OFFICE OF THE CITY OF OAKLAND AGENDA REPORT

2008 FEB 13 PM 12: 16

TO:

Office of the City Administrator

ATTN:

Deborah Edgerly

FROM:

Finance and Management Agency

DATE:

February 26, 2008

RE:

An Informational Report on the City of Oakland's Actuarial Valuation of Other

Post Employment Benefits (OPEB)

SUMMARY

The Finance and Management Agency presents an informational report on the City's status in meeting the requirements under Government Accounting Standards Board (GASB) Statement No. 45-Accounting and Financial Reporting by Employers for Post Employment Benefits Other Than Pensions, OPEB. An example of OPEB is health care for retirees. This report illustrates the reporting requirements and two options to address OPEB liabilities which include: 1) Maintain the pay-as-you-go method or 2) Establish a trust and set aside monies to prefund OPEB.

GASB is the private, nonpartisan, nonprofit organization that creates uniform rules for how governments administer their finances and communicate their financial statements to the public. GASB's standards are recognized under the Code of Professional Conduct of the American Institute of Certified Public Accountants (AICPA). GASB issued statement number 45 in July 2004 which has a phased implementation schedule over several years. GASB 45 does not require governments to change how they fund OPEB. The new requirements direct governments to disclose OPEB expenses and liabilities in their annual financial statements. The City of Oakland is required to meet GASB 45 reporting requirements in its financial reports for the fiscal year ending June 30, 2008.

Last fall, Milliman Consultants and Actuaries completed the actuarial valuation of post employment benefits for the City of Oakland as of July 1, 2006. The actuarial valuation is a calculation of the costs of OPEB. Per GASB guidelines, valuation results are to be recalculated every two years. Separate actuarial valuations were performed for three groups: 1) Sworn Fire 2) Sworn Police and 3) Non-sworn City of Oakland Municipal Employees. All three groups were analyzed using the same methodology. For purposes of discussing the impacts of OPEB on the City, the consultants prepared a combined summary of all three groups to illustrate the City's full OPEB obligations.

Staff has reviewed the current Milliman Consultants and Actuaries valuation. Given the potentially high costs of funding OPEB, Staff is proceeding with an additional study, conducted by a separate consultant, to review various scenarios for possible cost savings and containment for future benefits.

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FISCAL IMPACT

This is an informational report. Fiscal impacts are undetermined at this time.

BACKGROUND

What is OPEB?

Employee's compensation packages for active workers often include post employment benefits other than pensions. The other post employment benefits can include healthcare and similar benefits upon an employee's retirement from active service.

When should governments begin to implement the new GASB 45 standards?

Governments are required to recognize and report the OPEB active employees have earned and will receive upon retirement from active service. The implementation of GASB 45 standards occur in three phases based on the employer's total annual revenues. Oakland is required to begin implementation during fiscal year 2007-2008. Therefore, the first reporting will appear in the financial reports for the fiscal year ending June 30, 2008.

What are the GASB 45 requirements?

For many years, employers have been required to recognize expenses for the cost of pension benefits as those benefits are earned by employees during their active service life. The GASB has now extended this same requirement to OPEB. Therefore, governments are now required to disclose these expenses and any related liabilities in their annual financial statements. It is important to note that GASB 45 does not require governments to change how they fund OPEB.

The City of Oakland, as the majority of governments, currently pays for OPEB on a pay-as-you-go method and may continue to do so under GASB 45. Although GASB 45 does not change the way governments fund OPEB, the new accounting standard highlights budgetary and funding challenges for addressing the recognized and disclosed liabilities. Given that the City of Oakland is on a pay-as-you-go method, addressing the OPEB liabilities of prior and future years is a policy question for the City Council. When staff returns to the City Council with recommendations for cost savings, staff will request policy direction on a method to address OPEB and meet GASB 45 requirements. At this time, unless the City Council adopts a set-aside plan that fully funds the Annual Required Contribution (ARC), a liability will be disclosed in the financial reports beginning on June 30, 2008.

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FMA: OPEB Actuarial Valuation

KEY ISSUES AND IMPACTS

Actuarial Valuation Scenarios and Policy Options

The actuarial valuation presents three scenarios for each of the three groups, including the combined summary. For illustration purposes, the combined summary example is discussed. See Table 1. All groups and scenarios can be seen in the complete Actuarial report attached. The valuation report presents two policy options within the three scenarios: 1) Maintain the statusquo (i.e., continue the current method of pay-as-you-go) or 2) Fully fund OPEB (i.e., prefund by setting-aside monies in a trust to pay for OPEB.)

The three scenarios are created by applying three interest rates to discount future benefit payments back to the present value. The interest rates applied are 4.00%, 4.50%, and 7.75%. Each scenario illustrates either the status quo or prefunding OPEB. The City Council's future decision to maintain the status quo or prefund OPEB would determine a corresponding interest rate that applies to that selection.

- The status quo is illustrated in the 4.00% interest rate scenario, continues the pay-as-you-go method with no prefunding of OPEB. The 4.00% interest rate is applied based on the expected return on the City's operating funds.
- The 4.50% interest rate is utilized to provide a comparison and sensitivity to interest rates. This scenario also maintains the pay-as-you go method with no prefunding of OPEB. The 4.00% and 4.50% are within the allowed GASB range.
- Prefunding OPEB through a trust is illustrated in the 7.75% interest rate scenario, reflecting the expected rate of return on the investments in trust. The final interest rate used will be determined by the City and outside auditors.

Actuarial Valuation Results

Generally, the valuation results emphasize the Annual Required Contribution (ARC). Ideally a government should meet the ARC in order to reduce its OPEB accrued liability. Based on the range of interest rates, the valuation calculates the <u>ARC</u> at \$53 million, \$49 million, and \$33 million. The higher the interest rate, the lower the ARC because of the higher interest earned on the investment in trust. The scenarios show a combined accrued liability of \$524 million, \$337 million, and \$295 million. The calculated annual benefit payments are \$10 million for each of the three scenarios. See Table 1.

Annual Required Contributions (ARC)

The Annual Required Contributions consist of two components: 1) the Normal Cost at Year End, which is the portion of the City provided benefit attributable to employee service in the <u>current year</u> and 2) the Amortization (over 20 years for the Oakland calculation) of Unfunded

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Actuarial Accrued Liability (UAAL), which is the present value of the benefits that were earned from and attributed to past service. The UAAL is a result of not funding OPEB in prior years. Should the City Council elect not to prefund a trust, the Annual Required Contributions are \$53 million, which is the sum of the Normal Cost \$23 million and Amortization of UAAL \$30 million (amortized over 20 years). See Table 1.

Financial Statement Disclosures

The City is required to disclose the net OPEB liability at the end of each year. By meeting the ARC, the City can eliminate disclosing an OPEB liability. Following the same example of the combined summary, the financial statement disclosures would be as follows:

The reportable liability disclosure is the difference between the ARC, the annual benefit payments, and any additional funds set aside (i.e., prefunding). See Table 1. Therefore, the Net OPEB Obligation (i.e., annual liability) at year end is \$43 million, \$39 million, and \$0 for each scenario respectively. The 4.00% and 4.50% interest rate scenarios show a net OPEB Obligation because there is no prefunding plan. Under these scenarios the only cash layout is the Annual benefits paid of \$10 million. On the other hand, under the 7.75% interest rate scenario the City pays the annual \$10 million in annual benefits and prefunds OPEB by setting-aside an additional \$23 million in a trust to achieve the Annual Required Contribution of \$33 million to close the gap and eliminate the liability.

Under the 4.00% scenario the reporting disclosure would be an annual liability of \$43 million. The required disclosure is cumulative after the first year. Therefore, if the City Council elects not to prefund OPEB in 2007-2008, then the net OPEB liability carries forward into the 2008-2009. See the table below illustrating the required annual disclosures for the next two fiscal years assuming the current valuation assumptions have not changed, which include a 3.25% annual increase in payroll.

Required Annual Disclosure for Year 1 and Year 2. Liability/Obligation is cumulative.

Interest Rate	2007-08 - Y1	2008-09 - Y2
4.00%	\$43M	\$87.4M
4.50%	\$39M	\$79.3M
7.75%	-	-

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FMA: OPEB Actuarial Valuation

Table 1.

City of Oakland (Combined Police, Fire and Municipal Employees)

GASB 45 Valuation

Valuation Results as of July 1, 2006 7.75% Interest Rate 4.50% Active employees 3,640 3,640 3,640 Retirees 2,410 2,410 2,410 **Total Participants** 6,050 6,050 6,050 \$295,000,000 Actuarial Accrued Liability \$524,000,000 \$337,000,000 Assets Unfunded Actuarial Accrued Liability \$524,000,000 \$337,000,000 \$295,000,000 Normal Cost at year-end \$23,000,000 \$22,000,000 \$10,000,000 Annual Required Contribution (GASB 45) \$53,000,000 \$49,000,000 \$33,000,000 Annual benefit payments \$10,000,000 \$10,000,000 \$10,000,000 Financial Statement Disclosures if Adopted for the 2006-2007 Fiscal Year 4.00% 4.50% 7.75% Interest Rate **Determination of Annual Required Obligation** Normal Cost at year end \$23,000,000 \$22,000,000 \$10,000,000 Amortization of UAAL 30,000,000 27,000,000 23,000,000 Annual Required Contribution (ARC) \$53,000,000 \$49,000,000 \$33,000,000 **Determination of Net OPEB Obligation** Annual Required Contribution \$49,000,000 \$33,000,000 \$53,000,000 Interest on prior year Net OPEB Obligation 0 Adjustment to ARC Annual OPEB Cost 53,000,000 49,000,000 33,000,000 10,000,000 Benefit payments* 10,000,000 10,000,000 Contributions in excess of benefit payments 23,000,000 Increase in Net OPEB Obligation 43,000,000 39,000,000 Net OPEB Obligation - beginning of year \$0 \$0 \$0 Net OPEB Obligation - end of year \$43,000,000 \$39,000,000 **\$**0

Results shown are excerpted from the GASB 45 actuarial valuations of post-employment benefits other than pensions for the municipal, police and fire employees of the City of Oakland. These results are dependent on the plan provisions, data and actuarial methods and assumptions described in the full reports and should be viewed only in the context of such supporting information. All caveats, qualifications and restrictions applicable to and described in the full reports apply to this summary.

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^{*} Estimated benefit payments for 2006/07

Prefunding the City's OPEB

In order to reduce the liability, the City must meet its Annual Required Contributions. The City relies on the pay-as-you-go method as most governments in California. Therefore, in order to reduce its OPEB liability, the City must fund future and accumulated OPEB costs by setting aside funds in a trust. Setting aside monies to fund future and accumulated costs is also referred to as "prefunding". Prefunding is depositing assets in advance of their actual need in order to cover the accumulated and future costs. Typically, prefunding is linked to the deposit of assets into an irrevocable trust account with investment earnings increasing available funds over time. The higher the rate of return on monies in trusts, the lower the City's requirement to meet its OPEB liability. See the table below illustrating the required Contributions In Excess of Annual Benefit Payments (i.e., set-aside) to eliminate OPEB liabilities.

To Eliminate Liability a Trust Must Be Established With Excess Contributions*

	7.75%
Annual Required Contribution	\$33M
Annual Benefit Payments	\$10M
*Contributions in Excess of Annual Benefit	
payments	\$23M
Increase in Net OPEB Obligation	-
Net OPEB Obligation-beginning of year	
Net OPEB Obligation-end of year	-

Credit Implications

GASB 45 is causing investors and rating agencies to question how public employers will address the funding challenges of future OPEB benefits. City staff has discussed the potential impacts of GASB 45 on the City's credit with a number of members of the financial community. There appears to be a general consensus in the financial community that the actuarially-determined liability figures are rough estimates, at best, given the unknowns of future medical and medical insurance costs. There is also a general understanding that it is not reasonable to expect all government employers to be able to immediately begin funding their OPEB liabilities.

In addition, experts tend to agree that employers should not rush to issue debt in order to fund their UAAL, as this will convert a "soft" (roughly estimated) liability into a hard liability (annual debt service payments). Experts in the financial community recommend that public employers take a prudent approach by beginning to fund their liabilities as soon as it is reasonable. Rating agencies expect governments to develop plans to address the issue and ensure that benefits are affordable to governments and also competitive and sufficient to meet the employee needs. City staff has informally discussed plans to identify, evaluate, and potentially restructure those benefits which drive costs.

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FMA: OPEB Actuarial Valuation

Next Steps

There are two areas that merit further analysis before selecting a policy on how to address OPEB. Local governments are working to better ascertain the cost drivers in the valuation. It is critical that staff create an in-depth analysis of the cost drivers and to identify a range of potential cost saving measures in order to present recommendations to the City Council for consideration. The City has retained a consultant, under the City Administrator's expenditure authority, to review cost drivers and the feasibility of potential cost saving options such as employee participation.

