

Ross Valley Fire Department

Actuarial Valuation of Other
Post-Employment Benefit Programs as of

July 1, 2011



July 2012

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A. Executive Summary

This report presents the results of the July 1, 2011 actuarial valuation of the Ross Valley Fire Department (the Department) other post-employment benefit (OPEB) programs. Briefly, benefits include subsidized medical coverage for eligible retirees. The purpose of this valuation was to assess the OPEB liabilities and provide disclosure information as required by Statement No. 45 of the Governmental Accounting Standards Board (GASB 45).

While the prior valuation was prepared using a 7.75% discount rate, this valuation was prepared using a 7.5% discount rate. This new rate reflects the asset allocation strategy selected by the Department for their assets, which are invested in the California Employers' Retiree Benefit Trust (CERBT). Use of this rate is not to be construed as a guarantee of future investment performance, but rather an assumption about the expected long term rate of return on assets to be used to finance the benefits.

Exhibits presented in this report are based on the following assumptions:

- The results of the July 1, 2011 valuation will be applied in determining the annual OPEB expense for the fiscal years ending June 30, 2013 and 2014.
- The ARC for the fiscal year ending June 30, 2012 will be developed from the results of the January 1, 2010 valuation and the Department's net OPEB obligation will be \$0 on June 30, 2012.

The GASB 45 actuarial accrued liability (AAL) as of July 1, 2011 is calculated to be \$5,117,093. The Department reported assets in CERBT as of July 1, 2011 of \$312,209 to offset these liabilities. Thus, the unfunded accrued liability as of this date is \$4,804,884.

Assuming the Department continues to follow its previously established policy of prefunding its OPEB liabilities, the following summarizes results for the fiscal year ending June 30, 2013:

- We calculate the annual required contribution (ARC) to be \$448,792.
- Department contributions are assumed to equal the ARC. It is expected that the Department will pay its portion of retiree premiums during the period (estimated to total \$234,840), and contribute the balance of the ARC to CERBT.
- Based on the calculations and contributions described above, we project a net OPEB obligation of \$0 on June 30, 2013.

These results are shown in tables beginning on page 11. Projected results for the fiscal year ending June 30, 2014 are also shown in these tables.

The liabilities shown in the report reflect assumptions regarding continued future employment, rates of retirement and survival, and elections by future retirees to retain coverage for themselves and their dependents. To the extent that actual experience is not what we assumed, future results will be different. We also note that this valuation has been prepared on a closed group basis; no provision is made for new employees.

Details of our valuation process and the various disclosures required by GASB 45 are provided on the succeeding pages.

Executive Summary (Concluded)

The next valuation is scheduled to be prepared as of July 1, 2013 as required for continued participation in CERBT. If there are any significant changes in the employee data, benefits provided or the funding policy, please contact us to discuss whether an earlier valuation is appropriate.

B. Requirements of GASB 45

The Governmental Accounting Standards Board (GASB) issued GASB Statement No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*. This Statement establishes standards for the measurement, recognition, and display of OPEB expense/expenditures and related liabilities (assets), note disclosures, and, if applicable, required supplementary information (RSI) in the financial reports of state and local governmental employers. We understand that the Department implemented GASB 45 for the fiscal year ended June 30, 2010.

GASB 45 disclosures include the determination of an annual OPEB cost. For the first year, the annual OPEB cost is equal to the annual required contribution (ARC) as determined by the actuary. If the Department's OPEB contributions equal the ARC each year, the net OPEB obligation will equal \$0. If the Department's actual contribution is less than (greater than) the ARC, then a net OPEB obligation (asset) amount is established. In subsequent years, the annual OPEB expense will reflect adjustments made to the net OPEB obligation, in addition to the ARC (see Table 1C).

The decision whether or not to prefund, and at what level, is at the discretion of the Department, as are the manner and term for paying down the unfunded actuarial accrued liability. Once a funding policy has been established, however, the Department's auditor may have an opinion as to the timing and manner of any change to such policy in future years. The level of prefunding also affects the selection of the discount rate used for valuing the liabilities.

We note that various issues in this report may involve legal analysis of applicable law or regulations. The Department should consult counsel on these matters; Bickmore Risk Services (BRS) does not practice law and does not intend anything in this report to constitute legal advice. In addition, we recommend the Department consult with their internal accounting staff or external auditor or accounting firm about the accounting treatment of OPEB liabilities.

C. Sources of OPEB Liabilities

Post-employment benefits other than pensions (OPEB) comprise a part of compensation that employers offer for services received. The most common OPEB are:

- Medical
- Dental
- Prescription drug
- Vision
- Life insurance

Other possible post-employment benefits may include outside group legal, long-term care, or disability benefits outside of a pension plan. OPEB does not generally include vacation, sick leave¹ or COBRA benefits, which fall under other GASB accounting statements.

A direct employer payment toward the cost of OPEB benefits is referred to as an “explicit” subsidy and these are included in the determination of OPEB liabilities. In addition, if claims experience of employees and retirees are pooled when determining premiums, the retirees pay a premium based on a pool of members that, on average, are younger and healthier. For certain types of coverage, such as medical, this results in an “implicit subsidy” of retiree claims by active employee premiums since the retiree premiums are lower than they would have been if the retirees were insured separately. Paragraph 13.a. of GASB 45 generally requires an implicit subsidy of retiree premium rates be valued as an OPEB liability.

Exceptions may exist when the plan is part of a “community-rated” program. GASB guidance indicates that an agency whose membership is a small portion (in the neighborhood of 1%) of the total coverage of a multiple employer plan, may reasonably conclude that any change in their group’s mix of retirees and active employees would not affect the premium rates for the plan. In those circumstances, while an implicit subsidy may exist, it is not required to be disclosed.

