

WYOMING VOLUNTEER FIREMEN'S PENSION PLAN
GASB STATEMENT NOS. 67 AND 68 ACCOUNTING AND
FINANCIAL REPORTING FOR PENSIONS
FOR THE MEASUREMENT DATE OF DECEMBER 31, 2014

August 4, 2015

The Board of Trustees
Wyoming Retirement System

Dear Board Members:

This report provides information required by the Wyoming Retirement System (WRS) in connection with the Governmental Accounting Standards Board (GASB) Statement No. 67 "Financial Reporting for Pension Plans" and Statement No. 68 "Accounting and Financial Reporting for Pensions".

The actuarial calculations for this report were prepared for the purpose of complying with the requirements of GASB Statements No. 67 and 68. These calculations have been made on a basis that is consistent with our understanding of this Statement.

The calculation of the liability associated with the benefits described in this report was performed for the purpose of satisfying the requirements of GASB Statement No. 67 and GASB Statement No. 68. The calculation of the plan's liability for this report may not be applicable for funding purposes of the plan. A calculation of the plan's liability for purposes other than satisfying the requirements of GASB Statement No. 67 and No. 68 may produce significantly different results. This report may be provided to parties other than the Wyoming Retirement System ("WRS") only in its entirety and only with the permission of WRS.

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. If your understanding of this information is different, please let us know. This information was checked for internal consistency, but it was not otherwise audited.

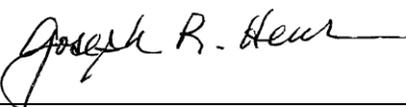
This report complements the actuarial valuation report that was provided to WRS and should be considered in conjunction with that report. Please see the actuarial valuation report as of January 1, 2014 for additional discussion of the nature of actuarial calculations and more information related to participant data.

To the best of our knowledge, the information contained with this report is accurate and fairly represents the actuarial position of the Wyoming Retirement System. 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. Leslie L. Thompson is a member of the American Academy of Actuaries (MAAA) and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. The signing actuaries are independent of the plan sponsor.

Respectfully submitted,

By 

Leslie L. Thompson
FSA, FCA, EA, MAAA

By 

Joseph R. Herm

TABLE OF CONTENTS

	<u>Page</u>
Section A	Executive Summary
	Executive Summary 1
	Discussion 2
Section B	Financial Statements
	Statement of Pension Expense 6
	Statement of Outflows and Inflows Arising from Current Period 7
	Statement of Outflows and Inflows Arising from Current and Prior Periods 8
	Statement of Fiduciary Net Position 9
	Statement of Changes in Fiduciary Net Position 10
Section C	Required Supplementary Information
	Schedule of Changes in Net Pension Liability and Related Ratios Current Period.... 12
	Schedule of Changes in Net Pension Liability and Related Ratios Multiyear..... 13
	Schedule of Net Pension Liability Multiyear..... 14
	Schedule of Contributions Multiyear 15
	Notes to Schedule of Contributions 16
	Schedule of Investment Returns Multiyear..... 17
Section D	Notes to Financial Statements
	Asset Allocation..... 19
	Sensitivity of Net Pension Liability to the Single Discount Rate Assumption..... 20
	Summary of Population Statistics 21
Section E	Summary of Benefits 23
Section F	Actuarial Cost Method and Actuarial Assumptions
	Valuation Methods, Entry Age Normal 26
	Miscellaneous and Technical Assumptions 29
Section G	Calculation of the Single Discount Rate
	Calculation of the Single Discount Rate 31
	Projection of Contributions 32
	Projection of Plan Fiduciary Net Position..... 34
	Present Values of Projected Benefits 36
Section H	Glossary of Terms..... 39

SECTION A

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

AS OF DECEMBER 31, 2014

Actuarial Valuation Date	January 1, 2014
Measurement Date of the Net Pension Liability	December 31, 2014
Employer's Fiscal Year Ending Date (Reporting Date)	June 30, 2015

Membership

Number of	
- Retirees and Beneficiaries	1,180
- Inactive, Nonretired Members	1,245
- Active Members	2,182
- Total	<u>4,607</u>
Covered Payroll	N/A

Net Pension Liability

Total Pension Liability	\$ 76,210,877
Plan Fiduciary Net Position	<u>72,666,383</u>
Net Pension Liability	\$ 3,544,494
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	95.349%
Net Pension Liability as a Percentage of Covered Payroll	N/A

Development of the Single Discount Rate

Single Discount Rate	7.750%
Long-Term Expected Rate of Investment Return	7.750%
Long-Term Municipal Bond Rate*	3.650%
Last year ending December 31 in the 2014 to 2113 projection period for which projected benefit payments are fully funded	2113

Total Pension Expense \$ 773,905

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	\$ -	\$ -
Changes in assumptions	-	-
Net difference between projected and actual earnings on pension plan investments	<u>1,624,568</u>	-
Total	<u>\$ 1,624,568</u>	<u>\$ -</u>

*Source: "State & local bonds" rate from Federal Reserve statistical release (H.15) as of December 31, 2014. The statistical release describes this rate as "Bond Buyer Index, general obligation, 20 years to maturity, mixed quality." In describing this index, the Bond Buyer notes that the bonds' average credit quality is roughly equivalent to Moody's Investors Service's Aa2 rating and Standard & Poor's Corp.'s AA.

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).

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, net pension liability, and the pension plan's fiduciary net position as a percentage of the total 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 on pension plan investments for each year.

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
- comparison of the actual employer contributions to the actuarially determined contributions based on the plan's funding policy.

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, 2014 and a measurement date of December 31, 2014.

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 7.750%; the municipal bond rate is 3.650% (based on the weekly rate closest to but not later than the measurement date of the "state & local bonds" rate from Federal Reserve statistical release (H.15)); and the resulting Single Discount Rate is 7.750%.

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 Firemen's 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.

PENSION EXPENSE UNDER GASB STATEMENT NO. 68
FISCAL YEAR ENDED JUNE 30, 2015

A. Expense

1. Service Cost	\$	887,996
2. Interest on the Total Pension Liability		5,600,934
3. Current-Period Benefit Changes		0
4. Employee Contributions (made negative for addition here)		(340,855)
5. Projected Earnings on Plan Investments (made negative for addition here)		(5,442,444)
6. Pension Plan Administrative Expense		67,453
7. Other Changes in Plan Fiduciary Net Position		821
8. Recognition of Outflow (Inflow) of Resources due to Liabilities		-
9. Recognition of Outflow (Inflow) of Resources due to Assets		406,142
10. Recognition of Outflow of Resources due to Contributions made from December 31, 2014 to June 30, 2015		- *
11. Total Pension Expense	\$	773,905

*In accordance with GASB 71, employers may need to illustrate contributions made from January 1, 2015 through June 30, 2015.

