

GUNNISON FIREMEN'S PENSION FUND

Actuarial Valuation as of January 1, 2016

ACTUARIAL CONSULTING GROUP

Gunnison Firemen's Pension Fund
P. O. Box 239
Gunnison, Colorado 81230

Ladies and Gentlemen:

Actuarial Valuation as of January 1, 2016
Gunnison Firemen's Pension Fund

In accordance with the provisions of Colorado Revised Statutes 31-30, the Actuarial Consulting Group performed an actuarial valuation of the Gunnison Firemen's Pension Fund as of January 1, 2016.

The valuation was based on unaudited financial and Member data which were prepared by your organization and the Plan provisions that were in effect as of the valuation date. In my opinion, all costs and liabilities included in this report:

1. Present fairly, in all material respects, the actuarial position of the Pension Fund as of the valuation date,
2. Are consistent with current benefit provisions and other benefit limitations for Volunteer Firefighter Pension Funds,
3. Were determined in accordance with generally accepted actuarial principles and procedures,
4. Comply with current Colorado pension funding procedures and regulations, and
5. Are based on actuarial assumptions that are reasonably related to the experience of the Plan, and to reasonable expectations, and that represent at this time the best estimate of anticipated long-term experience under the Plan.

To the extent that actual contributions to the Pension Fund equal or exceed the requirements of Colorado Law, as determined by this Actuarial Valuation, the Pension Fund will be actuarially sound.

Respectfully submitted,

ACTUARIAL CONSULTING GROUP

Paul W Barker

Paul W. Barker, F.S.A.
Enrolled Actuary No. 886

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COMPARISON OF ACTUARIAL VALUATION RESULTS
CURRENT AND PREVIOUS VALUATIONS

A summary and comparison of the principal results from the current and previous actuarial valuations for the Gunnison Firemen's Pension Fund are outlined below:

Monthly Benefit Level	\$300 per Month	\$350 per Month	\$350 per Month	\$300 per Month
Investment Return	6.00%	6.00%	6.00%	6.00%
	<u>January 1, 2013</u>	<u>January 1, 2015</u>	<u>January 1, 2016</u>	<u>January 1, 2016</u>
Active members	35	29	29	29
Vested terminated lives	1	1	0	0
Retired lives and beneficiaries	34	37	38	38
Total	70	67	67	67
Total Actuarial Liability	\$2,054,607	\$2,401,273	\$2,305,295	\$1,975,967
Pension Fund Assets	1,775,654	2,128,371	2,084,518	2,084,518
Unfunded Actuarial Liability	\$278,953	\$272,902	\$220,777	(\$108,551)
Normal Cost	\$28,497	\$28,211	\$19,739	\$16,919
Normal Cost per Active Member	\$814	\$973	\$681	\$583
<u>Funding Requirements</u>				
Normal Cost plus 30 year pay off of Unfunded Actuarial Liability	\$47,616	\$46,915	\$34,870	\$9,479
Entry-Age Full Funding Limit	\$307,450	\$301,113	\$240,516	(\$91,632)
<u>Contributions</u>				
Actuarially Determined Contributions	\$47,616	\$46,915	\$34,870	\$9,479
Expected Contributions	\$124,260	\$124,260	\$124,260	\$133,130
<u>Funding Margins</u>				
Annual Contributions**	\$124,260	\$124,260	\$124,260	\$133,130
Future 30-Year Funding Surplus	\$95,763	\$96,049	\$104,521	\$116,211
Downside Asset Protection	\$1,118,298	\$1,128,522	\$1,304,260	\$1,804,153

**Based on expected 2016 expected contributions

COMMENTS ON VALUATION RESULTS

Estimated Pension Fund contributions for the current calendar year are as follows:

+ Gunnison Fire Protection District taxes**	\$68,357
+ State of Colorado contributions	<u>64,773</u>
+ Estimated contributions	\$133,130

To the extent that expected contributions exceed Funding Requirements the Fire Protection District's Pension fund will be actuarially sound, and can continue to offer benefits that are above Colorado Revised Statutes 31-30-415 minimums.

Fund Benefit Levels

A review of the basic \$350.00 monthly retirement benefit indicates that the current level of expected contributions will support a basic monthly retirement benefit of \$400.00. An increase in benefits may be considered at this time since the District's expected contributions are projected to be higher than levels required to sustain the Pension Fund on an actuarially sound basis as prescribed by the Colorado Revised Statutes. Furthermore, the difference between expected contributions and the 30-year funding requirement is large enough to allow the fund to sustain a "shock" asset value loss of more than \$1,304,000 and still meet requirements for the \$350.00 benefit rate.