OPEB Obligations of the Department

The Department provides continuation of medical coverage to its retiring employees. For retirees and their dependent(s) who have chosen to retain this coverage:

- The Department contributes directly to the cost of retiree medical coverage. These benefits are described in Table 3 and liabilities have been included in this valuation.
- Employees are covered by the CalPERS medical program. The experience of public agency employer membership in this program is community-rated (“OPEB Assumption Model”, April, 2010) and the Department’s membership in this program is incidental relative to the total number of members covered. This report, therefore, does not make age-related premium adjustments or compute an implicit rate subsidy for employees covered under this program.

¹ When a terminating employee’s unused sick leave credits are converted to provide or enhance a defined benefit OPEB, e.g., healthcare benefits, such converted sick leave credits should be valued under GASB 45.

D. Valuation Process

The valuation has been based on employee census data initially submitted to us by the Department in December 2011 and clarified in various related communications. Summaries of that data are provided in Table 2. While the individual employee records have been reviewed to verify that it is reasonable in various respects, the data has not been audited and we have otherwise relied on the Department as to its accuracy. A summary of the benefits provided under the Plan is provided in Table 3, based on information supplied to BRS by the Department. The valuation described below has been performed in accordance with the actuarial methods and assumptions described in Table 4.

In the specific development of the projected benefit values and liabilities, we first determine an expected premium or benefit stream over the employee's future retirement. We then calculate a present value of these benefits as of the valuation date.

- These present value determinations reflect assumptions for the likelihood that an employee may not continue in service with the Department to receive benefits;
- For those that do, appropriate assumptions are made to reflect the probability of retirement at various ages.
- After reduction for the probability an employee may not receive a benefit, for the remaining probability he or she does, those benefits reflect assumptions as to whether they will elect coverage for themselves and/or dependents.
- The cost of benefits payable, once they begin for each employee, reflect expected trends in the cost of those benefits and the assumptions as to the expected date(s) those benefit will cease.
- These benefit projections and liabilities have a very long time horizon. The final payments for currently active employees may not be made for 70 years or more.

The resulting present value for each employee is allocated as a level percent of payroll each year over the employee's career using the entry age normal cost method. This creates a cost expected to increase each year as payroll increases. Amounts attributed to prior fiscal years form the "actuarial accrued liability" (AAL). The amount of future OPEB cost allocated to the current year is referred to as the "normal cost". The remaining cost to be assigned to future years is called the "present value of future normal costs".

In summary:

Actuarial Accrued Liability	Past Years' Costs
<i>plus</i> Normal Cost	Current Year's Cost
<u><i>plus</i> Present Value of Future Normal Costs</u>	<u>Future Years' Costs</u>
<i>equals</i> Present Value of Future Benefits	Total Benefit Costs

Where contributions have been made to an irrevocable OPEB trust, the accumulated value of trust assets is applied to offset the AAL. The value of assets invested in the Department's CERBT account on June 30, 2011 was reported to be \$312,209. The portion of the AAL not covered by assets is referred to as the unfunded actuarial accrued liability (UAAL).

E. Basic Valuation Results

The following chart compares the results of the July 1, 2011 valuation of OPEB liabilities (Column 2) to the results of the January 1, 2010 valuation (Column 1).

Valuation date	Prefunding Basis	
	1/1/2010	7/1/2011
Discount rate	7.75%	7.50%
Number of Covered Employees		
Actives	28	34
Retirees	29	30
Total Participants	57	64
Actuarial Present Value of Projected Benefits		
Actives	\$ 2,807,665	\$ 3,406,847
Retirees	2,215,306	2,829,163
Total APVPB	5,022,971	6,236,010
Actuarial Accrued Liability (AAL)		
Actives	1,929,571	2,287,930
Retirees	2,215,306	2,829,163
Total AAL	4,144,877	5,117,093
Actuarial Value of Assets	-	312,209
Unfunded AAL (UAAL)	4,144,877	4,804,884
Normal Cost	79,955	120,568
Benefit Payments		
Actives (in retirement)	-	-
Retirees	163,073	192,527
Total	163,073	192,527

The funded ratio (the ratio of the Actuarial Value of Assets divided by the Actuarial Accrued Liability) is 6.1% as of July 1, 2011. Covered payroll as of July 1, 2011 was reported to be \$3,161,662. The Unfunded Actuarial Accrued Liability, expressed as a percentage of payroll, is 152.0% as of this date.

Changes Since the Prior Valuation

Even if all of our previous assumptions were met exactly as projected, liabilities generally increase with the passage of time as active employees get closer to the date their benefits are expected to begin. Of course, our prior assumptions were *not* exactly realized.

In comparing results shown in the two columns above, we can see that the increase in the AAL over the 18 month period between January 1, 2010 and July 1, 2011 was approximately \$972,000. Of this increase, \$312,000 was the expected increase due to the passage of time. The remaining increase of \$660,000 is attributable to plan experience

Basic Valuation Results (Concluded)

other than expected, addition of new members given prior service credit and the assumption changes described below:

- Updates in employee and premium data for continuing members (plan experience relative to prior assumptions: *(\$81,000 decrease in AAL)*;
- Addition of 8 new active employees formerly with the Ross Fire Department *(\$255,000 increase in AAL)*;
- Change in discount rates used to develop the OPEB liability, from 7.75% to 7.5% *(\$158,000 increase in AAL)*;
- Revised assumptions for mortality, termination and retirement, based on the most recent CalPERS retirement plan experience study covering Department employees *(\$54,000 increase in AAL)*;
- A change in how we evaluated the potential cost of dependent benefits for retirees, reflecting the extension of healthcare coverage of children until age 26 *(\$50,000 increase in AAL)*;
- A more direct recognition of the cost associated with disability retirement *(\$116,000 increase in AAL)*; and
- An increase in assumed future increases in medical premiums between 2012 and 2019 *(\$108,000 increase in AAL)*.

F. Funding Policy

The specific calculation of the ARC and annual OPEB expense for an employer depends on how the employer elects to fund these benefits. Contributing an amount greater than or equal to the ARC each year is referred to as “prefunding”. Prefunding generally allows the employer to have the liability calculated using a higher discount rate, which in turn lowers the liability. In addition, following a prefunding policy does not build up a net OPEB obligation because the contribution equals or exceeds the annual OPEB cost each year.

