					
80			4.37%	3.39%	4.79%	3.39%					
85			8.08%	6.05%	8.15%	6.05%					
90			14.52%	10.81%	14.52%	10.81%					
95			22.55%	17.92%	22.55%	17.92%					
100			31.27%	27.00%	31.27%	27.00%					



### 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.





**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 4.08%; 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 2024 to 2073

					Employer	<b>Employer Contributions</b>	
	Payroll for Current	Payroll for Future	Total Employee	Contributions from		Related to Payroll of	
Year	Employees	Employees	Payroll	Current Employees		Future Employees	Total Contributions
	(a)	(b)=max(0,(c)-(a))	(c)	(d)	(e)=(a)*ER%	(f) = (b)*netER%	(g)=(d)+(e)+(f)
2024	Ć 0	Ć 0	Ć 0	ć o	¢ 2716 200	ć o	Ć 0
2024	\$ 0	\$ 0	\$ 0	\$ 0	\$ 2,716,389		\$ 0
2025	0	0	0	0	2,777,508	0	0
2026	0	0	0	0	2,840,002	0	0
2027	0	0	0	0	2,903,902	0	0
2028	0	0	0	0	2,969,240	0	0
2029	0	0	0	0	3,036,047	0	0
2030	0	0	0	0	3,104,358	0	0
2031	0	0	0	0	3,174,207	0	0
2032	0	0	0	0	3,245,626	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
2072	0	0	0	0	0	0	0
2013	U	U	U	U	U	U	U



# Single Discount Rate Development Projection of Contributions Ending December 31 for 2074 to 2123 (concluded)

					Employer	<b>Employer Contributions</b>	
V	Payroll for Current	Payroll for Future	Total Employee	Contributions from		Related to Payroll of	Takal Cambullandian
Year	Employees (a)	(b)=max(0,(c)-(a))	Payroll	Current Employees (d)	(e)=(a)*ER%	Future Employees (f) = (b)*netER%	Total Contributions (g)=(d)+(e)+(f)
	(a)	(D)=IIIdX(U,(C)-(d))	(c)	(u)	(e)-(a) EK%	(I) - (D) HELEK%	(g)-(u)+(e)+(i)
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
2123	0	0	0	0	0	0	0



# Single Discount Rate Development Projection of Plan Net Position Ending December 31 for 2024 to 2073

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)
2024	\$ 130,436,678	\$ 2,716,389	\$ 15,205,312	\$ 38,596	\$ 12,981,460	\$ 130,890,619
2025	130,890,619	2,777,508	14,888,774	58,000	8,493,611	127,214,964
2026	127,214,964	2,840,002	14,551,827	58,000	8,257,025	123,702,163
2027	123,702,163	2,903,902	14,196,077	58,000	8,032,188	120,384,176
2028	120,384,176	2,969,240	13,822,667	58,000	7,821,236	117,293,985
2029	117,293,985	3,036,047	13,432,150	58,000	7,626,397	114,466,279
2030	114,466,279	3,104,358	13,026,082	58,000	7,449,976	111,936,532
2031	111,936,532	3,174,207	12,604,666	58,000	7,294,382	109,742,454
2032	109,742,454	3,245,626	12,168,492	58,000	7,162,159	107,923,748
2033	107,923,748	0	11,718,180	58,000	6,945,009	103,092,577
2034	103,092,577	0	11,254,418	58,000	6,631,998	98,412,157
2035	98,412,157	0	10,778,029	58,000	6,329,661	93,905,789
2036	93,905,789	0	10,289,991	58,000	6,039,548	89,597,346
2037	89,597,346	0	9,791,398	58,000	5,763,247	85,511,195
2038	85,511,195	0	9,283,361	58,000	5,502,378	81,672,212
2039	81,672,212	0	8,767,276	58,000	5,258,586	78,105,522
2040	78,105,522	0	8,244,757	58,000	5,033,524	74,836,289
2041	74,836,289	0	7,717,604	58,000	4,828,845	71,889,530
2042	71,889,530	0	7,187,948	58,000	4,646,177	69,289,759
2043	69,289,759	0	6,658,108	58,000	4,487,111	67,060,762
2044	67,060,762	0	6,130,671	58,000	4,353,177	65,225,269
2045	65,225,269	0	5,608,644	58,000	4,245,821	63,804,446
2046	63,804,446	0	5,095,215	58,000	4,166,374	62,817,605
2047	62,817,605	0	4,593,843	58,000	4,116,036	62,281,798
2048	62,281,798	0	4,108,367	58,000	4,095,835	62,211,266
2049	62,211,266	0	3,642,693	58,000	4,106,612	62,617,185
2050	62,617,185	0	3,200,788	58,000	4,148,992	63,507,389
2051	63,507,389	0	2,786,248	58,000	4,223,388	64,886,529
2052	64,886,529	0	2,402,022	58,000	4,330,019	66,756,526
2053	66,756,526	0	2,050,348	58,000	4,468,939	69,117,116
2054	69,117,116	0	1,732,583	58,000	4,640,085	71,966,619
2055	71,966,619	0	1,449,219	58,000	4,843,327	75,302,727
2056	75,302,727	0	1,199,773	58,000	5,078,524	79,123,478
2057	79,123,478	0	982,923	58,000	5,345,587	83,428,143
2058	83,428,143	0	796,817	58,000	5,644,528	88,217,854
2059	88,217,854	0	639,166	58,000	5,975,500	93,496,188
2060	93,496,188	0	507,359	58,000	6,338,835	99,269,663
2061	99,269,663	0	398,592	58,000	6,735,068	105,548,140
2062	105,548,140	0	309,942	58,000	7,164,969	112,345,167
2063	112,345,167	0	238,526	58,000	7,629,555	119,678,196
2064	119,678,196	0	181,635	58,000	8,130,104	127,568,665
2065	127,568,665	0	136,795	58,000	8,668,155	136,042,025
2066	136,042,025	0	101,849	58,000	9,245,512	145,127,688
2067	145,127,688	0	74,938	58,000	9,864,237	154,858,987
2068	154,858,987	0	54,440	58,000	10,526,651	165,273,199
2069	165,273,199	0	39,004	58,000	11,235,334	176,411,528
2009	176,411,528	0	27,522	58,000	11,993,124	188,319,130
2070	188,319,130	0	19,095	58,000	12,803,123	201,045,158
2071	201,045,158	0	13,007	58,000	13,668,696	214,642,847
2072	214,642,847	0	8,681	58,000	14,593,484	229,169,650
20/3	214,042,047	U	0,001	36,000	14,353,464	223,103,030



