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TOWN OF TIBURON

Actuarial Valuation of
Postemployment Health Benefits
Valuation Date: July 1, 2008

December 9, 2009

Heidi Bigall
Director of Administrative Services
Town of Tiburon
1505 Tiburon Blvd.
Tiburon, CA 94920

Dear Ms. Bigall:

Re: Actuarial Valuation of Postemployment Health Benefits

The Nicolay Consulting Group is pleased to present the results of the July 1, 2008 actuarial valuation of the Town of Tiburon postemployment healthcare program. In preparing the report, we relied on employee data and plan information supplied by the Town. On the basis of that information, this report has been prepared in accordance with generally accepted actuarial principles and methods. It is our opinion that the actuarial assumptions used are reasonably related to the actual experience of the plan and to anticipated future experience.

The financial projections presented in this letter are intended for the Town's internal use in evaluating the potential cost of the retiree health programs. Because future events frequently do not occur as expected, it should be recognized that there are usually differences between anticipated and actual results. These differences may be material, especially if there are significant changes in the employee or retiree population. Consequently, we can express no assurance that the projected values will occur. We recommend that the Town obtain an updated actuarial valuation on a periodic basis.

We, the undersigned, meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Questions about the report should be directed to Doug Tokerud at (415) 512-5300 x220 or Dennis Daugherty at x221.

Sincerely,

NICOLAY CONSULTING GROUP

By: _____
Dennis Daugherty, F.S.A., M.A.A.A.

By: _____
Douglas R. Tokerud, F.S.A., M.A.A.A.

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TOWN OF TIBURON

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SECTION I

Introduction

The Town of Tiburon provides postemployment health benefits to retirees who meet plan eligibility requirements. This report provides an estimate of the Town's liability as of July 1, 2008, a prefunding schedule, and a ten-year projection of the pay-as-you-go cost of providing the benefits. Since the Town has adopted GASB 45 for the fiscal year beginning July 1, 2009, we have also included a projection to July 1, 2009 of liabilities by rolling forward the July 1, 2008 valuation results. **Section II** contains valuation results and projected costs. **Section III** describes the plans and presents a demographic summary. **Section IV** describes the actuarial method and assumptions used to complete the valuation. **Section V** contains a Glossary of Terms.

Accounting Requirements

In July 2004 the Governmental Accounting Standards Board issued **Statement 45, Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions**. This statement requires governmental entities to begin accounting for postemployment benefits on an accrual basis. When the new accounting rules are adopted, public entities that sponsor postemployment benefits will be required to account for the cost of those benefits using accrual accounting rather than the more common pay-as-you-go accounting. This means that each employee's benefit will "accrue" throughout their working lifetime and that employers will be required to show the annual accruals as a current year expense.

Employers must adopt Statement 45 no later than the plan year that begins after December 15, 2006, 2007 or 2008 depending on the annual revenues of the entity (entities with total 1999/2000 annual revenues of \$100 million or more will adopt no later than the first year listed above, entities with total annual revenues of \$10 to \$100 million no later than the second year and entities with total annual revenues of less than \$10 million will adopt no later than the third year). For purposes of this report, we assumed that the Town is adopting GASB 45 in the fiscal year beginning July 1, 2009.

SECTION II

Valuation Results

Table 2-1 contains estimates of the present value of the cost of postemployment medical benefits attributable to past service rendered by current retirees and employees who are expected to receive the benefit. The estimates are based on the assumptions and methodology prescribed for Agencies that participate in the CalPERS administered California Employers' Retiree Benefit Trust Fund. The valuation results are based on two discount rates; 4.00% assuming that the Town continues pay-as-you-go funding of the program and 7.75% assuming that the Town joins the CalPERS Trust Fund (CERBT) and contributes the full Annual Required Contribution (ARC) each year. If the Town joins the Trust and contributes only part of the ARC each year, a lower discount rate will be required. This would result in significantly higher annual costs as reported under GASB 45.

A primary goal of GASB 45 is to require employers to recognize postemployment healthcare expense systematically over periods approximating employees' years of service. The Actuarial Accrued Liability represents the estimated present value of future benefits that are associated with past service rendered by employees and retirees. The Unfunded Actuarial Accrued Liability is the excess of the Actuarial Accrued Liability over the Actuarial Value of any Assets.

Table 2-1		
Present Value of Future Postemployment Healthcare Cost Attributable to Past Service As of July 1, 2008		
	<u>4.00% Discount Rate</u>	<u>7.75% Discount Rate</u>
Actives	\$ 2,014,293	\$ 1,157,924
Retirees and Spouses	<u>143,639</u>	<u>102,082</u>
Total Actuarial Accrued Liability	\$ 2,157,932	\$ 1,260,006
Actuarial Value of Assets	<u>0</u>	<u>0</u>
Unfunded Actuarial Accrued Liability	\$ 2,157,932	\$ 1,260,006

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Projected Postemployment Health Benefit Costs

Table 2-2 contains a ten-year projection of the pay-as-you-go cost to provide postemployment benefits to current retirees and future retirees from the Town's current employees.

