Gabriel Roeder Smith & Company
Consultants & Actuaries

PRESCOTT POLICE DEPT. (024)

ARIZONA PUBLIC SAFETY PERSONNEL RETIREMENT SYSTEM

JUNE 30, 2013

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October 11, 2013

The Board of Trustees
Arizona Public Safety Personnel Retirement System
Phoenix, Arizona

Re: Prescott Police Dept.

Ladies and Gentlemen:

The results of the June 30, 2013 annual actuarial valuation of members covered by the Arizona Public Safety Personnel Retirement System (PSPRS) are presented in this report. The purpose of the valuation was to measure the System's funding progress, provide actuarial information in connection with applicable Governmental Accounting Standards Board Statements and to determine the employer contribution for the 2014-2015 fiscal year. This report should not be relied upon for any other purpose. This report may be distributed to parties other than the System only in its entirety and only with the permission of the Board.

The valuation was based upon information, furnished by the State Retirement System, concerning Retirement System benefits, financial transactions, and individual members, terminated members, retirees and beneficiaries. Data was checked for internal and year to year consistency, but was not otherwise audited by us. As a result, we are unable to assume responsibility for the accuracy or completeness of the data provided.

Future actuarial measurements may differ significantly from those presented in this report due to such factors as experience differing from that anticipated by actuarial assumptions, changes in plan provisions, actuarial assumptions/methods or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements.

To the best of our knowledge, this report is complete and accurate and the valuation was conducted in accordance with standards of practice prescribed by the Actuarial Standards Board and in compliance with the applicable state statutes. Brian B. Murphy, Mark Buis and James D. Anderson are independent of the plan sponsor and are members of the American Academy of Actuaries (MAAA) who meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. It is our opinion that the actuarial assumptions used for the valuation produce results which are reasonable.

Respectfully submitted,

Brian B. Murphy

Brian B. Murphy, FSA, EA, MAAA

Mark Buis

Mark Buis, FSA, EA, MAAA

James D. Anderson

James D. Anderson

BBM/MB:sc

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SECTION A

INTRODUCTION

FUNDING OBJECTIVE

The purpose of the annual actuarial valuation of the Arizona Public Safety Personnel Retirement System as of June 30, 2013 is to:

- Compute the liabilities associated with benefits likely to be paid on behalf of current retired and active members. This information is contained in Section B.
- Compare accrued assets with accrued liabilities to assess the funded condition. This information is contained in Section B.
- Compute the employers' recommended contribution rates for the Fiscal Year beginning July 1, 2014. This information is contained in Section A.

This objective is stated in Article 4, Chapter 5, Title 38, Sections 843B and 848N of the Arizona Revised Statutes.

CONTRIBUTION RATES

The Retirement System is supported by member contributions, employer contributions and investment income from Retirement System assets.

Contributions which satisfy the funding objective are determined by the annual actuarial valuation and are sufficient to:

(1) Cover the actuarial present value of benefits allocated to the current year by the actuarial cost method described in Section E (the normal cost); and

(2) Finance over a period of future years the actuarial present value of benefits not covered by valuation assets and anticipated future normal costs (the unfunded actuarial accrued liability).

Computed contribution rates for the fiscal year beginning July 1, 2014 are shown on page A-2.

CONTRIBUTION REQUIREMENTS

Development of Employer Contributions for the Indicated Valuation Date

Valuation Date	**June 30, 2013**
Contribution for Fiscal Year	2015
Pension	
Normal cost requirement	
Service pensions	14.07 %
Disability pensions	2.50
Survivors of active members	0.53
Refunds of members' accumulated contributions	2.27
Total normal cost requirement	19.37 %
Employee Contributions	
Total employee rate	11.05
Less portion not used to reduce employer's contribution	3.40
Net employee rate	7.65 %
Employer normal cost requirement	11.72 %
Amortization of unfunded liabilities	36.67 %
Total pension contribution requirement	48.39 %
Health	
Normal cost requirement	0.43 %
Amortization of unfunded liabilities	1.45 %
Total health contribution requirement	1.88 %
Total contribution requirement	50.27 %
Minimum contribution requirement	50.27 %

The results above are shown both prior to and after the application of the statutory minimum of 8% of payroll (5% of payroll if the actual employer contribution rate is less than 5% for the 2006/2007 fiscal Year).

