

August 13, 2012

September 12, 2012 Agenda Item 12

Lou Ann Texeira 651 Pine Street, 8th Floor Martinez 94553

Re: Actuarial Information Letters

Dear Lou Ann Texeira,

We have enclosed three separate letters from The Segal Company regarding information based on the December 31, 2011 valuation. These letters will outline the following:

- 1. Unfunded Actuarial Accrued Liability by Employer as of December 31, 2011
- 2. Five Year Projection of Employer Contribution Rate Changes
- 3. Employer Contribution Rate Reconciliation by Cost Group as of December 31,2011

Letters 1 and 2, as listed above, have been provided to you in the past, and outline information regarding the UAAL and the projection of contribution rate changes. Letter 3 is a new document outlining the rate reconciliation by cost group and provides additional information detailing the changes in the recommended employer contribution rates for each cost group.

Please review the enclosed information and call our office with any questions. We will be happy to discuss particulars with each individual employer.

Sincerely,

Marilyn Leedom

Retirement Chief Executive Officer

Jarilian Leedon.



THE SEGAL COMPANY 100 Montgomery Street, Suite 500 San Francisco, CA 94104-4308 T 415.263.8228 F 415 263.8290 www.segalco.com

John W. Monroe, ASA, MAAA, EA Vice President & Associate Actuary jmonroe@segalco.com

August 8, 2012

Ms. Marilyn Leedom Chief Executive Officer Contra Costa County Employees' Retirement Association 1355 Willow Way, Suite 221 Concord, CA 94520

Re: Determination of Unfunded Actuarial Accrued Liability for the Employers as of December 31, 2011

Dear Marilyn:

As requested, the following provides an allocation of the Unfunded Actuarial Accrued Liability (UAAL) as of December 31, 2011 by employer.

Since the depooling action taken by the Board effective December 31, 2009, employers that are now in their own cost group have their UAAL determined separately in the valuation. For employers that do not have their own cost group, there is no UAAL maintained on an employer-by-employer basis in the valuation. In those cases, we develop contributions to fund the UAAL strictly according to payroll for each employer. We then use those UAAL contributions to develop a UAAL for each participating employer. Note that the UAAL we calculate for each employer is not necessarily the liability that would be allocated to that employer in the event of a plan termination by that employer.

Based on the above method, we have prepared the following breakdown of the UAAL for each participating employer as shown on the enclosed Exhibit.

These calculations are based on the December 31, 2011 actuarial valuation results including the participant data and actuarial assumptions on which that valuation was based. That valuation and these calculations were completed under the supervision of John Monroe, ASA, MAAA, Enrolled Actuary.



The undersigned is a member of the American Academy of Actuaries and meets the qualification requirements to render the actuarial opinion contained herein.

Sincerely,

John Monroe

AW/gxk

cc: Kurt Schneider

Contra Costa County Employees' Retirement Association UAAL Breakdown

Employer	Unfunded Actuaria Accrued Liability (UAAL)		
County	\$1,037,535,000		
Superior Court	39,568,000		
Districts:			
Bethel Island Municipal Improvement District	257,000		
Byron, Brentwood, Knightsen Union Cemetery District	137,000		
Central Contra Costa Sanitary District	109,169,000		
First Five - Contra Costa Children & Families Commission	3,995,000		
Contra Costa County Employees' Retirement Association	7,143,000		
Contra Costa Fire Protection District	130,737,000		
Contra Costa Housing Authority	10,978,000		
Contra Costa Mosquito and Vector Control District	7,044,000		
East Contra Costa Fire Protection District	22,721,000		
In-Home Supportive Services Authority	1,598,000		
Local Agency Formation Commission	491,000		
Moraga-Orinda Fire Protection District	24,381,000		
Rodeo Sanitary District	413,000		
Rodeo-Hercules Fire Protection District	11,266,000		
San Ramon Valley Fire Protection District	81,160,000		
Total:	\$1,488,593,000		

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August 8, 2012

Ms. Marilyn Leedom Chief Executive Officer Contra Costa County Employees' Retirement Association 1355 Willow Way, Suite 221 Concord, CA 94520

Re: Contra Costa County Employees' Retirement Association Five-Year Projection of Employer Contribution Rate Changes

Dear Marilyn:

As requested, we have updated our five-year projection of estimated employer contribution rate changes for CCCERA. This projection is derived from the December 31, 2011 actuarial valuation results. Key assumptions and methods are detailed below.