**STATEMENT OF OUTFLOWS AND INFLOWS ARISING FROM CURRENT REPORTING
PERIOD
FISCAL YEAR ENDED JUNE 30, 2015**

A. Outflows (Inflows) of Resources due to Liabilities

1. Difference between expected and actual experience of the Total Pension Liability (gains) or losses	\$	-
2. Assumption Changes (gains) or losses	\$	-
3. Recognition period for Liabilities: Average of the expected remaining service lives of all employees {in years }		1.0000
4. Outflow (Inflow) of Resources to be recognized in the current pension expense for the Difference between expected and actual experience of the Total Pension Liability	\$	-
5. Outflow (Inflow) of Resources to be recognized in the current pension expense for Assumption Changes	\$	-
6. Outflow (Inflow) of Resources to be recognized in the current pension expense due to Liabilities	\$	-
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	\$	-
8. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses for Assumption Changes	\$	-
9. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Liabilities	\$	-

B. Outflows (Inflows) of Resources due to Assets

1. Net difference between projected and actual earnings on pension plan investments (gains) or losses	\$	2,030,710
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	\$	406,142
4. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Assets	\$	1,624,568

**STATEMENT OF OUTFLOWS AND INFLOWS ARISING FROM CURRENT AND PRIOR
REPORTING PERIODS
FISCAL YEAR ENDED JUNE 30, 2015**

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

	Outflows of Resources	Inflows of Resources	Net Outflows of Resources
1. due to Liabilities	\$ -	\$ 0	\$ -
2. due to Assets	406,142	-	406,142
3. Total	\$ 406,142	\$ 0	\$ 406,142

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

	Outflows of Resources	Inflows of Resources	Net Outflows of Resources
1. Differences between expected and actual experience	\$ -	\$ 0	\$ -
2. Assumption Changes	-	-	0
3. Net Difference between projected and actual earnings on pension plan investments	406,142	-	406,142
4. Total	\$ 406,142	\$ 0	\$ 406,142

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

	Deferred Outflows of Resources	Deferred Inflows of Resources	Net Deferred Outflows of Resources
1. Differences between expected and actual experience	\$ -	\$ 0	\$ -
2. Assumption Changes	-	-	0
3. Net Difference between projected and actual earnings on pension plan investments	1,624,568	-	1,624,568
4. Total	\$ 1,624,568	\$ 0	\$ 1,624,568

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

Year Ending June 30	Net Deferred Outflows of Resources
2016	\$ 406,142
2017	406,142
2018	406,142
2019	406,142
2020	-
Thereafter	0
Total	\$ 1,624,568

STATEMENT OF FIDUCIARY NET POSITION
AS OF DECEMBER 31, 2014

	2014
Assets	
Cash and Deposits	\$ 4,486,584
Receivables	
Accounts Receivable - Sale of Investments	\$ 35,771
Accrued Interest and Other Dividends	187,448
Contributions	23,970
Accounts Receivable - Other	11,379,085
Total Receivables	\$ 11,626,274
Investments	
Fixed Income	\$ 14,484,609
Domestic Equities	36,577,640
International Equities	-
Real Estate	-
Other	22,721,101
Total Investments	\$ 73,783,350
Total Assets	\$ 89,896,208
 Liabilities	
Payables	
Accounts Payable - Purchase of Investments	\$ 654,381
Accrued Expenses	127,231
Accounts Payable - Other	16,448,213
Total Liabilities	\$ 17,229,825
 Net Position Restricted for Pensions	\$ 72,666,383

**STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
FOR YEAR ENDED DECEMBER 31, 2014**

	2014
Additions	
Contributions	
Employer	\$ -
Employee	325,760
Other	2,010,006
Total Contributions	\$ 2,335,766
Investment Income	
Net Appreciation in Fair Value of Investments	\$ 2,103,596
Interest and Dividends	1,765,300
Less Investment Expense	(457,162)
Net Investment Income	\$ 3,411,734
Other	\$ -
Total Additions	\$ 5,747,500
Deductions	
Benefit Payments, including Refunds of Employee Contributions	\$ 4,208,352
Pension Plan Administrative Expense	67,453
Other	821
Total Deductions	\$ 4,276,626
Net Increase in Net Position	\$ 1,470,874
Net Position Restricted for Pensions	
Beginning of Year	\$ 71,195,509
End of Year	\$ 72,666,383

SECTION C

REQUIRED SUPPLEMENTARY INFORMATION

Auditor's Note – This information is intended to assist in preparation of the financial statements of the Wyoming Volunteer Firemen's 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 PERIOD
FISCAL YEAR ENDED JUNE 30, 2015

A. Total pension liability	
1. Service Cost	\$ 887,996
2. Interest on the Total Pension Liability	5,600,934
3. Changes of benefit terms	0
4. Difference between expected and actual experience of the Total Pension Liability	-
5. Changes of assumptions	0
6. Benefit payments, including refunds of employee contributions	(4,208,352)
7. Net change in total pension liability	\$ 2,280,578
8. Total pension liability – beginning	73,930,299
9. Total pension liability – ending	<u><u>\$ 76,210,877</u></u>
B. Plan fiduciary net position	
1. Contributions – employer	\$ -
2. Contributions – employee	325,760
3. Net investment income	3,411,734
4. Benefit payments, including refunds of employee contributions	(4,208,352)
5. Pension Plan Administrative Expense	(67,453)
6. Other	2,009,185
7. Net change in plan fiduciary net position	\$ 1,470,874
8. Plan fiduciary net position – beginning	71,195,509
9. Plan fiduciary net position – ending	<u><u>\$ 72,666,383</u></u>
C. Net pension liability	<u><u>\$ 3,544,494</u></u>
D. Plan fiduciary net position as a percentage of the total pension liability	95.35%
E. Covered-employee payroll	N/A
F. Net pension liability as a percentage of covered employee payroll	N/A

Notes to Schedule:

Other changes to Plan Fiduciary Net Position may include member redeposits, member service purchase contributions, other funding sources, and depreciation expenses.

SCHEDULES OF REQUIRED SUPPLEMENTARY INFORMATION
SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS MULTIYEAR

Measurement date as of December 31,	<u>2014</u>
Total Pension Liability	
Service Cost	\$ 887,996
Interest on the Total Pension Liability	5,600,934
Benefit Changes	-
Difference between Expected and Actual Experience	-
Assumption Changes	-
Benefit Payments	(4,165,691)
Refunds	(42,661)
Net Change in Total Pension Liability	<u>2,280,578</u>
Total Pension Liability - Beginning	<u>73,930,299</u>
Total Pension Liability - Ending (a)	<u>\$ 76,210,877</u>
Plan Fiduciary Net Position	
Employer Contributions	\$ -
Employee Contributions	325,760
Pension Plan Net Investment Income	3,411,734
Benefit Payments	(4,165,691)
Refunds	(42,661)
Pension Plan Administrative Expense	(67,453)
Other	2,009,185
Net Change in Plan Fiduciary Net Position	<u>1,470,874</u>
Plan Fiduciary Net Position - Beginning	<u>71,195,509</u>
Plan Fiduciary Net Position - Ending (b)	<u>\$ 72,666,383</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 3,544,494</u>
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	95.35 %
Covered Employee Payroll	N/A
Net Pension Liability as a Percentage of Covered Employee Payroll	N/A
Notes to Schedule:	
Other changes to Plan Fiduciary Net Position may include member redeposits, member service purchase contributions, other funding sources, and depreciation expenses.	