SECTION B

FUNDING RESULTS

PRESENT VALUE OF FUTURE BENEFITS AND ACCRUED LIABILITY

	June 30, 2013
A. Accrued Liability	
1. For retirees and beneficiaries	$ 27,959,335
2. For DROP members	1,506,107
3. For vested terminated members	185,657
4. For present active members	
a. Value of expected future benefit payments	15,928,164
b. Value of future normal costs	(6,261,333)
c. Active member accrued liability: (a) - (b)	9,666,831
5. Total accrued liability	39,317,930
B. Present Assets (Funding Value)	12,955,492
C. Unfunded Accrued Liability: (A.5) - (B)	26,362,438
D. Stabilization Reserve	-
E. Net Unfunded Accrued Liability: (C) + (D)	$ 26,362,438
F. Funding Ratio: (B) / (A.5)	33.0%

SECTION C

FUND ASSETS

DEVELOPMENT OF FUNDING VALUE OF ASSETS (7-YEAR SMOOTHING)

Year Ended June 30:	2013	2014	2015	2016	2017	2018	2019
A. Funding Value Beginning of Year (Including Future Benefit Increases)	$ 6,051,595,012						
B. Market Value End of Year	5,557,274,418						
C. Market Value Beginning of Year	5,074,687,874						
D. Non Investment Net Cash Flow	(68,751,086)						
E. Investment Income							
E1. Total: B-C-D	551,337,630						
E2. Amount for Immediate Recognition: (8.00%)	481,377,558						
E3. Amount for Phased-in Recognition: E1-E2	69,960,072						
F. Phased-in Recognition of Investment Income							
F1. Current Year: E3 / 7	9,994,296						
F2. First Prior Year	(75,653,848)	$ 9,994,296					
F3. Second Prior Year	42,476,982	(75,653,848)	$ 9,994,296				
F4. Third Prior Year	9,922,277	42,476,982	(75,653,848)	$ 9,994,296			
F5. Fourth Prior Year	(192,391,612)	9,922,277	42,476,982	(75,653,848)	$ 9,994,296		
F6. Fifth Prior Year	(124,481,914)	(192,391,612)	9,922,277	42,476,982	(75,653,848)	$ 9,994,296	
F7. Sixth Prior Year	50,985,946	(124,481,913)	(192,296,967)	9,922,277	42,476,985	(75,653,847)	$ 9,994,296
F8. Funding Value Corridor Adjustment	0						
F9. Total Recognized Investment Gain	(279,147,873)	(330,133,818)	(205,557,260)	(13,260,293)	(23,182,567)	(65,659,551)	9,994,296
G. Funding Value End of Year							
G1. Preliminary Funding Value End of Year: (A+D+E2+F1:F7)	6,185,073,611						
G2. Upper Corridor: (120% x B)	6,668,729,302						
G3. Lower Corridor: (80% x B)	4,445,819,534						
G4. End of Year: (G1 subject to max of G2 and min of G3)	6,185,073,611						
H. Difference Between Market Value & Funding Value: (B-G4)	(627,799,193)	(297,665,375)	(92,108,115)	(78,847,822)	(55,665,255)	9,994,296	0
I. Market Rate of Return	10.9%						
J. Recognized Rate of Return	3.4%						
K. Ratio of Funding Value to Market Value	111.3%						
L. Market Value of Assets for Division	11,640,480						
M. Funding Value of Assets for Division	12,955,492						

The funding value of assets recognizes assumed investment return (line E2) fully each year. Differences between actual and assumed investment return (line E3) are phased-in over a closed 7-year period. During periods when investment performance exceeds the assumed rate, funding value of assets will tend to be less than market value. During periods when investment performance is less than the assumed rate, funding value of assets will tend to be greater than market value. The funding value of assets is **unbiased** with respect to market value. At any time it may be either greater or less than market value. If actual and assumed rates of investment return are exactly equal for 7 consecutive years, the funding value will become equal to market value.

SECTION D

CENSUS DATA

JUNE 30, 2013 VALUATION DATA SUMMARY

For purposes of the June 30, 2013 valuation, information on covered persons was furnished by the Board of Trustees. These people may be briefly described as follows.

		Averages		
	No.	Age	Service	Annual Pay or Retirement Allowance
Actives	67	36.8	8.9	$59,635
Retirees & Beneficiaries	58			44,489
DROP	2			56,122
Inactive Vested	3			
	130			

SECTION E

METHODS AND ASSUMPTIONS

VALUATION METHODS

Actuarial Cost Method **-** Normal cost and the allocation of benefit values between service rendered before and after the valuation date were determined using an individual entry-age actuarial cost method having the following characteristics:

(i) the annual normal costs for each individual active member, payable from the date of hire to the date of retirement, are sufficient to accumulate to the value of the member’s benefits.

(ii) each annual normal cost is a constant percentage of the member’s year-by-year projected covered pay.

The entry-age actuarial cost method allocates the actuarial present value of each member's projected benefits on a level basis over the member's compensation between the entry age of the member and the assumed exit ages.

Actuarial Accrued Liability **-** The actuarial accrued liability is the portion of actuarial present value allocated to service rendered prior to the valuation date, including experience gains and losses. The actuarial accrued liability was computed using the assumptions summarized in this report.

Actuarial Value of System Assets **-** The actuarial value of assets recognizes assumed investment income fully each year. Differences between actual and assumed investment income are phased in over a closed seven year period subject to a 20% corridor. During periods when investment performance exceeds the assumed rate, actuarial value of assets will tend to be less than market value. During periods when investment performance is less than the assumed rate, the actuarial value of assets will tend to be greater than market value.