Investment Return Assumption

The Actuarial Funding Discount Rate has been 6.00% from 2011 to 2016. Average investment return for the last six years has been 7.55%. A change in the discount rate is not required at this time. Asset value used to determine funding requirements continues to be Market Value.

GOVERNMENT ACCOUNTING STANDARDS BOARD STATEMENT NO. 67

The Governmental Accounting Standards Board (GASB) issued a new statement Number 67 effective for periods starting after June 15, 2013, titled "Financial Reporting for Pension Plans - An Amendment of GASB Statement No. 25" (GASB No. 67).

GASB No. 67 requires funding status to be measured based on the Actuarial Assumptions and the Actuarial Cost Method adopted by the Pension Board. The City has adopted the Entry-Age Cost Method to develop costs and liabilities for funding purposes. Actuarial Assumptions shown on Exhibit 2 were used in making the required calculations of costs and liabilities.

Under the Entry-Age Cost Method, the target value for Plan Assets is the Total Actuarial Liability, which is developed by this method as the excess, if any, of the Present Value of Future Benefits over the Present Value of Future Normal Costs at the Valuation Date. For this purpose, Plan Assets are considered to be the Actuarial Value of Assets developed using procedures shown on the Actuarial Methods and Assumptions page in this report.

GASB No. 67 liabilities and ratios from the current and previous Actuarial Valuations are as follows:

<u>Valuation</u> <u>Year</u>	<u>Actuarial</u> <u>Liability</u>	<u>Plan</u> <u>Assets</u>	<u>Unfunded</u> <u>Liability</u>	<u>Funded</u> <u>Ratio</u>	<u>Benefit</u> <u>Rate</u>
2011	\$1,516,769	\$1,520,739	(\$3,970)	100.3%	\$235
2012**	1,621,278	1,549,305	71,973	95.6%	250
2013	2,054,607	1,775,654	278,953	86.4%	300
2014**	2,086,267	1,992,958	93,309	95.5%	300
2015	2,401,273	2,128,371	272,902	88.6%	350
2016	2,305,295	2,084,518	220,777	90.4%	350

**Imputed based on prior year's results and year-end benefit rate

GOVERNMENT ACCOUNTING STANDARDS BOARD STATEMENT NO. 68

The Governmental Accounting Standards Board (GASB) issued a new statement Number 68 effective for periods starting after June 15, 2014, titled "Accounting and Financial Reporting for Pensions - An Amendment of GASB Statement No. 27" (GASB No. 68).

GASB No. 68 reporting requirements from the current Actuarial Valuation are as follows:

Measurement Date	December 31, 2015
Previous Total Pension Liability	\$2,401,273
Value of Plan Assets	<u>2,128,371</u>
Previous Net Pension Liability	\$272,902
Changes in Total Pension Liability due to:	
Net Benefit Accrual	\$22,132
Actuarial Variations	(\$118,110)
Change in Assumptions	0
Plan Amendments	<u>0</u>
Net Changes in Liability	(95,978)
Current Total Pension Liability	\$2,305,295
Value of Plan Assets	<u>2,084,518</u>
Current Net Pension Liability	\$220,777
<u>Sensitivity of Net Pension Liability</u> <u>to Changes in Actuarial Discount Rate</u>	
1% Decrease in Rate to 5.00%	\$469,867
Current 6.00% Rate	\$220,777
1% Increase in Rate to 7.00%	\$12,187
<u>Recognition of Investment Performance</u>	
Actual Plan Assets at Measurement Date	2,084,518
Expected Plan Assets at Measurement Date	<u>2,212,930</u>
Investment Gain / (Loss)	(\$128,412)
Total Pension Liability at Measurement Date	\$2,305,295
5% of Total Pension Liability	\$115,265
Recognition Period	5 Years
Recognition of Investment Gain / (Loss)	\$25,682

