Milliman

650 California Street, 17th Floor
San Francisco, CA 94108-2702
USA

Tel +1 415 403 1333
Fax +1 415 403 1334

milliman.com

November 10, 2015

Ms. Lisa Driscoll
County Finance Director
County Administrator's Office
651 Pine Street, 10th Floor
Martinez, CA 94553

Contra Costa County Retiree Health Plan
Analysis of Proposed Retiree Health Benefit Change for United Chief Officers' Association (UCOA) for the Contra Costa County Fire Protection District

Dear Ms. Driscoll:

As requested, we have estimated the cost impact of a proposed change to retiree health benefits for the United Chief Officers' Association (UCOA). The proposed benefit change would apply to all UCOA employees and retirees for the Contra Costa County Fire Protection District ("District"). The purpose of this analysis is to estimate the change in the County's long-term other postemployment liability under GASB 45 (comparison of the present value of benefits, actuarial accrued liability, normal cost, annual required contribution, and projected benefit payments is shown before and after the proposed change) to comply with California Government Code Section 7507.

Current Plan

Currently, for eligible Fire Management retirees represented by United Chief Officers Association (UCOA) with bargaining unit code HA, the District will subsidize an amount equal to 80% of the CalPERS Kaiser Bay Area premium at each coverage level (employee only, employee + one, employee + two or more) for any region in which the retiree resides, but the District's subsidy will not exceed the total premium of a lower cost plan.

For retirees enrolled in a health plan from CalPERS, the District will subsidize 78% of the monthly dental premium.

For retirees who elect dental coverage without medical coverage, the District will subsidize an amount toward the monthly dental premium such that the retiree will pay one cent ($0.01) per month for such coverage.

Proposed Plan

District Premium Subsidy on or after December 1, 2016: For the plan year that begins on January 1, 2017 and each calendar year thereafter, the maximum monthly premium subsidy the District will pay for each health plan is equal to the actual dollar monthly premium subsidy that is paid by the District for that plan as of November 30, 2016. In addition, if there is an increase in the monthly premium charged by a health plan for 2017, the District and the employee will each pay fifty percent (50%) of that increase. For each plan year thereafter, and for each plan, the District and the employee will each pay fifty (50%) of the monthly premium increase above the 2016 plan premiums.

For eligible retirees from bargaining unit HA enrolled in both a medical and dental plan, for the plan year that begins on January 1, 2016, the District will pay a monthly premium subsidy for each dental plan that is equal to the actual dollar monthly premium subsidy that is paid by the District as of November 30, 2015. In addition, if there is an increase in the monthly premium charged by a dental plan for 2016, the District and the employee will each pay fifty percent (50%) of that increase. For each plan year thereafter, the District and the employee will each pay fifty percent (50%) of the monthly premium increase above the 2015 plan premium.

For eligible retirees from bargaining unit HA enrolled in a dental plan only without health coverage, beginning on January 1, 2016, the District will pay a monthly dental premium subsidy for each dental plan that is equal to the actual dollar monthly premium subsidy that is paid by the District for 2015. If there is an increase in the premium charged by a dental plan for 2016, the District and the employee will each pay fifty percent (50%) of the increase. For each plan year thereafter, the District and the employee will each pay fifty percent (50%) of the premium increase that is above the 2015 plan premium.

Results

The results are estimated as of January 1, 2016. The estimated costs are based on valuation results as of January 1, 2014, projected to January 1, 2016, and reflect actual health premiums for 2016. Only the liabilities for active and retired UCOA members are shown in the comparison below.

	Current Plan Est. at 1/1/2016	Proposal Plan Est. at 1/1/2016	Difference
Present Value of Benefits			
Active Employees	$2,102,000	$1,714,000	($388,000)
Retirees	$5,840,000	$5,012,000	($828,000)
Total	$7,942,000	$6,726,000	($1,216,000)
Actuarial Accrued Liability			
Active Employees	$1,605,000	$1,320,000	($285,000)
Retirees	$5,840,000	$5,012,000	($828,000)
Total	$7,445,000	$6,332,000	($1,113,000)
Normal Cost Est. at June 30, 2016	$70,000	$57,000	($13,000)
Annual Required Contribution (ARC) Est. at 6/30/16	$642,000	$541,000	($101,000)

The items shown in the table above are defined as follows:

The **Present Value of Benefits** is the present value of projected benefits (projected claims less retiree contributions) discounted at the valuation interest rate (5.70%).