Financing of Unfunded Actuarial Accrued Liabilities **-** The actuarial value of assets were subtracted from the computed actuarial accrued liability. Any unfunded amount would be amortized as level percent of payroll over a closed period of 23 years. If the actuarial value of assets exceeded the actuarial accrued liability, the excess was amortized over an open period of 20 years and applied as a credit to reduce the normal cost which otherwise would be payable.

Active member payroll was assumed to increase 4.5% annually for the purpose of computing the amortization payment (credit) as a level percent of payroll.

VALUATION ASSUMPTIONS

Beginning with the June 30, 2007 valuation and with each subsequent valuation, if the actuarial value of assets exceeds the actuarial accrued liabilities, one half of this excess in each year is allocated to a Stabilization Reserve. The Stabilization Reserve is excluded from the calculation of the employer contribution rates. The Stabilization Reserve continues to accumulate as long as the plan is over-funded. Once the plan becomes under-funded, the Stabilization Reserve will be used to dampen increases in the employer contribution rates.

The rate of investment return was 7.85% a year, compounded annually net of investment and administrative expenses.

The assumed real return is the rate of return in excess of wage growth. Considering other assumptions used in the valuation, the 7.85% nominal rate translates to a net real return over wage growth of 3.35% a year.

The rates of pay increase used for individual members are shown below. This assumption is used to project a member's current pay to the pay upon which System benefits will be based.

Salary Increase Assumptions For An Individual Member									
	Merit & Seniority					Increase Next Year			
Sample Ages	Police Large	Police Small	Fire Large	Fire Small	Base (Economy)	Police Large	Police Small	Fire Large	Fire Small
20	4.00%	4.00%	4.00%	4.00%	4.50%	8.50%	8.50%	8.50%	8.50%
25	3.70%	3.16%	3.70%	3.70%	4.50%	8.20%	7.66%	8.20%	8.20%
30	2.60%	2.12%	2.90%	2.66%	4.50%	7.10%	6.62%	7.40%	7.16%
35	1.22%	1.17%	1.54%	1.32%	4.50%	5.72%	5.67%	6.04%	5.82%
40	0.52%	0.36%	0.48%	0.41%	4.50%	5.02%	4.86%	4.98%	4.91%
45	0.28%	0.10%	0.14%	0.12%	4.50%	4.78%	4.60%	4.64%	4.62%
50	0.14%	0.07%	0.04%	0.07%	4.50%	4.64%	4.57%	4.54%	4.57%
55	0.04%	0.02%	0.00%	0.02%	4.50%	4.54%	4.52%	4.50%	4.52%
60	0.00%	0.00%	0.00%	0.00%	4.50%	4.50%	4.50%	4.50%	4.50%
65	0.00%	0.00%	0.00%	0.00%	4.50%	4.50%	4.50%	4.50%	4.50%
Ref	383	384	385	386	4.50%				

Active Member Payroll is assumed to grow at 4.5% per year. Although no specific price inflation assumption is required to perform this valuation, since no benefits are linked to prices, a price inflation assumption on the order of 3.0% to 4.0% would be consistent with the other economic assumptions.

VALUATION ASSUMPTIONS

The healthy mortality table used to evaluate death after retirement in this valuation of the System was the RP 2000 Mortality table projected to 2015 using projection scale AA (adjusted by 105% for males and females). This assumption was first used for the June 30, 2012 valuation of the System and includes margin for future improvements in mortality. Sample rates of mortality and years of life expectancy are shown below:

Sample Attained Ages	Probability of Dying Next Year		Future Life Expectancy (years)	
	Men	Women	Men	Women
50	0.17%	0.14%	31.88	33.93
55	0.29	0.25	27.19	29.20
60	0.56	0.49	22.67	24.66
65	1.08	0.95	18.43	20.39
70	1.86	1.63	14.56	16.49
75	3.22	2.62	11.04	12.95
80	5.81	4.34	8.00	9.80
Ref:	397 x 1.05 0 year set forward	398 x 1.05 0 year set forward		

This assumption is used to measure the probabilities of each benefit payment being made after retirement.

The disabled mortality table used to evaluate death after retirement in this valuation of the System was the RP 2000 Mortality table projected to 2015 using projection scale AA set forward 10 years for both males and females. This assumption was first used for the June 30, 2012 valuation of the System. Sample rates of mortality and years of life expectancy are shown below:

Sample Attained Ages	Probability of Dying Next Year		Future Life Expectancy (years)	
	Men	Women	Men	Women
50	0.53%	0.47%	23.05	25.08
55	1.03	0.90	18.79	20.80
60	1.77	1.55	14.89	16.86
65	3.06	2.49	11.34	13.29
70	5.54	4.13	8.25	10.09
75	9.97	7.08	5.81	7.35
80	17.27	12.59	4.02	5.30
Ref:	397 x 1.00 10 year set forward	398 x 1.00 10 year set forward		

VALUATION ASSUMPTIONS

For actives, the sample rates of mortality for death-in-service are shown below, and were first used for the June 30, 2012 valuation of the System.