SUSTAINABLE OPPORTUNITIES

Economic: There are no economic opportunities identified in with this informational report.

Environmental: There are no environmental impacts associated with this informational report.

Social Equity: No social equity opportunities have been identified.

DISABILITY AND SENIOR CITIZEN ACCESS

There are no ADA or senior access issues contained in this report.

RECOMMENDATION(S) AND RATIONALE

Staff recommends that the City Council accept the report on the status of the City of Oakland's GASB 45 obligations. Staff will proceed with its review of cost drivers and the feasibility of potential cost savings measures. Staff will return to Council with an update in June 2008.

ACTION REQUESTED OF THE CITY COUNCIL

Staff recommends that the City Council accept this informational report on the status of the City of Oakland's GASB 45 obligations.

Respectfully submitted,

William E. Noland

Director, Finance and Management Agency

Prepared by: Myrna Lopez

Principal Financial Analyst

Attachments:

Actuarial Summary

Actuarial Sworn Fire

Actuarial Sworn Police

Actuarial Non-sworn City of Oakland Municipal Employees

APPROVED AND FORWARDED TO THE

FINANCE AND MANAGEMENT COMMITTEE:

Office of the City Administrator

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111 SW Fifth Avenue, Suite 3700 Portland, OR 97204-3604 Tel 503 227.0634 Fax 503 227.7956 www.miltiman.com

October 29, 2007

Yvonne Hudson Manager, Retirement and Benefit City of Oakland Retirement System 150 Frank H. Ogawa Plaza, 3rd Floor Oakland, California 94612

City of Oakland
GASB 45 Actuarial Valuation of Post Employment Benefits as of July 1, 2006

Dear Yvonne:

Attached is an exhibit containing summarized results from the actuarial valuations of postemployment benefits other than pensions that we prepared for the police, fire and municipal employees of the City of Oakland. Results shown are excerpted from the separate GASB 45 actuarial valuations that we prepared for each group. These summary results are dependent on the plan provisions, data and actuarial methods and assumptions described in our full reports and should be viewed only in the context of such supporting information. All caveats, qualifications and restrictions applicable to and described in our full reports apply to this summary.

If you have any questions, please give me a call at (503) 227-0634.

Sincerely

Christopher R. (Tiff) Wood, ASA, MAAA

Principal and Consulting Actuary

CRW:tah

enc.

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City of Oakland (Combined Police, Fire and Municipal Employees) GASB 45 Valuation Results

Va	luatio	n R	Lesuits	as c	n,	July	1, 2006	

Interest Rate	- 4.00%	4.50%	7.75%
Active employees	3,640 ·	3,640 2,410	3,640
Retirees	<u>2,410</u> 6,050	<u>2,410</u> 6,050	2,410 6,050
Total Participants	6,020	. 0,030	0,030
Actuarial Accrued Liability	\$524,000,000	\$481,000,000	\$295,000,000
Assets	<u>0</u>	<u>0</u>	<u>0</u>
Unfunded Actuarial Accrued Liability	\$524,000,000	\$481,000,000	\$295,000,000
Normal Cost at year-end	\$23,000,000	\$22,000,000	\$10,000,000
Annual Required Contribution	\$53,000,000	\$49,000,000	\$33,000,000
Annual benefit payments	\$10,000,000	\$10,000,000	\$10,000,000
Financial Statement Disclosure	s if Adopted for the 20	06-2007 Fiscal Yea	r
Interest Rate	4.00%	4.50%	7.75%
Determination of Annual Required			
Contribution			
Normal Cost at year end	\$23,000,000	\$22,000,000	\$10,000,000
Amortization of UAAL	<u>30,000,000</u>	<u>27,000,000</u>	23,000,000
Annual Required Contribution (ARC)	\$53,000,000	\$49,000,000	\$33,000,000
Determination of Net OPEB Obligation	•		
Annual Required Contribution	\$53,000,000	\$49,000,000	\$33,000,000
Interest on prior year Net OPEB Obligation	0	- 0	0
Adjustment to ARC	. <u>0</u>	<u>0</u>	<u>0</u>
Annual OPEB Cost	53,000,000	49,000,000	33,000,000
Benefit payments*	10,000,000	10,000,000	10,000,000
Contributions in excess of benefit payments	<u>o</u>	. 0	23,000,000
Increase in Net OPEB Obligation	43,000,000	39,000,000	0
Net OPEB Obligation beginning of year	\$0	\$0	\$0
Net OPEB Obligation - end of year	\$43,000,000	\$39,000,000	. \$0

^{*} Estimated benefit payments for 2006/07

Results shown are excerpted from our GASB 45 actuarial valuations of post-employment benefits other than pensions for the municipal, police and fire employees of the City of Oakland. These results are dependent on the plan provisions, data and actuarial methods and assumptions described in our full reports and should be viewed only in the context of such supporting information. All caveats, qualifications and restrictions applicable to and described in our full reports apply to this summary.

City of Oakland Fire GASB 45 Valuation Results

Valuation Results as of July 1

Interest Rate	4.00%	4.50%	7.75%
Automore Torres			440
Active employees	448	448	448
Retirees	621	. 621	<u>621</u>
Total Participants	1,069	1,069	1,069
Actuarial Accrued Liability	\$118,000,000	\$109,000,000	\$68,000,000
Assets	· <u>0</u>	<u>0</u>	<u>0</u>
Unfunded Actuarial Accrued Liability	\$118,000,000	\$109,000,000	\$68,000,000
Normal Cost at year-end	\$4,000,000	\$4,000,000	\$2,000,000
Annual Required Contribution	\$11,000,000	\$10,000,000	\$7,000,000
Annual benefit payments	\$3,000,000	\$3,000,000	\$3,000,000
Interest Rate	4.00%	4.50%	7.75%
Determination of Annual Required	4.0070	4.5070	1.7370
Contribution			
Normal Cost at year end	\$4,000,000	\$4,000,000	\$2,000,000
Amortization of UAAL	7,000,000	6,000,000	5,000,000
Annual Required Contribution (ARC)	\$11,000,000	\$10,000,000	\$7,000,000
Determination of Net OPEB Obligation	,		
Annual Required Contribution	\$11,000,000	\$10,000,000	\$7,000,000
Interest on prior year Net OPEB Obligation		0	0
	. 0	v	V
Adjustment to ARC	<u>0</u>	<u>0</u>	·
· ·	•	•	<u>0</u>
Annual OPEB Cost	<u>0</u> 11,000,000	0 10,000,000	7,000,000
Annual OPEB Cost Benefit payments*	<u>o</u>	<u>0</u>	7,000,000 3,000,000
Annual OPEB Cost Benefit payments* Contributions in excess of benefit payments	11,000,000 3,000,000	0 10,000,000 3,000,000	7,000,000 3,000,000 <u>4,000,000</u>
Adjustment to ARC Annual OPEB Cost Benefit payments* Contributions in excess of benefit payments Increase in Net OPEB Obligation Net OPEB Obligation beginning of year	11,000,000 3,000,000 <u>0</u>	0 10,000,000 3,000,000 <u>0</u>	7,000,000 3,000,000 4,000,000 0

^{*} Estimated benefit payments for 2006/07

Results shown are excerpted from our GASB 45 actuarial valuation of post-employment benefits other than pensions for the International Association of Firefighters Local 55. These results are dependent on the plan provisions, data and actuarial methods and assumptions described in our full report and should be viewed only in the context of such supporting information. All caveats, qualifications and restrictions applicable to and described in our full report apply to this summary.

City of Oakland Police GASB 45 Valuation Results

ults as o	f July	1, 2006
	ults as o	alts as of July

Interest Rate	4.00%	4.50%	7.75%
Active employees	705	705	705
Retirees	<u>691</u>	<u>691</u>	<u>691</u>
Total Participants	1,396	. 1,396	1,396
Actuarial Accrued Liability	\$176,000,000	\$160,000,000	\$96,000,000
Assets	<u>0</u>	<u>0</u>	<u>0</u>
Unfunded Actuarial Accrued Liability	\$176,000,000	\$160,000,000	\$96,000,000
Normal Cost at year-end	\$6,000,000	\$6,000,000	\$2,000,000
Annual Required Contribution	\$16,000,000	\$15,000,000	\$10,000,000
Annual benefit payments	\$3,000,000	\$3,000,000	\$3,000,000
Interest Rate	4.00%	4.50%	7.75%
Interest Rate	4.00%	4.50%	7.75%
Determination of Annual Required			
Contribution		*****	
Normal Cost at year end	\$6,000,000	\$6,000,000	\$2,000,000
Amortization of UAAL	10,000,000	9,000,000	8,000,000
Annual Required Contribution (ARC)	\$16,000,000	\$15,000,000	\$10,000,000
Determination of Net OPEB Obligation	•		
Annual Required Contribution	\$16,000,000	\$15,000,000	\$10,000,000
Interest on prior year Net OPEB Obligation	. 0	0	0
Adjustment to ARC	<u>0</u>	<u>0</u> .	<u>0</u>
Annual OPEB Cost	16,000,000	15,000,000	10,000,000
Benefit payments*	3,000,000	3,000,000	3,000,000
Contributions in excess of benefit payments	<u>0</u>	<u>0</u>	7,000,000
Increase in Net OPEB Obligation	13,000,000	12,000,000	0
Net OPEB Obligation - beginning of year	\$0	\$0	\$0
Net OPEB Obligation - end of year	\$13,000,000	\$12,000,000	\$0

^{*} Estimated benefit payments for 2006/07.

Results shown are excerpted from our GASB 45 actuarial valuation of post-employment benefits other than pensions for the Oakland Police Officers Association. These results are dependent on the plan provisions, data and actuarial methods and assumptions described in our full report and should be viewed only in the context of such supporting information. All caveats, qualifications and restrictions applicable to and described in our full report apply to this summary.

City of Oakland Municipal Employees GASB 45 Valuation Results

Valuation	Results	as of	July	1,2006

Interest Rate	4.00%	4,50%	7.75%
Active employees	2,487	2,487	2,487
Retirees	1,098	1,098	1,098
Total Participants	3,585	3,585	3,585
Tour Participants	5,505	5,503	5,505
Actuarial Accrued Liability	\$230,000,000	\$212,000,000	\$131,000,000
Assets	0	0	<u>0</u>
Unfunded Actuarial Accrued Liability	\$230,000,000	\$212,000,000	\$131,000,000
Normal Cost at year-end	\$13,000,000	\$12,000,000	\$6,000,000
Annual Required Contribution	\$26,000,000	\$24,000,000	\$16,000,000
Annual benefit payments	\$4,000,000	\$4,000,000	\$4,000,000
			•
Financial Statement Disclosures	if Adopted for the 20	106-2007 Fiscal Yea	r
Interest Rate	4.00%	4.50%	7.75%
Determination of Annual Required			
Contribution			
Normal Cost at year end	\$13,000,000	\$12,000,000	\$6,000,000
Amortization of UAAL	13,000,000	12,000,000	10,000,000
Annual Required Contribution (ARC)	\$26,000,000	\$24,000,000	\$16,000,000
Determination of Net OPEB Obligation			
Annual Required Contribution	\$26,000,000	\$24,000,000	\$16,000,000
Interest on prior year Net OPEB Obligation	0	0	0
Adjustment to ARC	<u>0</u>	<u>0</u>	<u>0</u>
Annual OPEB Cost	26,000,000	24,000,000	16,000,000
Benefit payments*	4,000,000	4,000,000	4,000,000
Contributions in excess of benefit payments	<u>0</u>	<u>0</u>	12,000,000
Increase in Net OPEB Obligation	22,000,000	20,000,000	0
Net OPEB Obligation – beginning of year	so so	\$0	\$0
Net OPEB Obligation - end of year	\$22,000,000	\$20,000,000	\$0

^{*} Estimated benefit payments for 2006/07

Results shown are excerpted from our GASB 45 actuarial valuation of post-employment benefits other than pensions for the Municipal Employees of the City of Oakland. These results are dependent on the plan provisions, data and actuarial methods and assumptions described in our full report and should be viewed only in the context of such supporting information. All caveats, qualifications and restrictions applicable to and described in our full report apply to this summary.



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October 29, 2007

Yvonne Hudson Manager, Retirement and Benefit City of Oakland Retirement System 150 Frank H. Ogawa Plaza, 3rd Floor Oakland, California 94612

City of Oakland – Fire Employees GASB 45 Actuarial Valuation of Post Employment Benefits as of July 1, 2006

Dear Yvonne:

We are pleased to enclose the above titled actuarial report for the City of Oakland. If you have any questions, please give me a call at (503) 227-0634.

Sincerely

Christopher R. (Tiff) Wood, ASA, MAAA

Principal and Consulting Actuary

CRW:tah

enc.