SCHEDULES OF REQUIRED SUPPLEMENTARY INFORMATION
SCHEDULE OF THE NET PENSION LIABILITY MULTIYEAR
Last 10 Plan Years (which may be built prospectively)

FY Ending December 31,	Total Pension Liability	Plan Net Position	Net Pension Liability	Plan Net Position as a % of Total Pension Liability	Covered Payroll	Net Pension Liability as a % of Covered Payroll
2014	\$ 76,210,877	\$ 72,666,383	\$ 3,544,494	95.35%	N/A	N/A

**SCHEDULE OF CONTRIBUTIONS MULTIYEAR
LAST 10 PLAN YEARS**

FY Ending December 31,	Actuarially Determined Contribution	Actual Contribution*	Contribution Deficiency (Excess)	Covered Payroll	Actual Contribution as a % of Covered Payroll
2014	\$ 1,233,417	\$ 1,994,911	\$ (761,494)	N/A	N/A

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

NOTES TO SCHEDULE OF CONTRIBUTIONS

Valuation Date: January 1, 2014

Methods and Assumptions Used to Determine Contribution Rates:

Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Dollar, Open
Remaining Amortization Period	30 years
Asset Valuation Method	5-Year smoothed market
Inflation	3.25%
Salary Increases	0.00%
Investment Rate of Return	7.75%
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the 2014 valuation pursuant to an experience study of the period 2007 - 2011.
Post-Retirement Mortality	RP-2000 Combined Mortality Table, generational projected with Scale BB. Males: Set back 1 year with a 104% multiplier. Females: No set back with a 90% multiplier.
Pre-Retirement Mortality	RP-2000 Combined Mortality Table, generational projected with Scale BB. Males: Set back 5 years with a 104% multiplier. Females: Set back 4 years with a 90% multiplier.

Other Information:

Notes: There were no benefit changes during the year.

**SCHEDULE OF INVESTMENT RETURNS MULTIYEAR
LAST 10 PLAN YEARS**

FY Ending December 31,	Annual Return¹
2014	4.70 %

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

The figures in the above table were supplied by NEPC; the investment consulting firm to the Wyoming Retirement System. Gabriel, Roeder, Smith and Company does not provide investment advice.

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 Firemen's 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.

ASSET ALLOCATION

Long-Term Expected Return on Plan Assets

The assumed rate of investment return was adopted by the plan's trustees after considering input from the plan's investment consultant and actuary. Additional information about the assumed rate of investment return is included in our actuarial valuation report as of January 1, 2014. In addition, a five year experience study was completed as of December 31, 2011 and this study provides a detailed analysis regarding recommendations on the long term rates for inflation and the real rate of return. The assumed rate of investment return of 7.75% falls within a reasonable range of the long-term expected rate of return.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These real rates of return are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. For each major asset class that is included in the pension plan's target asset allocation as of January 1, 2014, these best estimates are summarized in the following table:

ASSET ALLOCATION

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Cash	2.50%	0.50%
Fixed Income	15.00%	0.80%
Equity	55.00%	5.26%
Marketable Alternatives	15.50%	3.79%
Private Markets	12.00%	5.76%
Total	100.00%	

The figures in the above table were supplied by NEPC; the investment consulting firm to the Wyoming Retirement System. Gabriel, Roeder, Smith and Company does not provide investment advice.

Single Discount Rate

A Single Discount Rate of 7.750% 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 7.750%. The projection of cash flows used to determine this Single Discount Rate assumed that plan member contributions and the employer contributions will be made at the current will be made at the current schedule contribution rates. 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 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 7.750%, 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
6.750%	7.750%	8.750%
\$12,267,943	\$3,544,494	-\$3,727,972

SUMMARY OF POPULATION STATISTICS

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	1,180
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	1,245
Active Plan Members	<u>2,182</u>
Total Plan Members	4,607

SECTION E

SUMMARY OF BENEFITS

SUMMARY OF PLAN PROVISIONS

Covered Members

A volunteer fireman shall become a participating member in the pension plan for each month there is contributed by or on behalf of the member an amount of twelve dollars and fifty cents (\$12.50) per month.

Monthly Benefits

As detailed in W.S. 35-9-608, eligibility and the monthly benefit payable for service retirement, the monthly benefit payable to the surviving spouse upon the member's death, and the monthly benefit payable to children under age 21 upon the member's and spouse's deaths are set forth in the table below. Members who only contributed \$5.00 per month for the period prior to July 1, 1989 accrue only ½ the benefit amount shown for that period of service. Total benefits paid shall not be less than \$5,000 or \$2,500 for members who contributed \$5.00 per month before July 1, 1989.

Age at Entry into Plan	Retirement Age	Member Pension	Spouse Benefit	Children Benefit	Age at Entry into Plan	Retirement Age	Member Pension	Spouse Benefit	Children Benefit
15	60	691.44	460.96	230.48	41	60	253.36	168.91	84.45
16	60	673.46	448.97	224.49	42	60	240.29	160.19	80.10
17	60	655.48	436.99	218.49	43	60	227.21	151.47	75.74
18	60	637.50	425.00	212.50	44	60	214.13	142.76	71.38
19	60	619.52	413.01	206.51	45	60	201.06	134.04	67.02
20	60	601.54	401.02	200.51	46	61	201.06	134.04	67.02
21	60	583.56	389.04	194.52	47	61	192.88	128.59	64.29
22	60	565.58	377.05	188.53	48	62	192.88	128.59	64.29
23	60	547.59	365.06	182.53	49	62	184.71	123.14	61.57
24	60	529.61	353.08	176.54	50	63	184.71	123.14	61.57
25	60	510.82	340.54	170.27	51	63	176.54	117.69	58.85
26	60	493.65	329.10	164.55	52	64	176.54	117.69	58.85
27	60	475.67	317.11	158.56	53	64	168.36	112.24	56.12
28	60	457.69	305.13	152.56	54	65	168.36	112.24	56.12
29	60	439.71	293.14	146.57	55	65	160.19	106.79	53.40
30	60	421.73	281.15	140.58	56	66	160.19	106.79	53.40
31	60	403.75	269.17	134.58	57	66	152.02	101.35	50.67
32	60	385.77	257.18	128.59	58	67	152.02	101.35	50.67
33	60	367.79	245.19	122.60	59	67	143.85	95.90	47.95
34	60	349.81	233.20	116.60	60	68	143.85	95.90	47.95
35	60	331.83	221.22	110.61	61	68	135.67	90.45	45.22
36	60	318.75	212.50	106.25	62	69	135.67	90.45	45.22
37	60	305.67	203.78	101.89	63	69	127.50	85.00	42.50
38	60	292.60	195.06	97.53	64	70	127.50	85.00	42.50
39	60	279.52	186.35	93.17	65	70	119.33	79.55	39.78
40	60	266.44	177.63	88.81					