Sample Attained Ages	Probability of Dying Next Year	
	Men	Women
50	0.10%	0.08%
55	0.16	0.14
60	0.32	0.28
65	0.62	0.54
Ref:	397 x 0.60 0 year set back	398 x 0.60 0 year set forward

The rates of regular retirement used to measure the probability of eligible members retiring during the next year are shown below. This assumption was first used for the June 30, 2012 valuation of the System.

Retirement/DROP Rates: Age-related rates for employees who were hired before January 1, 2012 are shown below:

Age at Retirement	Rates			
	Police Large	Police Small	Fire Large	Fire Small
62	75%	75%	75%	75%
63	60%	60%	60%	60%
64	60%	60%	60%	60%
65	60%	60%	60%	60%
66	60%	60%	60%	60%
67	60%	60%	60%	60%
68	60%	60%	60%	60%
69	60%	60%	60%	60%
70	100%	100%	100%	100%
Ref.	2145	2145	2145	2145

These retirement rates are applicable to employees attaining age 62 before attaining 20 years of service.

VALUATION ASSUMPTIONS

Service-related rates for employees who were hired before January 1, 2012 are shown below:

Service at Retirement	Rates			
	Police Large	Police Small	Fire Large	Fire Small
20	25%	37%	14%	20%
21	17%	33%	12%	20%
22	17%	20%	7%	10%
23	10%	13%	7%	10%
24	10%	10%	7%	8%
25	40%	35%	27%	25%
26	40%	35%	30%	25%
27	35%	30%	25%	25%
28	32%	30%	37%	25%
29	32%	30%	37%	25%
30	38%	30%	37%	35%
31	42%	30%	40%	35%
32	75%	75%	50%	35%
33	75%	75%	50%	35%
34	100%	100%	100%	100%
Ref.	2146	2147	2148	2149

These retirement rates are applicable to employees attaining 20 years of service before attaining age 62.

Age-related rates for employees who were hired after January 1, 2012 are shown below:

Age at Retirement	Rates			
	Police Large	Police Small	Fire Large	Fire Small
53	10%	15%	10%	10%
54	10%	10%	10%	10%
55	45%	40%	30%	20%
56	45%	40%	45%	30%
57	45%	30%	30%	30%
58	45%	30%	45%	30%
59	45%	30%	45%	30%
60	50%	30%	45%	45%
61	50%	30%	50%	45%
62	80%	65%	50%	45%
63	80%	65%	50%	45%
64	100%	100%	100%	100%
Ref.	1737	1738	1739	1740

VALUATION ASSUMPTIONS

Rates of separation from active membership used in the valuation are shown below (rates do not apply to members eligible to retire and do not include separation on account of death or disability). This assumption measures the probabilities of members remaining in employment. This assumption was first used for the June 30, 2012 valuation of the System.

Sample Ages	Service Index	% of Active Members Separating Within Next Year			
		Police Large	Police Small	Fire Large	Fire Small
All	1	16.00%	15.00%	8.50%	7.50%
	2	7.00%	10.00%	2.50%	6.00%
	3	4.00%	9.00%	1.00%	5.00%
	4	3.00%	7.00%	1.00%	5.00%
	5	2.50%	6.00%	1.00%	5.00%
	10	2.00%	5.30%	1.00%	3.00%
	15	0.60%	1.80%	0.10%	1.00%
	20	0.50%	1.80%	0.10%	1.00%
Ref.		757	603	758	605

Rates of disability among active members used in the valuation are shown below, and were first used for the June 30, 2012 valuation of the System.

Sample Ages	% of Active Members Becoming Disabled Within Next Year			
	Police Large	Police Small	Fire Large	Fire Small
20	0.08%	0.12%	0.02%	0.03%
25	0.08%	0.12%	0.02%	0.03%
30	0.17%	0.23%	0.04%	0.03%
35	0.22%	0.28%	0.09%	0.07%
40	0.36%	0.46%	0.16%	0.16%
45	0.51%	0.63%	0.16%	0.44%
50	0.78%	1.60%	0.40%	0.60%
55	1.02%	1.60%	0.93%	1.04%
Ref	588	589	590	591
	80%	80%	80%	80%

The Police Small group assumptions were used for the Prescott Police Dept. valuation.