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, this is equal to the present value of benefits prorated by service to date over service at the expected retirement age.

The **Normal Cost** is that portion of the District provided benefit attributable to employee service in the current year. Employees are assumed to have an equal portion of the present value of benefits attributed to each year of service from date of hire to expected retirement age.

The **Annual Required Contribution (ARC)** is equal to the Normal Cost plus an amount to amortize the unfunded AAL as a level dollar amount over a period of 30 years on a “closed” basis starting January 1, 2008. There are 22 years remaining as of January 1, 2016.

The table below contains a 20 year projection of projected benefit payments under the current and proposed benefit plans for UCOA members. The projected benefit payments are net of required retiree contributions, but include the value of the implicit premium rate subsidy for non-Medicare retirees for whom the same premium rate is charged as for actives. The estimated projected benefit payments are based on employees and retirees as of the valuation date. Future employees are not reflected in the table below.

Calendar	Projected Benefit Payments		
Year	Current Plan	Proposed Plan	Difference
2016	$ 356,000	$ 356,000	0
2017	389,000	382,000	(7,000)
2018	378,000	366,000	(12,000)
2019	415,000	396,000	(19,000)
2020	436,000	409,000	(27,000)
2021	467,000	432,000	(35,000)
2022	490,000	448,000	(42,000)
2023	500,000	450,000	(50,000)
2024	534,000	474,000	(60,000)
2025	563,000	495,000	(68,000)
2026	563,000	488,000	(75,000)
2027	590,000	507,000	(83,000)
2028	557,000	473,000	(84,000)
2029	551,000	463,000	(88,000)
2030	564,000	469,000	(95,000)
2031	529,000	433,000	(96,000)
2032	569,000	464,000	(105,000)
2033	540,000	435,000	(105,000)
2034	549,000	437,000	(112,000)
2035	508,000	396,000	(112,000)

Important Notes

Except where noted above, the results in this letter are based on the same data, methods, assumptions, and plan provisions that are used in the January 1, 2014, actuarial valuation report for the Contra Costa County ("County"), dated August 8, 2014. Appendices A through C contain a description of the current provisions assumptions and data used in the valuation report for UCOA employees and retirees.

In preparing our report, we relied, without audit, on information (some oral and some in writing) supplied by Contra Costa County's staff. This information includes but not limited to employee census data, financial information and plan provisions. 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.

All costs, liabilities, rates of interest, and other factors for the County have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the County and reasonable expectations); and which, in combination, offer our best estimate of anticipated experience affecting the County. Further, in our opinion, each actuarial assumption used is reasonably related to the experience of the Plan and to reasonable expectations which, in combination, represent our best estimate of anticipated experience for the County.

This analysis is only an estimate of the Plan's financial condition as of a single date. It can neither predict the Plan's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of Plan benefits, only the timing of County contributions. While the valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct. Determining results using alternative assumptions is outside the scope of our engagement.

The estimates as of January 1, 2016, are based on actual health plan premiums for 2016, but are based on census data and assumptions specified in the January 1, 2014, actuarial valuation. The actual valuation results for UCOA as of January 1, 2016, will differ based on changes in census data form 2014 and assumptions that will be established for the 2016 actuarial valuation. Furthermore, future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements. The County has the final decision regarding the appropriateness of the assumptions and actuarial cost methods.

This letter is prepared solely for the internal business use of Contra Costa County. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exceptions:

a) Contra Costa County may provide a copy of Milliman's work, in its entirety, to the County's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit the County.

b) Contra Costa County may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law.

No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuary is independent of the plan sponsor. We are not aware of any relationship that would impair the objectivity of our work.

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,

John R. Botsford, FSA, MAAA
Principal and Consulting Actuary

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Appendix A. Summary of Benefits under Current Plan before Proposed Changes

The following description of retiree health benefits is intended to be only a brief summary and is not complete information.