<u>Year</u>	<u>Estimated Amount</u>
2009 / 10	\$ 21,445
2010 / 11	29,821
2011 / 12	41,255
2012 / 13	53,056
2013 / 14	69,262
2014 / 15	82,491
2015 / 16	100,656
2016 / 17	120,706
2017 / 18	130,208
2018 / 19	140,374

Benefit Costs Under GASB 45

The Town's financial statements will contain disclosure of information regarding funding, costs and provisions of the postemployment plans.

The following Tables provide illustrations of the liability and financial statement expense that would appear in the Town's financial statement assuming GASB 45 is adopted as of July 1, 2009 and the Town continues pay-as-you-go funding, or alternatively that the Town joins the CERBT and contributes the full ARC each year.

The first year Annual Required Contribution (ARC) consists of the Normal Cost plus the portion of the Unfunded Actuarial Accrued Liability that is to be amortized in the current year. The Normal Cost is the portion of the actuarial present value of future benefits that is allocated to the current year. Another interpretation is that the Normal Cost is the present value of future benefits that are "earned" by employees for service rendered during the current year. This valuation is based on the Entry Age Normal Cost method of calculation and an attribution period that runs from date of hire until the expected retirement date.

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In the year the new accounting rules become effective, an employer is allowed to commence amortization of the Unfunded Actuarial Accrued Liability over a period not to exceed 30 years. Tables 2-3, 2-4 and 2-5 are based on a level percentage of payroll amortization over 30 years. Table 2-6 shows first year costs calculated under several different combinations of actuarial method and amortization.

Table 2-3a	
Development of 2009/2010 Fiscal Year	
Annual Required Contribution - based on a 4.00% discount rate	
Actuarial Accrued Liability*	\$ 2,409,302
Actuarial Value of Assets	<u>0</u>
Unfunded Actuarial Accrued Liability	\$ 2,409,302
Illustrative Amortization Period	30 years
Amortization Factor (based on 4.00% Discount Rate)	26.023
Annual % of Payroll Amortization of Unfunded AAL	\$ 92,584
Normal Cost (based on the Entry Age Normal Method)	<u>189,091</u>
Annual Required Contribution	\$ 281,675
<i>*Rolloed forward one year from 7/1/08 valuation results</i>	

Table 2-3b	
Development of 2009/2010 Fiscal Year	
Annual Required Contribution - based on a 7.75% discount rate	
Actuarial Accrued Liability*	\$ 1,421,867
Actuarial Value of Assets	<u>0</u>
Unfunded Actuarial Accrued Liability	\$ 1,421,867
Illustrative Amortization Period	30 years
Amortization Factor (based on 7.75% Discount Rate)	16.042
Annual % of Payroll Amortization of Unfunded AAL	\$ 88,634
Normal Cost (based on the Entry Age Normal Method)	<u>83,489</u>
Annual Required Contribution	\$ 172,123
<i>*Rolloed forward one year from 7/1/08 valuation results</i>	

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Table 2-4 presents an estimated five-year projection under the assumptions the Town contributes only the expected retiree claim costs, the discount rate remains 4.00% and the Normal Cost component of the ARC increases by 5% per year throughout the period.

		Town of Tiburon				
Table 2-4		Five-year Projection of Annual OPEB Cost and Net OPEB Obligation				
Based on a 4.00% discount rate and		assuming funding equal to projected retiree premium costs				
		2009 / 2010	2010 / 2011	2011 / 2012	2012 / 2013	2013 / 2014
Actuarial Accrued Liability (AAL)		\$ 2,409,302	\$ 2,672,895	\$ 2,947,945	\$ 3,232,264	\$ 3,526,345
Actuarial Value of Assets at beginning of year		0	0	0	0	0
Unfunded Actuarial Accrued Liability (UAAL)		\$ 2,409,302	\$ 2,672,895	\$ 2,947,945	\$ 3,232,264	\$ 3,526,345
Remaining Amortization Period		30	29	28	27	26
Normal Cost		\$ 189,091	\$ 198,546	\$ 208,473	\$ 218,897	\$ 229,842
Amortization of UAAL		<u>92,584</u>	<u>105,882</u>	<u>120,526</u>	<u>136,567</u>	<u>154,184</u>
Annual Required Contribution (ARC)		\$ 281,675	\$ 304,428	\$ 328,999	\$ 355,464	\$ 384,026
Annual Required Contribution (ARC)		\$ 281,675	\$ 304,428	\$ 328,999	\$ 355,464	\$ 384,026
Interest on net OPEB Obligation		0	10,409	21,397	32,888	44,911
Adjustment to ARC		<u>(0)</u>	<u>(10,309)</u>	<u>(21,871)</u>	<u>(34,739)</u>	<u>(49,091)</u>
Annual OPEB Cost		\$ 281,675	\$ 304,528	\$ 328,525	\$ 353,613	\$ 379,846
Retiree Premium Cost		<u>(21,445)</u>	<u>(29,821)</u>	<u>(41,255)</u>	<u>(53,056)</u>	<u>(69,262)</u>
Increase in net OPEB Obligation		\$ 260,230	\$ 274,707	\$ 287,270	\$ 300,557	\$ 310,584
Net OPEB Obligation – Beginning of Year		\$ 0	\$ 260,230	\$ 534,937	\$ 822,207	\$ 1,122,764
Net OPEB Obligation – End of Year		\$ 260,230	\$ 534,937	\$ 822,207	\$ 1,122,764	\$ 1,433,348
Projected Retiree Premium Cost		\$ 21,445	\$ 29,821	\$ 41,255	\$ 53,056	\$ 69,262