SUMMARY OF ASSUMPTIONS USED
JUNE 30, 2013
MISCELLANEOUS AND TECHNICAL ASSUMPTIONS

Marriage Assumption:	85% of males and females are assumed to be married for purposes of death-in-service benefits. Male spouses are assumed to be three years older than female spouses for active member valuation purposes.
Pay Increase Timing:	Six months after the valuation date. This means that the pays received are assumed to be annual rates of pay on the valuation date as opposed to W-2 type earnings for the prior 12 months.
Decrement Timing:	Decrements of all types are assumed to occur mid-year.
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.
Decrement Relativity:	Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.
Decrement Operation:	Disability and turnover decrements do not operate during retirement eligibility.
Service Credit Accruals:	It is assumed that members accrue one year of service credit per year.
Incidence of Contributions:	Contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions are made.
Normal Form of Benefit:	A straight life payment is the assumed normal form of benefit for members who are not married, and the 80% Joint and Survivor form of payment with no reduction, for married members. 85% of members are assumed to be married at time of retirement.
Benefit Service:	Exact fractional service is used to determine the amount of benefit payable.
Health Care Utilization:	75% of future retirees are expected to utilize retiree health care. 85% of those are assumed to be married.
Future Cost of Living Increases:	Future cost of living increases are not reflected in the liabilities. The 2012 Experience Study recommended reducing the expected rate of return by approximately 0.5% to account for this contingency.

SECTION F

PLAN PROVISIONS

SUMMARY OF PLAN PROVISIONS VALUED AND/OR CONSIDERED

Membership: Persons who are employed in an eligible group, prior to attaining age 50 years, for at least 40 hours a week for more than six months per year.

Average Monthly Compensation: One-thirty-sixth of total compensation paid to member during the three years, out of the last 20 years of credited service, in which the amount paid was highest. Compensation is the amount including base salary, overtime pay, shift differential pay and holiday pay, paid to an employee on a regular payroll basis and longevity pay paid at least every six months for which contributions are made to the System.

Normal Retirement: First day of month following completion of 20 years of service or following 62nd birthday and completion of 15 years of service.

The amount of monthly normal pension is based on credited service and average monthly compensation as follows:

- ***For retirement with 25 or more years of credited service,*** 50% of average monthly compensation for the first 20 years of credited service, plus 2-1/2% of average monthly compensation for each year of credited service above 20 years.

- ***For retirement with 20 years of credited service but less than 25 years of credited service,*** 50% of average monthly compensation for the first 20 years of credited service, plus 2% of average monthly compensation for each year of credited service between 20 and 25 years.

- ***For retirement with less than 20 years of credited service,*** the percent of average monthly compensation is reduced at a rate of 4% for each year less than 20 years.

The maximum amount payable as a normal retirement pension is 80% of the average monthly compensation.

Vested Termination (deferred retirement): Termination of covered position employment with 10 or more years of credited service. Pension is equal to twice the amount of pension based on the member's accumulated contributions with payments commencing at age 62. Benefit is forfeited if accumulated contributions are refunded. The following schedule shows additional money which would be payable to members who receive a refund of their accumulated member contributions.

Years of Credited Service	Additional Monies (% of Contributions)
0-4	0%
5-6	25-40
7-8	55-70
9-10	85-100

Ordinary Disability Retirement (not duty-related): Physical condition which totally and permanently prevents performance of a reasonable range of duties or a mental condition which totally and permanently prevents any substantial gainful employment. The amount of pension is a percentage of normal pension, as follows:

Credited Service	Additional Monies (% of Contributions)
Less than 7 years	25%
7-13 years	50%
14-19 years	75%

Accidental Disability Retirement (duty-related): Total and presumably permanent disability, incurred in performance of duty, preventing performance of a reasonable range of duties within the employee's job classification. No credited service requirement. Pension is computed in the same manner as normal pension based on credited service and average monthly compensation at time of termination of employment. Pension is 50% of average monthly compensation, or normal pension amount, whichever is greater.

Offset of Ordinary Disability Retirement before the member's normal retirement date: The pension is reduced if the retiree engages in any employment and the income from this employment is greater than the retiree's pension. The reduction is equal to the difference between the retiree's income from employment and the retiree's pension.

Temporary Disability: Termination of employment prior to normal retirement eligibility by reason of temporary disability. Pension is 1/12 of 50% of compensation during the year preceding the date disability was incurred. Payments terminate after 12 months of prior recovery.

Catastrophic Disability: Pension is 90% of average monthly compensation. After 60 months, the pension is the greater of 62.5% of average monthly compensation or the member's accrued normal pension.

Survivor Pension: Death while a member is employed by an employer, or death after retirement. No credited service requirement.

Spouse Pension: 80% of pension deceased active member would have been paid for accidental disability retirement or, in the case of retired member, 80% of the retired member's pension. Requires two years of marriage. Terminates upon death. For member killed in line of duty, 100% of average compensation, reduced by child's pension.

Child's Pension: 20% of the pension each month based on the calculation for an accidental disability retirement. Payable to a dependent child under age 18 (age 23 if a full-time student).

Guardian's Pension: Same amount as spouse's pension. Payable only during periods no spouse is being paid and there is at least one child under age 18 (age 23 if a full time student). 80% of the member's pension and the Child's Pension will be paid to the guardian.

Other Termination of Employment: Member is paid his/her accumulated contributions.