Eligibility

Currently, employees may receive retiree health benefits if they retire from the County, are receiving a pension, and meet certain eligibility requirements as follows:

Safety employees - age 50 with 10 years of pension service or age 70 with a vested pension, or after 20 years of pension service with no age requirement.

Health Benefits

Currently, eligible retirees and their dependents are covered under the health plans sponsored by CalPERS (PEMHCA). The County will subsidize an amount equal to 80% of the CalPERS Kaiser premium at each coverage level (employee only, employee + one, employee + two or more) for the region in which the retiree resides, but the County's subsidy will not exceed the total premium of a lower cost plan.

For retirees enrolled in a health plan from CalPERS, the County will subsidize 78% of the monthly dental premium.

For retirees who elect dental coverage without medical coverage, the County will subsidize an amount toward the monthly dental premium such that the retiree will pay one cent ($0.01) per month for such coverage.

All surviving spouses receive the same County subsidy as the retiree.

PEMHCA Health Plan Premium Rates

Eligible retirees can choose to enroll in health plans sponsored by CalPERS based on their residence region (Bay Area, Sacramento, Los Angeles, Northern California, Southern California and Out of State of California). The following table shows the monthly Bay Area retiree health insurance premiums for the 2015 and 2016 calendar years:

	Monthly Premium Rates – Effective January 1, 2015					
	Single		2-Party		Family	
	Under 65	Over 65	Under 65	Over 65	Under 65	Over 65
Anthem HMO Select	$ 662.41	$ 445.38	$ 1,324.82	$ 890.76	$ 1,722.27	$ 1,336.14
Anthem HMO Traditional	827.57	445.38	1,655.14	890.76	2,151.68	1,336.14
Blue Shield	928.87	352.63	1,857.74	705.26	2,415.06	1,057.89
Blue Shield NetValue	870.60	352.63	1,741.20	705.26	2,263.56	1,057.89
Kaiser	714.45	295.51	1,428.90	591.02	1,857.57	886.53
PERS Choice	700.84	339.47	1,401.68	678.94	1,822.18	1,018.41
PERS Select	690.43	339.47	1,380.86	678.94	1,795.12	1,018.41
PERSCare	775.08	368.76	1,550.16	737.52	2,015.21	1,106.28
United Healthcare	850.67	267.41	1,701.34	534.82	2,211.74	802.23
CCHP	772.95	660.92	1,545.91	1,321.84	2,009.68	1,982.76

Effective January 1, 2016, CalPERS will no longer offer Medicare Advantage plans offered by Anthem and Blue Shield and will add a Health Net option for non-Medicare retirees only.

	Monthly Premium Rates – Effective January 1, 2016					
	Single		2-Party		Family	
	Under 65	Over 65	Under 65	Over 65	Under 65	Over 65
Anthem HMO Select	$ 721.79	N/A	$ 1,443.58	N/A	$ 1,876.65	N/A
Anthem HMO Traditional	855.42	N/A	1,710.84	N/A	2,224.09	N/A
Blue Shield	1,016.18	N/A	2,032.36	N/A	2,642.07	N/A
Blue Shield NetValue	1,033.86	N/A	2,067.72	N/A	2,688.04	N/A
HealthNet SmartCare	808.44	N/A	1,616.88	N/A	2,101.94	N/A
Kaiser	746.47	297.23	1,492.94	594.46	1,940.82	891.69
PERS Choice	798.36	366.38	1,596.72	732.76	2,075.74	1099.14
PERS Select	730.07	366.38	1,460.14	732.76	1,898.18	1099.14
PERSCare	889.27	408.04	1,778.54	816.08	2,312.10	1224.12
United Healthcare	955.44	320.98	1,910.88	641.96	2,484.14	962.94
CCHP *	N/A	N/A	N/A	N/A	N/A	N/A

* Not available for 2016, as of January 1, 2014 no UCOA employees and retirees were enrolled in this plan.

Dental Plan Premiums

The following table shows monthly retiree dental insurance premiums for the 2016 calendar year. County subsidies vary based on retiree's medical plan enrollment election and bargaining unit upon retirement.