Determination of the ARC

The Annual Required Contribution (ARC) consists of two basic components, which have been adjusted with interest to the Department’s fiscal year end:

- The amounts attributed to service performed in the current fiscal year (the normal cost) and
- Amortization of the unfunded actuarial accrued liability (UAAL).

The ARC for each of the fiscal years ending June 30, 2013 and June 30, 2014 is developed in Table 1B.

Decisions Affecting the Amortization Payment

The period and method for amortizing the AAL can significantly affect the ARC. GASB 45:

- Prescribes a maximum amortization period of 30 years and requires no minimum amortization period (except 10 years for certain actuarial gains). Immediate full funding of the liability is also permitted, where the expected employer contribution is shown as the interest-adjusted sum of the normal cost and the entire amount of the unfunded accrued liability. Expected contributions in future years are then reduced to the expected normal cost (as a percentage of payroll) plus amortization of any new changes in the unfunded AAL.
- Allows amortization payments to be determined (a) as a level percentage of payroll, designed to increase over time as payroll increases, or (b) as a level dollar amount much like a conventional mortgage, so that this component of the ARC does not increase over time. Where a plan is closed and has no ongoing payroll base, a level percent of payroll basis is not permitted.
- Allows the amortization period to decrease annually by one year (closed basis) or to be maintained at the same number of years (open basis).

Funding Policy Illustrated in This Report

It is our understanding that the Department’s prefunding policy includes amortization of the unfunded AAL over a closed 30-year period initially effective July 1, 2009; the remaining period applicable in determining the ARC for the fiscal year ending June 30, 2013 is 27 years. Amortization payments are determined on a level percent of pay basis.

G. Choice of Actuarial Funding Method and Assumptions

The “ultimate real cost” of an employee benefit plan is the value of all benefits and other expenses of the plan over its lifetime. These expenditures are dependent only on the terms of the plan and the administrative arrangements adopted, and as such are not affected by the actuarial funding method. The actuarial funding method attempts to spread recognition of these expected costs on a level basis over the life of the plan, and as such sets the “incidence of cost”. Methods that produce higher initial annual (prefunding) costs will produce lower annual costs later. Conversely, methods that produce lower initial costs will produce higher annual costs later relative to the other methods. GASB 45 allows the use of any of six actuarial funding methods; a brief description of each is in the glossary.

Factors Impacting the Selection of Funding Method

While the goal of GASB 45 is to match recognition of retiree medical expense with the periods during which the benefit is earned, the funding methods differ because they focus on different financial measures in attempting to level the incidence of cost. Appropriate selection of a funding method contributes to creating intergenerational equity between generations of taxpayers. The impact of potential new employees entering the plan may also affect selection of a funding method, though this is not a factor in this plan.

We believe it is most appropriate for the plan sponsor to adopt a theory of funding and consistently apply the funding method representing that theory. This valuation was prepared using the entry age normal cost method with normal cost determined on a level percent of pay basis. The entry age normal cost method often produces initial contributions between those of the other more common methods and is generally regarded by pension actuaries as the most stable of the funding methods and is one of the most commonly used methods for GASB 45 compliance. In addition, it is the method required for plans participating in the California Employers Retiree Benefit Trust (CERBT).

Factors Affecting the Selection of Assumptions

Special considerations apply to the selection of actuarial funding methods and assumptions for the Department. In particular, CalPERS has issued a set of standardized actuarial methods and assumptions to be used by entities participating in CERBT and the actuarial assumptions used in this report for GASB 45 analysis are intended to comply with these requirements. The assumptions required for use by CERBT were updated since the last valuation, to reflect recent experience, and the revised assumptions were utilized for this valuation.

In selecting an appropriate discount rate, GASB states that the discount rate should be based on the expected long-term yield of investments used to finance the benefits. CERBT provides participating employers with three possible asset allocation strategies; a maximum discount rate is assigned to each of these strategies, which may be rounded or reduced to include a margin for adverse deviation. As requested by the Department and permitted by CERBT where its asset allocation Strategy #1 is employed, the discount rate used in this valuation is 7.5%.

H. Certification

We certify that this report has been prepared in accordance with our understanding of GASB 45, and that the results shown in Section E and in Tables 1A, 1B and 1C accurately present our analysis of the actuarial calculations for this plan required by GASB 45. Each signing individual is a Manager in the Health & Benefits Actuarial Unit at Bickmore Risk Services and a Member of the American Academy of Actuaries who satisfies the qualification requirements for rendering this opinion.

Signed: July 17, 2012



Catherine L. MacLeod, FSA, EA, MAAA



Francis M. Schauer Jr., FSA, FCA, EA, MAAA

Table 1A
Roll Forward of 2011 Valuation Results - Prefunding Basis

The basic valuation results are presented in Section E. The following summarizes the results of the July 1, 2011 valuation adjusted to be applicable for the fiscal years ending June 30, 2013 and 2014. These adjusted results become the basis for calculating the annual required contribution for these years, shown in Table 1B on the following page.

The results shown below and on the following two pages reflect our understanding that the Department intends to contribute 100% of the ARC for each fiscal year up to and including the years to which this report is expected to be applied. Should those contributions differ by more than an immaterial amount, some of the results in this report will need to be revised.

Valuation date	Prefunding Basis	
	7/1/2011	
For fiscal year beginning	7/1/2012	7/1/2013
For fiscal year ending	6/30/2013	6/30/2014
Discount rate	7.50%	7.50%
Number of Covered Employees		
Actives	34*	34*
Retirees	30*	30*
Total Participants	64*	64*
Actuarial Present Value of Projected Benefits		
Actives	\$ 3,655,075	\$ 3,911,923
Retirees	2,837,211	2,832,444
Total APVPB	6,492,286	6,744,367
Actuarial Accrued Liability (AAL)		
Actives	2,581,849	2,892,029
Retirees	2,837,211	2,832,444
Total AAL	5,419,061	5,724,473
Actuarial Value of Assets	501,941	753,539
Unfunded AAL (UAAL)	4,917,119	4,970,934
Normal Cost	124,486	128,532
Benefit Payments		
Actives (in retirement)	17,282	31,684
Retirees	217,558	229,949
Total	234,840	261,633

* The counts of active employees and retirees shown above are as of the valuation date. Based on assumptions outlined in Table 4, we recognize the possibility that some active employees will leave employment, some may retire and elect benefits and that coverage for some current retirees may cease. In addition, because this valuation has been prepared on a closed group basis, no potential future employees are included. Thus, it is possible that the actual number of active and retired employees in the future year would be different from those shown above.