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Table 2-5 presents a five-year projection under the assumptions that the Town contributes the full Annual Required Contribution to the CERBT, the discount rate remains at 7.75% and the Normal Cost component of the ARC increases by 5% per year throughout the period. We assumed mid-year additions to and subtractions from the Trust.

Table 2-5 Town of Tiburon		Five-year Projection of Annual OPEB Cost and Net OPEB Obligation Based on a 7.75% discount rate and assuming full ARC funding				
	2009 / 2010	2010 / 2011	2011 / 2012	2012 / 2013	2013 / 2014	
Actuarial Accrued Liability (AAL)	\$ 1,421,867	\$ 1,593,290	\$ 1,773,478	\$ 1,960,145	\$ 2,153,631	
Actuarial Value of Assets at beginning of year	<u>0</u>	<u>156,408</u>	<u>323,133</u>	<u>498,077</u>	<u>681,781</u>	
Unfunded Actuarial Accrued Liability (UAAL)	\$ 1,421,867	\$ 1,436,882	\$ 1,450,345	\$ 1,462,068	\$ 1,471,850	
Remaining Amortization Period	30	29	28	27	26	
Normal Cost	\$ 83,489	\$ 87,663	\$ 92,046	\$ 96,648	\$ 101,480	
Amortization of UAAL	<u>88,634</u>	<u>91,098</u>	<u>93,619</u>	<u>96,195</u>	<u>98,828</u>	
Annual Required Contribution (ARC)	\$ 172,123	\$ 178,761	\$ 185,665	\$ 192,843	\$ 200,308	
Annual Required Contribution (ARC)	\$ 172,123	\$ 178,761	\$ 185,665	\$ 192,843	\$ 200,308	
Interest on net OPEB Obligation	0	0	0	0	0	
Adjustment to ARC	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	
Annual OPEB Cost	\$ 172,123	\$ 178,761	\$ 185,665	\$ 192,843	\$ 200,308	
Contributions to the CERBT	<u>(172,123)</u>	<u>(178,761)</u>	<u>(185,665)</u>	<u>(192,843)</u>	<u>(200,308)</u>	
Increase in net OPEB Obligation	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	
Net OPEB Obligation – Beginning of Year	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	
Net OPEB Obligation – End of Year	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	
Projected pay-as-you-go cost	\$ 21,445	\$ 29,821	\$ 41,255	\$ 53,056	\$ 69,262	

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Table 2-6
Annual Cost for Fiscal Year Beginning July 1, 2009
Under Alternative Actuarial and Amortization Methods

A.				B.			
At 4% Discount Rate				At 7.75% Discount Rate (CalPERS Trust)			
Actuarial Accrued Liability (prior service)	Prior Service Amortization	Normal Cost	Total FYB 2008 Cost	Actuarial Accrued Liability (prior service)	Prior Service Amortization	Normal Cost	Total FYB 2008 Cost
\$2,409,302	\$92,584	\$189,091	\$281,675	\$1,421,867	\$88,634	\$83,489	\$172,123
\$2,409,302	\$134,081	\$189,091	\$323,172	\$1,421,867	\$111,475	\$83,489	\$194,964
\$2,409,302	\$139,330	\$189,091	\$328,421	\$1,421,867	\$123,330	\$83,489	\$206,819
\$2,273,766	\$87,375	\$179,564	\$266,939	\$1,254,277	\$78,187	\$87,284	\$165,471
\$2,273,766	\$126,538	\$179,564	\$306,102	\$1,254,277	\$98,336	\$87,284	\$185,620
\$2,273,766	\$131,492	\$179,564	\$311,056	\$1,254,277	\$108,793	\$87,284	\$196,077

1. **Baseline valuation** shown in this report (Entry Age Normal method, 30 year amortization of prior service liability as level percentage of payroll.)