HISTORICAL SUPPLEMENTARY INFORMATION

Year Ended December 31	<u>2011</u>	<u>2012**</u>	<u>2013</u>	<u>2014**</u>	<u>2015</u>	<u>2016</u>
Active Members	34	34	35	35	29	29
Inactive Members	36	36	35	35	38	38
Year-End Benefit Rate	\$235	\$250	\$300	\$350	\$350	\$350
Actuarial Discount Rate	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%
<u>Total Pension Liability</u>						
Previous Total Pension Liability	\$1,516,769	\$1,621,278	\$2,054,607	\$2,086,267	\$2,401,273	\$2,289,586
Service Cost	\$13,200	\$14,043	\$28,497	\$28,497	\$28,211	
Interest Cost	88,964	95,149	121,438	123,133	141,346	
Changes in Plan Benefits	96,815	423,020	0	288,476	0	
Actuarial Variations	0	0	0	0	(118,110)	
Changes in Assumptions	0	0	0	0	0	
Benefits Paid	(94,470)	(98,993)	(118,275)	(125,100)	(147,425)	
Net Changes in Pension Liability	\$104,509	\$433,219	\$31,660	\$315,006	(\$95,978)	
Current Total Pension Liability	\$1,621,278	\$2,054,497	\$2,086,267	\$2,401,273	\$2,305,295	
Value of Plan Assets	<u>1,549,305</u>	<u>1,775,654</u>	<u>1,992,958</u>	<u>2,128,371</u>	<u>2,084,518</u>	
Current Net Pension Liability	\$71,973	\$278,843	\$93,309	\$272,902	\$220,777	
Actuarially Determined Contribution	\$12,928	\$18,976	\$47,616	\$46,915	\$33,719	
Contributions Received	<u>130,480</u>	<u>130,830</u>	<u>101,400</u>	<u>159,603</u>	<u>124,260</u>	
Contribution Deficiency (Excess)	(\$117,552)	(\$111,854)	(\$53,784)	(\$112,688)	(\$90,541)	
Money-Weighted Rate of Return	(0.19%)	13.15%	14.48%	5.73%	(0.21%)	

**Imputed based on prior year's results and year-end benefit rate

PENSION FUND PROVISIONS

Pension Funds for Fire Protection Districts are governed by Colorado Revised Statutes 31-30 Parts 1 through 10, key provisions of which that apply to Volunteer Fire Protection Districts are summarized below:

Normal Pension

Age requirement: Age 50, or older
Service requirement: 20 or more years of service
Benefit amount: \$17.50 per month for each year of service not to exceed \$350.00

Deferred Vested Pension

Age requirement: Deferred to age 50, or older
Service requirement: 20 or more years of service
Benefit amount: \$17.50 per month for each year of service not to exceed \$350.00

Pre-Retirement Death Benefit

Age requirement: None
Service requirement: None
Benefit amount: \$175.00 per month payable immediately to surviving spouse, dependent children or parents

Post-Retirement Death Benefit

A married pensioner's surviving spouse will receive a monthly pension in an amount equal to 50% of the pension being paid at the date of the pensioner's death.

Lump-Sum Death Benefit

A lump sum amount of \$1,000.00 is payable to the spouse or other beneficiary upon the death of any active or retired Member of the Pension Fund.

Disability Retirement Benefit

A Member who is injured in the line of duty is entitled to a monthly Disability Benefit in an amount equal to \$150.00, payable for not more than 12 months. For periods of injury-related disability that last longer than 12 months, the Board of Trustees, in their discretion, can continue Disability Benefits in amounts that are necessary and proper.

Credited Service

One year of Credited Service is granted for each Calendar Year after 1977 in which a Member completes at least 36 hours of training. Credited Service before 1978 is granted for each period of service to the Fire Protection District as a volunteer firefighter.

ACTUARIAL METHODS AND ASSUMPTIONS

Actuarial Methods

Actuarial Cost Method	Entry-Age Actuarial Cost Method
Asset Valuation Method	Market Value

Economic Assumptions

Actuarial Funding Discount Rate	6.00% per annum compounded annually
Expense loading	None

Demographic Assumptions

Mortality rates	1994 GAM rates - Modified
Turnover rates	Graduated rates by attained age
Retirement age	Age 50, after 20 years of service
Age difference	Males are 3 years older than females
Marital status	80% of all participants are married

Sample Rates per 100 Members

<u>Age</u>	<u>Unisex Mortality</u>	<u>Unisex Turnover</u>
25	0.00	8.88
30	0.00	6.89
35	0.00	4.00
40	0.00	1.65
45	0.00	0.73
50	0.00	0.29
55	0.00	0.00
60	0.00	0.00
65	1.45	0.00
70	2.37	0.00
75	3.72	0.00
80	6.20	0.00
85	9.72	0.00
90	15.29	0.00
95	23.36	0.00