Table 1B
Calculation of the Annual Required Contribution

The following exhibit calculates the amortization payments and the annual required contribution (ARC) on a prefunding basis for the fiscal years ending June 30, 2013 and June 30, 2014.

Fiscal Year End	Prefunding Basis	
	6/30/2013	6/30/2014
Funding Policy		
Discount rate	7.50%	7.50%
Amortization method	Level % of Pay	Level % of Pay
Initial amortization period (in years)	30	30
Remaining period (in years)	27	26
Determination of Amortization Payment		
UAAL	4,917,119	4,970,934
Factor	16.7823	16.4319
Payment	292,994	302,517
Annual Required Contribution (ARC)		
Normal Cost	124,486	128,532
Amortization of UAAL	292,994	302,517
Interest to 06/30	31,311	32,329
Total ARC at fiscal year end	448,792	463,378

While the following is not intended to be used to determine the normal cost or ARC in future years, this information may be of value for planning purposes:

Valuation date	7/1/2011	
Fiscal Year End	6/30/2013	6/30/2014
Projected covered payroll	3,264,416	3,370,510
Normal Cost as a percent of payroll	3.8%	3.8%
ARC as a percent of payroll	13.7%	13.7%
ARC per active ee	13,200	13,629

**Table 1C
Expected OPEB Disclosures**

The exhibit below develops the annual OPEB expense, estimates the expected OPEB contributions and projects the net OPEB obligation for the fiscal years ending June 30, 2013 and June 30, 2014. The calculations assume the Department continues to follow the prefunding approach outlined on the prior page.

Fiscal Year End	Prefunding Basis	
	6/30/2013	6/30/2014
1. Calculation of the Annual OPEB Expense		
a. ARC for current fiscal year	\$ 448,792	\$ 463,378
b. Interest on Net OPEB Obligation (Asset) at beginning of year	-	-
c. Adjustment to the ARC	-	-
d. Annual OPEB Expense (a. + b. + c.)	448,792	463,378
2. Calculation of Expected Contribution		
a. Estimated payments on behalf of retirees	234,840	261,633
b. Estimated contribution to OPEB trust	213,952	201,745
c. Total Expected Employer Contribution	448,792	463,378
3. Change in Net OPEB Obligation (1.d. minus 2.c.)	-	-
Net OPEB Obligation (Asset), beginning of fiscal year	-	-
Net OPEB Obligation (Asset) at fiscal year end	-	-

Please note that the expected payments to retirees shown above are projections and should be replaced with the actual payments in order to determine the portion of the ARC to be contributed to the OPEB trust.

Should total Department contributions (the sum of actual premiums paid and contributions to CERBT) be less than the ARC, the next valuation will likely require use of a lower discount rate for valuing the liabilities.

Table 2
Summary of Employee Data

The Department reported 34 active employees; of these, 33 are currently participating in the medical program while one employee was waiving coverage as of the valuation date. Age and service information for the reported individuals is provided below:

Distribution of Benefits-Eligible Active Employees								
Current Age	Years of Service						Total	Percent
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 & Up		
Under 25	1	1					2	6%
25 to 29		1	2				3	9%
30 to 34		2	1	1			4	12%
35 to 39		1	4	2	1		8	24%
40 to 44		1	1	2	1	2	7	21%
45 to 49				1	1	2	4	12%
50 to 54						5	5	15%
55 to 59						1	1	3%
60 to 64							0	0%
65 to 69							0	0%
70 & Up							0	0%
Total	1	6	8	6	3	10	34	100%
Percent	3%	18%	24%	18%	9%	29%	100%	

(Percentages adjusted to total 100%)

Annual Covered Payroll	\$3,161,662
Average Attained Age for Actives	40.5
Average Years of Service	13.7

There are also 30 retirees or their beneficiaries receiving benefits as of July 1, 2011. The following chart summarizes the ages of current retirees in the Department plan.

Retirees by Age		
Current Age	Number	Percent
Below 50	1	3%
50 to 54	2	7%
55 to 59	2	7%
60 to 64	7	23%
65 to 69	3	10%
70 to 74	6	20%
75 to 79	4	13%
80 & up	5	17%
Total	30	100%
Average Attained Age for Retirees:		70.0

**Table 2
(Concluded)**

Participants covered in each employment group, both active and retired, are shown below:

Group	Active	Retired	Total
RVFD	26	30	56
Ross	8	0	8
Total	34	30	64

The following chart shows the changes in employees covered by the plan since the prior valuation was prepared.

Reconciliation of Covered Members				
	Active	Retired	Surv Sp	Total
Number on 1/1/2010	28	21	8	57
New in (Ross employees)	8	0	0	8
Withdrawals/deaths	0	(1)	0	(1)
Retired	(2)	2	0	0
Number on 7/1/2011	34	22	8	64

Because plan costs vary by the plan in which the retiree participates, it is helpful to review which plans are most commonly selected. The following summarizes the Department's distribution of employees by medical plan.

Current Medical Plan	Active	Retired
PERS Choice Bay	4	1
Kaiser Bay	23	20
Blue Shield HMO Bay	6	3
PERS Care Bay	0	1
PERS Care NoCal	0	1
PERS Choice NoCal	0	3
PERS Choice OOS	0	1
Waived	1	0
Total	34	30

Table 3A Summary of Retiree Benefit Provisions

OPEB provided: The Department has indicated that the only OPEB provided is medical coverage.