Alternatives:

- 2. Same as 1 but **20** year amortization
- 3. Same as 1 but **30 year level dollar** amortization
- 4. **Project Unit Credit method**, 30 year amortization of prior service liability as level percentage of payroll
- 5. Same as 4 but **20** year amortization
- 6. Same as 4 but **30 year level dollar** amortization

SECTION III

Plan Description and Demographic Summary

Eligibility and Contribution Requirements

The Town of Tiburon provides retiree medical benefits to employees who retire from the Town at age 50 or later with at least 5 years of service and are eligible for a CalPERS pension.

Dental benefits are not provided to retirees.

Eligible retirees are entitled to the minimum CalPERS medical benefit, which is \$97.00 per month in 2008. This amount is expected to increase annually. This benefit continues for the life of the retiree and then for the life of a surviving spouse if any.

In addition to the above, retirees with 15 or more years of Town service are eligible to receive a monthly benefit based on the monthly premium charged by CalPERS for Kaiser *single person* coverage (\$470.67 in 2008.) The benefit amount is the below percentage of the Kaiser premium at the time of retirement. The amounts, which are paid by the Town directly to retirees, are fixed at retirement and do not increase in subsequent years. The benefit amount does **not** decrease at age 65 even though Kaiser premiums decrease substantially at that age. This benefit continues for the life of the retiree but does **not** continue to a surviving spouse.

15 – 19 years of service	50%
20 – 24 years of service	75%
25 or more years of service	100%

There is one exception to the preceding paragraph. The present Town Manager will receive 100% (rather than 50% or 75%) if she retires from the Town with a CalPERS pension.

Retirees may select any retiree medical plan offered by CalPERS, including spouse or family coverage, but must incur the cost of premiums exceeding the above benefits.

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Demographic Data

The Town provided demographic information on all current active and retired employees. Tables 3-1 and 3-2 contain summaries of the demographic information used in the valuation.

Table 3-1
**Age and Sex Table of Retired Employees
 and Surviving Spouses**
 as of July 1, 2008

Age	Female	Male	Total
Under 50	0	0	0
50-54	0	0	0
55-59	0	0	0
60-64	1	1	2
65-69	0	0	0
70-74	0	0	0
75-79	0	0	0
80 and Older	<u>0</u>	<u>0</u>	<u>0</u>
Total	1	1	2

Note: Table 3-1 contains 2 retirees and 0 surviving spouses.

Table 3-2
Age and Service Table of Active Employees
 as of July 1, 2008

Age	Years of Service					Total
	<5	5-9	10-14	15-19	20+	
Under 30	3	1	0	0	0	4
30-34	2	2	1	0	0	5
35-39	3	2	0	0	0	5
40-44	0	0	0	0	0	0
45-49	1	1	1	1	0	4
50-54	0	1	2	0	4	7
55-59	3	0	2	0	4	9
60-64	1	1	0	0	0	2
65 and Older	<u>1</u>	<u>1</u>	<u>0</u>	<u>2</u>	<u>0</u>	<u>4</u>
Total	14	9	6	3	8	40

SECTION IV

Actuarial Method and Assumptions

In order to project the Town's liabilities into the future, a number of economic, demographic, and baseline cost assumptions are necessary. For this valuation, we have used assumptions consistent with those specified in the "OPEB Assumption Model" released by the CalPERS Health Benefits Committee.

Actuarial Cost Method

The valuation was completed using the Entry Age Normal Cost Method. An Actuarial Cost Method is a procedure for allocating the actuarial present value of benefits and expenses and for developing an actuarially equivalent allocation of such value to time periods, usually in the form of a Normal Cost and an Actuarial Accrued Liability. The Entry Age Normal cost method allocates the present value of future benefits on a level basis over the earnings or service (in this case earnings) of each employee between the hire date and assumed retirement age. The portion of the present value of future benefits allocated to a valuation year is called the Normal Cost. The portion allocated to all prior years is called the Actuarial Accrued Liability.

Valuation Date

The valuation date is July 1, 2008. This date is the starting point from which current health premium costs are projected to increase in future years according to the assumed annual rates of health care cost trend. The Town census is projected from the valuation date to the date of the final benefit payment for each employee and retiree on the census. After calculating future costs for the projected retiree and dependent population, all liabilities are discounted back to the valuation date to obtain the present value of future costs.

Economic Assumptions

Health Care Trend

The rate of increase in per capita health care costs is commonly referred to as the health care cost trend rate. Although the term "health care inflation" is sometimes used synonymously with the trend rate, health care inflation is only one of several components of the trend rate. Our analysis recognizes the following influences on health care trend: pure medical inflation, utilization changes, technological changes, regulatory requirements, and Medicare cost shifting.