Results

The estimated contribution rate changes shown on the next page apply to the recommended average employer contribution rate. For purposes of this projection, the rate changes are assumed to be from asset gains and losses that are funded as a level percentage of the Association's total active payroll base. The asset gains and losses are due to: (1) deferred gains and losses from the actuarial asset smoothing methodology; (2) losses due to investment income not earned on the difference between the Actuarial Value of Assets (AVA) and Market Value of Assets (MVA); and (3) contribution gains and losses which occur from delaying the implementation of new rates until 18 months after the actuarial valuation date.

The following table provides the year-to-year rate changes from each of the above causes and the cumulative rate change over the five-year projection period. To obtain the estimated average employer contribution rate at each successive valuation date, these cumulative rate changes should be added to the rates developed from the December 31, 2011 valuation. These rate changes become effective 18 months following the actuarial valuation date shown in the table.



The rate changes shown below represent the average rate for the aggregate plan.

Rate Change	Valuation Date (12/31)							
Component	2012	2013	2013 2014		2016			
(1) Deferred (Gains)/Losses	3.43%	0.59%	-0.35%	0.10%	0.38%			
(2) Loss of Investment Income on Difference Between AVA and MVA	0.33%	0.06%	0.01%	0.04%	0.03%			
(3) 18-Month Rate Delay	0.40%	0.44%	<u>0.24</u> %	0.03%	0.01%			
Incremental Rate Change	4.16%	1.09%	-0.10%	0.17%	0.42%			
Cumulative Rate Change	4.16%	5.25%	5.15%	5.32%	5.74%			

The difference between these cumulative rate changes and those shown in our March 22, 2012 letter (i.e., previous five-year projection) are as follows:

	Valuation Date (12/31)						
	2011	2012	2013	2014	2015		
Cumulative Rate Change From March 22, 2012 Letter	3.39%	7.24%	8.21%	8.08%	8.20%		
Reflecting Actual Experience through 12/31/2011	3.38%1	7.54%	8.63%	8.53%	8.70%		
Difference	-0.01%	0.30%	0.42%	0.45%	0.50%		

These differences are mainly due to the inclusion of actual experience from the December 31, 2011 valuation instead of projected experience that was part of the previous projection.

The average employer contribution rate as of the December 31, 2011 Actuarial Valuation is 37.87%, and based on the cumulative rate changes above is projected to progress as shown below.

The second secon	Valuation Date (12/31)							
	2012	2013	2014	2015	2016			
Average Employer Contribution Rate	42.03%	43.12%	43.02%	43.19%	43.61%			

¹ Actual change in the average employer contribution rate as shown on page 50 of the December 31, 2011 valuation.

The rate change for an individual cost group or employer will vary depending primarily on the size of that group's assets and liabilities relative to its payroll. The ratio of the group's assets to payroll is sometimes referred to as the volatility index (VI). A higher VI results in more volatile contributions and can result from the following factors:

- > More generous benefits
- > More retirees
- > Older workforce
- > Shorter careers
- > Issuance of Pension Obligation Bonds (POBs)

The attached exhibit shows the VI for CCCERA's cost groups along with the "relative VI" which is the VI for that specific cost group divided by the average VI for the aggregate plan. Using these ratios we have estimated the rate change due to these generally investment related net losses for each individual cost group by multiplying the rate changes shown above for the aggregate plan by the relative VI for each cost group. These estimated rate changes for each cost group are shown in the attached exhibit.

Note that because we have estimated the allocation of the rate changes across the cost groups, the actual rate changes by group may differ from those shown in the exhibit, even if the planwide average rate changes are close to those shown above.