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City of Oakland

GASB 45 Actuarial Valuation of
Post Employment Benefits Other than Pensions for Fire Employees
As of July 1, 2006

Prepared by: -

Christopher R. (Tiff) Wood

October 29, 2007



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October 29, 2007

City of Oakland 150 Frank H. Ogawa Plaza, 3rd Floor Oakland, CA 94612

City of Oakland – Fire Employees

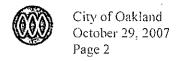
GASB 45 Actuarial Valuation of Post Employment Benefits as of July 1, 2006

At the request of the City of Oakland, we have completed an actuarial valuation of post employment benefits as of July 1, 2006.

The purpose of this report is to determine the Annual Required Contribution and required financial disclosures under the Governmental Accounting Standards Board Statement No. 45 – Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions (GASB 45). Our determinations reflect the procedures and methods prescribed in GASB 45.

In preparing our report, we relied on financial information and employee data furnished to us by the City of Oakland and CalPERS. While Milliman has not audited the financial and census data, they have been reviewed for reasonableness and are, in our opinion, sufficient and reliable for the purposes of our calculations. If any of this information as summarized in this report is inaccurate or incomplete, the results shown could be materially affected and this report may need to be revised.

The actuarial cost method and assumptions used as well as the supporting data and principal plan provisions upon which the valuation is based are set forth in the following report. The assumptions and cost method were selected to satisfy CalPERS' required assumptions and methods for funding agency OPEB liabilities through CalPERS newly established OPEB trust. In our opinion, all assumptions and methods used in this valuation are reasonable for this purpose and fall within a best estimate range of assumptions. The values provided in this report are estimates only. They represent results if actual experience exactly matches the assumptions used. Actual experience will likely differ and continued monitoring of experience should be performed and adjustments made to the assumptions as necessary. The actuarial computations under GASB 45 are for purposes of fulfilling employer accounting requirements. The calculations reported herein have been made on a basis consistent with our understanding of GASB 45. Determinations for purposes other than meeting employer financial accounting requirements may be significantly



different from the results reported herein. Reliance on information contained in this report by anyone for anything other than the intended purpose puts the relying entity at risk of being misled.

This report has been prepared for use by the City of Oakland for the purposes described herein. Accordingly, this report may not be distributed to any third party outside the City without Milliman's written consent unless public disclosure is required by law. If distribution of the report is made outside the City, the report must be provided in its entirety. This report is a complex, technical analysis that assumes a high level of knowledge concerning the City of Oakland's operations, and uses the City of Oakland's data, which Milliman has not audited. Any third party recipient of Milliman's work product who desires professional guidance should not rely upon Milliman's work product, but should engage qualified professionals for advice appropriate to its own specific needs.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, the report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the applicable Actuarial Standards of Practice of the American Academy of Actuaries. The undersigned is a member of the American Academy of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Sincerely,

Christopher R. (Tiff) Wood, ASA, MAAA Principal and Consulting Actuary

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SECTION I. MANAGEMENT SUMMARY

Introduction

Milliman, Inc. ("Milliman") has been retained by the City of Oakland ("the City") to provide a GASB 45 actuarial valuation of its post employment benefit (OPEB) plans. This valuation covers Fire employees and retirees. The valuations of Police & Civilian employees are shown in separate reports. In our valuation we:

- Project expected benefit payouts
- Calculate the present value of total benefits
- Calculate the actuarial accrued liability (present value of benefits attributable to past service) in accordance with the actuarial cost method described in this report
- Determine the Annual Required Contribution (ARC) and annual OPEB expense under GASB Statement No. 45
- Prepare the financial statement disclosures relating to the funded status of the plan

Background

Retirees are eligible for retiree health benefits if they meet certain requirements relating to age and service. The retiree health benefits are described in labor agreements between the City of Oakland and the International Association of Firefighters Local 55 and in City resolutions, as provided to Milliman. Appendix A provides a detailed summary of benefits.

Assumptions

With any valuation of future benefits, assumptions of anticipated future events are required. If actual events differ from the assumptions made, the actual cost of the plan will vary as well. The following assumptions should be reviewed for appropriateness.

Discount Rate. GASB 45 requires that the interest rate used to discount future benefit payments back to the present be based on the expected rate of return on any investments set aside to pay for these benefits. If no funds are set aside for this purpose, the discount rate would be based on the expected return on the City's operating funds. If the annual OPEB cost is set aside in a separate, irrevocable trust each year, the discount rate would be based on the expected return on investments held in the trust. For this valuation, we have used a discount rate of 4.0% based on a conservative investment policy for the City's operating funds. For comparison purposes, we have also shown certain results using a 4.5% discount rate in order to indicate the sensitivity of results to this assumption and because rates have increased somewhat over the past 12 months. The City has indicated that it may fund its GASB OPEB liabilities by contributing to a trust established by CalPERS for this purpose. As a result, we have also shown valuation results using a discount rate of 7.75% based on the expected return on funds invested by CalPERS. However, a higher or lower discount rate may ultimately be more appropriate depending on the funding and investment policies the City establishes for its GASB 45 liabilities.



SECTION I. MANAGEMENT SUMMARY

<u>Health Cost Trend.</u> We have assumed health costs will increase 9% in the first year (from the 2007 premium year to the 2008 premium year), 8% the next year, and grading down 1% per year, to 5% per year after the fourth year.

<u>Demographic Rates</u>. We are using the same rates as the California Public Employees Retirement System (PERS) in their actuarial valuations of retirement benefits under a 3% @ 50 formula for Fire employees.

A complete summary of the actuarial assumptions is presented in Appendix B.

Selection/Approval of Actuarial Assumptions

An actuarial valuation of post-employment benefits includes estimates of uncertain future events. We have developed a set of economic and demographic actuarial assumptions to anticipate future plan experience. In our opinion, these assumptions fall within a best estimate range of future plan experience. Ultimately, the City and its auditor must select/approve the set of actuarial assumptions used in reporting liabilities on its financial statements.

Results of Study

The valuation results are summarized in the following exhibit and use the following terms:

The Present Value of Benefits is the present value of projected benefits discounted at the valuation interest rate.

The Actuarial Accrued Liability (AAL) is the present value of benefits that are attributed to past service only. The portion attributed to future employee service is excluded. For retirees, this is equal to the present value of benefits. For active employees, the actuarial present value of the projected benefits of each individual is allocated as a level percentage of expected salary for each year of employment between entry age (defined as age at hire) and assumed exit (until maximum retirement age). The portion attributed to service between entry age and the valuation date is the actuarial accrued liability.

The Normal Cost is that portion of the City provided benefit attributable to employee service in the current year.

The Annual Required Contribution (ARC) is equal to the Normal Cost plus an amount to amortize the unfunded AAL over a period of 10 to 30 years. This is the amount the City would be required to report as an expense each year under GASB 45 assuming the amount is fully funded. Note, the ARC represents an accounting expense, but the City is not required to contribute the ARC to a separate trust. If the City does not set aside funds equal to the ARC each year, then the Annual OPEB Expense (less actual benefit payments) will accumulate as a liability (Net OPEB Obligation) on the City's balance sheet.



	July 1, 2006
Participants Active employees Retirees Total	448 <u>621</u> 1,069
Valuation Interest Rate	4.00%
Present Value of Benefits	\$ 175,578,760
Actuarial Accrued Liability Assets Unfunded Actuarial Accrued Liability	\$ 118,173,488 0 \$ 118,173,488
Normal Cost (End of Year)	\$ 4,486,617
Annual Required Contribution (ARC)	\$ 11,063,299
Covered Payroll	n/a
ARC as % of Payroll	ın/a
Expected Annual Benefit Payments (2006-2007)	\$ 2,680,299

Variability of Results

The results contained in this report represent our best estimates. However, variation from these or any other estimates of future retiree medical costs is not only possible but probable. Actual future costs may vary significantly from estimates in this report.

Valuation results are particularly sensitive to the assumptions used to project future health plan cost increases (medical inflation trend) and to discount projected benefits to the present (discount rate). While Exhibits 1 through 5 show the valuation results based on the discount rate of 4.00%, Exhibit 6 shows a comparison of valuation results based on best estimate assumptions and on alternate discount rates.



Exhibit 1. Projected Retirees and Benefit Payments

The table below illustrates the projected pay-as-you-go City costs of providing retiree health benefits. The projections only consider the closed group of existing employees and retirees and is based on the current labor agreements.

Year	Fiscal Year Current r Ending 6/30 Retirees			
. 1	2007	\$ 2,629,344	\$ 50,955	\$ 2,680,299
2	2008	2,843,432	130,019	2,973,451
3	2009	3,053,299	232,478	3,285,777
4	2010	3,255,716	355,116	3,610.832
5	2011	3,457,225	481.948	3,939,173
6	2012	3,637,935	631,351	4,269,286
7	2013	3,830,339	787,215	4,617,554
8	2014	3,978,327	960,036	4,938,363
9	2015	4,118,483	1,171,577	5,290,060
10	2016	4,212,016	1,386,184	5,598,200
. 11	2017	4,296,277 .	1,625,789	5,922,066
12	2018	4,358,339	1,892,463	6,250,802
13	2019	4,392,185	2,177,061	6,569,246
14	2020	4.417,438	2,515,230	6,932,668
15	2021	4,437,415	2,875.484	7,312,899
16	2022	4,422,307	3.246.092	7,668,399
17	2023	4,411,530	3,617,844	8,029,374
18	2024	4,382,206	4,013,341	8,395,547
19	2025	4,315,710	4,483.925	8,799,635
20	2026	4,246,808	4,959,346	9,206,154



Exhibit 2. Liabilities and Normal Cost

The **Present Value of Benefits** is the actuarial present value of benefits expected to be paid for all retirees and covered employees.

The Actuarial Accrued Liability (AAL) is the present value of benefits that are attributed to past service only. The portion attributed to future employee service is excluded. For retirees, this is equal to the present value of benefits. For active employees, the actuarial present value of the projected benefits of each individual is allocated as a level percentage of expected salary for each year of employment between entry age (defined as age at hire) and assumed exit (until maximum retirement age). The portion attributed to service between entry age and the valuation date is the actuarial accrued liability.

The **Normal Cost** is the actuarial present value of benefits attributed to one year of service. The Entry Age Normal cost method as described in Appendix A was used to determine the normal cost in this valuation. Since retirees are not accruing any more service, their normal cost is zero.

	July 1, 2006
Present Value of Benefits	
Active employees	\$ 101,944,157
Retirees	73.634.603
Total	\$ 175,578,760
Actuarial Accrued Liability	
Active employees	\$ 44.538,885
Retirees	73.634.603
Total .	\$118,173,488
Normal Cost (End of Year)	\$ 4.486.617



Exhibit 3. Unfunded Actuarial Accrued Liability

The Unfunded Actuarial Accrued Liability (UAAL) is the actuarial liability offset by any assets set aside to provide retiree health benefits. This is equal to the value of the retiree health benefits accrued to date that has not been funded. The UAAL must be amortized over a period of 10 to 30 years and included in the ARC amount (shown in Exhibit 4) each year. For illustrative purposes, we have calculated the amortization of UAAL as a level percentage of payroll over 20 years. This means the amortization amount would be expected to increase at approximately the same rate as payroll increases each year. We have assumed the City's payroll will increase 3.25% per year for this purpose.

	July 1, 2006
Unfunded Actuarial Accrued Liability (UAAL)	
Actuarial Accrued Liability	\$ 118,173,488
Assets	0
Unfunded Actuarial Accrued Liability	\$ 118,173,488
Funded percentage	0.00%
Amortization of UAAL for ARC	
UAAL	\$ 118,173,488
Amortization Period	20 years
Level % of Payroll Amortization Factor	18.6873
Amortization Amount – July 1, 2006	\$ 6,323,733
Interest to June 30, 2007	\$ 252,949
Amortization Amount – June 30, 2007	\$ 6,576,682



Exhibit 4. Required Financial Statement Disclosures

The following table shows the calculation of the Annual Required Contribution and Net OPEB Obligation if the City were to adopt GASB 45 for the 2006-2007 fiscal year. The City must adopt GASB 45 no later than the 2007-2008 fiscal year.

		For the Fisca	l Year Endi	ng
	June 30, 2007		June 30, 2000	
Determination of Annual Required Obligation				•
Normal Cost at fiscal year end	\$	4,486,617	\$	n/a
Amortization of UAAL		6.576.682		n/a
Annual Required Contribution (ARC)	`\$	11,063,299	\$	n/a
Determination of Net OPEB Obligation				•
Annual Required Contribution	\$	11,063,299	\$	n/a
Interest on prior year Net OPEB Obligation		0		n/a
Adjustment to ARC		0		n/a
Annual OPEB Cost		11,063,299		n/a
Contributions made *		2.680.299		n/a
Increase in Net OPEB Obligation	. \$	8,383,000	\$	n/a
Net OPEB Obligation – beginning of year	\$	0	\$	n/a
Net OPEB Obligation – end of year	\$	8,383,000	\$	n/a

^{*} For illustration purposes, we have shown contributions to be equal to expected benefit payments during the 2006-07 fiscal year. GASB 45 defines contributions for this purpose to be actual benefit payments during the year and contributions made to a separate, irrevocable trust.