# Single Discount Rate Development Projection of Plan Net Position Ending December 31 for 2074 to 2123 (concluded)

Year	Projected Beginning Plan Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Administrative Expenses		ojected Investment Earnings at 6.80%	Projected Ending Plan Net Position
	(a)	(b)	(c)	(d)		(e)	(f)=(a)+(b)-(c)-(d)+(e)
2074	\$ 229,169,650	\$ 0	\$ 5,669	\$ 58,000	Ś	15,581,407	\$ 244,687,388
2075	244,687,388	0	3,614	58,000	•	16,636,682	261,262,456
2076	261,262,456	0	2,248	58,000		17,763,832	278,966,040
2077	278,966,040	0	1,362	58,000		18,967,706	297,874,384
2078	297,874,384	0	802	58,000		20,253,492	318,069,073
2079	318,069,073	0	458	58,000		21,626,742	339,637,357
2080	339,637,357	0	255	58,000		23,093,392	362,672,495
2081	362,672,495	0	137	58,000		24,659,785	387,274,143
2082	387,274,143	0	72	58,000		26,332,700	413,548,771
2083	413,548,771	0	37	58,000		28,119,376	441,610,109
2084	441,610,109	0	18	58,000		30,027,547	471,579,639
2085	471,579,639	0	10	58,000		32,065,476	503,587,104
2086	503,587,104	0	4	58,000		34,241,983	537,771,084
2087	537,771,084	0	2	58,000		36,566,494	574,279,576
2088	574,279,576	0	1	58,000		39,049,072	613,270,646
2089	613,270,646	0	0	58,000		41,700,464	654,913,111
2090	654,913,111	0	0	58,000		44,532,152	699,387,263
2091	699,387,263	0	0	58,000		47,556,394	746,885,657
2092	746,885,657	0	0	58,000		50,786,285	797,613,942
2093	797,613,942	0	0	58,000		54,235,808	851,791,750
2094	851,791,750	0	0	58,000		57,919,899	909,653,650
2095	909,653,650	0	0	58,000		61,854,509	971,450,158
2096	971,450,158	0	0	58,000		66,056,671	1,037,448,830
2097	1,037,448,830	0	0	58,000		70,544,581	1,107,935,411
2098	1,107,935,411	0	0	58,000		75,337,668	1,183,215,079
2098	1,183,215,079	0	0	58,000		80,456,686	1,263,613,765
2100	1,263,613,765	0	0	58,000		85,923,796	1,349,479,561
2101	1,349,479,561	0	0	58,000		91,762,671	1,441,184,232
2102	1,441,184,232	0	0	58,000		97,998,588	1,539,124,820
2102	1,539,124,820	0	0	58,000		104,658,548	1,643,725,368
2103	1,643,725,368	0	0	58,000		111,771,385	1,755,438,753
2105	1,755,438,753	0	0	58,000		119,367,896	1,874,748,649
2106	1,874,748,649	0	0	58,000		127,480,969	2,002,171,618
2107	2,002,171,618	0	0	58,000		136,145,730	2,138,259,348
2107	2,138,259,348	0	0	58,000		145,399,696	2,283,601,044
2109	2,283,601,044	0	0	58,000		155,282,931	2,438,825,976
2110	2,438,825,976	0	0	58,000		165,838,227	2,604,606,202
2111	2,604,606,202	0	0	58,000		177,111,282	2,781,659,485
2111	2,781,659,485	0	0	58,000		189,150,905	2,970,752,390
2112	2,970,752,390	0	0	58,000		202,009,223	3,172,703,613
2113	3,172,703,613	0	0	58,000		215,741,906	3,388,387,519
2114	3,388,387,519	0	0	58,000		230,408,412	
		0	0				3,618,737,931
2116	3,618,737,931	0	0	58,000 58,000		246,072,240	3,864,752,171 4,127,495,379
2117	3,864,752,171	0	0	58,000 58,000		262,801,208 280,667,746	
2118	4,127,495,379	0	0				4,408,105,125
2119	4,408,105,125	0	0	58,000 58,000		299,749,209	4,707,796,334 5,027,866,545
2120 2121	4,707,796,334	0	0	58,000		320,128,211	5,027,866,545
	5,027,866,545			58,000		341,892,985	5,369,701,530
2122	5,369,701,530	0	0	58,000		365,137,764	5,734,781,295
2123	5,734,781,295	0	0	58,000		389,963,188	6,124,686,483



