CONTRA COSTA COUNTY CCCERA
Employees' Retirement Association

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LOCAL AGENCY FORMATION COMMISSION

March 12, 2014
Agenda Item 9

MEMORANDUM

Date: February 18, 2014

To: CCCERA Employers

From: Marilyn Leedom, Retirement Chief Executive Officer

Subject: Five Year Projection of Employer Contribution Rate Changes

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We are providing you with a copy of the *Five Year Projection of Employer Contribution Rate Changes* as provided to us by The Segal Company. This document is intended to provide an updated projection of estimated future contribution rate changes for CCCERA.

Please read the attached document closely. This projection will provide an estimate to employers of potential changes in contribution rates, based on the investment earnings of CCCERA for the year ended December 31, 2013, assuming all other assumptions remain the same.

Please note that this is a preliminary report only, based on preliminary investment returns for 2013.

The final projection letter will be provided to all employers after the completion of the annual actuarial valuation, in late June or early July.

SEGAL

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January 31, 2014

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
Based on Estimated 16.5% Gross Market Value Investment Return for 2013**

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, 2012 actuarial valuation results and incorporates an estimated gross market value investment return of 16.5% for the 2013 calendar year. Key assumptions and methods are detailed below. **It is important to understand that these results are entirely dependent on those assumptions. Actual results as determined in future actuarial valuations will differ from these results. In particular, actual investment returns and actual salary levels different than assumed can have a significant impact on future contribution rates.**

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 that are reflected include the asset gains and losses that are funded as a level percentage of the Association's total active payroll base.

The changes in contribution rate are due to: (1) deferred gains and losses from the actuarial asset smoothing methodology; (2) gains due to investment income earned on the difference between the Market Value of Assets (MVA) and Actuarial Value of Assets (AVA) (and losses when the opposite occurs); (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 resulting from each of the above components 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, 2012 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 Component	Valuation Date (12/31)				
	2013	2014	2015	2016	2017
(1) Deferred (Gains)/Losses	-0.76%	-1.94%	-1.40%	-1.06%	-1.05%
(2) (Gain)/Loss of Investment Income on Difference Between MVA and AVA	-0.12%	-0.43%	-0.28%	-0.17%	-0.09%
(3) 18-Month Rate Delay	1.09%	0.50%	-0.13%	-0.20%	-0.17%
Incremental Rate Change	0.21%	-1.87%	-1.81%	-1.43%	-1.31%
Cumulative Rate Change	0.21%	-1.66%	-3.47%	-4.90%	-6.21%

The difference between these cumulative rate changes and those shown in our August 9, 2013 letter (i.e., previous five-year projection) are as follows:

	Valuation Date (12/31)				
	2013	2014	2015	2016	2017
Cumulative Rate Change From August 9, 2013 Letter	1.00%	0.51%	0.03%	-0.16%	-0.35%
Reflecting Actual Investment Return through 12/31/2013	0.21%	-1.66%	-3.47%	-4.90%	-6.21%
Difference	-0.79%	-2.17%	-3.50%	-4.74%	-5.86%

The average employer contribution rate as of the December 31, 2012 Actuarial Valuation is 49.82%, and based on the cumulative rate changes above is projected to progress as shown below.

	Valuation Date (12/31)				
	2013	**2014**	**2015**	**2016**	**2017**
Average Employer Contribution Rate	50.03%	48.16%	46.35%	44.92%	43.61%

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
- Higher funded ratio
- 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 gains 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 plan-wide 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, 2012 non-economic assumptions remain unchanged.

- December 31, 2012 retirement benefit formulas remain unchanged.

- December 31, 2012 1937 Act statutes remain unchanged. In particular, these projections do not reflect any potential changes in benefits or contributions due to AB 340 ("PEPRA") or AB 197.

- UAAL amortization method remains unchanged (i.e., 18-year layers, level percent of pay).

- December 31, 2012 economic assumptions remain unchanged, including the 7.25% investment earnings assumption.

- The gross market value investment return of 16.5% during 2013 was reduced by an estimated 0.65% to account for investment and administrative expenses.

- We have assumed that returns of 7.25% are earned on a market value basis for each of the next four years after 2013.

- Active payroll grows at 4.00% per annum.

- Deferred investment gains and losses are recognized per the asset smoothing schedule prepared by the Association as of June 30, 2012. In addition, the estimated investment gain for 2013 is also recognized over a five-year period. 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, 2012 Actuarial Valuation and is assumed to stay constant during the projection period.

- All other actuarial assumptions used in the December 31, 2012 actuarial valuation are realized.

- No changes are made to actuarial methodologies, such as adjusting for the contribution rate delay in advance.

- The projections do not reflect any changes in the employer contribution rates that could result due to future changes in the demographics of CCCERA's active members or decreases in the employer contribution rates that might result from new hires going into the PEPRA tiers.