Vesting

Eligibility	5 years of service if they became a member before February 5, 1993, or 10 years of service if they became a member on or after February 5, 1993 and terminate before their retirement age from the table above.
Monthly Benefit	Eligible members who terminate before their retirement age may continue to make contributions to the plan until their retirement age. Upon reaching retirement age, the member would be eligible for the monthly benefit set forth in the table above. A member who does not meet the eligibility requirement is entitled to a refund of contributions with interest.

Pre-retirement Death Benefit

Eligibility	No age or service requirements.
Monthly Benefit	A monthly benefit equal to the amount corresponding to the spouse's benefit at the member's entry age from the table above, payable to the surviving spouse for their remaining lifetime. 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 monthly benefits paid to the surviving spouse will also be paid to the estate of the spouse upon the spouse's death.

Contributions

Employee	\$12.50 per month.
State	50% 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, 2014 actuarial valuation report.

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 7.75%), 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 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 30 years from the valuation date.

3. Actuarial Value of Assets

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

4. Economic Assumptions

Investment return: 7.75% per year, compounded annually, composed of an assumed 3.25% inflation rate and a 4.50% 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:

RP-2000 Combined Mortality Table, fully generational, projected with Scale BB

Males: Set back 5 years with a multiplier of 104%

Females: Set back 4 years with a multiplier of 90%

Healthy Post-Retirement Mortality:

RP-2000 Combined Mortality Table, fully generational, projected with Scale BB

Males: Set back 1 year with a multiplier of 104%

Females: Set back 0 years with a multiplier of 90%

Age	Pre-Retirement		Post-Retirement		Withdrawal	
	Projected to 2014 using Scale BB				Entry Age	
	Male	Female	Male	Female	<46	>45
20	0.03%	0.02%	0.03%	0.02%	20.00%	N/A
25	0.03%	0.02%	0.04%	0.02%	15.00%	N/A
30	0.04%	0.02%	0.04%	0.02%	11.00%	N/A
35	0.04%	0.03%	0.07%	0.04%	11.00%	N/A
40	0.08%	0.04%	0.10%	0.06%	9.00%	N/A
45	0.11%	0.07%	0.14%	0.10%	4.00%	15.00%
50	0.15%	0.11%	0.20%	0.14%	3.00%	15.00%
55	0.21%	0.16%	0.32%	0.23%	1.00%	8.00%
60	0.36%	0.26%	0.57%	0.40%	0.00%	5.00%
65	0.64%	0.45%	1.00%	0.74%	0.00%	5.00%
70	1.12%	0.83%	1.67%	1.27%	0.00%	5.00%
75			2.85%	2.14%	0.00%	5.00%
80			4.88%	3.49%	0.00%	5.00%
85			8.40%	5.89%	0.00%	5.00%
90			14.62%	10.15%	0.00%	5.00%
95			23.63%	16.09%	0.00%	5.00%
100			32.93%	20.49%	0.00%	5.00%

b. Retirement Rates: Members are assumed to retire at first eligibility.

MISCELLANEOUS AND TECHNICAL ASSUMPTIONS

- a. Percent married: 85% 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 6.50% 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. All members are assumed to have contributed at the \$10.00 per month for the period before July 1, 1989.
- i. Premium tax allocation: Provided by staff and based on booked total premium taxes.

EXPERIENCE ANALYSIS

An experience study was conducted on behalf of all WRS' plans covering the five year period ending December 31, 2011. That study provided a detailed analysis concerned 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 requested to request the December 31, 2011 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 "risk-free" 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 7.750%; the municipal bond rate is 3.650%; and the resulting Single Discount Rate is 7.750%.

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

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

**SINGLE DISCOUNT RATE DEVELOPMENT PROJECTION
OF CONTRIBUTIONS ENDING DECEMBER 31 FOR 2014 TO 2063**

Year	Payroll for Current Employees	Payroll for Future Employees	Total Employee Payroll	Contributions from Current Employees	Employer Contributions for Current Employees*	Employer Contributions Related to Payroll of Future Employees	Total Contributions
(a)	(b)=max(0,(c)-(a))	(c)	(d)	(e)	(f)	(g)=(d)+(e)+(f)	
2014	N/A	N/A	N/A	\$ 325,760	\$ 2,010,006	\$ -	\$ 2,335,766
2015	-	-	-	292,880	1,761,805	-	2,054,685
2016	-	-	-	262,674	1,640,281	-	1,902,955
2017	-	-	-	233,737	1,522,110	-	1,755,847
2018	-	-	-	206,708	1,410,311	-	1,617,019
2019	-	-	-	184,849	1,317,839	-	1,502,688
2020	-	-	-	164,669	1,232,826	-	1,397,494
2021	-	-	-	145,642	1,153,191	-	1,298,833
2022	-	-	-	130,563	1,089,710	-	1,220,273
2023	-	-	-	116,318	1,031,032	-	1,147,350
2024	-	-	-	102,343	974,347	-	1,076,690
2025	-	-	-	90,400	927,086	-	1,017,486
2026	-	-	-	78,668	881,504	-	960,172
2027	-	-	-	71,495	853,238	-	924,733
2028	-	-	-	64,533	825,789	-	890,321
2029	-	-	-	57,436	798,140	-	855,576
2030	-	-	-	50,449	771,915	-	822,364
2031	-	-	-	45,158	752,845	-	798,003
2032	-	-	-	38,791	730,484	-	769,275
2033	-	-	-	34,060	714,746	-	748,806
2034	-	-	-	29,533	700,689	-	730,222
2035	-	-	-	26,114	691,099	-	717,212
2036	-	-	-	22,805	681,758	-	704,563
2037	-	-	-	19,637	672,994	-	692,630
2038	-	-	-	15,727	661,325	-	677,052
2039	-	-	-	13,242	655,098	-	668,340
2040	-	-	-	10,671	648,436	-	659,107
2041	-	-	-	8,815	644,214	-	653,029
2042	-	-	-	6,941	639,482	-	646,423
2043	-	-	-	5,532	636,219	-	641,751
2044	-	-	-	3,802	631,522	-	635,324
2045	-	-	-	2,996	630,037	-	633,033
2046	-	-	-	2,328	628,740	-	631,068
2047	-	-	-	1,584	626,950	-	628,535
2048	-	-	-	1,167	626,193	-	627,360
2049	-	-	-	762	625,160	-	625,922
2050	-	-	-	476	624,376	-	624,853
2051	-	-	-	322	623,934	-	624,256
2052	-	-	-	164	623,396	-	623,560
2053	-	-	-	108	623,182	-	623,290
2054	-	-	-	48	622,873	-	622,921
2055	-	-	-	15	622,686	-	622,701
2056	-	-	-	3	622,549	-	622,551
2057	-	-	-	-	622,463	-	622,463
2058	-	-	-	-	622,412	-	622,412
2059	-	-	-	-	622,382	-	622,382
2060	-	-	-	-	622,368	-	622,368
2061	-	-	-	-	622,391	-	622,391
2062	-	-	-	-	622,421	-	622,421
2063	-	-	-	-	622,450	-	622,450