The following table shows the annual OPEB cost and net OPEB obligation for the prior 3 years.

Fiscal Year Ended	Annual OPEB Cost	Percentage of OPEB Cost Contributed	Net OPEB Obligation
06/30/2005	n/a	n/a	n/a
06/30/2006	n/a	n/a	n/a
06/30/2007	\$11,063,299	24.2%	\$8,383,000

Funded Status and Funding Progress. As of July 1, 2006, the most recent actuarial valuation date, the plan was zero percent funded. The actuarial accrued liability for benefits was \$118.2 million, and the actuarial value of assets was zero, resulting in an unfunded accrued liability of \$118.2 million.

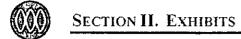


Exhibit 5. Required Supplementary Information

The following table shows a schedule of Funding Progress required under GASB 45 if the City were adopt GASB 45 for the 2006-2007 fiscal year. The City must adopt GASB 45 by the 2007-2008 fiscal year.

Actuarial Valuation Date	Actuarial Value of Assets	AAL Entry Age	UAAL	Funded Ratio	Covered Payroll	UAAL as a % of Cov. Payroll
07/01/2004	n/a	n/a	n/a	n/a	n/a	· n/a
07/01/2005 07/01/2006	n/a \$0	n/a \$118.173,488	n/a \$118,173,488	n/a 0.0%	n/a n/a	n/a n/a



Exhibit 6. Valuation Results - Alternate Discount Rates

The following exhibit shows the results of the valuation based on alternative discount rates of 4.0%, 4.5% and 7.75%. The discount rate is used to calculate the present value of expected future benefit payments. The lower the discount rated used, the higher the present value will be. GASB 45 requires that the discount rate be reflective of the assets used to pay benefits. For unfunded OPEB liabilities, the rate would be the expected return on the City's general funds. For funded OPEB liabilities (ARC set aside in a separate trust each year), the discount rate would be the expected return on assets invested in such a trust. A higher expected return and discount rate would result a much lower OPEB liability and ARC for the City. To illustrate the effect of alternative discount rates on liabilities and costs, the following table shows a comparison of valuation results based on discount rates of 4.0% and 4.5% both for no advanced funding, and 7.75% (funding through contributions to CalPERS trust):

		4.00%		4.50%		7.75%
Actuarial Accrued Liability	\$	118,173,488	\$	108,893,495	· \$	68,268,460
Assets		0	_	0	_	0
Unfunded Actuarial Accrued Liability	\$	118,173,488	\$	108,893,495	\$	68,268,460
Amortization Period		20 Years		20 Years		20 Years
Level % of Payroll Amortization Factor		18.6873		17.8824		13.7430
Amortization Amount – July 1, 2006	. \$	6,323,733	. \$	6,089,423	\$	4,967,508
Interest to June 30, 2007	\$	252,949	\$.274,024	\$. 384,982
Amortization Amount – June 30, 2007	\$	6,576,682	\$	6,363,447	\$	5,352,490
Normal Cost at End of Year	\$	4,486,617	\$	3,919,957	\$	1,723,277
Annual Required Contribution (ARC)	\$	11,063,299	\$	10,283,404	\$	7,075,767
ARC as a % of Payroll		n/a		n/a	•	n/a
Expected Benefit Payment	\$	2,680,299	\$	2,680,299	\$	2,680,299
Required Amount Funded to Trust	\$	8,383,000	\$	7,603,105	\$	4,395,468



Appendix A. Summary of Benefits

The following description of retiree health benefits is intended to be only a brief summary. For details, reference should be made to Summary Plan Descriptions, Plan Documents, and employee booklets.

Eligibility

Retirees are eligible if they:

- retired directly from the City of Oakland;
- are vested in CalPERS; and
- retired on or after age 50, with 10 years of service with the City of Oakland Fire Department.

In addition, retirees receiving a disability or industrial disability retirement benefit from CalPERS are eligible.

Benefits

Uniformed Fire retirees are eligible to receive coverage under CalPERS medical plans for life. Surviving spouses of retirees are also covered if the retiree elects a CalPERS pension benefit payable for the life of the survivor. Dependents may be covered under the medical plan so long as the eligible retiree or spouse is alive.

The City pays CalPERS a fixed amount per month based on the level of coverage elected by the retiree or surviving spouse. The retiree or surviving spouse is responsible for the remainder of the medical premium. The City contribution rates for 2007 are as follows:

Level of Coverage	Fire Contribution
One-party	\$223.06
Two-party	434.90
Multi-party	564.14

Annual increases to the fixed Fire Contribution amounts above are determined to be 5% of the following calendar year's 2nd highest monthly premium among all available "Bay Area" plans, for the given level of coverage.

Widows or widowers of uniformed officers killed in the line of duty have their full medical premiums paid for by the City for life. Other widows or widowers are eligible for medical coverage if they are eligible for an immediate CalPERS pension.



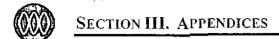
Appendix A. Summary of Benefits (continued)

Health Plan Premiums

The following table shows monthly retiree health insurance premiums for the 2007 premium year for coverage under the CalPERS Health Plan for the Bay Area:

•	Monthly Premium Rates – 2007			
•	Single		2-P	arty
	Under 65	Over 65	Under 65	Over 65
Plans				
Blue Shield HMO	\$484.21	\$318.95	\$968.42	\$637.90
Kaiser Permanente	431.17	289.68	862.34	579.36
PERSCare	769.50	371.68	1,539.00	743.36
PERSChoice	455.18	341.75	910.36	683.50

Since the CalPERS Health Plan is a community rated health plan, we have not included in our valuation the value of any implicit rate subsidy for retirees whose premium rates are the same as active employees.



Appendix B. Actuarial Cost Method and Assumptions

Actuarial Methods

A fundamental principle in financing the liabilities of a retirement program is that the cost of its benefits should be related to when those benefits are earned, rather than to when they are paid. There are a number of methods for making such a determination.

The actuarial cost method used to calculate the funding requirements of the Plan is called the **Individual Entry Age Normal** cost method, with normal cost expressed as a level percentage of covered Compensation.

Under this cost method, the normal cost is the sum of the individual normal costs for all participants. This method allocates the actuarial present value of projected benefits over the service of each active participant from date of entry into the Plan until the assumed date of exit from the Plan, as a level percentage of the projected salary. This level percentage is referred to as the normal cost rate. It is calculated by dividing the actuarial present value of projected benefits at entry age by the actuarial present value of the projected salary at entry age. Multiplying the normal cost rate by the projected salary for the current year yields the normal cost for that year. The normal cost equals \$0 for inactive participants.

The actuarial liability is the sum of the individual actuarial liabilities for all participants. The individual actuarial liability equals the actuarial present value of all projected future benefits less the actuarial present value of all future normal costs, where both of these present values are calculated as of the valuation date.

The unfunded liability equals the total actuarial liability less the actuarial value of plan assets.

In determining the Annual Required Contribution, we have amortized the Unfunded AAL as a level percentage of expected payroll over 20 years. Other amortization methods are permitted under GASB 45. The actuarial assumptions are summarized below.

Valuation Date

July 1, 2006

Economic Assumptions

Discount Rate

Unfunded: 4.00%

Funded: 7.75%

Annual Benefit Increases

City contributions for a given level of coverage are assumed to increase annually in the amount of 5% of the applicable 2nd highest applicable coverage premium for the coming year.



Appendix B. Actuarial Cost Method and Assumptions (continued)

Economic Assumptions (cont'd)

Salary Increases

3.25% per year growth in overall payroll for purposes of amortizing unfunded liability.

For purposes of calculating entry age normal costs, merit salary increases are applied for individual members according to assumptions rates used by CalPERS in its actuarial valuation of retirement benefits.

For Fire officers, assumed merit salary increases are based on an entry age of 30.

Health Cost Trend

Actual premium rate increases through 2007. Premiums are assumed to increase from 2007 to 2008, 8% the next year and grading down 1% per year to 5% per year thereafter.

Demographic Assumptions

Demographic assumptions regarding retirement, withdrawal, disability, and mortality are based on statistics taken from reports for California PERS for Fire employees with "3% @ 50" benefit formula. Below is a summary of the assumed rates for retirement, withdrawal, disability, and mortality.

Service Retirement

Sample probabilities of retirement within one year are shown below for selected ages and service.

Age	10 Years of Service	25 Years of Service
50	3.41%	6.79%
55	12.65%	25.16%
56	12.10%	24.07%
57	10.10%	20.10%
58	-11.84%	23.54%
59	10.02%	19.93%
60	100.00%	100.00%



Appendix B. Actuarial Cost Method and Assumptions (continued)

Demographic Assumptions (cont'd).

Withdrawal

Probabilities of terminating vary depending on the years of service of the employee. Sample probabilities are as follows:

Years of Service	Rates
. 0	9.47%
3	3.23%
5	2.57%
. 10	0.90%
15	0.79%
20	0.69%

Disability

Sample probabilities of becoming eligible for a PERS disability benefit due to different causes within one year are shown below for selected ages:

Age	Industrial Related	Non-Industrial Related
25	0.10%	0.01%
30	0.21%	0.01%
35	0.31%	0.01%
40	0.41%	0.01%
45	0.51%	0.02%
50	0.62%	0.05%

Mortality

Sample probabilities of active employees becoming deceased due to different causes within one year are shown below for selected ages:

	Industrial Related	Non-Industrial Related	
Age	Unisex	Male	Female
25	0.01%	0.03%	0.01%
30	0.01%	0.04%	0.02%
35	0.01%	0.05%	0.03%
40	0.02%	0.08%	0.05%
45	0.02%	0.11%	0.07%
50	0.02%	0.16%	0.10%

Appendix B. Actuarial Cost Method and Assumptions (continued)

Other Assumptions

Marital Status 67% of retirees are assumed to retire with a covered spouse.

Spouse Age Female spouses are assumed to be two years younger than

male spouses.

Enrollment Election Upon Retirement

Pra-65 75% of retirees elect coverage.

Post 65 100% of retirees elect coverage.

The City's current reimbursement program will provide enough to cover health premium for the most expensive plan in the future. There will be incentives to migrate to higher costing plans. Thus, we assumed the following percentage of retirees will elect the medical plan listed in the table below:

	Pre-65	Post 65
Plans		•
Blue Shield HMO	25%	25%
Kaiser Permanente	35%	35%
PERSCare	25%	25%
PERSChoice	15%	15%

Probability of Spouse/Dependent Coverage

The probability of spouse/dependent coverage is based on current retiree enrollment and is summarized in the following table:

(Pre-65) Retiree Enrollment w/out Spouse		(Pre-65)	•
		Spouse Enrollment	
Retiree Only	94%	Retiree + Spouse	50%
Retiree + 1 Child	4%	Retiree + Family	50%
Retiree + Children	2%		



Appendix C. Summary of Participant Data

The following census of participants was used in the actuarial valuation and provided by the City of Oakland. The data was collected as of January 2007.

Covered Active Employees

	<i>T</i> c	otal	
Age	Males	<u>Females</u>	Total
Under 25	2	0	2
25 - 29	40	2	42
30 - 34	65	8	73
35 – 39	68	10	78
40 – 44	77	12	89
45 – 49	58	3	61
50 – 54	64	2	66
55 – 59	29	2	31
60 - 64	6	0 .	6
65 – 69	0	0	0
70 & Over	0	0	0
Total	409	39	448

Current Retirees

	Total		
Age	Males	Females	<u>To</u> tal
Under 55	23	18	41
55 – 59	86	5	91
60 - 64	114	7	121
65 – 69	49	6	55
70 - 74	50	19	69
75 – 79	51	18	69
80 - 84	59	36	95
85 & Over	_53	<u>27</u> .	_80
Total	485	136	621



111 SW Filth Avenue, Suite 3700 Portland, OR 97204-3604 Tel: 503 227.0634 Fax: 503 227.7956 www.milliman.com

October 29, 2007

Yvonne Hudson Manager, Retirement and Benefit City of Oakland Retirement System 150 Frank H. Ogawa Plaza, 3rd Floor Oakland, California 94612

City of Oakland – Police Employees GASB 45 Actuarial Valuation of Post Employment Benefits as of July 1, 2006

Dear Yvonne:

We are pleased to enclose the above titled actuarial report for the City of Oakland. If you have any questions, please give me a call at (503) 227-0634.

Sincerely,

Christopher R. (Tiff) Wood, ASA, MAAA

Principal and Consulting Actuary

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enc.