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Based on recent rate increases and our assessment of likely future CalPERS rate increases, we developed the following annual healthcare trend rates for use in the valuation. These rates assume that there will not be any significant changes in the CalPERS medical plan designs.

Year Beginning	
January 1, 2009	8.5 %
January 1, 2010	8.2 %
January 1, 2011	7.9 %
January 1, 2012	7.6 %
January 1, 2013	7.3 %
January 1, 2014	7.0 %
January 1, 2015	6.7 %
January 1, 2016	6.4 %
January 1, 2017	6.1 %
January 1, 2018	5.8 %
January 1, 2019 & thereafter	5.5 %

Discount Rate

Valuation results were computed at both a 4.00% discount rate and a 7.75% discount rate. 7.75% is the rate specified by the California Employers' Retiree Benefit Trust (CERBT), which the Town is contemplating joining. This rate is the average long term rate of return that CERBT expects to earn on its assets. If the Town elects not to join the CERBT, then 4.00% is a more reasonable long-term assumption of the Town's expected return on its investments. If the Town does join the CERBT but contributes an amount less than the full ARC each year then a blended discount rate would be appropriate.

Baseline Cost

Estimates of retiree health benefit obligations are normally based on current costs for a one year period. We refer to this as the *baseline cost*. The components of baseline cost, such as average per capita cost, and the current plan population are projected into the future to estimate the cost of future benefits.

Table 4-2 contains the premium rates used to develop the 2008/09 medical baseline cost.

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Table 4-2

Cal PERS Bay Area premium rates for the 2008 Calendar Year

Retiree or Spouse Monthly Medical Premium Rates

Basic Rates

Blue Shield	\$ 532.93
Kaiser	\$ 470.67
PERS Choice	\$ 482.48
PERS Care	\$ 749.83

Medicare Supplement Rates

Blue Shield	\$ 341.44
Kaiser	\$ 273.36
PERS Choice	\$ 349.11
PERS Care	\$ 404.60

CalPERS has stated its belief that its medical program is a "community rated" plan as described in GASB 45. This means that all participating employers located in the same region pay the same premium rates even though older employees and early retirees generally have higher medical costs than younger employees. If CalPERS changes its present practice and at a future date decides to modify the premium structure so that it charges more on average for non-Medicare retirees than for active employees, then higher costs would need to be allocated to retirees, and this could result in a substantial increase in the Town's Actuarial Accrued Liability and Annual Required Contribution. This potential increase could also occur if there ever is a ruling that CalPERS should not be treated as a community-rated plan.

Payroll Increases

In this valuation we assumed a 3.25% annual rate of increase in payroll. This rate is a component of the Entry Age Normal Actuarial Cost Method and is used in the calculation of the amortization component of the Annual Required Contribution and in calculation of the Normal Cost.

Amortization Methodology

GASB 45 allows amortization of the Unfunded Actuarial Accrued Liability based on a level dollar approach or as a level percentage of covered payroll. The maximum amortization period is 30 years. This valuation is based on a closed 30-year

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amortization of the Unfunded Actuarial Accrued Liability as a level percentage of payroll; increasing each year as payroll increases.

Administrative Expenses

We assumed that there are no administrative fees other than those included in the premium rates.

Plan Assets

We understand that as of June 1, 2008 the Town has not pre-funded any amounts toward the cost of future years' benefits.

Demographic Assumptions

Census Data

The Town provided census data as of April 22, 2008. We assumed no change in the census as of July 1, 2008.

Health Plan Participation

All current and future eligible retirees are assumed to enroll.

Percentage of New Retirees with Dependents

Based on the Town's demographic data, we assumed that 50% of future retirees will elect to cover a dependent spouse. (This assumption has only a minor impact because it affects only CalPERS minimum surviving spouse benefits.)

Spouse Age Difference

For future retirees, males are assumed to be 3 years older than their spouses.

Medicare Coverage

All retired employees are assumed to be eligible for and enroll in Medicare when they reach age 65.

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Mortality

The mortality rates used in this valuation are the rates adopted by CalPERS in 2004 for use in the California PERS pension valuations. The rates are based on recent statewide CalPERS experience. The following Table contains annual mortality rates for selected ages.

These rates represent the probability of dying within the next year. For example, according to the table a male retiree who is 75 years of age has a 3.716% probability of dying within the next year. Female mortality rates at each age are significantly lower than male rates. However, both female and male rates increase with age.