* Employer contribution based on 50% of gross fire insurance premium tax, or \$1.9million in 2015 and later

**SINGLE DISCOUNT RATE DEVELOPMENT PROJECTION
OF CONTRIBUTIONS ENDING DECEMBER 31 FOR 2064 TO 2113**

Year	Payroll for	Payroll for Future	Total Employee	Contributions from	Employer	Employer	Total
	Current Employees	Employees	Payroll	Current Employees	Contributions for	Contributions	
	(a)	(b)=max(0,(c)-(a))	(c)	(d)	Current	Related to Payroll	Contributions
					Employees	of Future	(g)=(d)+(e)+(f)
						Employees	
2064	\$ -	\$ -	\$ -	\$ -	\$ 622,490	\$ -	\$ 622,490
2065	-	-	-	-	622,520	-	622,520
2066	-	-	-	-	622,566	-	622,566
2067	-	-	-	-	622,607	-	622,607
2068	-	-	-	-	622,641	-	622,641
2069	-	-	-	-	622,673	-	622,673
2070	-	-	-	-	622,701	-	622,701
2071	-	-	-	-	622,718	-	622,718
2072	-	-	-	-	622,731	-	622,731
2073	-	-	-	-	622,746	-	622,746
2074	-	-	-	-	622,751	-	622,751
2075	-	-	-	-	622,754	-	622,754
2076	-	-	-	-	622,754	-	622,754
2077	-	-	-	-	622,750	-	622,750
2078	-	-	-	-	622,747	-	622,747
2079	-	-	-	-	622,743	-	622,743
2080	-	-	-	-	622,737	-	622,737
2081	-	-	-	-	622,731	-	622,731
2082	-	-	-	-	622,726	-	622,726
2083	-	-	-	-	622,719	-	622,719
2084	-	-	-	-	622,715	-	622,715
2085	-	-	-	-	622,710	-	622,710
2086	-	-	-	-	622,705	-	622,705
2087	-	-	-	-	622,702	-	622,702
2088	-	-	-	-	622,699	-	622,699
2089	-	-	-	-	622,697	-	622,697
2090	-	-	-	-	622,695	-	622,695
2091	-	-	-	-	622,694	-	622,694
2092	-	-	-	-	622,694	-	622,694
2093	-	-	-	-	622,694	-	622,694
2094	-	-	-	-	622,694	-	622,694
2095	-	-	-	-	622,695	-	622,695
2096	-	-	-	-	622,696	-	622,696
2097	-	-	-	-	622,697	-	622,697
2098	-	-	-	-	622,698	-	622,698
2099	-	-	-	-	622,699	-	622,699
2100	-	-	-	-	622,700	-	622,700
2101	-	-	-	-	622,701	-	622,701
2102	-	-	-	-	622,702	-	622,702
2103	-	-	-	-	622,702	-	622,702
2104	-	-	-	-	622,703	-	622,703
2105	-	-	-	-	622,703	-	622,703
2106	-	-	-	-	622,704	-	622,704
2107	-	-	-	-	622,704	-	622,704
2108	-	-	-	-	622,704	-	622,704
2109	-	-	-	-	622,704	-	622,704
2110	-	-	-	-	622,704	-	622,704
2111	-	-	-	-	622,704	-	622,704
2112	-	-	-	-	622,704	-	622,704
2113	-	-	-	-	622,703	-	622,703