SUMMARY OF PENSION FUND ASSETS

Investments		
Cash and Cash Equivalents	\$ 94,971	4.56%
Pooled Funds	1,599,194	76.72%
Mutual Funds	390,342	18.73%
Accrued Interest	11	0.00%
Total Assets	<u>\$ 2,084,518</u>	<u>100.00%</u>

RECEIPTS AND DISBURSEMENTS FOR PREVIOUS PLAN YEAR

Receipts

Contributions		
City and District	\$ 65,400	
State	58,860	
Other	0	
Total	<u>\$ 124,260</u>	
Investment Income		
Income from all sources	6,558	
Other	0	
Total	<u>6,558</u>	
Realized Gains / (Losses)		21,889
Other Receipts		<u>0</u>
Total Receipts		\$ 152,707
<u>Disbursements</u>		
Benefits Paid	\$ 147,425	
Expenses and Fees	16,420	
Other Disbursements	0	
Total Disbursements	<u>\$ 163,845</u>	
<u>Reconciliation</u>		
Market Value Plan Year Beginning	\$ 2,128,371	
Net Cash Flow	(11,138)	
Change in Asset Values	<u>(32,715)</u>	
Market Value at Plan Year End		\$ 2,084,518
<u>Rate of Return</u>		
Mean Invested Assets	\$ 2,069,064	
Total Investment Return	(\$ 4,268)	
Estimated Rate of Return for the Plan Year		-0.21%

SUMMARY OF ACTIVE MEMBERS

<u>Active Member</u>	<u>Birth Date</u>	<u>Service Date</u>	<u>Age</u>	<u>Service</u>
Bizelli, Casey	1984	3/1/2012	31	3.8
Brack, Ben	1976	8/1/2014	40	1.4
Brown, Krystal	1994	9/1/2014	22	1.3
Brown, Tyler	1992	8/1/2014	24	1.4
Calkins, Shane	1991	5/1/2010	25	5.7
Castle, Kevin	1989	4/1/2015	27	0.8
Dobie, Charles "Cal"	1985	3/1/2012	31	3.8
Ferchau (Sethaler), Debbi	1969	1/1/1995	47	21.0
Ferchau, Hugo	1978	11/1/2001	38	14.2
Garnes, Lionel	1962	7/1/2015	53	0.5
Gydesen, Bob	1964	4/1/1991	52	24.8
Haus, Charles	1971	10/1/1997	44	18.3
Hughes, Rob	1978	8/1/2002	38	13.4
Kunze, Roger	1969	6/1/1994	47	21.6
McDermott, Dale	1981	2/1/2005	35	10.9
McDonough, Thomas	1980	2/1/2005	35	10.9
Messner, Matt	1975	7/1/2002	41	13.5
Randlett, Nico	1989	6/1/2013	27	2.6
Ricks, Joe	1970	9/1/1999	46	16.3
Rider, Shane	1966	4/1/1991	50	24.8
Rogers, Mellissa	1981	8/1/2003	34	12.4
Ross, Kevin	1959	5/1/2007	56	8.7
Ruehle, Joel	1978	5/1/2010	37	5.7
Smith, Heath	1975	8/1/2001	40	14.4
Spritzer, Dennis	1952	6/22/1981	63	34.5
Tomlin, Kenneth	1976	5/1/2010	39	5.7
Van Nurden, Joe	1981	4/1/2013	34	2.8
Williamson, Jeff	1962	8/1/1994	54	21.4
Young, Ernest	1966	9/1/1993	50	22.3
Averages			40	11.7