Key Assumptions and Methods

The projection is based upon the following assumptions and methods:

- > December 31, 2011 non-economic assumptions remain unchanged.
- > December 31, 2011 retirement benefit formulas remain unchanged.
- > December 31, 2011 1937 Act statutes remain unchanged.
- > UAAL amortization method remains unchanged (i.e., 18-year layers, level percent of pay).
- > December 31, 2011 economic assumptions remain unchanged, including the 7.75% investment earnings assumption.
- ➤ We have assumed that returns of 7.75% are actually earned on a market value basis for each of the next four years after 2011.
- > Active payroll grows at 4.25% per annum.
- > Deferred investment gains and losses are recognized per the asset smoothing schedule prepared by the Association as of December 31, 2011. They are funded as a level percentage of the Association's total active payroll base.

- > Deferred investment gains are all applied directly to reduce the UAAL. Note that this assumption may not be entirely consistent with the details of the Board's Interest Crediting and Excess Earnings Policy.
- > The VI used for these projections is based on the December 31, 2011 Actuarial Valuation and is assumed to stay constant during the projection period.
- > All other actuarial assumptions used in the December 31, 2011 actuarial valuation are realized.
- > No changes are made to actuarial methodologies, such as adjusting for the contribution rate delay in advance.

Finally, we emphasize that projections, by their nature, are not a guarantee of future results. The modeling projections are intended to serve as illustrations of future financial outcomes that are based on the information available to us at the time the modeling is undertaken and completed, and the agreed-upon assumptions and methodologies described herein. Emerging results may differ significantly if the actual experience proves to be different from these assumptions or if alternative methodologies are used. Actual experience may differ due to such variables as demographic experience, the economy, stock market performance and the regulatory environment.

Unless otherwise noted, all of the above calculations are based on the December 31, 2011 actuarial valuation results including the participant data and actuarial assumptions on which that valuation was based. That valuation and these projections were completed under the supervision of John Monroe, ASA, MAAA, Enrolled Actuary.

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 herein.

Please let us know if you have any questions.

Sincerely,

John Monroe

John Monoe

AW/gxk Enclosure

cc: Kurt Schneider

Exhibit

Contra Costa County Employees' Retirement Association

Estimated Employer Rate Change by Cost Group (CG) Based on December 31, 2011 Valuation

	CG#1 & CG#2 Combined Enhanced General Tier 1 & 3	CG#3 Enhanced CCC Sanitary District Tier 1	CG#4 Enhanced Housing Authority Tier 1	CG#5 Enhanced CCCFPD Tier I	CG#6 Non-Enhanced District Tier 1
Market Value of Assets (MVA)*	\$2,791,051,968	\$168,880,730	\$33,106,617	\$34,055,510	\$3,977,453
Projected Payroll for 2012	\$483,579,864	\$24,734,871	\$5,625,516	\$3,512,267	\$760,772
Volatility Index (VI) = MVA/Payroll	5.77	6.83	5.89	9.70	5.23
Relative Volatility Index (VI) = CG VI / Total Plan VI	0.76	0.90	0.78	1.28	0.69
Estimated Incremental Rate Change as of 12/31/2012	3.18%	3.76%	3.24%	5.34%	2.88%
Estimated Incremental Rate Change as of 12/31/2013	0.83%	0.98%	0.85%	1.40%	0.75%
Estimated Incremental Rate Change as of 12/31/2014	-0.08%	-0.09%	-0.08%	-0.13%	-0.07%
Estimated Incremental Rate Change as of 12/31/2015	0.13%	0.15%	0.13%	0.22%	0.12%
Estimated Incremental Rate Change as of 12/31/2016	0.32%	0.38%	0.33%	0.54%	0.29%
Cumulative Rate Change as of 12/31/2012	3.18%	3.76%	3.24%	5.34%	2.88%
Cumulative Rate Change as of 12/31/2013	4.01%	4.74%	4.09%	6.74%	3.63%
Cumulative Rate Change as of 12/31/2014	3.93%	4.65%	4.01%	6.61%	3.56%
Cumulative Rate Change as of 12/31/2015	4.06%	4.80%	4.14%	6.83%	3.68%
Cumulative Rate Change as of 12/31/2016	4.38%	5.18%	4.47%	7.37%	3.97%