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, 2012 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 Monroe

AW/bqb
Enclosure

cc: Kurt Schneider

Exhibit

Contra Costa County Employees' Retirement Association

Estimated Employer Rate Change by Cost Group (CG) Based on December 31, 2012 Valuation with Estimated 16.5% Gross Market Value Return for 2013

	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 1	CG#6 Non-Enhanced District Tier 1
Market Value of Assets (MVA)*	$3,140,653,840	$189,503,039	$37,279,077	$37,128,377	$4,550,552
Projected Payroll for 2013	$480,730,515	$23,833,773	$5,054,117	$3,555,471	$746,787
Volatility Index (VI) = MVA/Payroll	6.53	7.95	7.38	10.44	6.09
Relative Volatility Index (VI) = CG VI / Total Plan VI	0.76	0.92	0.85	1.21	0.70
Estimated Incremental Rate Change as of 12/31/2013	0.16%	0.19%	0.18%	0.25%	0.15%
Estimated Incremental Rate Change as of 12/31/2014	-1.41%	-1.72%	-1.60%	-2.26%	-1.32%
Estimated Incremental Rate Change as of 12/31/2015	-1.37%	-1.66%	-1.54%	-2.19%	-1.28%
Estimated Incremental Rate Change as of 12/31/2016	-1.08%	-1.32%	-1.22%	-1.73%	-1.01%
Estimated Incremental Rate Change as of 12/31/2017	-0.99%	-1.20%	-1.12%	-1.58%	-0.92%
Cumulative Rate Change as of 12/31/2013	0.16%	0.19%	0.18%	0.25%	0.15%
Cumulative Rate Change as of 12/31/2014	-1.25%	-1.53%	-1.42%	-2.01%	-1.17%
Cumulative Rate Change as of 12/31/2015	-2.62%	-3.19%	-2.96%	-4.20%	-2.45%
Cumulative Rate Change as of 12/31/2016	-3.70%	-4.51%	-4.18%	-5.93%	-3.46%
Cumulative Rate Change as of 12/31/2017	-4.69%	-5.71%	-5.30%	-7.51%	-4.38%

	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	Total Plan
Market Value of Assets (MVA)*	$1,166,115,501	$688,736,519	$123,335,771	$231,051,990	$21,289,858	$5,639,644,524
Projected Payroll for 2013	$80,272,749	$32,604,881	$7,084,771	$16,733,471	$1,695,645	$652,312,180
Volatility Index (VI) = MVA/Payroll	14.53	21.12	17.41	13.81	12.56	8.65
Relative Volatility Index (VI) = CG VI / Total Plan VI	1.68	2.44	2.01	1.60	1.45	1.00
Estimated Incremental Rate Change as of 12/31/2013	0.35%	0.51%	0.42%	0.34%	0.30%	0.21%
Estimated Incremental Rate Change as of 12/31/2014	-3.14%	-4.57%	-3.77%	-2.99%	-2.72%	-1.87%
Estimated Incremental Rate Change as of 12/31/2015	-3.04%	-4.42%	-3.64%	-2.89%	-2.63%	-1.81%
Estimated Incremental Rate Change as of 12/31/2016	-2.40%	-3.49%	-2.88%	-2.28%	-2.08%	-1.43%
Estimated Incremental Rate Change as of 12/31/2017	-2.20%	-3.20%	-2.64%	-2.09%	-1.90%	-1.31%
Cumulative Rate Change as of 12/31/2013	0.35%	0.51%	0.42%	0.34%	0.30%	0.21%
Cumulative Rate Change as of 12/31/2014	-2.79%	-4.06%	-3.35%	-2.65%	-2.42%	-1.66%
Cumulative Rate Change as of 12/31/2015	-5.83%	-8.48%	-6.99%	-5.54%	-5.05%	-3.47%
Cumulative Rate Change as of 12/31/2016	-8.23%	-11.97%	-9.87%	-7.82%	-7.13%	-4.90%
Cumulative Rate Change as of 12/31/2017	-10.43%	-15.17%	-12.51%	-9.91%	-9.03%	-6.21%

* Excludes Post Retirement Death Benefit reserve.

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

RETIREMENT BOARD MEETING
SECOND MONTHLY MEETING
9:00 a.m.
February 26, 2014

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 January 22, 2014 meeting.

4. Consider and take possible action on Actuarial Funding Policy as recommended by Segal Consulting.

5. Presentation by Segal Consulting regarding the application of administrative expenses under GASB 67 and GASB 68.

6. 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

7. Presentation from Adams Street Partners regarding potential commitment to the 2014 Adams Street Global Fund.

8. Consider and take possible action on staff recommendation regarding a commitment to the 2014 Adams Street Global Fund.

9. Presentation from Paladin Cybersecurity Fund I.

10. Consider and take possible action on investment consultant recommendation regarding a commitment to Paladin Cybersecurity Fund I.

11. Consider authorizing the attendance of Board and/or staff:
    a. Annual Conference, NCPERS, April 26 – May 1, 2014, Chicago, IL.
    b. Spring Conference, Council of Institutional Investors, May 7 – 9, 2014, Washington, DC. (Note: Conflict with Board Meeting)
    c. Spring Conference, CRCEA, April 7 – 9, 2014, Costa Mesa, CA.

12. Miscellaneous
    a. Staff Report
    b. Outside Professionals' Report
    c. Trustees' comments

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