## Single Discount Rate Development Present Values of Projected Benefits Ending December 31 for 2024 to 2073

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)^(a5)
2024	\$ 130,436,678	\$ 15,205,312	\$ 15,205,312	\$ 0	\$ 14,713,287	\$ 0	\$ 14,713,287
2025	130,890,619	14,888,774	14,888,774	0	13,489,693	0	13,489,693
2026	127,214,964	14,551,827	14,551,827	0	12,344,952	0	12,344,952
2027	123,702,163	14,196,077	14,196,077	0	11,276,361	0	11,276,361
2028	120,384,176	13,822,667	13,822,667	0	10,280,665	0	10,280,665
2029	117,293,985	13,432,150	13,432,150	0	9,354,135	0	9,354,135
2030	114,466,279	13,026,082	13,026,082	0	8,493,773	0	8,493,773
2031	111,936,532	12,604,666	12,604,666	0	7,695,679	0	7,695,679
2032	109,742,454	12,168,492	12,168,492	0	6,956,345	0	6,956,345
2033	107,923,748	11,718,180	11,718,180	0	6,272,393	0	6,272,393
2034	103,092,577	11,254,418	11,254,418	0	5,640,595	0	5,640,595
2035	98,412,157	10,778,029	10,778,029	0	5,057,897	0	5,057,897
2036	93,905,789	10,289,991	10,289,991	0	4,521,415	0	4,521,415
2037	89,597,346	9,791,398	9,791,398	0	4,028,402	0	4,028,402
2038	85,511,195	9,283,361	9,283,361	0	3,576,202	0	3,576,202
2039	81,672,212	8,767,276	8,767,276	0	3,162,352	0	3,162,352
2040	78,105,522	8,244,757	8,244,757	0	2,784,532	0	2,784,532
2041	74,836,289	7,717,604	7,717,604	0	2,440,538	0	2,440,538
2042	71,889,530	7,187,948	7,187,948	0	2,128,319	0	2,128,319
2043	69,289,759	6,658,108	6,658,108	0	1,845,914	0	1,845,914
2044	67,060,762	6,130,671	6,130,671	0	1,591,466	0	1,591,466
2045	65,225,269	5,608,644	5,608,644	0	1,363,251	0	1,363,251
2046	63,804,446	5,095,215	5,095,215	0	1,159,603	0	1,159,603
2047	62,817,605	4,593,843	4,593,843	0	978,930	0	978,930
2048	62,281,798	4,108,367	4,108,367	0	819,735	0	819,735
2049	62,211,266	3,642,693	3,642,693	0	680,543	0	680,543
2050	62,617,185	3,200,788	3,200,788	0	559,911	0	559,911
2051	63,507,389	2,786,248	2,786,248	0	456,363	0	456,363
2052	64,886,529	2,402,022	2,402,022	0	368,380	0	368,380
2052	66,756,526	2,050,348	2,050,348	0	294,426	0	294,426
2054	69,117,116	1,732,583	1,732,583	0	232,954	0	232,954
2055	71,966,619	1,449,219	1,449,219	0	182,448	0	182,448
2056	75,302,727	1,199,773	1,199,773	0	141,427	0	141,427
2057	79,123,478	982,923	982,923	0	108,488	0	108,488
2057	83,428,143	796,817	796,817	0	82,347	0	82,347
2059	88,217,854	639,166	639,166	0	61,849	0	61,849
2060	93,496,188	507,359	507,359	0	45,969	0	45,969
2061	99,269,663	398,592	398,592	0	33,815	0	33,815
2062				0		0	
	105,548,140 112,345,167	309,942	309,942	0	24,620	0	24,620 17,741
2063 2064	119,678,196	238,526 181,635	238,526 181,635	0	17,741 12,649	0	12,649
	127,568,665						
2065		136,795	136,795	0	8,920	0	8,920
2066	136,042,025	101,849	101,849	0	6,218	0	6,218
2067	145,127,688	74,938	74,938	0	4,284	0	4,284
2068	154,858,987	54,440	54,440	0	2,914	0	2,914
2069	165,273,199	39,004	39,004	0	1,955	0	1,955
2070	176,411,528	27,522	27,522	0	1,292	0	1,292
2071	188,319,130	19,095	19,095	0	839	0	839
2072	201,045,158	13,007	13,007	0	535	0	535
2073	214,642,847	8,681	8,681	0	334	0	334