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City of Oakland

GASB 45 Actuarial Valuation of
Post Employment Benefits Other than Pensions for Police Employees
As of July 1, 2006

Prepared by:

Christopher R. (Tiff) Wood

October 29, 2007



111 SW Fifth Avenue, Suite-3700 Portland, OR 97204-3604 Tel 503 227.0634 Fax 503 227.7956 www.milliman.com

October 29, 2007

City of Oakland 150 Frank H. Ogawa Plaza, 3rd Floor Oakland, California 94612

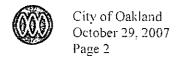
City of Oakland - Police Employees
GASB 45 Actuarial Valuation of Post Employment Benefits as of July 1, 2006

At the request of the City of Oakland, we have completed an actuarial valuation of post employment benefits as of July 1, 2006.

The purpose of this report is to determine the Annual Required Contribution and required financial disclosures under the Governmental Accounting Standards Board Statement No. 45 – Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions (GASB 45). Our determinations reflect the procedures and methods prescribed in GASB 45.

In preparing our report, we relied on financial information and employee data furnished to us by the City of Oakland and CalPERS. While Milliman has not audited the financial and census data, they have been reviewed for reasonableness and are, in our opinion, sufficient and reliable for the purposes of our calculations. If any of this information as summarized in this report is inaccurate or incomplete, the results shown could be materially affected and this report may need to be revised.

The actuarial cost method and assumptions used as well as the supporting data and principal plan provisions upon which the valuation is based are set forth in the following report. The assumptions and cost method were selected to satisfy CalPERS' required assumptions and methods for funding agency OPEB liabilities through CalPERS newly established OPEB trust. In our opinion, all assumptions and methods used in this valuation are reasonable for this purpose and fall within a best estimate range of assumptions. The values provided in this report are estimates only. They represent results if actual experience exactly matches the assumptions used. Actual experience will likely differ and continued monitoring of experience should be performed and adjustments made to the assumptions as necessary. The actuarial computations under GASB 45 are for purposes of fulfilling employer accounting requirements. The calculations reported herein have been made on a basis consistent with our understanding of GASB 45. Determinations for purposes other than meeting employer financial accounting requirements may be significantly



different from the results reported herein. Reliance on information contained in this report by anyone for anything other than the intended purpose puts the relying entity at risk of being misled.

This report has been prepared for use by the City of Oakland for the purposes described herein. Accordingly, this report may not be distributed to any third party outside the City without Milliman's written consent unless public disclosure is required by law. If distribution of the report is made outside the City, the report must be provided in its entirety. This report is a complex, technical analysis that assumes a high level of knowledge concerning the City of Oakland's operations, and uses the City of Oakland's data, which Milliman has not audited. Any third party recipient of Milliman's work product who desires professional guidance should not rely upon Milliman's work product, but should engage qualified professionals for advice appropriate to its own specific needs.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, the report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the applicable Actuarial Standards of Practice of the American Academy of Actuaries. The undersigned is a member of the American Academy of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Sincerely,

Christopher R. (Tiff) Wood, ASA, MAAA Principal and Consulting Actuary

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Introduction

Milliman, Inc. ("Milliman") has been retained by the City of Oakland ("the City") to provide a GASB 45 actuarial valuation of its post employment benefit (OPEB) plans. This valuation covers Police employees and retirees. The valuation of Fire & Civilian employees is shown in a separate report. In our valuation we:

- Project expected benefit payouts
- Calculate the present value of total benefits
- Calculate the actuarial accrued liability (present value of benefits attributable to past service) in accordance with the actuarial cost method described in this report
- Determine the Annual Required Contribution (ARC) and annual OPEB expense under GASB Statement No. 45
- Prepare the financial statement disclosures relating to the funded status of the plan

Background

Retirees are eligible for retiree health benefits if they meet certain requirements relating to age and service. The retiree health benefits are described in labor agreements between the City of Oakland and the Oakland Police Officers' Association, and in City resolutions as provided to Milliman. Appendix A provides a detailed summary of benefits.

Assumptions

With any valuation of future benefits, assumptions of anticipated future events are required. If actual events differ from the assumptions made, the actual cost of the plan will vary as well. The following assumptions should be reviewed for appropriateness.

Discount Rate. GASB 45 requires that the interest rate used to discount future benefit payments back to the present be based on the expected rate of return on any investments set aside to pay for these benefits. If no funds are set aside for this purpose, the discount rate would be based on the expected return on the City's operating funds. If the annual OPEB cost is set aside in a separate, irrevocable trust each year, the discount rate would be based on the expected return on investments held in the trust. For this valuation, we have used a discount rate of 4.0% based on a conservative investment policy for the City's operating funds. For comparison purposes, we have also shown certain results using a 4.5% discount rate in order to indicate the sensitivity of results to this assumption and because rates have increased somewhat over the past 12 months. The City has indicated that it may fund its GASB OPEB liabilities by contributing to a trust established by CalPERS for this purpose. As a result, we have also shown valuation results using a discount rate of 7.75% based on the expected return on funds invested by CalPERS. However, a higher or lower discount rate may ultimately be more appropriate depending on the funding and investment policies the City establishes for its GASB 45 liabilities.



<u>Health Cost Trend</u>. We have assumed health costs will increase 9% in the first year (from the 2007 premium year to the 2008 premium year), 8% the next year, and grading down 1% per year, to 5% per year after the fourth year.

<u>Demographic Rates</u>. We are using the same rates as the California Public Employees Retirement System (PERS) in their actuarial valuations of retirement benefits under a 3% @ 50 formula for police employees.

A complete summary of the actuarial assumptions is presented in Appendix B.

Selection/Approval of Actuarial Assumptions

An actuarial valuation of post-employment benefits includes estimates of uncertain future events. We have developed a set of economic and demographic actuarial assumptions to anticipate future plan experience. In our opinion, these assumptions fall within a best estimate range of future plan experience. Ultimately, the City and its auditor must select/approve the set of actuarial assumptions used in reporting liabilities on its financial statements.

Results of Study

The valuation results are summarized in the following exhibit and use the following terms:

The **Present Value of Benefits** is the present value of projected benefits discounted at the valuation interest rate.

The Actuarial Accrued Liability (AAL) is the present value of benefits that are attributed to past service only. The portion attributed to future employee service is excluded. For retirees, this is equal to the present value of benefits. For active employees, the actuarial present value of the projected benefits of each individual is allocated as a level percentage of expected salary for each year of employment between entry age (defined as age at hire) and assumed exit (until maximum retirement age). The portion attributed to service between entry age and the valuation date is the actuarial accrued liability.

The Normal Cost is that portion of the City provided benefit attributable to employee service in the current year.

The Annual Required Contribution (ARC) is equal to the Normal Cost plus an amount to amortize the unfunded AAL over a period of 10 to 30 years. This is the amount the City would be required to report as an expense each year under GASB 45. If the City elects not to fund the ARC, a minor adjustment must be made to the ARC to determine the expense each year. Note, the ARC represents an accounting expense, but the City is not required to contribute the ARC to a separate trust. If the



City does not set aside funds equal to the ARC each year, then the Annual OPEB Expense (less actual benefit payments) will accumulate as a liability (Net OPEB Obligation) on the City's balance sheet.

	July 1, 2006
Participants Active employees Retirees Total	705 <u>691</u> 1,396
Valuation Interest Rate	4.00%
Present Value of Benefits	\$ 257,168,349
Actuarial Accrued Liability Assets Unfunded Actuarial Accrued Liability	\$ 175,544,756 0 \$ 175,544,756
Normal Cost	\$ 6,170,578
Annual Required Contribution (ARC)	\$ 16,186,953
Expected Annual Benefit Payments (2006-2007)	\$ 3,467,398

Variability of Results

The results contained in this report represent our best estimates. However, variation from these or any other estimates of future retiree medical costs is not only possible but probable. Actual future costs may vary significantly from estimates in this report.

Valuation results are particularly sensitive to the assumptions used to project future health plan cost increases (medical inflation trend) and to discount projected benefits to the present (discount rate). While Exhibits I through 5 show the valuation results based on the discount rate of 4.00%, Exhibit 6 shows a comparison of valuation results based on best estimate assumptions and on alternate discount rates.



Exhibit 1. Projected Retirees and Benefit Payments

The table below illustrates the projected pay-as-you-go City costs of providing retiree health benefits. The projections only consider the closed group of existing employees and retirees and is based on the current labor agreements.

Year	Fiscal Year Ending 6/30	Current Retirees	Future Retirees	Total
1	2007	\$ 3,394,487	\$ 72,911	\$ 3,467,398
2	2008	3,684.205	144,590	3,828.795
3	2009	3,987,556	223,869	4,211,425
4	2010	4,311,653	317,527	4,629,180
5	2011	4,644,134	392,600	5,036,734
' 6	2012	4.976.071	464,218	5,440,289
7	2013	5,338,665	523,686	5,862,351
8	2014	5,699,121	567,744	6,266,865
9	2015	6.083.783	601.907	6,685,690
10	2016	6.517.204	629.802	7,147,006
11.	2017	6,987,465	648.685	7,636,150
12	2018	7,508,200	648,540	8,156,740
13	2019	7,974,922	667,951	8,642,873
14	2020	8,441,792	632.887	9,074,679
15	2021	8,967,833	622,462	9,590,295
16	2022	9,577,794	579,432	10,157,226
17	2023	10,216,805	551,113	10,767,918
18	2024	10,886,864	533,701	11,420,565
19	2025	11,592,343	534,995	12,127,338
20	2026	12,318,009	541,859	12.859.868



Exhibit 2. Liabilities and Normal Cost

The Present Value of Benefits is the actuarial present value of benefits expected to be paid for all retirees and covered employees.

The Actuarial Accrued Liability (AAL) is the present value of benefits that are attributed to past service only. The portion attributed to future employee service is excluded. For retirees, this is equal to the present value of benefits. For active employees, the actuarial present value of the projected benefits of each individual is allocated as a level percentage of expected salary for each year of employment between entry age (defined as age at hire) and assumed exit (until maximum retirement age). The portion attributed to service between entry age and the valuation date is the actuarial accrued liability.

The Normal Cost is the actuarial present value of benefits attributed to one year of service. The Entry Age Normal cost method as described in Appendix A was used to determine the normal cost in this valuation. Since retirces are not accruing any more service, their normal cost is zero.

	July 1, 2006
Present Value of Benefits	
Active employees	\$ 149,801,810
Retirees	107. <u>366.539</u>
Total	\$ 257,168,349
Actuarial Accrued Liability	
Active employees	\$ 68,178,217
Retirees	107.366.539
Total	\$ 175,544,756
Normal Cost (End of Year)	\$ 6,417,401



Exhibit 3. Unfunded Actuarial Accrued Liability

The Unfunded Actuarial Accrued Liability (UAAL) is the actuarial liability offset by any assets set aside to provide retiree health benefits. This is equal to the value of the retiree health benefits accrued to date that has not been funded. The UAAL must be amortized over a period of 10 to 30 years and included in the ARC amount (shown in Exhibit 4) each year. For illustrative purposes, we have calculated the amortization of UAAL as a level percentage of payroll over 20 years. This means the amortization amount would be expected to increase at approximately the same rate as payroll increases each year. We have assumed the City's payroll will increase 3.25% per year for this purpose.

	Jı	uly 1, 2006
Unfunded Actuarial Accrued Liability (UAAL)		
Actuarial Accrued Liability	\$ 1	75,544,756
Assets		0
Unfunded Actuarial Accrued Liability	\$ 1	75,544,756
Funded percentage		0.00%
Amortization of UAAL for ARC		
UAAL	\$ 1	75,544,756
Amortization Period		20 years
Level % of Payroll Amortization Factor		18.6873
Amortization Amount -July 1, 2006	\$	9,393,800
Interest to June 30, 2007	\$	375,752
Amortization Amount – June 30, 2007	\$	9,769,552



Exhibit 4. Required Financial Statement Disclosures

The following table shows the calculation of the Annual Required Contribution and Net OPEB Obligation if the City were to adopt GASB 45 for the 2006-2007 fiscal year. The City must adopt GASB 45 no later than the 2007-2008 fiscal year.

	For the Fiscal Year Ending			ng
	June 30, 2007		June 30, 20	
Determination of Annual Required Obligation				
Normal Cost at fiscal year end	`\$	6,417,401	\$	n/a
Amortization of UAAL		9,769.552		n/a
Annual Required Contribution (ARC)	\$	16,186,953	\$	n/a
Determination of Net OPEB Obligation				
Annual Required Contribution	\$	16,186,953	\$	n/a
Interest on prior year Net OPEB Obligation		0		n/a
Adjustment to ARC		0		n/a
Annual OPEB Cost		16,186,953		' n/a
Contributions made *		3,467,398		n/a
Increase in Net OPEB Obligation		12,719,555		n/a
Net OPEB Obligation – beginning of year	\$	0	\$.	n/a
Net OPEB Obligation - end of year	\$	12,719,555	\$	n/a

^{*} For illustration purposes, we have shown contributions to be equal to expected benefit payments during the 2006-07 fiscal year. GASB 45 defines contributions for this purpose to be actual benefit payments during the year and contributions made to a separate, irrevocable trust.