Access to coverage: Medical coverage is currently provided through CalPERS as permitted under the Public Employees' Medical and Hospital and Care Act (PEMHCA).

- This coverage requires the employee to satisfy the requirements for retirement under CalPERS. Retirement requires attainment of age 50 with 5 years of State or public agency service or approved disability retirement.
- If an eligible employee is not already enrolled in the medical plan, he or she may enroll within 60 days of retirement or during any future open enrollment period.
- Coverage may be continued at the retiree's option for his or her lifetime. A surviving spouse and other eligible dependents may also continue coverage.
- The employee must commence his or her retirement warrant within 120 days of terminating employment with the Department to be eligible to continue medical coverage through the Department and be entitled to the employer subsidy described below.

Benefits provided: As a PEMHCA employer, the Department is obligated to contribute toward the cost of retiree medical coverage for the retiree's lifetime or until coverage is discontinued. The Department maintains an "unequal" resolution with CalPERS (executed in 1989) which defines the level of the Department's contribution toward the cost of medical plan premiums for *active* employees to be the full cost of medical coverage for active employees, their spouses and dependents². Under the unequal resolution, the employer's contribution toward *retiree* medical benefits is determined by multiplying together the first three items below, subject to the limit in the fourth:

- 1) 5% *times*
- 2) The number of prior years the employer has been contracted with PEMHCA *times*
- 3) The contribution the employer makes towards active employee health benefits
- 4) Regardless of the percentage determined above, the maximum increase each year in the employer's monthly subsidy on behalf of each retiree (including dependents) is \$100.

Since the PEMHCA resolution was passed over 20 years ago, the Department would seem to be required to provide retiree medical benefits identical to those which it provides for active employees in the same plan at the same coverage levels. However, the \$100 per month maximum increase (described in item 4 above) causes the benefit for two-party and family coverage to remain below the benefits provided to active employees, until the retiree becomes eligible for Medicare and the premium rates decrease.

² It is our understanding that the Department's contribution toward medical coverage for active employees is actually limited to the Kaiser Family premium. However, the PEMHCA resolution has not yet been updated with CalPERS and, as such, retiree benefits are still being determined in accordance with the 1989 resolution.

**Table 3 – Retiree Benefit Provisions
(Concluded)**

Current premium rates: The 2011 CalPERS monthly medical plan rates in the Bay Area rate group are shown in the table below. If different rates apply where the member resides outside of this area, those rates are reflected in the valuation, but not listed here.

Bay Area 2011 Health Plan Rates						
	Actives and Pre-Med Retirees			Medicare Eligible		
Plan	Ee Only	Ee & 1	Ee & 2+	Ee Only	Ee & 1	Ee & 2+
Blue Shield HMO	\$675.51	\$1,351.02	\$1,756.33	\$337.88	\$675.76	\$1,081.07
Blue Shield NetValue HMO	581.24	1162.48	1511.22	337.88	675.76	1024.50
Kaiser HMO	568.99	1137.98	1479.37	282.30	564.60	905.99
PERS Choice PPO	563.40	1126.80	1464.84	375.88	751.76	1089.80
PERS Select PPO	492.68	985.36	1280.97	375.88	751.76	1047.37
PERS Care PPO	893.95	1787.90	2324.27	433.66	867.32	1403.69
PORAC Association Plan	527.00	987.00	1254.00	418.00	833.00	1100.00

Note that the additional CalPERS administration fee is not included in this valuation.

Table 3B

General CalPERS Annuitant Eligibility Provisions

The content of this section has been drawn from Section C, Summary of Plan Provisions, of the State of California OPEB Valuation as of June 30, 2011, issued February 2012, to the State Controller from Gabriel Roeder & Smith. It is provided here as a brief summary of general annuitant and survivor coverage.

Health Care Coverage

Retired Employees

A member is eligible to enroll in a CalPERS health plan if he or she retires within 120 days of separation from employment and receives a monthly retirement allowance. If the member meets this requirement, he or she may continue his or her enrollment at retirement, enroll within 60 days of retirement, or enroll during any Open Enrollment period. If a member is currently enrolled in a CalPERS health plan and wants to continue enrollment into retirement, the employee will notify CalPERS and the member's coverage will continue into retirement.

Eligibility Exceptions: Certain family members are not eligible for CalPERS health benefits:

- Children age 26 or older
- Children's spouses
- Former spouses
- Never enrolled or disabled children over age 26
- Grandparents
- Parents
- Children of former spouses
- Other relatives

Coordination with Medicare

CalPERS retired members who qualify for premium-free Part A, either on their own or through a spouse (current, former, or deceased), must sign up for Part B as soon as they qualify for Part A. A member must then enroll in a CalPERS sponsored Medicare plan. The CalPERS-sponsored Medicare plan will pay for costs not paid by Medicare, by coordinating benefits.

Survivors of an Annuitant

If a CalPERS annuitant satisfied the requirement to retire within 120 days of separation, the survivor may be eligible to enroll within 60 days of the annuitant's death or during any future Open Enrollment period. Note: A survivor cannot add any new dependents; only dependents that were enrolled or eligible to enroll at the time of the member's death qualify for benefits.

Surviving registered domestic partners who are receiving a monthly annuity as a surviving beneficiary of a deceased employee or annuitant on or after January 1, 2002, are eligible to continue coverage if currently enrolled, enroll within 60 days of the domestic partner's death, or enroll during any future Open Enrollment period.

Surviving enrolled family members who do not qualify to continue their current coverage are eligible for continuation coverage under COBRA.

Table 4
OPEB Valuation Actuarial
Methods and Assumptions

Valuation Date	July 1, 2011
Funding Method	Entry Age Normal Cost, level percent of pay ³
Asset Valuation Method	Market value of assets
Discount Rate	7.5%
Participants Valued	Only current active employees and retired participants and covered dependents are valued. No future entrants are considered in this valuation.
Salary Increase	3.25% per year
Assumed Increase for Amortization Payments	3.25% per year where determined on a percent of pay basis

The demographic actuarial assumptions used in this valuation are based on the (demographic) experience study of the California Public Employees Retirement System using data from 1997 to 2007. Rates for selected age and service are shown below and on the following pages.