Plan	Monthly Premiums
Delta Dental - $1,600 Annual Maximum	
Retiree	$ 42.45
Family	95.63
Delta Care (PMI)	
Retiree	$ 29.06
Family	62.81

Appendix B. Actuarial Cost Method and Assumptions

The actuarial cost method used for determining the benefit obligations is the Projected Unit Credit Cost Method. Under this method, the actuarial present value of projected benefits is the value of benefits expected to be paid for current actives and eligible retirees and is calculated based on the assumptions and census data described in this report.

The Actuarial Accrued Liability (AAL) is the actuarial present value of benefits attributed to employee service rendered prior to the valuation date. The AAL equals the present value of benefits multiplied by a fraction equal to service to date over service at expected retirement. The Normal Cost is the actuarial present value of benefits attributed to one year of service. This equals the present value of benefits divided by service at expected retirement. Since retirees are not accruing any more service, their normal cost is zero. The actuarial value of assets is equal to the market value of assets as of the valuation date.

In determining the Annual Required Contribution, the Unfunded AAL is amortized as a level dollar amount over 30 years on a “closed” basis. There are 22 years remaining in the amortization period as of January 1, 2016. The actuarial assumptions are summarized below.

Economic Assumptions

Discount Rate (Liabilities) 5.70%

We have used a discount rate of 5.70% in this valuation to reflect the County’s current policy of partially funding its OPEB liabilities. This rate is derived based on the fund’s investment policy, level of partial funding, and includes a 2.50% long-term inflation assumption. County OPEB Irrevocable Trust assets are invested in the Public Agency Retirement Services’ Highmark Portfolio. Based on the portfolio’s target allocation (shown below), the average return of Trust assets over the next 30 years is expected to be 6.25%, which would be an appropriate discount rate if the County’s annual contribution is equal to the ARC. If the County were to elect not to fund any amount to a Trust, the discount rate would be based on the expected return of the County’s general fund (we have assumed a long term return of 3.50% for the County’s general fund). Since the County is partially funding the Trust with a contribution of $20 million per year, we used a blended discount rate of 5.70%.

Asset Class	Expected 1-Year Nominal Return	Targeted Asset Allocation
Domestic Equity Large Cap	8.14%	17.0%
Domestic Equity Mid Cap	8.92%	6.0%
Domestic Equity Small Cap	9.90%	8.0%
U.S. Fixed Income	4.69%	38.0%
International / Global Equity (Developed)	8.56%	16.0%
Real Estate	8.12%	4.0%
Cash	3.01%	1.0%
Alternatives	5.71%	10.0%
Expected Geometric Median Annual Return (30 years)		6.25%

Demographic Assumptions

Below is a summary of the assumed rates for mortality, retirement, disability and withdrawal, which are consistent with assumptions used in the December 31, 2012 CCCERA Actuarial Valuation.

Pre / Post Retirement Mortality

Healthy: RP-2000 Combined Healthy Mortality Table projected to 2030 with Scale AA, set back two years.

Disabled: RP-2000 Combined Healthy Mortality Table projected to 2030 with Scale AA, set forward three years.

Beneficiaries: RP-2000 Combined Healthy Mortality Table projected to 2030 with Scale AA, set back one year.

Disability

Age	UCOA
20	0.02%
25	0.22%
30	0.42%
35	0.56%
40	0.66%
45	0.94%
50	2.54%

Withdrawal – Sample probabilities of terminating employment with the County are shown below for selected years of County service.

Years of Service	UCOA
Less than 1	11.50%
1	6.50%
2	5.00%
3	4.00%
4	3.50%
5	3.00%
10	1.90%
15	1.40%
20 or more	1.00%

Retirement – For this report, we have applied the following retirement rates.

Age	UCOA	Age	UCOA
45	2%	60	40%
46	2%	61	40%
47	7%	62	40%
48	7%	63	40%
49	20%	64	40%
50	25%	65	100%
51	25%	66	100%
52	25%	67	100%
53	25%	68	100%
54	25%	69	100%
55	30%	70	100%
56	25%	72	100%
57	25%	73	100%
58	35%	74	100%
59	35%	75	100%

Coverage Election Assumptions

Retiree Coverage – We have assumed 90% of new retirees will elect medical and dental coverage at retirement.

Spouse Coverage – We have assumed 50% of new retirees electing coverage will elect spouse medical and dental coverage at retirement.