Post-Retirement Adjustments: Effective July 1 of each year, each retired member or survivor of a retired member may be entitled to a permanent benefit increase in his base benefit. The maximum amount of the increase is four percent (4%) of the average normal PSPRS benefit being received on the preceding June 30 and is contingent upon sufficient excess investment earnings for the fund. To be eligible for the increase the member or survivor must be age 55 or older on July 1 of the current year and began receiving benefits on or before July 31 of the previous year. A member or survivor is also eligible if he began receiving benefits on or before July 31 of the two previous years regardless of age.

Prior to July 1, 2013 a COLA reserve is maintained and used to pay for the post-retirement adjustment. The investment return on the COLA reserve is the same as the return on the market value of assets (whether the return is positive or negative). Additional amounts are added to the COLA reserve in years when the investment return on the market value of assets exceeds 9.0%. Each year the present value of that year's post-retirement adjustment is subtracted from the COLA reserve. A post-retirement adjustment is paid as long as there is a positive balance in the COLA reserve.

Post-Retirement Health Insurance Subsidy: Payable on behalf of retired members and survivors who elect coverage provided by the state or participating employer. The monthly amounts cannot exceed:

Member Only		**With Dependents**		
Not Medicare Eligible	**Medicare Eligible**	**All Not Medicare Eligible**	**All Medicare Eligible**	**One With Medicare**
$150	$100	$260	$170	$215

Deferred Retirement Option Plan (DROP): A member with 20 or more years of credited service under the System may enter into the DROP program with his employer. Under the DROP program, the member must voluntarily and irrevocably elect to enter into the program with his employer for a period of up to 60 months. During the DROP period, the member remains in the employ of the employer as a full-time paid firefighter or full-time paid certified peace officer but no member or employer contributions are made to the System, therefore no additional years of credited service are accrued on the member's behalf. The member's monthly pension is calculated based upon the years of credited service and average monthly compensation at the beginning of the DROP period. This monthly pension amount is credited to a DROP participation account with interest at the rate of 8.5% annually, but credited monthly to the account. The interest rate credited to the DROP account is 8.25% for the fiscal year beginning July 1, 2010, 8.0% for the fiscal year beginning July 1, 2011 and 7.85% for the fiscal year beginning July 1, 2012.

At the end of the DROP period or prior to that time if the member terminates employment, the monies in the DROP participation account will be either paid to the member in a lump-sum amount or paid in a lump-sum distribution to an eligible retirement plan or individual retirement account. The member will then begin receiving the monthly pension amount directly from the System in the same amount as was being credited to the DROP participation account.

Reverse DROP: Expired effective July 1, 2010.

Member Contributions: Members contribute 7.65% of compensation.

Employer Contributions: Percent of payroll normal cost plus 30 year (24 years remaining as of June 30, 2012) amortization of unfunded actuarial accrued liability (20 year amortization for credit). The statutory minimum is 8% of payroll (5% of payroll if the actual employer contribution rate is less than 5% for the 2006/2007 fiscal year).

<u>Changes in Plan Provisions for Existing Members and New Hires effective January 1, 2012</u>

Existing Members

- Member contribution rates are shown in the schedule below. Additional member contributions DO NOT reduce the employer contribution, this means there is a "maintenance of effort" provision
    1. FY 2010-2011 – 7.65%
    2. FY 2011-2012 – 8.65%
    3. FY 2012-2013 – 9.55%
    4. FY 2013-2014 – 10.35%
    5. FY 2014-2015 – 11.05%
    6. FY 2015-2016 and after: 11.65% or a 33.3%/66.7% split between the employee and the employer, whichever is lower; minimum employee contribution rate is 7.65%.
- Employer will contribute to System when members retire and return to work.
- DROP
    1. Members who have at least 20 years of service on or after January 1, 2012 – no change in the DROP
    2. Members with less than 20 years of service on or after January 1, 2012
        1. Can still elect DROP
        2. Interest credited on DROP account is the average return on the actuarial value of assets, with a minimum of 2% and a maximum equal to the actuarial assumed earnings rate. The interest rate credited to the DROP account is 3.80% for the fiscal year beginning July 1, 2012 and 3.20% for the fiscal year that starts July 1, 2013.
        3. Members in the DROP contributed to the Retirement System; contributions are not refundable

New Hires on or after January 1, 2012

Average Monthly Compensation: One-sixtieth of total compensation paid to member during the five years, out of the last 20 years of credited service, in which the amount paid was highest.

Compensation is the amount including base salary, overtime pay, shift differential pay and holiday pay, paid to an employee on a regular payroll basis and longevity pay paid at least every six months for which contributions are made to the System.

Normal Retirement: First day of month following the attainment of age 52.5 and completion of 25 years of service.

The amount of monthly normal pension is based on credited service and average monthly compensation as follows:

- ***For retirement with 25 years of credited service,*** 62.5% of average monthly compensation.

- ***For retirement with less than 25 years of credited service,*** the monthly benefit is reduced at a rate of 4% for each year less than 25 years of service.

- ***For retirement with more than 25 years of credited service,*** the monthly benefit is increased by 2.5% of the average monthly compensation multiplied by the numbers of years greater than 25 years.