Mortality Before Retirement Illustrative rates:

CalPERS Public Agency Miscellaneous Non-Industrial Deaths only			CalPERS Public Agency Police & Fire Combined Industrial & Non-Industrial Deaths		
Age	Male	Female	Age	Male	Female
15	0.00045	0.00006	15	0.00045	0.00006
20	0.00047	0.00016	20	0.00050	0.00019
30	0.00053	0.00036	30	0.00063	0.00046
40	0.00087	0.00065	40	0.00100	0.00078
50	0.00176	0.00126	50	0.00191	0.00141
60	0.00395	0.00266	60	0.00412	0.00283
70	0.00914	0.00649	70	0.00933	0.00668
80	0.01527	0.01108	80	0.01548	0.01129

³ The level percent of pay aspect of the funding method refers to how the normal cost is determined. Use of level percent of pay cost allocations in the funding method is separate from and has no effect on a decision regarding use of a level percent of pay or level dollar basis for determining amortization payments.

**Table 4 - Actuarial Methods and Assumptions
(Continued)**

Mortality After Retirement
Illustrative rates:

Healthy Lives

CalPERS Public Agency Miscellaneous, Police & Fire Post Retirement Mortality		
Age	Male	Female
40	0.00093	0.00062
50	0.00239	0.00125
60	0.00720	0.00431
70	0.01675	0.01244
80	0.05270	0.03749
90	0.16747	0.12404
100	0.34551	0.31876
110	1.00000	1.00000

Disabled Lives

CalPERS Public Agency Miscellaneous Disability Post Retirement Mortality			CalPERS Public Agency Fire Disability Post Retirement Mortality		
Age	Male	Female	Age	Male	Female
20	0.00664	0.00478	20	0.00313	0.00238
30	0.00790	0.00512	30	0.00205	0.00175
40	0.01666	0.00674	40	0.00217	0.00207
50	0.01632	0.01245	50	0.00518	0.00412
60	0.02293	0.01628	60	0.00808	0.00815
70	0.03870	0.03019	70	0.02269	0.01743
80	0.08388	0.05555	80	0.06956	0.04549
90	0.21554	0.14949	90	0.16676	0.13799

Termination Rates

CalPERS Public Agency Miscellaneous: sum of Terminated
Refund and Terminated Vested rates – Illustrative rates

Attained Age	Years of Service					
	0	3	5	10	15	20
15	0.1812	0.0000	0.0000	0.0000	0.0000	0.0000
20	0.1742	0.1193	0.0946	0.0000	0.0000	0.0000
25	0.1674	0.1125	0.0868	0.0749	0.0000	0.0000
30	0.1606	0.1055	0.0790	0.0668	0.0581	0.0000
35	0.1537	0.0987	0.0711	0.0587	0.0503	0.0450
40	0.1468	0.0919	0.0632	0.0507	0.0424	0.0370
45	0.1400	0.0849	0.0554	0.0427	0.0347	0.0290

**Table 4 - Actuarial Methods and Assumptions
(Continued)**

Termination Rates
(concluded)

CalPERS Public Agency Fire: sum of Terminated Refund
and Terminated Vested rates – Illustrative rates

Attained Age	Years of Service					
	0	3	5	10	15	20
15	0.0947	0.0000	0.0000	0.0000	0.0000	0.0000
20	0.0947	0.0323	0.0257	0.0000	0.0000	0.0000
25	0.0947	0.0323	0.0257	0.0090	0.0000	0.0000
30	0.0947	0.0323	0.0257	0.0090	0.0079	0.0000
35	0.0947	0.0323	0.0257	0.0090	0.0079	0.0069
40	0.0947	0.0323	0.0257	0.0090	0.0079	0.0069
45	0.0947	0.0323	0.0257	0.0090	0.0079	0.0069

Service Retirement Rates

CalPERS Public Agency Miscellaneous
2.7% @ 55 – Illustrative rates

Attained Age	Years of Service					
	5	10	15	20	25	30
50	0.0275	0.0350	0.0425	0.0500	0.0575	0.0650
55	0.0908	0.1155	0.1403	0.1650	0.1898	0.2145
60	0.0880	0.1120	0.1360	0.1600	0.1840	0.2080
65	0.1458	0.1855	0.2253	0.2650	0.3048	0.3445
70	0.1288	0.1638	0.1990	0.2340	0.2692	0.3042
75 & over	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

CalPERS Public Agency Fire
3% @ 55 – Illustrative rates

Attained Age	Years of Service					
	5	10	15	20	25	30
50	0.0120	0.0120	0.0120	0.0180	0.0280	0.0330
52	0.0180	0.0180	0.0180	0.0270	0.0420	0.0500
55	0.0920	0.0920	0.0920	0.1340	0.2110	0.2460
57	0.1000	0.1000	0.1000	0.1460	0.2300	0.2680
60	0.1170	0.1170	0.1170	0.1695	0.2670	0.3120
62	0.0975	0.0975	0.0975	0.1413	0.2225	0.2600
65 & over	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

**Table 4 - Actuarial Methods and Assumptions
(Continued)**

Disability Retirement Rates

Illustrative rates:

CalPERS Public Agency Miscellaneous Disability		
Age	Male	Female
25	0.00010	0.00010
30	0.00021	0.00020
35	0.00063	0.00088
40	0.00145	0.00164
45	0.00252	0.00243
50	0.00331	0.00311
55	0.00366	0.00306
60	0.00377	0.00253

CalPERS Public Agency Fire Combined Disability	
Age	Unisex
20	0.00034
25	0.00130
30	0.00262
35	0.00382
40	0.00502
45	0.00632
50	0.00794
55	0.07305
60	0.07351

Healthcare Trend Rate

Medical plan premiums are assumed to increase once each year. The increases over the prior year's levels are assumed to be effective on the dates shown in the chart below:

Effective July 1	Premium Increase	Effective July 1	Premium Increase
2012	9.00%	2016	7.00%
2013	8.50%	2017	6.50%
2014	8.00%	2018	5.50%
2015	7.50%	2019 & later	4.50%

Medicare Eligibility

Absent contrary data, all individuals are assumed to be eligible for Medicare Parts A and B at age 65.