	CG#7 & CG#9 Combined Enhanced County Safety Tier A & C	CG#8 Enhanced CCCFPD/East CCCFPD Safety Tier A	CG#10 Enhanced Moraga-Orinda FD Safety Tier A	CG#11 Enhanced San Ramon Valley FD Safety Tier A	CG#12 Non-Enhanced Rodeo-Hercules FPD Safety Tier A
Market Value of Assets (MVA)*	\$1,041,640,039	\$631,130,767	\$113,147,927	\$201,642,866	\$19,254,955
Projected Payroll for 2012	\$82,120,783	\$37,604,378	\$7,516,620	\$18,962,214	\$1,976,861
Volatility Index (VI) = MVA/Payroll	12.68	16.78	15.05	10.63	9.74
Relative Volatility Index (VI) = CG VI / Total Plan VI	1.68	2.22	1.99	1.41	1.29
Estimated Incremental Rate Change as of 12/31/2012	6.98%	9.24%	8.28%	5.85%	5.36%
Estimated Incremental Rate Change as of 12/31/2013	1.83%	2.42%	2.17%	1.53%	1.40%
Estimated Incremental Rate Change as of 12/31/2014	-0.17%	-0.22%	-0.20%	-0.14%	-0.13%
Estimated Incremental Rate Change as of 12/31/2015	0.29%	0.38%	0.34%	0.24%	0.22%
Estimated Incremental Rate Change as of 12/31/2016	0.70%	0.93%	0.84%	0.59%	0.54%
Cumulative Rate Change as of 12/31/2012	6.98%	9.24%	8.28%	5.85%	5.36%
Cumulative Rate Change as of 12/31/2013	8.81%	11.66%	10.45%	7.38%	6.76%
Cumulative Rate Change as of 12/31/2014	8.64%	11.44%	10.25%	7.24%	6.63%
Cumulative Rate Change as of 12/31/2015	8.93%	11.82%	10.59%	7.48%	6.85%
Cumulative Rate Change as of 12/31/2016	9.63%	12.75%	11.43%	8.07%	7.39%

	Total
	Plan
_	\$5,037,888,833
	\$666,394,146
	7.56
_	1.00
_	4.16%
	1.09%
	-0.10%
	0.17%
_	0.42%
	4.16%
	5.25%
	5.15%
	5.32%
	5.74%

These rates do not include any employer subvention of member contributions or any member subvention of employer contributions.

^{*} Excludes Post Retirement Death Benefit reserve.



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John W. Monroe, ASA, MAAA, EA Vice President & Associate Actuary jmonroe@segalco.com

August 8, 2012

Ms. Marilyn Leedom Chief Executive Officer Contra Costa County Employees' Retirement Association 1355 Willow Way, Suite 221 Concord, CA 94520

Re: Contra Costa County Employees' Retirement Association Employer Contribution Rate Reconciliation by Cost Group December 31, 2011 Actuarial Valuation

Dear Marilyn:

As requested, we are providing a reconciliation of employer contribution rate changes separately for each of the twelve cost groups. The attached exhibit details the changes in the recommended employer contribution rates for each cost group from the December 31, 2010 valuation to the December 31, 2011 valuation.

OBSERVATIONS

- > The average employer rate increased from 34.49% of payroll as of December 31, 2010 to 37.87% of payroll as of December 31, 2011. As discussed in our December 31, 2011 actuarial valuation report, this increase was primarily due to the investment return on actuarial value that fell short of the 7.75% assumed rate. This investment loss increased the average employer contribution rate by 3.00% of payroll. This loss was allocated to each cost group in proportion to the assets for each cost group. The estimated impact of this loss varies by cost group with the Safety cost groups experiencing larger rate increases.
- Note that there were also changes in the employer rates caused by the 18-month delay in implementation of the contribution rates calculated in the December 31, 2010 valuation, the effect of actual versus expected individual salary increases, the effect of actual versus expected total payroll growth and the effect of lower than expected COLA increases.



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 herein.

Please let us know if you have any questions.