Spouse Age – Female spouses are assumed to be three years younger than male spouses.

Dependent Coverage – We have assumed 30% of retirees with no spouse coverage will elect coverage for a dependent child until age 65, and 50% of retirees with spouse coverage will elect coverage for a dependent child until age 65.

Health Plan Election – We have assumed that new retirees will remain enrolled in the same plan they were enrolled in as actives. For actives who waived coverage, we have assumed that they will elect Kaiser plan coverage.

Valuation of Retiree Premium Subsidy Due to Active Health Costs

The California PERS (PEMHCA) health plans charge the same premiums for retirees who are not yet eligible for Medicare as for active employees. Therefore, the retiree premium rates are being subsidized by the inclusion of active lives in setting rates. (Premiums calculated only based on retiree health claims experience would have resulted in higher retiree premiums.) GASB 45 requires that the value of this subsidy be recognized as a liability in valuations of OPEB costs. To account for the fact that per member health costs vary depending on age (higher health costs at older ages), we calculated equivalent per member per month (PMPM) costs that vary by age based on the age distribution of covered members, and based on relative cost factors by age. The relative cost factors were developed from the Milliman Health Cost Guidelines™. Based on the carrier premium rates and relative age cost factors assumptions, we developed age adjusted monthly PMPM health costs for 2014 to be used in valuing the implicit rate subsidy. The following tables show the age adjusted expected monthly claims cost for a male participant at age 64 for each health plan and relative age factors compared to a male age 64.

Plan	Monthly Age Adjusted Claims Cost for Age 64 Male	Dependent Child Cost Load
California PERS Plans (average)	$ 1,100	$ 219

Relative Claims Cost Factor Compared to Male age 64

Age	Male	Female
50	0.458	0.572
55	0.604	0.668
60	0.786	0.789
64	1.000	0.915

Since retirees eligible for Medicare (age 65 and beyond) are enrolled in Medicare supplemental plans, the premiums for retirees with Medicare are determined without regard to active employee claims experience and no such subsidy exists for this group for medical cost.

Medical Cost Inflation Assumption

We assumed future increases to the health costs and premiums are based on the “Getzen” model published by the Society of Actuaries for purposes of evaluating long term medical trend. Under the Patient Protection and Affordable Care Act of 2010, a Federal excise tax will apply for high cost health plans beginning in 2018. A margin to reflect the impact of the excise tax in future years is reflected in the assumed trend. The following table shows the assumed rate increases in future years for Medical premiums.

Calendar Year	Pre 65	Calendar Year	Post 65
2016	6.25%	2016	6.50%
2017 – 2018	6.75%	2017 – 2025	6.00%
2019	7.00%	2026 – 2032	5.75%
2020 – 2022	7.25%	2033	6.00%
2023 – 2024	7.00%	2034	6.75%
2025 – 2029	6.75%	2035	6.50%
2030 – 2033	6.50%	2036 – 2042	6.25%
2034 – 2036	6.25%	2043 – 2045	6.00%
2037 – 2038	6.00%	2046 – 2051	5.75%
2039 – 2043	5.75%	2052 – 2059	5.50%
2044 – 2050	5.50%	2060 – 2070	5.25%
2051 – 2061	5.25%	2071 – 2076	5.00%
2062 – 2074	5.00%	2077 – 2081	4.75%
2075 – 2079	4.75%	2082 +	4.50%
2080 +	4.50%		

Dental Cost We assumed Dental costs will increase 4.0% annually.

Appendix C. Summary of Participant Data

The following census of participants was used in the actuarial valuation and provided by Contra Costa County.

Active Employees

Age	UCOA
Under 25	0
25 – 29	0
30 – 34	0
35 – 39	1
40 – 44	1
45 – 49	6
50 – 54	3
55 – 59	1
60 – 64	0
65 & Over	0
Total	12

Average Age at Hire: 26.17
Average Age on Valuation Date: 48.25

Current Retirees

Age	UCOA
Under 50	0
50 – 54	5
55 – 59	9
60 – 64	7
65 – 69	4
70 – 74	0
75 – 79	0
80 – 84	0
85 & Over	0
Total	25

Average Age on Valuation Date: 59.2