SUMMARY OF RETIRED MEMBERS

<u>Inactive</u> <u>Member</u>	<u>Birth</u> <u>Date</u>	<u>Beneficiary</u> <u>Birth Date</u>	<u>Monthly</u> <u>Pension</u>	<u>Status</u>
Adamich, William F	1948	1951	350.00	Pensioner
Archuletta, Lawrence "Roy"	1938		350.00	Pensioner
Archuletta, Thomas E	1943	1947	350.00	Pensioner
Barz, Kim D	1953	1948	350.00	Pensioner
Beda, Bob	1951		350.00	Pensioner
Benson, James "Fred"	1942	1944	350.00	Pensioner
Buffington, Dan	1965	1973	350.00	Pensioner
Cadwell, Steve	1952	1954	350.00	Pensioner
Calkins, Don	1935	1937	350.00	Pensioner
Cave, Melvin D	1937	1942	350.00	Pensioner
Chapman, James L	1926	1927	350.00	Pensioner
Cranor, Walt	1952		350.00	Pensioner
Czillinger, Robert F	1938		350.00	Pensioner
Demuth, Gary	1951	1958	350.00	Pensioner
Eastman, Brent S	1961	1956	350.00	Pensioner
Follman, Kenneth R	1955	1963	350.00	Pensioner
Formaz, Richard L	1952	1954	350.00	Pensioner
Fry, Darrell S	1960	1964	350.00	Pensioner
Gazzoli, William E	1950	1950	350.00	Pensioner
Hansen, William R.	1948	1950	350.00	Pensioner
Harris, David L	1951	1953	350.00	Pensioner
Harris, Robert J	1950	1950	350.00	Pensioner
LeMay, Larry W	1941		350.00	Pensioner
Lucas, Bruce	1954	1963	350.00	Pensioner
Martin, Eddie J	1939	1938	350.00	Pensioner
Martin, Larry D	1958	1961	350.00	Pensioner
McConnell, Shawn	1963		350.00	Pensioner
McDermott, Norman "Jim"	1944	1955	350.00	Pensioner
McKenna, Daniel W	1953	1953	350.00	Pensioner
Meldrum, Steve	1948		350.00	Pensioner
Miles, Harry F	1933	1932	350.00	Pensioner
Miles, Jim	1961		350.00	Pensioner
Sampson, George "Mike"	1948	1955	350.00	Pensioner
Shaw, Michael J	1950		350.00	Pensioner
Starkebaum, Curtis C	1923		350.00	Pensioner
Tillman, Cleo V	1926		350.00	Pensioner
Williams, Stephen R	1949	1954	350.00	Pensioner
Coupe, Thomas J (Rose)	1926		175.00	Beneficiary

GLOSSARY

To gain a better understanding of the results contained in this report, descriptions of key actuarial concepts used in this report are outlined below:

Present Value

Lump sum amount of a payment or series of payments payable in the future determined by discounting such payments at a predetermined rate of interest and the probability of making such payments.

Actuarial Cost Method

Technique for establishing the amount and incidence of pension plan costs by dividing such costs into past service and future service elements.

Entry-Age Actuarial Cost Method

An Actuarial Cost Method that determines Normal Cost as a level amount that is payable each year from the non-retired participant's entry age to retirement age. Actuarial costs arising from experience deviations are recognized as changes in Unfunded Actuarial Liability.

Normal Cost (Service Cost)

Cost assigned for each non-retired participant, under the Entry-Age Actuarial Cost Method, to each year between the participant's entry age and retirement age.

Actuarial (Accrued) Liability (Total Pension Liability)

The difference, on the valuation date, between the Present Value of Future Benefits and the Present Value of Future Normal Costs, representing the accumulated actuarial cost, under the Entry-Age Actuarial Cost Method, assigned to years before the valuation date.

Unfunded Actuarial (Accrued) Liability (Net Pension Liability)

The difference, on the valuation date, between the Total Actuarial Liability and the Actuarial Value of Plan Assets, representing the net plan cost, under the Entry-Age Actuarial Cost Method, assigned to years before the valuation date.

Funding Requirement

An amount equal to the sum of the total Normal Cost for all non-retired participants, plus a level dollar amount to amortize any Unfunded Actuarial Liability over a fixed period of years from the valuation date.

GLOSSARY

(Continued)

Actuarially Determined Contribution (ADC)

A measure of the periodic contribution to a defined benefit Plan, calculated from the values developed by using one of the prescribed actuarial cost methods of GASB No. 67, and includes the Normal Cost plus an amortization charge to recognize any Unfunded Actuarial Liability over a period of not less than 10 years nor more than 30 years.

Actuarial Assumptions

Statistical representation of future experience for census under consideration, which may include expectations regarding interest rate, mortality, disability, turnover and other related contingencies that have a material effect on benefits being valued.

Assumptions used should smooth emerging benefit program costs so that year-to-year results are stable and predictable. For groups with fewer than 3,000 members, complicated assumptions produce more cost instability than simplified assumptions. More simplified assumptions have been employed for this valuation which should lead to better actuarial cost stability.