# Single Discount Rate Development Present Values of Projected Benefits Ending December 31 for 2074 to 2123 (concluded)

Present Value of

Present Value of

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)^(a5)
2074	\$ 229,169,650	\$ 5,669	\$ 5,669	\$ 0	\$ 204	\$ 0	\$ 204
2075	244,687,388	3,614	3,614	0	122	0	122
2076	261,262,456	2,248	2,248	0	71	0	71
2077	278,966,040	1,362	1,362	0	40	0	40
2078	297,874,384	802	802	0	22	0	22
2079	318,069,073	458	458	0	12	0	12
2080	339,637,357	255	255	0	6	0	6
2081	362,672,495	137	137	0	3	0	3
2082	387,274,143	72	72	0	2	0	2
2083	413,548,771	37	37	0	1	0	1
2084	441,610,109	18	18	0	0	0	0
2085	471,579,639	10	10	0	0	0	0
2086	503,587,104	4	4	0	0	0	0
2087	537,771,084	2	2	0	0	0	0
2088	574,279,576	1	1	0	0	0	0
2089	613,270,646	0	0	0	0	0	0
2090	654,913,111	0	0	0	0	0	0
2091	699,387,263	0	0	0	0	0	0
2092	746,885,657	0	0	0	0	0	0
2093	797,613,942	0	0	0	0	0	0
2094	851,791,750	0	0	0	0	0	0
2095	909,653,650	0	0	0	0	0	0
2096	971,450,158	0	0	0	0	0	0
2097	1,037,448,830	0	0	0	0	0	0
2098	1,107,935,411	0	0	0	0	0	0
2099	1,183,215,079	0	0	0	0	0	0
2100	1,263,613,765	0	0	0	0	0	0
2101	1,349,479,561	0	0	0	0	0	0
2102	1,441,184,232	0	0	0	0	0	0
2103	1,539,124,820	0	0	0	0	0	0
2104	1,643,725,368	0	0	0	0	0	0
2105	1,755,438,753	0	0	0	0	0	0
2106	1,874,748,649	0	0	0	0	0	0
2107	2,002,171,618	0	0	0	0	0	0
2108	2,138,259,348	0	0	0	0	0	0
2109	2,283,601,044	0	0	0	0	0	0
2110	2,438,825,976	0	0	0	0	0	0
2111	2,604,606,202	0	0	0	0	0	0
2112	2,781,659,485	0	0	0	0	0	0
2113	2,970,752,390	0	0	0	0	0	0
2114	3,172,703,613	0	0	0	0	0	0
2115	3,388,387,519	0	0	0	0	0	0
2116	3,618,737,931	0	0	0	0	0	0
2117	3,864,752,171	0	0	0	0	0	0
2118	4,127,495,379	0	0	0	0	0	0
2119	4,408,105,125	0	0	0	0	0	0
2110	4,707,796,334	0	0	0	0	0	0
2121	5,027,866,545	0	0	0	0	0	0
2122	5,369,701,530	0	0	0	0	0	0
2123	5,734,781,295	0	0	0	0	0	0
	3,. 3 .,. 31,233	v	v	Totals	\$ 145,308,140		\$ 145,308,140





**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.



#### **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.



#### **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.



## 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 postemployment 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:

- 1. Service Cost
- 2. Interest on the Total Pension Liability
- 3. Current-Period Benefit Changes
- 4. Employee Contributions (made negative for addition here)
- 5. Projected Earnings on Plan Investments (made negative for addition here)
- 6. Pension Plan Administrative Expense
- 7. Other Changes in Plan Fiduciary Net Position
- 8. Recognition of Outflow (Inflow) of Resources due to Liabilities
- 9. 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.