Table 4-3
Sample Mortality Rates

<u>Age</u>	<u>Preretirement</u>		<u>Postretirement</u>	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
55	0.248%	0.178%	0.429%	0.253%
60	0.344%	0.256%	0.721%	0.442%
65	0.480%	0.369%	1.302%	0.795%
70	0.671%	0.537%	2.135%	1.276%
75			3.716%	2.156%
80			6.256%	3.883%
85			10.195%	7.219%
90			17.379%	12.592%

Retirement Rates

For Police employees we used the same retirement rates as those used in the most recent California PERS 3% @55 Police retirement plan valuation. Sample rates are shown below.

Table 4-4
Police Annual Rates of Retirement

<u>Age</u>	<u>Years of Service</u>						
	<u>5</u>	<u>10</u>	<u>15</u>	<u>20</u>	<u>25</u>	<u>30</u>	<u>35</u>
50	0.0193	0.0193	0.0193	0.0193	0.0397	0.0600	0.0600
51	0.0157	0.0157	0.0157	0.0157	0.0324	0.0491	0.0491
52	0.0163	0.0163	0.0163	0.0163	0.0337	0.0510	0.0510
53	0.0587	0.0587	0.0587	0.0587	0.1208	0.1829	0.1829
54	0.0691	0.0691	0.0691	0.0691	0.1422	0.2154	0.2154
55	0.1164	0.1164	0.1164	0.1164	0.2397	0.3630	0.3630
56	0.0756	0.0756	0.0756	0.0756	0.1556	0.2357	0.2357
57	0.0581	0.0581	0.0581	0.0581	0.1196	0.1812	0.1812
58	0.0508	0.0508	0.0508	0.0508	0.1045	0.1583	0.1583
59	0.0625	0.0625	0.0625	0.0625	0.1287	0.1949	0.1949
60	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

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For all other City employees we used the retirement rates that were used in the most recent California PERS 2% @55 Miscellaneous employees retirement plan valuation. Selected rates are shown below.

Table 4-5
Annual Rates of Retirement

Age	----- Years of Service -----						
	5	10	15	20	25	30	35
50	0.01450	0.01840	0.02240	0.02690	0.03070	0.03660	0.04110
51	0.01060	0.01350	0.01640	0.01980	0.02260	0.02690	0.03020
52	0.01140	0.01450	0.01760	0.02120	0.02410	0.02870	0.03230
53	0.01500	0.01900	0.02310	0.02780	0.03180	0.03780	0.04250
54	0.01990	0.02520	0.03070	0.03690	0.04210	0.05020	0.05640
55	0.04750	0.06040	0.07340	0.08830	0.10080	0.12000	0.13490
56	0.03950	0.05020	0.06110	0.07350	0.08380	0.09980	0.11230
57	0.04270	0.05420	0.06590	0.07930	0.09050	0.10780	0.12120
58	0.04730	0.06010	0.07300	0.08790	0.10030	0.11940	0.13430
59	0.05100	0.06480	0.07880	0.09480	0.10820	0.12870	0.14480
60	0.07150	0.09080	0.11040	0.13280	0.15160	0.18040	0.20300
61	0.07150	0.09080	0.11040	0.13280	0.15160	0.18050	0.20300
62	0.12750	0.16200	0.19690	0.23690	0.27040	0.32190	0.36210
63	0.12870	0.16360	0.19880	0.23920	0.27310	0.32500	0.36560
64	0.09310	0.11820	0.14380	0.17290	0.19740	0.23500	0.26430
65	0.17380	0.22090	0.26860	0.32310	0.36880	0.43900	0.49380
66	0.10850	0.13780	0.16750	0.20160	0.23010	0.27390	0.30810
67	0.11090	0.14090	0.17130	0.20610	0.23530	0.28010	0.31500
68	0.08780	0.11160	0.13560	0.16320	0.18630	0.22170	0.24940
69	0.10350	0.13150	0.15990	0.19230	0.21960	0.26140	0.29400
70	0.12240	0.15550	0.18900	0.22740	0.25960	0.30900	0.34760
71	0.09410	0.11950	0.14530	0.17480	0.19950	0.23750	0.26720
72	0.10350	0.13150	0.15980	0.19230	0.21950	0.26130	0.29390
73	0.08340	0.10600	0.12890	0.15510	0.17700	0.21070	0.23700
74	0.06440	0.08180	0.09950	0.11970	0.13660	0.16260	0.18300
75	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000

Withdrawal

Withdrawal rates represent probabilities that an employee will leave the organization prior to retirement. The probabilities used in this valuation are based on years of service and an employee's age when they joined the organization. The following tables

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illustrate that the probability of withdrawal decreases as the years of service increase. In addition, withdrawal rates are lower for employees who are hired at older ages.

For non-police employees we used these rates, adapted from the California PERS Public Agency Miscellaneous Employees Withdrawal Rates used in the most recent CalPERS pension valuation.