Sincerely,

Yohn Monroe

AW/hy Enclosures Reconciliation of Recommended Employer Contribution from December 31, 2010 to December 31, 2011 Valuation

*	Cost Group #1 General County and Small Districts Tier 1	Cost Group #2 General County and Small Districts Tier 3	Cost Group #3 Central Contra Costa Sanitary District Tier 1	Cost Group #4 Contra Costa Housing Authority Tier 1	Cost Group #5 Contra Costa County Fire Protection District Tier 1	Cost Group #6 Small Districts Non-enhanced Tier 1
Recommended Employer Contribution Rate in December 31, 2010 Valuation	29.16%	26.50%	53.91%	33.96%	25.71%	27.37%
Effect of investment (gain)/loss(1)	2.29%	2.29%	2.70%	2.34%	3.87%	2.10%
Effect of difference in actual versus expected contributions due to delay in implementation of contribution rates calculated in 12/31/2010 valuation	0.36%	0.36%	1.33%	0.13%	0.63%	-0.13%
Effect of lower than expected individual salary increases(2)	-0.81%	-0.81%	-0.36%	-0.95%	-1.00%	-0.94%
Effect of amortizing prior year's UAAL over a smaller/(larger) than expected projected total salary ⁽³⁾	0.96%	0.96%	1.08%	-0.21%	2.05%	-0.07%
Effect of lower than expected COLA increases ⁽⁴⁾	-0.42%	-0.42%	-0.64%	-0.48%	-0.78%	-0.19%
Effect of net other experience (gains)/losses(5)	0.99%	-0.10%	0.34%	0.47%	0.27%	-3.26%
Total Change	3,37%	2.28%	4.45%	1.30%	5.04%	-2.49%
Recommended Employer Contribution Rate in December 31, 2011 Valuation	32.53%	28.78%	58.36%	35.26%	30.75%	24.88%

Note: These rates do not include any employer subvention of member contributions, or member subvention of employer contributions.

⁽¹⁾ Return on the valuation value of assets of 2.77% was less than the 7.75% assumed in the valuation.

⁽²⁾ Lower individual salary increases decrease costs.

⁽³⁾ Total payroll growth lower/(greater) than the 4.25% assumed in the valuation increases/(decreases) the UAAL contribution rate, since the remaining UAAL is amortized over a lower/(greater) payroll.

⁽⁴⁾ The actual COLAs granted on April 1, 2011 were less than those assumed for some retirees and beneficiaries.

⁽⁵⁾ Other differences in actual versus expected experience including (but not limited to) mortality, disability, withdrawal, retirement and terminal pay experience.

EXHIBIT

Reconciliation of Recommended Employer Contribution from December 31, 2010 to December 31, 2011 Valuation

	Cost Group #7 Safety County Tier A	Cost Group #8 Contra Costa and East Fire Protection Districts Tier A	Cost Group #9 Safety County Tier C	Cost Group #10 Moraga- Orinda Fire District Safety A	Cost Group #11 San Ramon Valley Fire District Safety A	Cost Group #12 Rodeo- Hercules Fire Protection District Non-enhanced Safety A	Total Average Recommended Rate
Recommended Employer Contribution Rate in December 31, 2010 Valuation	58.87%	52.78%	52.03%	44.70%	63.55%	58.04%	34.49%
Effect of investment (gain)/loss(1)	5.03%	6.65%	5.03%	5.98%	4.21%	3.84%	3.00%
Effect of difference in actual versus expected contributions due to delay in implementation of contribution rates calculated in 12/31/2010 valuation	0.89%	1.36%	0.89%	1.01%	0.71%	1.58%	0.54%
Effect of lower than expected individual salary increases(2)	-0.89%	-1.53%	-0.89%	-0.61%	-1.74%	-1.14%	-0.87%
Effect of amortizing prior year's UAAL over a smaller/(larger) than expected projected total salary ⁽³⁾	3.26%	0.74%	3.26%	1.54%	2.53%	6.80%	1.27%
Effect of lower than expected COLA increases(4)	-1.10%	-1.48%	-1.10%	-1.37%	-0.65%	-0.64%	-0.59%
Effect of net other experience (gains)/losses(5)	0.36%	0.53%	-0.03%	1.69%	-0.22%	4.05%	0.03%
Total Change	7.55%	6.27%	<u>7.16%</u>	8.24%	4.84%	14.49%	3.38%
Recommended Employer Contribution Rate in December 31, 2011 Valuation	66.42%	59.05%	59.19%	52.94%	68.39%	72.53%	37.87%

Note: These rates do not include any employer subvention of member contributions, or member subvention of employer contributions.