Table 4 - Actuarial Methods and Assumptions (Continued)

Participation Rate	<p><i>Active employees:</i> 100% are assumed to continue their current plan election in retirement. If an active employee is currently waiving coverage through the Department, he or she is assumed to elect coverage at a later date in the Kaiser HMO plan in the Bay Area region, thus gaining access to coverage in retirement.</p> <p><i>Retired participants:</i> Existing medical plan elections are assumed to be maintained until the retiree's death.</p>
Spouse Coverage	<p><i>Active employees:</i> 80% are assumed to be married and elect coverage for their spouse in retirement. Surviving spouses are assumed to retain coverage until their death. Husbands are assumed to be 3 years older than their wives.</p> <p><i>Retired participants:</i> Existing elections for spouse coverage are assumed to be maintained through retirement until the spouse's death. Actual spouse ages are used, where known; if not, husbands are assumed to be 3 years older than their wives.</p>
Dependent Coverage	<p><i>Active employees:</i> 30% are assumed to cover dependents other than a spouse under age 26 at retirement; eligibility for coverage for the youngest dependent is assumed to end at the retiree's age 62.</p> <p><i>Retired participants</i> covering dependent children are assumed to end such coverage when the youngest currently covered dependent reaches age 26.</p>
Changes Since the Prior Valuation:	
Discount rates	Decreased from 7.75% to 7.5%
Demographic assumptions	Rates of assumed mortality, termination, disability and retirement rates were updated from those provided in the CalPERS 2002 experience study to those developed from the CalPERS 2007 experience study. Explicit costs for potential disability benefits were included.
Healthcare trend	Medical plan premiums are assumed to increase at slightly higher rates than were assumed in the prior valuation.
Dependent Coverage	Due to more favorable and longer eligibility for dependent children, this valuation includes projected OPEB costs for dependents of current (and future) retirees.

Table 5 Projected Benefit Payments

The following is an estimate of other post-employment benefits to be paid on behalf of current retirees and current employees expected to retire from the Department.

- No benefits expected to be paid on behalf of current active employees prior to retirement are considered in this projection.
- No benefits for potential future employees have been included.

Expected annual benefits have been projected on the basis of the actuarial assumptions outlined in Table 4.

Projected Annual Benefit Payments			
Fiscal Year Ending June 30	Current Retirees	Future Retirees	Total
2012	192,527	-	192,527
2013	217,558	17,282	234,840
2014	229,949	31,684	261,633
2015	225,038	47,826	272,864
2016	228,679	68,381	297,060
2017	233,022	88,127	321,149
2018	241,033	109,177	350,210
2019	246,952	130,726	377,678
2020	251,221	151,672	402,893
2021	252,131	173,134	425,265
2022	254,995	197,766	452,761
2023	246,515	223,044	469,559
2024	236,107	240,651	476,758
2025	236,002	269,494	505,496
2026	235,360	288,256	523,616
2027	234,206	316,774	550,980
2028	224,356	343,818	568,174
2029	214,915	369,211	584,126
2030	211,969	408,157	620,126
2031	199,826	442,459	642,285

Appendix 1 Breakout of Department Results by Group

The table below breaks out the results for each group on a prefunded basis. All results reflect the same funding policy (including amortization) illustrated in Tables 1A, 1B and 1C.

Approach	FYE 2013			FYE 2014		
	Prefunding Basis			Prefunding Basis		
Group	Ross Valley Fire	Prior Authority Retirees	Total	Ross Valley Fire	Prior Authority Retirees	Total
Interest Rate	7.50%			7.50%		
Amortization method	Level percent of pay			Level percent of pay		
Amortization period (in years)	27			26		
Participants in Group						
Actives (participating)	34	0	34	34	0	34
Retirees	0	30	30	0	30	30
Total Participants	34	30	64	34	30	64
Actuarial Present Value of Projected Benefits						
Actives (participating)	3,655,075	-	3,655,075	3,911,923	-	3,911,923
Retirees	-	2,837,211	2,837,211	-	2,832,444	2,832,444
Total APVPB	3,655,075	2,837,211	6,492,286	3,911,923	2,832,444	6,744,367
Actuarial Accrued Liability						
Actives (participating)	2,581,849	-	2,581,849	2,892,029	-	2,892,029
Retirees	-	2,837,211	2,837,211	-	2,832,444	2,832,444
Total AAL	2,581,849	2,837,211	5,419,061	2,892,029	2,832,444	5,724,473
Actuarial Value of Assets	209,872	292,069	501,941	494,092	259,447	753,539
Unfunded Actuarial Accrued Liability	2,371,977	2,545,142	4,917,119	2,397,937	2,572,997	4,970,934
Amortization Factor	16.7823	16.7823	16.7823	16.4319	16.4319	16.4319
Annual Required Contribution (ARC)						
Normal Cost	124,486	-	124,486	128,532	-	128,532
Amortization of UAAL	141,338	151,656	292,994	145,932	156,585	302,517
Interest to fiscal year end	19,937	11,374	31,311	20,585	11,744	32,329
ARC at Fiscal Year End	285,761	163,031	448,792	295,049	168,329	463,378
Expected Net Employer Contribution						
(Expected Retiree Benefit Payments)	(17,282)	(217,558)	(234,840)	(31,684)	(229,949)	(261,633)
(Expected Trust Contribution) or Refund	(268,479)	54,527	(213,952)	(263,365)	61,620	(201,745)

In developing the results above, the July 1, 2011 assets were projected to July 1, 2012 based on the expected rate of return and contributions expected to be credited to the trust account prior to that date. This projected July 1, 2012 asset value was allocated between groups in proportion to the actuarial accrued liability projected for each covered member as of June 30, 2012. No assets were allocated on behalf of members joining the group as of July 1, 2012.