The maximum amount payable as a normal retirement pension is 80% of the average monthly compensation.

- If ceases to hold office for any reason other than death or retirement, member can withdraw their accumulated contributions less any benefit payments already received or any amount the member owes the plan (no employer match of refund contributions) with interest at rate set by Board
- Member contribution rates are shown in the schedule below. Additional member contributions DO NOT reduce the employer contribution, this means there is a "maintenance of effort" provision
    1. FY 2011-2012 – 8.65%
    2. FY 2012-2013 – 9.55%
    3. FY 2013-2014 – 10.35%
    4. FY 2014-2015 – 11.05%
    5. FY 2015-2016 and after: 11.65% or a 33.3%/66.7% split between the employee and the employer, whichever is lower; minimum employee contribution rate is 7.65%
- Employer will contribute to System when members retire and return to work
- No DROP

Existing Members and New Hires

- COLA provision – effective July 1, 2013
    - Effective May 31, 2011 no more excess investment earnings will be transferred to the current COLA reserve. Any remaining COLA reserve will be used to pay future COLA increases until the COLA reserve is depleted.
    - A COLA is only paid in a year when the return on the market value of assets exceeds 10.5% and the plan is at least 60% funded. 100% of the excess earnings is used to determine whether a COLA can be paid and the size of the COLA for that year.

- No COLA reserve accumulates. The present value of that year's COLA for eligible retirees cannot exceed 100% of the earnings in excess of 10.5%. If the excess earnings is high enough to exceed the present value of that year's COLA, the excess stays in the fund.
- To be eligible for an increase the retiree or the survivor must be:
  - In the case of a retired member who became a member of the plan before January 1, 2012, the retired member or survivor was receiving benefits on or before July 31 of the two previous years, or
  - In the case of a retired member who became a member of the plan before January 1, 2012, the retired member or survivor was 55 or older on July 1 of the current year and was receiving benefits on or before July 31 of the previous year
  - In the case of a retired member who became a member of the plan on or after January 1, 2012, the retired member or survivor was at least 55 or older on July 1 and receiving benefits
  - In the case of a retired member who became a member of the plan on or after January 1, 2012, if under 55 on July 1, was receiving accidental disability benefits for the preceding 2 years
  - In the case of a member who became a member of the plan on or after January 1, 2012, if the survivor is under 55 on July 1, is the survivor of the member who was killed in the line of duty, and has been receiving a survivor benefits for the preceding 2 years
- The amount of the COLA to be paid is determined as follows:
  - Funded ratio is 60-64%, COLA is 2%
  - Funded ratio is 65-69%, COLA is 2.5%
  - Funded ratio is 70-74%, COLA is 3%
  - Funded ratio is 75-79%, COLA is 3.5%
  - Funded ratio is 80% or more, COLA is 4%

SECTION G

GLOSSARY

Actuarial Accrued Liability The difference between (i) the actuarial present value of future plan benefits, and (ii) the actuarial present value of future normal cost. Sometimes referred to as "accrued liability" or "past service liability."

Accrued Service The service credited under the plan which was rendered before the date of the actuarial valuation.

Actuarial Assumptions Estimates of future plan experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision 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 future plan benefits" between the actuarial present value of future normal cost and the actuarial accrued liability. Sometimes referred to as the "actuarial funding method."

Actuarial Equivalent A single amount or series of amounts of equal value to another single amount or series of amounts, computed on the basis of the rate(s) of interest and mortality tables used by the plan.

Actuarial Present Value The amount of funds presently required to provide a payment or series of payments in the future. It is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Amortization Paying off an interest-bearing liability by means of periodic payments of interest and principal, as opposed to paying it off with a lump sum payment.

Experience Gain (Loss) A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions during the period between two actuarial valuation dates, in accordance with the actuarial cost method being used.

Normal Cost The annual cost assigned, under the actuarial funding method, to current and subsequent plan years. Sometimes referred to as "current service cost." Any payment toward the unfunded actuarial accrued liability is not part of the normal cost.

Reserve Account	An account used to indicate that funds have been set aside for a specific purpose and is not generally available for other uses.
Unfunded Actuarial Accrued Liability	The difference between the actuarial accrued liability and valuation assets. Sometimes referred to as "unfunded accrued liability."
Valuation Assets	The value of current plan assets recognized for valuation purposes. Generally based on market value plus a portion of unrealized appreciation or depreciation.

APPENDIX A

ACCOUNTING DISCLOSURES

This information is presented in draft form for review by the Retirement System's auditor. Please let us know if there are any items the auditor changes so that we may maintain consistency with the Retirement System's financial statements.