The following table shows the annual OPEB cost and net OPEB obligation for the prior 3 years.

Fiscal Year Ended	Annual OPEB Cost	Percentage of OPEB Cost Contributed	Net OPEB Obligation
06/30/2005	n/a	n/a	n/a
06/30/2006	, n/a	n/a	n/a
06/30/2007	\$16,186,953	21.4%	\$12,719,555

Funded Status and Funding Progress. As of July 1, 2006, the most recent actuarial valuation date, the plan was zero percent funded. The actuarial accrued liability for benefits was \$175.5 million, and the actuarial value of assets was zero, resulting in an unfunded accrued liability of \$175.5 million.



Exhibit 5. Required Supplementary Information

The following table shows a schedule of Funding Progress required under GASB 45 if the City were to adopt GASB 45 for the 2006-2007 fiscal year. The City must adopt GASB 45 by the 2007-2008 fiscal year.

Actuarial Valuation Date	Actuarial Value of Assets	AAL Entry Age	U.4.A.L	Funded Ratio	Covered Payroll	UAAL as a % of Cov. Payroll
07/01/2004	n/a	n/a	n/a	п/а	n/a	n/a
07/01/2005	n/a	· n/a	n/a	n/a	n/a .	n/a
07/01/2006	\$0	\$175,544,756	\$175,544,756	0.0%	n/a	n/a



Exhibit 6. Valuation Results - Alternate Discount Rates

The following exhibit shows the results of the valuation based on alternative discount rates of 4.0%, 4.5% and 7.75%. The discount rate is used to calculate the present value of expected future benefit payments. The lower the discount rated used, the higher the present value will be. GASB 45 requires that the discount rate be reflective of the assets used to pay benefits. For unfunded OPEB liabilities, the rate would be the expected return on the City's general funds. For funded OPEB liabilities (ARC set aside in a separate trust each year), the discount rate would be the expected return on assets invested in such a trust. A higher expected return and discount rate would result a much lower OPEB liability and ARC for the City. To illustrate the effect of alternative discount rates on liabilities and costs, the following table shows a comparison of valuation results based on discount rates of 4.0% and 4.5% both for no advanced funding, and 7.75% (funding through contributions to CalPERS trust):

		4.00%		4.50%		7.75%
Actuarial Accrued Liability	\$	175,544,756	\$	160,221,008	\$	95,565,565
Assets	-	0	_	0	_	0
Unfunded Actuarial Accrued Liability	\$	175,544,756	\$	160,221,008	\$	95,565,565
Amortization Period .	•	20 Years		20 Years		20 Years
Level % of Payroll Amortization Factor		18.6873		17.8824		13.7430
Amortization Amount – July 1, 2006	-\$	9,393,800	\$	8,959,704	\$	6,953.763
Interest to June 30, 2007	Ŝ	375,752	\$	403,187	\$	538,917
Amortization Amount – June 30, 2007	\$	9,769,552	\$	9,362,891	\$	7,492,680
Normal Cost at End of Year	`\$	6,417,401	\$	5,568,148	\$	2,353,024
Annual Required Contribution (ARC)	\$	16,186,953	\$	14,931,038	\$	9,845,704
ARC as a % of Payroll		n/a		n/a		n/a
Expected Benefit Payment	\$	3,467,398	\$	3,467,398	\$	3,467.398
Required Amount Funded to Trust		n/a		n/a	\$	7,309,657



Appendix A. Summary of Benefits

The following description of retiree health benefits is intended to be only a brief summary. For details, reference should be made to Summary Plan Descriptions, Plan Documents, and employee booklets.

Eligibility

Retirees are eligible if they:

- retired directly from the City of Oakland;
- are vested in CaIPERS; and
- retired on or after age 50, with 10 years of service with the City of Oakland Police Department.

In addition, retirees receiving a disability or industrial disability retirement benefit from CalPERS are eligible.

Benefits

Uniformed police and fire retirees are eligible to receive coverage under CalPERS medical plans for life. Surviving spouses of retirees are also covered if the retiree elects a CalPERS pension benefit payable for the life of the survivor. Dependents may be covered under the medical plan so long as the eligible retiree or spouse is alive.

The City pays CalPERS a fixed amount per month based on the level of coverage elected by the retiree or surviving spouse. The retiree or surviving spouse is responsible for the remainder of the medical premium. The City contribution rates for 2007 are as follows:

Level of Coverage	Police Contribution
One-party .	\$185.97
Two-party	370.99
Multi-party	483.75

Annual increases to the fixed Police Contribution amounts above are determined to be 5% of the following calendar year's Kaiser monthly premium for the given level of coverage.

The City does not provide for any dental or vision benefits for its uniformed retirees, other than those benefits described under "Retention Plans" below.

Widows or widowers of uniformed officers killed in the line of duty have their full medical premiums paid for by the City for life. Other widows or widowers are eligible for medical coverage if they are eligible for an immediate CalPERS pension.



Appendix A. Summary of Benefits (continued)

Retention Plans

Certain long-service police officers are eligible for additional retirée medical benefits. The Retention Plan (also known as Retention I) applies to officers who had at least 21 years of service as of June 30, 1996. Enrollment and benefit amounts were fixed as of June 30, 1996. The chart below outlines the annual benefit amounts for retirees and survivors:

Years of Service as of 6/30/96	Annual Retiree Benefit	Annual Survivor Benefit
25+	\$7,000	\$4.665
24	\$3,000	\$1,500
23	\$2,500	\$1.250
22	\$2,000	\$1,000
21	\$1,500	\$750

The above amounts may only be used to cover costs of post-retirement employee benefit programs such as medical, dental, or disability coverage. The above amounts are fixed for all future years, and are in addition to the regular police officer reimbursement amounts shown above. All employees, retirees and survivors are eligible to receive these benefits for life. If an officer is terminated for cause then he/she is not eligible.

The Retention II program benefits are as follows:

a) Eligible employees, upon retirement, and depending on number of service years at retirement, will receive 60-100% of the difference in the cost of the Bay Area Kaiser medical premium for the covereage level selected (e.g. 2-party), minus the dollar amount contributed by the City directly to PERS on behalf of the retiree. The benefit rate schedule is:

21 years:	60%
22 years:	70%
23 years:	80%
24 years:	90%
25+ years:	100%

b) Eligible employees, upon retirement and depending on number of service years at retirement, will receive the same 60-100% of the premium cost of dental coverage.

Enrollment in the program expired on June 30, 2001. However, people who become vested during the life of the program receive the benefit for life once they retire. Surviving spouses are covered for life following the retiree's death.



Appendix A. Summary of Benefits (continued)

Health Plan Premiums

The following table shows monthly retiree health insurance premiums for the 2007 premium year for coverage under the CalPERS Health Plan for the Bay Area:

		Monthly Premium Rates – 2007		
	Single 2-Party		arty	
	Non- Medicare	Medicare Eligible	Non- Medicare	Medicare Eligible
Plans			•	
Blue Shield HMO	\$484.21	\$318.95	\$968.42	· \$637.90
Kaiser Permanente	431.17	289.68	862.34	579.36
PERSCare	769.50	371.68	. 1,539.00	743.36
PERSChoice	455.18	341.75	910.36	683.50

Since the CalPERS Health Plan is a community rated health plan, we have not included in our valuation the value of any implicit rate subsidy for retirees whose premium rates are the same as active employees.



Appendix B. Actuarial Cost Method and Assumptions

Actuarial Methods

A fundamental principle in financing the liabilities of a retirement program is that the cost of its benefits should be related to when those benefits are earned, rather than to when they are paid. There are a number of methods for making such a determination.

The actuarial cost method used to calculate the funding requirements of the Plan is called the Individual Entry Age Normal cost method, with normal cost expressed as a level percentage of covered Compensation.

Under this cost method, the normal cost is the sum of the individual normal costs for all participants. This method allocates the actuarial present value of projected benefits over the service of each active participant from date of entry into the Plan until the assumed date of exit from the Plan, as a level percentage of the projected salary. This level percentage is referred to as the normal cost rate. It is calculated by dividing the actuarial present value of projected benefits at entry age by the actuarial present value of the projected salary at entry age. Multiplying the normal cost rate by the projected salary for the current year yields the normal cost for that year. The normal cost equals \$0 for inactive participants.

The actuarial liability is the sum of the individual actuarial liabilities for all participants. The individual actuarial liability equals the actuarial present value of all projected future benefits less the actuarial present value of all future normal costs, where both of these present values are calculated as of the valuation date.

The unfunded liability equals the total actuarial liability less the actuarial value of plan assets.

In determining the Annual Required Contribution, we have amortized the Unfunded AAL as a level percentage of expected payroll over 20 years. Other amortization methods are permitted under GASB 45. The actuarial assumptions are summarized below.

Valuation Date

July 1, 2006

Economic Assumptions

Discount Rate Unfunded: 4.00% Funded: 7.75%

Annual Benefit Increases City contributions for a given level of coverage are assumed

to increase annually in the amount of 5% of the applicable

Kaiser monthly premium for the coming year.

Retention I reimbursements are assumed to remain level.



Appendix B. Actuarial Cost Method and Assumptions (continued)

Economic Assumptions (cont'd)

Salary Increases

3.25% per year growth in overall payroll for purposes of amortizing unfunded liability.

For purposes of calculating entry age normal costs, merit salary increases are applied for individual members according to assumptions rates used by CalPERS in its actuarial valuation of retirement benefits.

For police officers, assumed merit salary increases are based on an entry age of 30.

Health Cost Trend

Actual premium rate increases through 2007. Premiums are assumed to a 9% increase from 2007 to 2008, 8% the next year, and going down 1% per year to 5% per year.

Demographic Assumptions

Demographic assumptions regarding mortality, retirement and withdrawal are based on statistics taken from reports for California PERS for Police employees with "3% @ 50." Below is a summary of the assumed rates for retirement, withdrawal, and disability.

Service Retirement

Sample probabilities of retirement benefit within one year are shown below for selected age and services:

Age	10 Years of Service	25 Years of Service
50	4.35%	12.08%
55	8:98%	24.97%
56	6.87%	19.10%
57	8.03%	· 22.32%
58	7.91%	21.98%
59	8.20%	22.79%
60	100.00%	100.00%



Appendix B. Actuarial Cost Method and Assumptions (continued)

Demographic Assumptions (cont'd)

Withdrawal

Probabilities of terminating vary depending on the years of service of the employee. Sample probabilities are as follows:

Years of Service	Rates
0	12.99%
3	3.31%
5	2.97%
.10	2.13%
15	1.29%
20	0.97%

Disability

Sample probabilities of becoming eligible for a PERS disability benefit due to different causes within one year are shown below for selected ages:

Age	Industrial Related	Non-Industrial Related
25	0.28%	0.01%
30	0.56%	0.02%
35	0.84%	0.03%
40	1.12%	0.04%
45	1.40%	0.05%
50	1.67%	0.08%

Mortality

Sample probabilities of active employees becoming deceased due to different causes within one year are shown below for selected ages:

Industrial		Non-Indus	ustrial Related	
Age	Related Unisex	Male	Female	
25	0.01%	0.03%	0.01%	
30	0.01%	0.04%	0.02%	
35	0.01%	0.05%	. 0.03%	
40	0.02%	0.08%	0.05%	
45	0.02%	0.11%	0.07%	
50	0.02%	0.16%	0.10%	

Appendix B. Actuarial Cost Method and Assumptions (cont'd)

Martial Assumptions

Marital Status 67% of retirees are assumed to retire with a covered spouse.

Spouse Age Female spouses are assumed to be two years younger than

male spouses.

Enrollment Election Upon Retirement

Pre-65 75% of retirees elect coverage, 100% for those eligible for

retention programs.

Post 65 100% of retirees elect coverage.

Probability of Spouse/Dependent Coverage

The probability of spouse/dependent coverage is based on current retiree enrollment and is summarized in the following table:

(Pre-65) Retiree Enrolln	nent	(Pre-65)	
w/out Spouse		Spouse Enrollment	
Retiree Only	80%	Retiree + Spouse	40%
Retiree + 1 Child	7%	Retiree + Family	60%
Retiree + Children	13%		



Appendix C. Summary of Participant Data

The following census of participants was used in the actuarial valuation and provided by the City of Oakland. The data was collected as of January 2007.