Table 4-6
Annual Withdrawal Rates for Non-Police Employees
(sample rates shown)

Age	----- Completed Years of Service -----						
	1	2	3	4	5	10	15
20	0.1575	0.1390	0.1205	0.1020	0.0834	0.0000	0.0000
25	0.1506	0.1321	0.1136	0.0950	0.0765	0.0643	0.0000
30	0.1437	0.1251	0.1066	0.0881	0.0696	0.0574	0.0515
35	0.1367	0.1182	0.0997	0.0812	0.0627	0.0504	0.0446
40	0.1298	0.1113	0.0928	0.0743	0.0557	0.0435	0.0376
45	0.1229	0.1044	0.0858	0.0673	0.0488	0.0366	0.0307
50	0.1159	0.0974	0.0789	0.0604	0.0155	0.0095	0.0064
55	0.1090	0.0905	0.0720	0.0535	0.0129	0.0073	0.0046
60	0.1021	0.0836	0.0651	0.0465	0.0104	0.0051	0.0027
65	0.1021	0.0822	0.0623	0.0424	0.0083	0.0028	0.0008

For the Police valuation we used the same withdrawal rates as those used in the most recent California PERS Police retirement plan valuations. Selected rates are shown below.

Table 4-7
Annual Withdrawal Rates for Police Employees
(sample rates shown)

Age	----- Completed Years of Service -----						
	1	2	3	4	5	10	15
20	0.0816	0.0348	0.0331	0.0314	0.0297	0.0000	0.0000
25	0.0816	0.0348	0.0331	0.0314	0.0297	0.0213	0.0000
30	0.0816	0.0348	0.0331	0.0314	0.0297	0.0213	0.0129
35	0.0816	0.0348	0.0331	0.0314	0.0297	0.0213	0.0129
40	0.0816	0.0348	0.0331	0.0314	0.0297	0.0213	0.0129
45	0.0816	0.0348	0.0331	0.0314	0.0297	0.0213	0.0129
50	0.0816	0.0348	0.0331	0.0314	0.0110	0.0068	0.0035
55	0.0816	0.0348	0.0331	0.0314	0.0110	0.0068	0.0035
60	0.0816	0.0348	0.0331	0.0314	0.0110	0.0068	0.0035
65	0.0816	0.0348	0.0331	0.0314	0.0110	0.0068	0.0035

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Disability Retirement

Sample disability rates for Police employees are shown in Table 4-8. These rates match disability rates used in the most recent California PERS Public Agency Police pension valuations.

Age	Police
25	0.56%
30	0.56%
35	1.12%
40	1.12%
45	1.67%
50	1.67%
55	5.81%

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SECTION V

Glossary

- Accrual Accounting – A method of matching the cost of an employee’s service, including long term obligations such as OPEB, to that employee’s period of active service.
- Actuarial Accrued Liability (AAL) – The Actuarial Present Value of all postemployment benefits attributable to past service. Note: the AAL is sometimes referred to as the Past Service Liability.
- Actuarial Cost Method – A procedure for allocating the actuarial present value of benefits and expenses and for developing an actuarially equivalent allocation of such value to time periods, usually in the form of a Normal Cost and an Actuarial Accrued Liability.
- Actuarial Present Value – The value of an amount or series of amounts payable or receivable at various times. Each such amount or series of amounts is:
 - a. adjusted for the probable financial effect of certain intervening events (such as changes in compensation levels, Social Security, marital status, etc.)
 - b. multiplied by the probability of the occurrence of an event (such as survival, death, disability, termination of employment, etc.) on which the payment is conditioned, and
 - c. discounted according to an assumed rate (or rates) of return to reflect the time value of money
- Actuarial Valuation – The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets and related Actuarial Present Values.
- Actuarial Value of Assets – The value of cash, investments and other property belonging to a plan. These are amounts that may be applied to fund the Actuarial Accrued Liability. Note: assets must be segregated and placed in a Trust in order to be considered OPEB assets.
- Amortization Payment – That portion of the Annual OPEB cost which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.

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In the year that an employer adopts Statement 45 the employer is allowed to commence amortization of the Unfunded Actuarial Accrued Liability, over a period not to exceed 30 years.

- Annual Other Postemployment Benefit Cost (OPEB) cost - An accrual-basis measure of the periodic cost of an employer's participation in a defined benefit OPEB plan. The annual OPEB cost is the amount that must be calculated and reported as an expense.

When an employer has no net OPEB obligation (e.g., in the year of implementation) the annual OPEB cost is equal to the Annual Required Contribution (ARC).