Appendix 2 OPEB Disclosure Information

The location of key OPEB information to be reported in financial reports is summarized below:

Summary of Plan Provisions:	See Table 3A
OPEB Funding Policy:	See Section F; details are provided also at the top of the exhibit in Table 1B
Funding Status and Funding Progress:	See Section E – Basic Valuation Results
Annual OPEB Cost and Net OPEB Obligation:	See Table 1C
Actuarial Methods and Assumptions:	See Table 4.

Glossary

Actuarial Accrued Liability (AAL) – Total dollars required to fund all plan benefits attributable to service rendered as of the valuation date for current plan members and vested prior plan members; see “Actuarial Present Value”

Actuarial Funding Method – A procedure which calculates the actuarial present value of plan benefits and expenses, and allocates these expenses to time periods, typically as a normal cost and an actuarial accrued liability

Actuarial Present Value (APV) – The amount presently required to fund a payment or series of payments in the future, it is determined by discounting the future payments by an appropriate interest rate and the probability of nonpayment.

Aggregate – An actuarial funding method under which the excess of the actuarial present value of projected benefits over the actuarial accrued liability is levelly spread over the earnings or service of the group forward from the valuation date to the assumed exit date, based not on individual characteristics but rather on the characteristics of the group as a whole

Annual Required Contribution (ARC) – The amount the employer would contribute to a defined benefit OPEB plan for a given year, it is the sum of the normal cost and some amortization (typically 30 years) of the unfunded actuarial accrued liability

Annual OPEB Expense – The OPEB expense reported in the Agency’s financial statement, which is comprised of three elements: the ARC, interest on the net OPEB obligation at the beginning of the year and an ARC adjustment.

Attained Age Normal Cost (AANC) – An actuarial funding method where, for each plan member, the excess of the actuarial present value of benefits over the actuarial accrued liability (determined under the unit credit method) is levelly spread over the individual’s projected earnings or service forward from the valuation date to the assumed exit date

CalPERS – Many state governments maintain a public employee retirement system; CalPERS is the California program, covering all eligible state government employees as well as other employees of other governments within California who have elected to join the system

Defined Benefit (DB) – A pension or OPEB plan which defines the monthly income or other benefit which the plan member receives at or after separation from employment

Defined Contribution (DC) – A pension or OPEB plan which establishes an individual account for each member and specifies how contributions to each active member’s account are determined and the terms of distribution of the account after separation from employment

Entry Age Normal Cost (EANC) – An actuarial funding method where, for each individual, the actuarial present value of benefits is levelly spread over the individual’s projected earnings or service from entry age to assumed exit age

Glossary (Continued)

Frozen Attained Age Normal Cost (FAANC) – An actuarial funding method under which the excess of the actuarial present value of projected benefits over the actuarial accrued liability (determined under the unit credit method) is levelly spread over the earnings or service of the group forward from the valuation date to the assumed exit date, based not on individual characteristics but rather on the characteristics of the group as a whole

Frozen Entry Age Normal Cost (FEANC) – An actuarial funding method under which the excess of the actuarial present value of projected benefits over the actuarial accrued liability (determined under the entry age normal cost method) is levelly spread over the earnings or service of the group forward from the valuation date to the assumed exit date, based not on individual characteristics but rather on the characteristics of the group as a whole

Financial Accounting Standards Board (FASB) – A private, not-for-profit organization designated by the Securities and Exchange Commission (SEC) to develop generally accepted accounting principles (GAAP) for U.S. public corporations

Government Accounting Standards Board (GASB) – A private, not-for-profit organization which develops generally accepted accounting principles (GAAP) for U.S. state and local governments; like FASB, it is part of the Financial Accounting Foundation (FAF), which funds each organization and selects the members of each board

Net OPEB Obligation (Asset) - The net OPEB obligation (NOO) represents the accumulated shortfall of OPEB funding since GASB 45 was implemented. If cumulative contributions have exceeded the sum of the prior years' annual OPEB expenses, then a net OPEB asset results.

Non-Industrial Disability (NID) – Unless specifically contracted by the individual Agency, PAM employees are assumed to be subject to only non-industrial disabilities.

Normal Cost – Total dollar value of benefits expected to be earned by plan members in the current year, as assigned by the chosen funding method; also called current service cost

Other Post-Employment Benefits (OPEB) – Post-employment benefits other than pension benefits, most commonly healthcare benefits but also including life insurance if provided separately from a pension plan

Pay-As-You-Go (PAYGO) – Contributions to the plan are made at about the same time and in about the same amount as benefit payments and expenses coming due

PEMHCA – The Public Employees' Medical and Hospital Care Act, established by the California legislature in 1961, provides community-rated medical benefits to participating public employers. Among its extensive regulations are the requirements that medical insurance contributions for retired annuitants and paid for by a contracting Agency be equal to the medical insurance contributions paid for its active employees, and that a contracting Agency file a resolution, adopted by its governing body, with the CalPERS Board establishing any new contribution.

Glossary (Concluded)

Projected Unit Credit (PUC) – An actuarial funding method where, for each individual, the projected plan benefit is allocated by a consistent formula from entry date to assumed exit date

Public Agency Miscellaneous (PAM) – Actuarial assumptions used by CalPERS for most non-safety public employees.

Select and Ultimate – Actuarial assumptions which contemplate rates which differ by year initially (the select period) and then stabilize at a constant long-term rate (the ultimate rate)

Trend – The healthcare cost trend rate, defined as the rate of change in per capita health claims costs over time as a result of factors such as medical inflation, utilization of healthcare services, plan design and technological developments

Unfunded Actuarial Accrued Liability (UAAL) – The excess of the actuarial accrued liability over the actuarial value of plan assets

Unit Credit (UC) -- An actuarial funding method where, for each individual, the unprojected plan benefit is allocated by a consistent formula from entry date to assumed exit date

Vesting – As defined by the plan, requirements which when met make a plan benefit nonforfeitable on separation of service before retirement eligibility