Covered Active Employees

	Te	otal ·	•.
Age	Males	Females	Total
Under 25	11	3	14
25 – 29	52	7	59
30 - 34	129	23	152
35 - 39	151	22	173
40 - 44	141	17	158
45 49	83	5	88
50 - 54	39	3	42
55 – 59	12	0 .	12
60 - 64	5	0	5
65 – 69	. 2	0	2
70 & Over	0	0	0
Total	625	80 '	705

Current Retirees

_	Total			
Age	Males	<u>Females</u>	Total	
Under 55	126	33	159	
55 – 59	110	12	122	
60 - 64	118	8	126	
65 - 69	52	3	55	
70 74 ·	29	15	44	
75 – 79	31	15	46	
80 - 84	40	26	66	
85 & Over	_37	_26	<u>73</u>	
Total	543	148	691	



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October 29, 2007

Yvonne Hudson Manager, Retirement and Benefit City of Oakland Retirement System 150 Frank H. Ogawa Plaza, 3rd Floor Oakland, California 94612

City of Oakland – Municipal Employees GASB 45 Actuarial Valuation of Post Employment Benefits as of July 1, 2006

Dear Yvonne:

We are pleased to enclose the above titled actuarial report for the City of Oakland. If you have any questions, please give me a call at (503) 227-0634.

Sincerely

Christopher R. (Tiff) Wood, ASA, MAAA

Principal and Consulting Actuary

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City of Oakland - Municipal Employees

GASB 45 Actuarial Valuation of
Post Employment Benefits Other than Pensions for Municipal Employees
As of July 1, 2006

Prepared by:

Christopher R. (Tiff) Wood

October 29, 2007

Consultants and Actuaries

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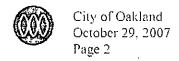
City of Oakland – Municipal Employees : GASB 45 Actuarial Valuation of Post Employment Benefits as of July 1, 2006

At the request of the City of Oakland, we have completed an actuarial valuation of post employment benefits as of July 1, 2006.

The purpose of this report is to determine the Annual Required Contribution and required financial disclosures under the Governmental Accounting Standards Board Statement No. 45 – Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions (GASB 45). Our determinations reflect the procedures and methods prescribed in GASB 45.

In preparing our report, we relied on financial information and employee data furnished to us by the City of Oakland and CalPERS. While Milliman has not audited the financial and census data, they have been reviewed for reasonableness and are, in our opinion, sufficient and reliable for the purposes of our calculations. If any of this information as summarized in this report is inaccurate or incomplete, the results shown could be materially affected and this report may need to be revised.

The actuarial cost method and assumptions used as well as the supporting data and principal plan provisions upon which the valuation is based are set forth in the following report. The assumptions and cost method were selected to satisfy CalPERS' required assumptions and methods for funding agency OPEB liabilities through CalPERS newly established OPEB trust. In our opinion, all assumptions and methods used in this valuation are reasonable for this purpose and fall within a best estimate range of assumptions. The values provided in this report are estimates only. They represent results if actual experience exactly matches the assumptions used. Actual experience will likely differ and continued monitoring of experience should be performed and adjustments made to the assumptions as necessary. The actuarial computations under GASB 45 are for purposes of fulfilling employer accounting requirements. The calculations reported herein have been made on a basis consistent with our understanding of GASB 45. Determinations for purposes other than meeting employer financial accounting requirements may be significantly



different from the results reported herein. Reliance on information contained in this report by anyone for anything other than the intended purpose puts the relying entity at risk of being misled.

This report has been prepared for use by the City of Oakland for the purposes described herein. Accordingly, this report may not be distributed to any third party outside the City without Milliman's written consent unless public disclosure is required by law. If distribution of the report is made outside the City, the report must be provided in its entirety. This report is a complex, technical analysis that assumes a high level of knowledge concerning the City of Oakland's operations, and uses the City of Oakland's data, which Milliman has not audited. Any third party recipient of Milliman's work product who desires professional guidance should not rely upon Milliman's work product, but should engage qualified professionals for advice appropriate to its own specific needs.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, the report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the applicable Actuarial Standards of Practice of the American Academy of Actuaries. The undersigned is a member of the American Academy of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Sincerely.

Christopher R. (Tiff) Wood, ASA, MAAA Principal and Consulting Actuary

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Introduction

Milliman, Inc. ("Milliman") has been retained by the City of Oakland ("the City") to provide a GASB 45 actuarial valuation of its post employment benefit (OPEB) plans. This valuation covers Municipal employees and retirees. The valuations of Police & Fire employees are shown in separate reports. In our valuation we:

- Project expected benefit payouts
- Calculate the present value of total benefits
- Calculate the actuarial the actuarial accrued liability (present value of benefits attributable to past service) in accordance with the actuarial cost method described in this report
- Determine the Annual Required Contribution (ARC) and annual OPEB expense under GASB Statement No. 45
- Prepare the financial statement disclosures relating to the funded status of the plan

Background

Retirees are eligible for retiree health benefits if they meet certain requirements relating to age and service. The retiree health benefits are described in the labor agreements between the City of Oakland and Local 790 and Local 21, as provided by the City. Appendix A provides a detailed summary of benefits.

Assumptions

With any valuation of future benefits, assumptions of anticipated future events are required. If actual events differ from the assumptions made, the actual cost of the plan will vary as well. The following assumptions should be reviewed for appropriateness.

Discount Rate. GASB 45 requires that the interest rate used to discount future benefit payments back to the present be based on the expected rate of return on any investments set aside to pay for these benefits. If no funds are set aside for this purpose, the discount rate would be based on the expected return on the City's operating funds. If the annual OPEB cost is set aside in a separate, irrevocable trust each year, the discount rate would be based on the expected return on investments held in the trust. For this valuation, we have used a discount rate of 4.0% based on a conservative investment policy for the City's operating funds. For comparison purposes, we have also shown certain results using a 4.5% discount rate in order to indicate the sensitivity of results to this assumption and because rates have increased somewhat over the past 12 months. The City has indicated that it may fund its GASB OPEB liabilities by contributing to a trust established by CalPERS for this purpose. As a result, we have also shown valuation results using a discount rate of 7.75% based on the expected return on funds invested by CalPERS. However, a higher or lower discount rate may ultimately be more appropriate depending on the funding and investment policies the City ultimately establishes for its GASB 45 liabilities.



<u>Health Cost Trend</u>. We have assumed health costs will increase 9% in the first year (from the 2007 premium year to the 2008 premium year), 8% the next year, and grading down 1% per year, to 5% per year after the fourth year.

<u>Demographic Rates</u>. We are using the same rates as the California Public Employees Retirement System (PERS) in their actuarial valuations of retirement benefits under a 2.7% @ 55 formula for miscellaneous employees.

A complete summary of the actuarial assumptions is presented in Appendix B.

Selection/Approval of Actuarial Assumptions

An actuarial valuation of post-employment benefits includes estimates of uncertain future events. We have developed a set of economic and demographic actuarial assumptions to anticipate future plan experience. In our opinion, these assumptions fall within a best estimate range of future plan experience. Ultimately, the City and its auditor must select/approve the set of actuarial assumptions used in reporting liabilities on its financial statements.

Results of Study

The valuation results are summarized in the following exhibit and use the following terms:

The Present Value of Benefits is the present value of projected benefits discounted at the valuation interest rate.

The Actuarial Accrued Liability (AAL) is the present value of benefits that are attributed to past service only. The portion attributed to future employee service is excluded. For retirees, this is equal to the present value of benefits. For active employees, the actuarial present value of the projected benefits of each individual is allocated as a level percentage of expected salary for each year of employment between entry age (defined as age at hire) and assumed exit (until maximum retirement age). The portion attributed to service between entry age and the valuation date is the actuarial accrued liability.

The Normal Cost is that portion of the City provided benefit attributable to employee service in the current year.

The Annual Required Contribution (ARC) is the amount the City would be required to report as an expense for the 2007-2008 fiscal year under GASB 45. The ARC is equal to the Normal Cost plus an amount to amortize the unfunded AAL over a period of 10 to 30 years. Note, the ARC represents an accounting expense, but the City is not required to contribute the ARC to a separate trust. If the City does not set aside funds equal to the ARC each year, then the ARC (less actual benefit payments) will accumulate as a liability (Net OPEB Obligation) on the City's balance sheet.



· · · · · · · · · · · · · · · · · · ·	July 1, 2006
Participants Active employees Retirees Total	2,487 1.098 3,585
Valuation Interest Rate	4.00%
Present Value of Benefits	\$ 371,083,343
Actuarial Accrued Liability Assets Unfunded Actuarial Accrued Liability	\$ 230,113,295 0 \$ 230,113,295
Normal Cost (End of Year)	\$ 13,153,281
Annual Required Contribution (ARC)	\$ 25,959,724
Covered Payroll	n/a
ARC as % of Payroll	n/a
Expected Annual Benefit Payments (2006-2007)	\$ '4,091,468

Variability of Results

The results contained in this report represent our best estimates. However, variation from these or any other estimates of future retiree medical costs is not only possible but probable. Actual future costs may vary significantly from estimates in this report.

Valuation results are particularly sensitive to the assumptions used to project future health plan cost increases (medical inflation trend) and to discount projected benefits to the present (discount rate). While Exhibits 1 through 5 show the valuation results based on a discount rate of 4.00%, Exhibit 6 shows a comparison of valuation results based on best estimate assumptions and on alternate discount rates.



Exhibit 1. Projected Benefit Payments

The table below illustrates the projected pay-as-you-go City costs of providing retiree health benefits. The projections only consider the closed group of existing employees and retirees and is based on the current labor agreements.

Year	Fiscal Year Ending 6/30	Current Retirees	Future Retirees	<u> Total</u>
1	2007	\$ 3,845,761	\$ 245,707	\$ 4,091,468
2	2008	4,046,877	630,164	4,677,041
3	2009	4.201,804	1,091.566	5,293,370
4	2010	4,345,791	1,623,112	5,968,903
5	2011	4,468,144	2,177,720	6,645,864
6	2012	4.581.304	2.819.514	7,400,818
7	2013	4,684,136	3,542,530	8,226,666
8	2014	4.774.110	4,297,810	9,071,920
9	2015	4,842,974	5,101,732	9,944,706
10	2016	4,909,103	5,947,983	10,857,086
11	2017	4.976.233	6,877,332	11,853,565
12	2018	5,029,331	7.825.302	12,854,633
13	2019	5,070,117	8.768.100	13,838,217
14	2020	5,104,893	9.734,044	14,838,937
15	2021	5,130,072	10,768,582	15,898,654
16	2022	5,152,990	11,840,700	16,993,690
17	2023	5,151,747	12,959,503	18,111,250
18	2024	5,128,674	13,958,720	19.087,394 .
19	2025	5,108,413	15,023,741	20,132,154
20	2026	5,074,797	16,093,356	21,168,153



Exhibit 2. Liabilities and Normal Cost

The Present Value of Benefits is the actuarial present value of benefits expected to be paid for all retirees and covered employees.

The Actuarial Accrued Liability (AAL) is the present value of benefits that are attributed to past service only. The portion attributed to future employee service is excluded. For retirees, this is equal to the present value of benefits. For active employees, the actuarial present value of the projected benefits of each individual is allocated as a level percentage of expected salary for each year of employment between entry age (defined as age at hire) and assumed exit (until maximum retirement age). The portion attributed to service between entry age and the valuation date is the actuarial accrued liability.

The Normal Cost is the actuarial present value of benefits attributed to one year of service. The Entry Age Normal cost method as described in Appendix A was used to determine the normal cost in this valuation. Since retirees are not accruing any more service, their normal cost is zero.

	July 1, 2006
	•
Present Value of Benefits	
Active employees	\$ 281,948,287
Retirees	<u>89.135.056</u>
Total -	\$ 371,083,343
Actuarial Accrued Liability	
Active employees	\$ 140,978,239
Retirees	89,135,056
Total	\$ 230,113,295
Normal Cost (End of Year)	\$ 13,153,281



Exhibit 3. Unfunded Actuarial Accrued Liability

The Unfunded Actuarial Accrued Liability (UAAL) is the actuarial liability offset by any assets set-aside to provide retiree health benefits. This is equal to the value of the retiree health benefits accrued to date that has not been funded. The UAAL must be amortized over a period of 10 to 30 years and included in the ARC amount (shown in Exhibit 4) each year. For illustrative purposes, we have calculated the amortization of UAAL as a level percentage of payroll over 20 years. This means the amortization amount would be expected increase at the same rate as payroll increases each year. We have assumed the City's payroll will increase 3.25% per year for this purpose.

	July 1, 2006
Unfunded Actuarial Liability (UAAL)	
Actuarial Accrued Liability	\$ 230,113,295
Assets	0
Unfunded Actuarial Accrued Liability	\$ 230,113,295
Funded percentage	0.00%
Amortization of UAAL for ARC	
UAAL	\$ 230,113,295
Amortization Period	20 years
Level % of Payroll Amortization Factor	18.6873
Amortization Amount –July 1, 2006	\$ 12,313,887
Interest to June 30, 2007	\$ 492,555
Amortization Amount – June 30, 2007	\$ 12,806,442



Exhibit 4. Required Financial Statement Disclosures

The following table shows the calculation of the Annual Required Contribution and Net OPEB Obligation if the City were to adopt GASB 45 for the 2006-2007 fiscal year. The City must adopt GASB 45 no later than the 2007-2008 fiscal year.