GASB STATEMENT NO. 25 SUPPLEMENTARY INFORMATION

SCHEDULE OF FUNDING PROGRESS (EXCLUDING HEALTH INSURANCE SUBSIDY BEGINNING JUNE 30, 2008)

Year Ended June 30	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b)-(a)	Funded Ratio (a)/(b)	Covered Payroll (c)	UAAL as a Percent of Covered Payroll [(b)-(a)]/(c)
2003	$13,421,537	$ 17,507,107	$ 4,085,570	76.7 %	$ 3,224,009	126.7 %
2004	13,166,987	18,892,985	5,725,998	69.7 %	2,985,970	191.8 %
2005	13,093,401	22,338,111	9,244,710	58.6 %	3,256,530	283.9 %
2006	13,235,811	25,407,296	12,171,485	52.1 %	3,923,713	310.2 %
2007	12,680,522	27,409,378	14,728,856	46.3 %	4,294,056	343.0 %
2008	12,812,487	27,027,889	14,215,402	47.4 %	4,296,379	330.9 %
2009	13,831,966	29,115,046	15,283,080	47.5 %	4,220,965	362.1 %
2010	14,304,965	31,301,514	16,996,549	45.7 %	3,979,459	427.1 %
2011	13,991,337	34,725,766	20,734,429	40.3 %	4,053,065	511.6 %
2012	13,603,099	37,631,182	24,028,083	36.1 %	4,265,174	563.4 %
2013	**12,955,492**	**38,307,661**	**25,352,169**	**33.8 %**	**3,995,530**	**634.5 %**

Results before 2009 were calculated by the prior actuary.

GASB STATEMENT NO. 25 SUPPLEMENTARY INFORMATION

SCHEDULE OF EMPLOYER CONTRIBUTIONS

Fiscal Year Ended June 30	Annual Required Contribution
2003	$ 363,813
2004	511,883
2005	558,343
2006	788,404
2007	868,514
2008	1,006,425
2009	1,156,486
2010	1,160,160
2011	1,340,960 (est.)
2012	1,449,246 (est.)
2013	1,758,356 (est.)
2014	1,987,215 (est.)
2015	**2,111,362 (est.)**

Fiscal Years prior to 2011 provided by the prior actuary.

Beginning with the 2011 fiscal year, this schedule shows the estimated annual required contribution (calculated based on the recommended contribution rate and the projected payroll for the fiscal year). Actual amounts reported in the employer's financial statements may be different, due to differences between the projected payroll and the actual payroll during the fiscal year.

GASB STATEMENT NO. 25 SUPPLEMENTARY INFORMATION

SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS

The information presented in the required supplementary schedules was determined as part of the actuarial valuations at the dates indicated. Additional information as of the latest actuarial valuation follows:

Valuation date	June 30, 2013
Actuarial cost method	Entry Age Normal
Amortization method	Level percent-of-pay closed
Remaining amortization period	23 years for underfunded 20 years for overfunded
Asset valuation method	7-year smoothed market 80%/120% market
Actuarial assumptions:	
Investment rate of return	7.85%
Projected salary increases	4.5% - 8.5%
Payroll growth	4.5%
Cost-of-living adjustments	None

GASB STATEMENT NO. 45 SUPPLEMENTARY INFORMATION

The following information is presented concerning the post-retirement health insurance subsidy. The liabilities and computed contribution for the post-retirement health insurance subsidy were based on the same assumptions and actuarial cost methods as indicated for GASB Statement No. 25. Although segregated assets for the health insurance subsidy have not been available historically, it is our understanding that they will be made available beginning with the June 30, 2014 valuation.

SCHEDULE OF FUNDING PROGRESS

Valuation Date June 30	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Annual Covered Payroll (c)	UAAL as a % of Covered Payroll ((b-a)/c)
2006	$0	$979,168	$979,168	0.00%	$ 3,923,713	24.96%
2007	0	1,051,252	1,051,252	0.00	4,294,056	24.48%
2008	0	923,699	923,699	0.00	4,296,379	21.50%
2009	0	835,891	835,891	0.00	4,220,965	19.80%
2010	0	937,625	937,625	0.00	3,979,459	23.56%
2011	0	1,037,588	1,037,588	0.00	4,053,065	25.60%
2012	0	1,065,459	1,065,459	0.00	4,265,174	24.98%
2013	**0**	**1,010,269**	**1,010,269**	**0.00**	**3,995,530**	**25.28%**

ANNUAL REQUIRED CONTRIBUTION

Valuation Date June 30	Fiscal Year Ended June 30	Normal Cost (a)	Actuarial Accrued Liability (b)	Total (a+b)	Dollar Amount
2006	2008	0.43%	1.15%	1.58%	$67,883
2007	2009	0.63	1.15	1.78	76,476
2008	2010	0.54	1.04	1.58	67,883
2009	2011	0.64	0.97	1.61	75,638
2010	2012	0.67	1.19	1.86	82,384
2011	2013	0.46	1.37	1.83	81,774
2012	2014	0.39	1.33	1.72	80,880
2013	**2015**	**0.43**	**1.45**	**1.88**	**82,029**

Fiscal Years prior to 2011 were provided by the prior actuary.

Health Insurance Subsidy Payment Reported For FY 2013: $63,757