⁽¹⁾ Return on the valuation value of assets of 2.77% was less than the 7.75% assumed in the valuation.

⁽²⁾ Lower individual salary increases decrease costs.

⁽³⁾ Total payroll growth lower/(greater) than the 4.25% assumed in the valuation increases/(decreases) the UAAL contribution rate, since the remaining UAAL over a lower/(greater) payroll.

⁽⁴⁾ The actual COLAs granted on April 1, 2011 were less than those assumed for some retirees and beneficiaries.

Other differences in actual versus expected experience including (but not limited to) mortality, disability, withdrawal, retirement and terminal pay experience.



Date:

August 20, 2012

To:

Employers, District Boards

Employee Representatives,

Other Interested Parties

From:

Marilyn Leedom, Retirement Chief Executive Officer

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FORMATION COMMISSION

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Subject:

Board Meeting, August 29, 2012



Of particular interest, The Segal Company will present an educational presentation on the new GASB Statements 67 and 68, which specifically apply to pension systems and state and local government employers. Statement No. 67, Financial Reporting for Pension Plans (which replaces GASB Statement No. 25), revises existing guidance for the financial reports of most pension plans. Statement No. 68 (which replaces GASB Statement No. 27), Accounting and Financial Reporting for Pensions, revises and establishes new financial reporting requirements for most governments that provide their employees with pension benefits.

In addition, The Segal Company will provide an educational session on the economic assumptions previously adopted by the Board, and used in the calculation of the annual CCCERA actuarial valuations. The last "Review of Economic Assumptions" report was presented to the Board of Retirement in March 2010. This report, which will be the basis for the educational session, is available on our website at www.cccera.org under the publications tab.

The Contra Costa County Employees' Retirement Association Board adopts new economic assumptions every three years, and is scheduled to review these again in early 2013. This is your opportunity to learn more about the process, ask questions, and gain an understanding of this important subject.

This is an opportunity for all interested parties, including staff and Boards of our participating employers, to learn more about the actuarial process. The Segal Company will provide the education on these important subjects.

We invite you to attend this meeting, ask questions and learn more about these critical subjects.



RETIREMENT BOARD MEETING SPECIAL MEETING

9:00 a.m.

August 29, 2012

Retirement Board Conference Room The Willows Office Park 1355 Willow Way Suite 221 Concord, California

THE RETIREMENT BOARD MAY DISCUSS AND TAKE ACTION ON THE FOLLOWING:

- 1. Pledge of Allegiance.
- 2. Accept comments from the public.
- 3. Approve minutes from the July 25 and July 26, 2012 meetings.
- 4. Educational presentation from The Segal Co. regarding GASB 67 and 68 Statements.
- 5. Educational presentation from The Segal Co. regarding the economic assumption setting process, using the March 2, 2010 report as an example.
- 6. Consider and take possible action to adopt contribution rates effective July 1, 2013.
- 7. Consider and take possible action on request from County for contributions rates for new tiers as outlined in SB 1494.
- 8. Review of total portfolio performance including:
 - a. Consideration of any managers already under review or to be placed under review.
 - b. Consideration of any changes in allocations to managers.
- 9. Review of Administrative Budget vs. Actual through June 30, 2012.
- 10. Consider authorizing the attendance of Board and/or staff:
 - a. 3rd Annual BancFund Partners Retreat, Carpenter Community BancFund, September 5 7, 2012, Newport Coast, CA.
 - b. Roundtable for Consultants and Institutional Investors, Institutional Investor, October 15-17, 2012, Chicago, IL.
- 11. Miscellaneous
 - a. Staff Report
 - b. Outside Professionals' Report
 - c. Trustees' comments

AGENDAITEM NO. 120

The Retirement Board will provide reasonable accommodations for persons with disabilities planning to attend Board meetings who contact the Retirement Office at least 24 hours before a meeting