	For the Fiscal Year Ending		
	June 30, 2007	June 3	0, 2006
Determination of Annual Required Obligation			
Normal Cost at fiscal year end	\$ 13,153,281	\$	n/a
Amortization of UAAL	12,806,442		n/a
Annual Required Contribution (ARC)	\$ 25,959,724	\$	n/a
Determination of Net OPEB Obligation			
Annual Required Contribution	\$ 25,959,724	\$	n/a
Interest on prior year Net OPEB Obligation	0		n/a
Adjustment to ARC	0		n/a
Annual OPEB Cost	25,959,724		n/a
Contributions made *	4.091.468		n/a
Increase in Net OPEB Obligation	21,868,256		n/a *
Net OPEB Obligation – beginning of year	\$. 0	\$	n/a
Net OPEB Obligation – end of year	\$ 21,868,256	\$	n/a

^{*} For illustration purposes, we have shown contributions to be equal to expected benefit payments during the 2006-07 fiscal year. GASB 45 defines contributions for this purpose to be actual benefit payments during the year and contributions made to a separate, irrevocable trust.

The following table shows the annual OPEB cost and net OPEB obligation for the prior 3 years.

		Percentage of	
Fiscal Year Ended	Annual OPEB Cost	OPEB Cost Contributed	Net OPEB Obligation
zon zmeet			
06/30/2005	· n/a	n/a	n/a
06/30/2006	. n/a	n/a	n/a
06/30/2007	\$25,959,724	15.8%	\$21,868,256

Funded Status and Funding Progress. As of July 1, 2006, the most recent actuarial valuation date, the plan was zero percent funded. The actuarial accrued liability for benefits was \$230.1 million, and the actuarial value of assets was zero, resulting in an unfunded accrued liability of \$230.1 million.



Exhibit 5. Required Supplementary Information

The following table shows a schedule of Funding Progress required under GASB 45 if the City were to adopt GASB 45 for the 2006-2007 fiscal year. The City must adopt GASB 45 by the 2007-2008 fiscal year.

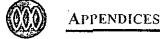
_	Actuarial Valuation Date	Actuarial Value of Assets	AAL Entry Age	UAAL	Funded Ratio	Covered Payroll	UAAL as a % of Cov. Payroll
`	07/01/2004	11/a	n/a	n/a	n/a	n/a	n/a
	07/01/2005	11/a	n/a	n/a	n/a	n/a	n/a
	07/01/2006	\$0	\$230,113,295	\$230,113,295	0.0%	n/a	n/a



Exhibit 6. Valuation Results - Alternate Discount Rates

The following exhibit shows the results of the valuation based on alternative discount rates of 4.0%, 4.5% and 7.75%. The discount rate is used to calculate the present value of expected future benefit payments. The lower the discount rated used, the higher the present value will be. GASB 45 requires that the discount rate be reflective of the assets used to pay benefits. For unfunded OPEB liabilities, the rate would be the expected return on the City's general funds. For funded OPEB liabilities (ARC set aside in a separate trust each year), the discount rate would be the expected return on assets invested in such a trust. A higher expected return and discount rate would result a much lower OPEB liability and ARC for the City. To illustrate the effect of alternative discount rates on liabilities and costs, the following table shows a comparison of valuation results based on discount rates of 4.0% and 4.5% both for no advanced funding, and 7.75% (funding through contributions to CalPERS trust):

		4.00%		4.50%	 7.75%
Actuarial Accrued Liability	\$	230,113,295	\$	211,900,915	\$ 130,636,673
Assets Unfunded Actuarial Accrued Liability	\$	230,113,295	\$	<u>0</u> 211,900,915	\$ 130,636,673
Amortization Period Level % of Payroll Amortization Factor		20 Years 18.6873		20 Years 17.8824	20 Years 13.7430
Amortization Amount – July 1, 2006	\$.	12,313,887	\$	11,849,691	\$ 9,505,688
Interest to June.30, 2007	\$	492,555	\$	533,236	\$ 736,691
Amortization Amount – June 30, 2007	\$	12,806,442	.\$	12,382,927	\$ 10,242,379
Normal Cost at End of Year	\$	13,153,281	\$	11,659,772	\$ 5,617,722
Annual Required Contribution (ARC)	\$	25,959,724	\$	24,042,698	\$ 15,860,079
ARC as % of Payroll		n/a [†] ·	•	n/a	n/a
Expected Benefit Payment	\$	4,091,468	\$	4,091,468	\$ 4,091,468
Required Amount Funded to Trust	\$	21,868,256	\$	19,951,230	\$ 11,768,611



Appendix A. Summary of Benefits

The following description of retiree health benefits is intended to be only a brief summary. For details, reference should be made to Summary Plan Descriptions, Plan Documents, and employee booklets.

Eligibility

Retirees are eligible if they:

- retired directly from the City of Oakland (within 120 days of termination of employment); and
- are vested in CalPERS; and
- retired on or after age 50, with 10 years of service with the City of Oakland.

In addition, retirces receiving a disability or industrial disability retirement benefit from CalPERS are eligible.

Benefits

Municipal retirees are eligible to receive coverage under CalPERS medical plans for life. Surviving spouses of retirees are also covered if the retiree elects a CalPERS pension benefit payable for the life of the survivor. Dependents may be covered under the medical plan so long as the eligible retiree or spouse is alive.

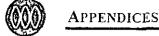
The City covers the co-payment mandated by CalPERS for providing health coverage. The mandated monthly co-payment is determined using the following schedule:

Calendar Year	Monthly Co-payment
2005	48.40
2006	64.60
2007	80.80
2008	97.00

In addition to the mandated co-payment, Municipal employees with at least 10 years of service with the City who retire from active service after age 50 on or after January 1, 1987 receive an additional reimbursement of up to \$425.40 per month for coverage of the retiree and one dependent. The reimbursement and co-payment combined cannot exceed the CalPERS medical premium.

Widows or widowers of pre-retirement decedents are generally eligible for medical coverage if they are eligible for an immediate CalPERS annuity. Widows or widowers are further eligible for the reimbursement if the decedent had reached age 50 and 10 years of service.

Eligible retirees may decline medical coverage at any point and resume coverage at the annual open enrollment period. A small number of retirees made a one-time election in 1989 to receive \$75 per month reimbursement for medical coverage outside the CalPERS system. Surviving spouses are reimbursed \$37.50 per month. The City does not provide for any dental or vision benefits for its Municipal retirees.



Appendix A. Summary of Benefits (continued)

Health Plan Premiums

The following table shows monthly retiree health insurance premiums for the 2007 premium year for coverage under the CalPERS Health Plan for Bay Area:

	Monthly Premium Rates – 2007			
	Sin,	gle	2-Pa	irty
•	Under 65	Over 65	Under 65	Over 65
Plans				
Blue Shield HMO	\$484.21	\$318.95	\$968.42	\$637.90
Kaiser Permanente	431.17	289.68	862.34	579.36
PERSCare	769.50	371.68	1,539.00	743.36
PERSChoice	455.18	341.75	910.36	683.50

Since the CalPERS Health Plan is a community rated health plan, we have not included in our valuation the value of any implicit rate subsidy for retirees whose premium rates are the same as active employees.



Appendix B. Actuarial Cost Method and Assumptions

Actuarial Methods

A fundamental principle in financing the liabilities of a retirement program is that the cost of its benefits should be related to when those benefits are earned, rather than to when they are paid. There are a number of methods for making such a determination.

The actuarial cost method used to calculate the funding requirements of the Plan is called the **Individual Entry Age Normal** cost method, with normal cost expressed as a level percentage of covered Compensation.

Under this cost method, the normal cost is the sum of the individual normal costs for all participants. This method allocates the actuarial present value of projected benefits over the service of each active participant from date of entry into the Plan until the assumed date of exit from the Plan, as a level percentage of the projected salary. This level percentage is referred to as the normal cost rate. It is calculated by dividing the actuarial present value of projected benefits at entry age by the actuarial present value of the projected salary at entry age. Multiplying the normal cost rate by the projected salary for the current year yields the normal cost for that year. The normal cost equals \$0 for inactive participants.

The actuarial liability is the sum of the individual actuarial liabilities for all participants. The individual actuarial liability equals the actuarial present value of all projected future benefits less the actuarial present value of all future normal costs, where both of these present values are calculated as of the valuation date.

The unfunded liability equals the total actuarial liability less the actuarial value of plan assets.

In determining the Annual Required Contribution, the Unfunded AAL is amortized as a level percentage of expected payroll over 20 years. The actuarial assumptions are summarized below.

Valuation Date

July 1, 2006

Economic Assumptions

Discount Rate

4.0%, 4.5%, and 7.75% effective annual rates

Annual Benefit Increases

The CalPERS minimum employer monthly co-payment is assumed to increase to \$97 per month for 2008, and then increase at 5% per year thereafter. The City's additional reimbursement amount is assumed to be \$425.40 per month through 2008 and then increase at 5% per year thereafter.



Appendix B. Actuarial Cost Method and Assumptions (cont'd)

Economic Assumptions (cont'd)

Salary Increases

3.25% per year growth in overall payroll for purposes of amortizing unfunded liability.

For purposes of calculating entry age normal costs, merit salary increases are applied for individual members according to assumptions rates used by CalPERS in its actuarial valuation of retirement benefits.

For Municipal officers, assumed merit salary increases are based on an entry age of 30.

Health Cost Trend

Actual premium rate increases through 2007. Premiums are assumed to increase 9% from 2007 to 2008, 8% the next year, and grading down 1% per year to 5% per year thereafter.

Demographic Assumptions

Demographic assumptions regarding retirement and turnover are based on statistics taken from reports for California PERS under a "2.7% @ 55" benefit schedule. Below is a summary of the assumed rates for retirement and turnover.

Retirement		2.7%	s at 55
,	Age	Males	Females
•	50	5%	7%
	51	2%	5%
	52	3%	5%
	53	3%	6%
	54	4%	6%
	- 55	9%	10%
	56	7%⋅	8%
•	. 57	8%	7%
	58	8%	10%
	59	10%	9%
	60	17%	13%
	61	16%	11%
•	62	28%	23%
	63	23%	20%
	64	16%	14%
	65	27%	27%



Appendix B. Actuarial Cost Method and Assumptions (continued)

Retirement (continued)

	2.7%	at 55
Age	Males	Females
66	15%	16%
67 .	13%	16%
68	13%	12%
69	10%	14%
70	100%	100%

Withdrawal

Sample probabilities of terminating within one year for an employee with five years of service are shown below for selected ages:

Age	2.7% at 55 Unisex	
30	6.27%	
35	5.57%	
40	4.88%	
45	1.55%	
50	1.29%	
55	1.04%	

Mortality

Sample probabilities of active employees becoming deceased due to different causes within one year are shown below for selected ages:

	Industrial	Non-Industrial Relate		
Age	Related Unisex	Male	Female	
25	0.01%	0.03%	0.01%	
30	0.01%	0.04%	0.02%	
35	0.01%	0.05%	0.03%	
40	0.02%	0.08%	0.05%	
45	0.02%	0.11%	0.07%	
50	0.02%	0.16%	0.10%	



APPENDICES

Appendix B. Actuarial Cost Method and Assumptions (continued)

Other Assumptions

Marital Status

70% of retirees are assumed to retire with a covered spouse.

Spouse Age

Female spouses are assumed to be two years younger than male

spouses.

Enrollment Election Upon Retirement

Pre-65

50% of those eligible for only the CalPERS minimum, 100% for those

eligible for the reimbursement program of up to \$425.40 per month.

Post 65

100% elect to receive the City's contribution to the medical premiums.



Appendix C. Summary of Participant Data

The following census of participants was used in the actuarial valuation and provided by the City of Oakland. The data was collected as of January 2007.

Covered Active Employees

		Total	
Age	Males	Females	Total
Under 25	11	9	20
25 – 29	51	59	110
30 – 34	89	115	204
35 – 39	120	154	274
40 - 44	186	168	354
45 – 49	229	221	450
50 - 54	216	223	439
55 – 59	175	189	364
60 – 64	89.	10 9	198
65 – 69	24	29	53
70 & Over	<u>11</u>	<u>10</u>	<u>21</u>
Total	1201	1286	2487

Current Retirees

Age	<u> Totul</u>		
	Males	Females	Total
Under 55	11	28	39
55 – 59	83	73	156
60 <i>-</i> 64	123	87	210
65 – 69	108	76	184
70 – 74	87	52	139
75 – 7 9	74	70	144
80 - 84	64	53	117
85 & Over	<u>42</u>	· <u>67</u>	<u>109</u>
Total	592	506	1098