**SINGLE DISCOUNT RATE DEVELOPMENT PROJECTION
OF PLAN FIDUCIARY NET POSITION ENDING DECEMBER 31 FOR 2014 TO 2063**

Year	Projected Beginning Plan Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Administrative Expenses	Projected Investment Earnings at 7.750%	Projected Ending Plan Net Position
	(a)	(b)	(c)	(d)	(e)	(f)=(a)+(b)-(c)-(d)+(e)
2014	\$ 71,195,509	\$ 2,335,766	\$ 4,208,352	\$ 68,274	\$ 3,411,734	\$ 72,666,383
2015	72,666,383	2,054,685	4,746,839	193,500	5,521,912	75,302,641
2016	75,302,641	1,902,955	5,052,947	193,500	5,708,812	77,667,960
2017	77,667,960	1,755,847	5,372,452	193,500	5,874,380	79,732,235
2018	79,732,235	1,617,019	5,652,853	193,500	6,018,419	81,521,320
2019	81,521,320	1,502,688	5,890,498	193,500	6,143,689	83,083,699
2020	83,083,699	1,397,494	6,139,067	193,500	6,251,321	84,399,947
2021	84,399,947	1,298,833	6,351,092	193,500	6,341,516	85,495,705
2022	85,495,705	1,220,273	6,520,655	193,500	6,417,001	86,418,824
2023	86,418,824	1,147,350	6,698,221	193,500	6,479,018	87,153,471
2024	87,153,471	1,076,690	6,850,102	193,500	6,527,490	87,714,049
2025	87,714,049	1,017,486	6,994,671	193,500	6,563,186	88,106,550
2026	88,106,550	960,172	7,086,840	193,500	6,587,921	88,374,304
2027	88,374,304	924,733	7,114,130	193,500	6,606,286	88,597,694
2028	88,597,694	890,321	7,138,983	193,500	6,621,345	88,776,877
2029	88,776,877	855,576	7,169,611	193,500	6,632,746	88,902,089
2030	88,902,089	822,364	7,181,606	193,500	6,640,731	88,990,079
2031	88,990,079	798,003	7,186,007	193,500	6,646,456	89,055,031
2032	89,055,031	769,275	7,178,363	193,500	6,650,688	89,103,132
2033	89,103,132	748,806	7,140,851	193,500	6,655,064	89,172,651
2034	89,172,651	730,222	7,085,320	193,500	6,661,857	89,285,911
2035	89,285,911	717,212	7,007,346	193,500	6,673,105	89,475,382
2036	89,475,382	704,563	6,920,819	193,500	6,690,598	89,756,225
2037	89,756,225	692,630	6,845,813	193,500	6,714,762	90,124,304
2038	90,124,304	677,052	6,757,864	193,500	6,746,040	90,596,032
2039	90,596,032	668,340	6,640,689	193,500	6,786,724	91,216,907
2040	91,216,907	659,107	6,511,185	193,500	6,839,415	92,010,745
2041	92,010,745	653,029	6,366,634	193,500	6,906,203	93,009,843
2042	93,009,843	646,423	6,209,774	193,500	6,989,347	94,242,340
2043	94,242,340	641,751	6,046,248	193,500	7,090,906	95,735,250
2044	95,735,250	635,324	5,866,448	193,500	7,213,200	97,523,826
2045	97,523,826	633,033	5,663,451	193,500	7,359,447	99,659,354
2046	99,659,354	631,068	5,456,396	193,500	7,532,749	102,173,275
2047	102,173,275	628,535	5,242,192	193,500	7,735,627	105,101,745
2048	105,101,745	627,360	5,019,854	193,500	7,970,994	108,486,744
2049	108,486,744	625,922	4,794,188	193,500	8,241,858	112,366,836
2050	112,366,836	624,853	4,563,601	193,500	8,551,293	116,785,881
2051	116,785,881	624,256	4,331,659	193,500	8,902,566	121,787,544
2052	121,787,544	623,560	4,099,901	193,500	9,298,982	127,416,685
2053	127,416,685	623,290	3,869,188	193,500	9,744,003	133,721,290
2054	133,721,290	622,921	3,642,122	193,500	10,241,231	140,749,819
2055	140,749,819	622,701	3,419,096	193,500	10,794,414	148,554,339
2056	148,554,339	622,551	3,201,518	193,500	11,407,533	157,189,405
2057	157,189,405	622,463	2,990,634	193,500	12,084,766	166,712,500
2058	166,712,500	622,412	2,787,335	193,500	12,830,535	177,184,612
2059	177,184,612	622,382	2,592,258	193,500	13,649,541	188,670,777
2060	188,670,777	622,368	2,405,735	193,500	14,546,811	201,240,722
2061	201,240,722	622,391	2,227,977	193,500	15,527,742	214,969,378
2062	214,969,378	622,421	2,059,055	193,500	16,598,138	229,937,382
2063	229,937,382	622,450	1,898,938	193,500	17,764,248	246,231,643

SINGLE DISCOUNT RATE DEVELOPMENT PROJECTION

OF PLAN FIDUCIARY NET POSITION ENDING DECEMBER 31 FOR 2064 TO 2113

Year	Projected Beginning Plan Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Administrative Expenses	Projected Investment Earnings at 7.750%	Projected Ending Plan Net Position
	(a)	(b)	(c)	(d)	(e)	(f)=(a)+(b)-(c)-(d)+(e)
2064	\$ 246,231,643	\$ 622,490	\$ 1,747,592	\$ 193,500	\$ 19,032,810	\$ 263,945,851
2065	263,945,851	622,520	1,604,832	193,500	20,411,091	283,181,129
2066	283,181,129	622,566	1,470,407	193,500	21,906,938	304,046,727
2067	304,046,727	622,607	1,343,992	193,500	23,528,831	326,660,673
2068	326,660,673	622,641	1,225,247	193,500	25,285,929	351,150,495
2069	351,150,495	622,673	1,113,872	193,500	27,188,126	377,653,923
2070	377,653,923	622,701	1,009,570	193,500	29,246,109	406,319,663
2071	406,319,663	622,718	911,998	193,500	31,471,415	437,308,298
2072	437,308,298	622,731	820,809	193,500	33,876,503	470,793,224
2073	470,793,224	622,746	735,793	193,500	36,474,818	506,961,494
2074	506,961,494	622,751	656,651	193,500	39,280,868	546,014,962
2075	546,014,962	622,754	583,191	193,500	42,310,306	588,171,331
2076	588,171,331	622,754	515,233	193,500	45,580,009	633,665,360
2077	633,665,360	622,750	452,615	193,500	49,108,177	682,750,173
2078	682,750,173	622,747	395,238	193,500	52,914,432	735,698,613
2079	735,698,613	622,743	342,980	193,500	57,019,923	792,804,799
2080	792,804,799	622,737	295,673	193,500	61,447,451	854,385,814
2081	854,385,814	622,731	253,140	193,500	66,221,597	920,783,502
2082	920,783,502	622,726	215,172	193,500	71,368,861	992,366,417
2083	992,366,417	622,719	181,540	193,500	76,917,816	1,069,531,912
2084	1,069,531,912	622,715	151,981	193,500	82,899,265	1,152,708,410
2085	1,152,708,410	622,710	126,218	193,500	89,346,424	1,242,357,825
2086	1,242,357,825	622,705	103,953	193,500	96,295,100	1,338,978,177
2087	1,338,978,177	622,702	84,900	193,500	103,783,902	1,443,106,381
2088	1,443,106,381	622,699	68,764	193,500	111,854,451	1,555,321,267
2089	1,555,321,267	622,697	55,221	193,500	120,551,619	1,676,246,862
2090	1,676,246,862	622,695	43,973	193,500	129,923,781	1,806,555,866
2091	1,806,555,866	622,694	34,717	193,500	140,023,080	1,946,973,423
2092	1,946,973,423	622,694	27,175	193,500	150,905,728	2,098,281,170
2093	2,098,281,170	622,694	21,094	193,500	162,632,309	2,261,321,579
2094	2,261,321,579	622,694	16,237	193,500	175,268,126	2,437,002,663
2095	2,437,002,663	622,695	12,391	193,500	188,883,556	2,626,303,023
2096	2,626,303,023	622,696	9,381	193,500	203,554,449	2,830,277,286
2097	2,830,277,286	622,697	7,047	193,500	219,362,543	3,050,061,979
2098	3,050,061,979	622,698	5,253	193,500	236,395,925	3,286,881,849
2099	3,286,881,849	622,699	3,885	193,500	254,749,517	3,542,056,681
2100	3,542,056,681	622,700	2,850	193,500	274,525,606	3,817,008,636
2101	3,817,008,636	622,701	2,076	193,500	295,834,412	4,113,270,172
2102	4,113,270,172	622,702	1,502	193,500	318,794,702	4,432,492,574
2103	4,432,492,574	622,702	1,079	193,500	343,534,455	4,776,455,153
2104	4,776,455,153	622,703	767	193,500	370,191,566	5,147,075,155
2105	5,147,075,155	622,703	541	193,500	398,914,625	5,546,418,443
2106	5,546,418,443	622,704	376	193,500	429,863,736	5,976,711,007
2107	5,976,711,007	622,704	258	193,500	463,211,415	6,440,351,367
2108	6,440,351,367	622,704	175	193,500	499,143,546	6,939,923,942
2109	6,939,923,942	622,704	116	193,500	537,860,422	7,478,213,452
2110	7,478,213,452	622,704	76	193,500	579,577,861	8,058,220,441
2111	8,058,220,441	622,704	49	193,500	624,528,404	8,683,177,999
2112	8,683,177,999	622,704	31	193,500	672,962,615	9,356,569,787
2113	9,356,569,787	622,703	24	193,500	725,150,479	10,082,149,445