In subsequent years the Annual OPEB cost will include:

- the ARC (equal to the Normal Cost plus one year's amortization of the Unfunded Actuarial Accrued Liability);
 - one year's interest on the net OPEB obligation at the beginning of the year using the valuation discount rate; and
 - an adjustment to the ARC. This adjustment is intended to provide a reasonable approximation of that portion of the ARC that consists of interest associated with past contribution deficiencies. GASB Statement No. 45 specifies that this adjustment should be equal to an amortization of the discounted present value of the net OPEB obligation at the beginning of the year. The amortization should be calculated using the same amortization method and period used in determining the ARC for that year. If the net OPEB obligation is positive the adjustment should be deducted from the ARC.
 - Note: As long as the net OPEB obligation is zero, there will not be any interest charge or adjustment to the ARC. However, if an employer does not contribute the full amount of the ARC, a net OPEB obligation will emerge.
- Annual required contributions of the employer (ARC) - The employer's periodic required contributions to a defined benefit OPEB plan, calculated in accordance with the parameters.
 - Defined benefit OPEB plan - An OPEB plan having terms that specify the *benefits* to be provided at or after separation from employment. The benefits may be specified in dollars (for example, a flat dollar payment or an amount based on one or more factors, such as age, years of service, and compensation), or as a type or level of coverage (for example, prescription drugs or a percentage of healthcare insurance premiums).

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- Defined contribution plan - A pension or OPEB plan having terms that (a) provide an individual account for each plan member and (b) specify how contributions to an active plan member's account are to be determined, rather than the income or other benefits the member or his beneficiaries are to receive at or after separation from employment. Those benefits will depend only on the amounts contributed to the member's account, earnings on investments of those contributions, and forfeitures of contributions made for other members that may be allocated to the member's account. For example, an employer may contribute a specified amount to each active member's postemployment healthcare account each month. At or after separation from employment, the balance of the account may be used by the member or on the member's behalf for the purchase of health insurance or other healthcare benefits.
- Employer's contributions - Contributions made in relation to the annual required contributions of the employer (ARC). An employer has made a contribution in relation to the ARC if the employer has (a) made payments of benefits directly to or on behalf of a retiree or beneficiary, (b) made premium payments to an insurer, or (c) irrevocably transferred assets to a trust, or an equivalent arrangement, in which plan assets are dedicated to providing benefits to retirees and their beneficiaries in accordance with the terms of the plan and are legally protected from creditors of the employer(s) or plan administrator.
- Entry Age Normal Actuarial Cost Method – An actuarial cost method under which the Actuarial Present Value of the Projected Benefits of each individual included in the valuation is allocated on a level basis over the earnings (used in this valuation) or service of the individual between entry age and assumed exit age(s). The portion of this Actuarial Present Value allocated to a valuation year is called the Normal Cost.
- Healthcare cost trend rate - 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.
- Investment return assumption (discount rate) - The rate used to adjust a series of future payments to reflect the time value of money.
- Net OPEB obligation - The cumulative difference since the effective date of GASB Statement 45 between annual OPEB cost and the employer's contributions to the plan, including the OPEB liability (asset) at transition, if any, and excluding (a) short-term differences and (b) unpaid contributions that have been converted to OPEB-related debt.

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Most employers will have no net OPEB obligation at the beginning of the year in which Statement 45 is implemented.

If an employer contributes the annual OPEB cost to the plan each year, and there are no actuarial or investment gains or losses then the net OPEB Obligation will remain zero.

- Normal Cost - That portion of the Actuarial Present Value of benefits and expenses which is allocated to a valuation year by the Actuarial Cost Method. Another interpretation is that the Normal Cost is the present value of future benefits that are "earned" by employees for service rendered during the current year.
- OPEB assets - The amount recognized by an employer for contributions to an OPEB plan greater than OPEB benefits paid.
- Other postemployment benefits (OPEB) - Postemployment benefits other than pension benefits. Other postemployment benefits (OPEB) include postemployment healthcare benefits, regardless of the type of plan that provides them, and all postemployment benefits provided separately from a pension plan, except benefits defined as special termination benefits.
- Plan assets - Resources, usually in the form of stocks, bonds, and other classes of investments, that have been segregated and restricted in a trust, or in an equivalent arrangement, in which (a) employer contributions to the plan are irrevocable, (b) assets are dedicated to providing benefits to retirees and their beneficiaries, and (c) assets are legally protected from creditors of the employer(s) or plan administrator, for the payment of benefits in accordance with the terms of the plan.
- Present Value – See Actuarial Present Value.
- Projected Unit Credit Cost Method – An actuarial cost method under which the projected benefits of each individual included in an Actuarial Valuation are separately calculated and allocated to each year service by a consistent formula.
- Substantive plan - The terms of an OPEB plan as understood by the employer(s) and plan members.
- Unfunded Actuarial Accrued Liability (UAAL) – The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets.
- Valuation date – The date as of which the postemployment benefit obligation is determined.