**SINGLE DISCOUNT RATE DEVELOPMENT PRESENT VALUES
OF PROJECTED BENEFITS ENDING DECEMBER 31 FOR 2014 TO 2063**

Year	Projected Beginning Plan Net Position	Projected Benefit Payments	Funded Portion of Projected Benefit Payments	Unfunded Portion of Projected Benefit Payments	Present Value of Funded Benefit Payments using Expected Return Rate (v)	Present Value of Unfunded Benefit Payments using Municipal Bond Rate (vf)	Present Value of All Benefit Payments using Single Discount Rate (SDR)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v ^{(a)-.5}	(g)=(e)*vf ^{(a)-.5}	(h)=((c)/(1+SDR) ^{(a)-.5})
2014	\$ 71,195,509	\$ 4,208,352	\$ 4,208,352	\$ -	\$ 4,054,184	\$ -	\$ 4,054,184
2015	72,666,383	4,746,839	4,746,839	-	4,244,031	-	4,244,031
2016	75,302,641	5,052,947	5,052,947	-	4,192,775	-	4,192,775
2017	77,667,960	5,372,452	5,372,452	-	4,137,253	-	4,137,253
2018	79,732,235	5,652,853	5,652,853	-	4,040,079	-	4,040,079
2019	81,521,320	5,890,498	5,890,498	-	3,907,122	-	3,907,122
2020	83,083,699	6,139,067	6,139,067	-	3,779,114	-	3,779,114
2021	84,399,947	6,351,092	6,351,092	-	3,628,430	-	3,628,430
2022	85,495,705	6,520,655	6,520,655	-	3,457,358	-	3,457,358
2023	86,418,824	6,698,221	6,698,221	-	3,296,062	-	3,296,062
2024	87,153,471	6,850,102	6,850,102	-	3,128,352	-	3,128,352
2025	87,714,049	6,994,671	6,994,671	-	2,964,617	-	2,964,617
2026	88,106,550	7,086,840	7,086,840	-	2,787,640	-	2,787,640
2027	88,374,304	7,114,130	7,114,130	-	2,597,099	-	2,597,099
2028	88,597,694	7,138,983	7,138,983	-	2,418,721	-	2,418,721
2029	88,776,877	7,169,611	7,169,611	-	2,254,383	-	2,254,383
2030	88,902,089	7,181,606	7,181,606	-	2,095,735	-	2,095,735
2031	88,990,079	7,186,007	7,186,007	-	1,946,190	-	1,946,190
2032	89,055,031	7,178,363	7,178,363	-	1,804,288	-	1,804,288
2033	89,103,132	7,140,851	7,140,851	-	1,665,762	-	1,665,762
2034	89,172,651	7,085,320	7,085,320	-	1,533,929	-	1,533,929
2035	89,285,911	7,007,346	7,007,346	-	1,407,933	-	1,407,933
2036	89,475,382	6,920,819	6,920,819	-	1,290,532	-	1,290,532
2037	89,756,225	6,845,813	6,845,813	-	1,184,729	-	1,184,729
2038	90,124,304	6,757,864	6,757,864	-	1,085,391	-	1,085,391
2039	90,596,032	6,640,689	6,640,689	-	989,857	-	989,857
2040	91,216,907	6,511,185	6,511,185	-	900,746	-	900,746
2041	92,010,745	6,366,634	6,366,634	-	817,400	-	817,400
2042	93,009,843	6,209,774	6,209,774	-	739,918	-	739,918
2043	94,242,340	6,046,248	6,046,248	-	668,615	-	668,615
2044	95,735,250	5,866,448	5,866,448	-	602,072	-	602,072
2045	97,523,826	5,663,451	5,663,451	-	539,432	-	539,432
2046	99,659,354	5,456,396	5,456,396	-	482,330	-	482,330
2047	102,173,275	5,242,192	5,242,192	-	430,065	-	430,065
2048	105,101,745	5,019,854	5,019,854	-	382,204	-	382,204
2049	108,486,744	4,794,188	4,794,188	-	338,767	-	338,767
2050	112,366,836	4,563,601	4,563,601	-	299,279	-	299,279
2051	116,785,881	4,331,659	4,331,659	-	263,637	-	263,637
2052	121,787,544	4,099,901	4,099,901	-	231,584	-	231,584
2053	127,416,685	3,869,188	3,869,188	-	202,832	-	202,832
2054	133,721,290	3,642,122	3,642,122	-	177,196	-	177,196
2055	140,749,819	3,419,096	3,419,096	-	154,381	-	154,381
2056	148,554,339	3,201,518	3,201,518	-	134,160	-	134,160
2057	157,189,405	2,990,634	2,990,634	-	116,309	-	116,309
2058	166,712,500	2,787,335	2,787,335	-	100,605	-	100,605
2059	177,184,612	2,592,258	2,592,258	-	86,834	-	86,834
2060	188,670,777	2,405,735	2,405,735	-	74,790	-	74,790
2061	201,240,722	2,227,977	2,227,977	-	64,282	-	64,282
2062	214,969,378	2,059,055	2,059,055	-	55,135	-	55,135
2063	229,937,382	1,898,938	1,898,938	-	47,191	-	47,191

**SINGLE DISCOUNT RATE DEVELOPMENT PRESENT VALUES
OF PROJECTED BENEFITS ENDING DECEMBER 31 FOR 2064 TO 2113 (CONCLUDED)**

Year	Projected Beginning Plan Net Position	Projected Benefit Payments	Funded Portion of Projected Benefit Payments	Unfunded Portion of Projected Benefit Payments	Present Value of Funded Benefit Payments using Expected Return Rate (v)	Present Value of Unfunded Benefit Payments using Municipal Bond Rate (vf)	Present Value of All Benefit Payments using Single Discount Rate (SDR)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v ^{((a)-.5)}	(g)=(e)*vf ^{((a)-.5)}	(h)=((c)/(1+SDR) ^{((a)-.5)}
2064	\$ 246,231,643	\$ 1,747,592	\$ 1,747,592	\$ -	\$ 40,306	\$ -	\$ 40,306
2065	263,945,851	1,604,832	1,604,832	-	34,351	-	34,351
2066	283,181,129	1,470,407	1,470,407	-	29,210	-	29,210
2067	304,046,727	1,343,992	1,343,992	-	24,778	-	24,778
2068	326,660,673	1,225,247	1,225,247	-	20,964	-	20,964
2069	351,150,495	1,113,872	1,113,872	-	17,688	-	17,688
2070	377,653,923	1,009,570	1,009,570	-	14,879	-	14,879
2071	406,319,663	911,998	911,998	-	12,474	-	12,474
2072	437,308,298	820,809	820,809	-	10,419	-	10,419
2073	470,793,224	735,793	735,793	-	8,668	-	8,668
2074	506,961,494	656,651	656,651	-	7,179	-	7,179
2075	546,014,962	583,191	583,191	-	5,918	-	5,918
2076	588,171,331	515,233	515,233	-	4,852	-	4,852
2077	633,665,360	452,615	452,615	-	3,956	-	3,956
2078	682,750,173	395,238	395,238	-	3,206	-	3,206
2079	735,698,613	342,980	342,980	-	2,582	-	2,582
2080	792,804,799	295,673	295,673	-	2,066	-	2,066
2081	854,385,814	253,140	253,140	-	1,641	-	1,641
2082	920,783,502	215,172	215,172	-	1,295	-	1,295
2083	992,366,417	181,540	181,540	-	1,014	-	1,014
2084	1,069,531,912	151,981	151,981	-	788	-	788
2085	1,152,708,410	126,218	126,218	-	607	-	607
2086	1,242,357,825	103,953	103,953	-	464	-	464
2087	1,338,978,177	84,900	84,900	-	352	-	352
2088	1,443,106,381	68,764	68,764	-	264	-	264
2089	1,555,321,267	55,221	55,221	-	197	-	197
2090	1,676,246,862	43,973	43,973	-	146	-	146
2091	1,806,555,866	34,717	34,717	-	107	-	107
2092	1,946,973,423	27,175	27,175	-	78	-	78
2093	2,098,281,170	21,094	21,094	-	56	-	56
2094	2,261,321,579	16,237	16,237	-	40	-	40
2095	2,437,002,663	12,391	12,391	-	28	-	28
2096	2,626,303,023	9,381	9,381	-	20	-	20
2097	2,830,277,286	7,047	7,047	-	14	-	14
2098	3,050,061,979	5,253	5,253	-	10	-	10
2099	3,286,881,849	3,885	3,885	-	7	-	7
2100	3,542,056,681	2,850	2,850	-	4	-	4
2101	3,817,008,636	2,076	2,076	-	3	-	3
2102	4,113,270,172	1,502	1,502	-	2	-	2
2103	4,432,492,574	1,079	1,079	-	1	-	1
2104	4,776,455,153	767	767	-	1	-	1
2105	5,147,075,155	541	541	-	1	-	1
2106	5,546,418,443	376	376	-	0	-	0
2107	5,976,711,007	258	258	-	0	-	0
2108	6,440,351,367	175	175	-	0	-	0
2109	6,939,923,942	116	116	-	0	-	0
2110	7,478,213,452	76	76	-	0	-	0
2111	8,058,220,441	49	49	-	0	-	0
2112	8,683,177,999	31	31	-	0	-	0
2113	9,356,569,787	24	24	-	0	-	0
Totals					\$ 78,051,967	\$ -	\$ 78,051,967

SECTION H

GLOSSARY OF TERMS

GLOSSARY OF TERMS

<i>Actuarial Accrued Liability (AAL)</i>	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."
<i>Actuarial Assumptions</i>	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.
<i>Accrued Service</i>	Service credited under the system which was rendered before the date of the actuarial valuation.
<i>Actuarial Equivalent</i>	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.
<i>Actuarial Cost Method</i>	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.
<i>Actuarial Gain (Loss)</i>	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.
<i>Actuarial Present Value (APV)</i>	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.
<i>Actuarial Valuation</i>	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.
<i>Actuarial Valuation Date</i>	The date as of which an actuarial valuation is performed.
<i>Actuarially Determined Contribution (ADC) or Annual Required Contribution (ARC)</i>	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

<i>Amortization Payment</i>	The amortization payment is the periodic payment required to pay off an interest-discounted amount with payments of interest and principal.
<i>Amortization Method</i>	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).
<i>Cost-of-Living Adjustments</i>	Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.
<i>Cost-Sharing Multiple-Employer Defined Benefit Pension Plan (cost-sharing pension plan)</i>	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.
<i>Covered-Employee Payroll</i>	The payroll of employees that are provided with pensions through the pension plan.
<i>Deferred Retirement Option Program (DROP)</i>	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.
<i>Deferred Inflows and Outflows</i>	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.
<i>Discount Rate</i>	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: <ol style="list-style-type: none">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; and2. The present value of the benefit payments not in (1) above, discounted using the municipal bond rate.

GLOSSARY OF TERMS

<i>Entry Age Actuarial Cost Method (EAN)</i>	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.
<i>GASB</i>	The Governmental Accounting Standards Board is an organization that exists in order to promulgate accounting standards for governmental entities.
<i>Fiduciary Net Position</i>	The fiduciary net position is the market value of the assets of the trust dedicated to the defined benefit provisions.
<i>Long-Term Expected Rate of Return</i>	The long-term rate of return is the expected return to be earned over the entire trust portfolio based on the asset allocation of the portfolio.
<i>Money-Weighted Rate of Return</i>	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.
<i>Multiple-Employer Defined Benefit Pension Plan</i>	A multiple-employer plan is a defined benefit pension plan that is used to provide pensions to the employees of more than one employer.
<i>Municipal Bond Rate</i>	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.
<i>Net Pension Liability (NPL)</i>	The NPL is the liability of employers and non-employer contribution entities to plan members for benefits provided through a defined benefit pension plan.
<i>Non-Employer Contribution Entities</i>	Non-employer contribution entities are entities that make contributions to a pension plan that is used to provide pensions to the employees of other entities. For purposes of the GASB accounting statements, plan members are not considered non-employer contribution entities.
<i>Normal Cost</i>	The portion of the actuarial present value allocated to a valuation year is called the normal cost. For purposes of application to the requirements of this Statement, the term normal cost is the equivalent of service cost.

GLOSSARY OF TERMS

<i>Other Postemployment Benefits (OPEB)</i>	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.
<i>Real Rate of Return</i>	The real rate of return is the rate of return on an investment after adjustment to eliminate inflation.
<i>Service Cost</i>	The service cost is the portion of the actuarial present value of projected benefit payments that is attributed to a valuation year.
<i>Total Pension Expense</i>	<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 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
<i>Total Pension Liability (TPL)</i>	The TPL is the portion of the actuarial present value of projected benefit payments that is attributed to past periods of member service.
<i>Unfunded Actuarial Accrued Liability (UAAL)</i>	The UAAL is the difference between actuarial accrued liability and valuation assets.
<i>Valuation Assets</i>	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.