

Via Email

December 9, 2020
Agenda Item 10

November 25, 2020

Gail Strohl
Chief Executive Officer
Contra Costa County Employees' Retirement Association
1200 Concord Avenue, Suite 300
Concord, CA 94520

**Re: Contra Costa County Employees' Retirement Association (CCCERA)
Five-Year Projection of Employer Contribution Rate as of December 31, 2019**

Dear Gail:

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, 2019 Actuarial Valuation results. 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 included reflect the asset gains and losses that are funded as a level percentage of the Association's total active payroll base. The projected rate changes in the December 31, 2022 Actuarial Valuation also reflect the December 31, 2007 Unfunded Actuarial Accrued Liability (UAAL) restart charge and Pension Obligation Bonds (POB) credit amortization layers dropping off as they become fully amortized.

The changes in contribution rate are due to:

1. Recognition of deferred investment gains and losses under the actuarial asset smoothing methodology;
2. Gains due to investment income earned on the excess of the Market Value of Assets (MVA) over the 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; and

4. The December 31, 2007 UAAL restart charge and POB credit amortization layers dropping off as they become fully amortized as noted above.

The following table provides the year-to-year rate changes 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, 2019 Actuarial 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, expressed as a percent of payroll, for the aggregate plan.

Rate Change Component	Valuation Date (12/31)				
	2020	2021	2022	2023	2024
1. Deferred (Gains)/Losses	(0.12%)	(0.37%)	0.12%	(0.44%)	(0.03%)
2. (Gain)/Loss of Investment Income on Difference Between MVA and AVA	(0.06%)	(0.05%)	(0.03%)	(0.03%)	0.00%
3. 18-Month Rate Delay	(0.02%)	(0.02%)	(0.04%)	(0.64%)	(0.39%)
4. Drop Off of the December 31, 2007 UAAL Restart Charge/POB Credit Layers	<u>0.00%</u>	<u>0.00%</u>	<u>(8.09%)</u>	<u>0.00%</u>	<u>0.00%</u>
Incremental Rate Change	(0.20%)	(0.44%)	(8.04%)	(1.11%)	(0.42%)
Cumulative Rate Change	(0.20%)	(0.64%)	(8.68%)	(9.79%)	(10.21%)

The average employer contribution rate as of the December 31, 2019 Actuarial Valuation is 35.66% percent of payroll and based on the cumulative rate changes above is projected to progress as follows:

	Valuation Date (12/31)				
	2020	2021	2022	2023	2024
Average Employer Contribution Rate	35.46%	35.02%	26.98%	25.87%	25.45%

The rate change for an individual cost group or employer will vary depending 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 asset volatility ratio (AVR). A higher AVR results in more volatile contributions and can result from the following factors:

- More generous benefits
- More retirees
- Older workforce
- Shorter careers
- Issuance of POBs or additional contributions made by employers

The attached exhibit shows the AVR for CCCERA's cost groups along with the "relative AVR" which is the AVR for that specific cost group divided by the average AVR for the aggregate plan. Using these ratios we have estimated the rate change due to generally investment related gains and losses over the five valuation dates for each individual cost group by multiplying the rate changes shown above for the aggregate plan by the relative AVR 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.

In addition, the projected rate changes for the December 31, 2022 Actuarial Valuation reflect the December 31, 2007 UAAL restart charge and POB credit amortization layers dropping off as they become fully amortized. That impact has been explicitly calculated and reflected for each cost group as it varies significantly by cost group depending on the UAAL and POB layers established for each cost group. The impact of POB credit layers dropping off varies significantly by employer depending on whether the employer issued POBs or made additional contributions towards their UAAL. Therefore, we also show results separated out for employers that are in a cost group that has an employer with a POB credit.

For most employers without a POB credit, there is a significant reduction in the employer rate that is projected to occur in the December 31, 2022 Actuarial Valuation due to that UAAL restart layer becoming fully amortized. For other employers that have a POB credit, the reduction in the employer rate is not as significant since their current contribution rates have already been reduced to reflect that they paid off a portion of that UAAL layer through the issuance of the POBs or additional UAAL payments. For some other employers, such as the Contra Costa Fire Protection District and the Moraga-Orinda Fire Protection District, since they already paid off that UAAL restart amortization layer via POBs and additional UAAL payments, they will not see a reduction in their employer contribution rate at that time.

The projected rate changes that are due to the 18-month rate delay for each cost group have also been determined based on the different incremental rate changes from the prior valuations. This is because those changes can vary significantly based on the rate changes for each cost group, especially for the December 31, 2023 and December 31, 2024 Actuarial Valuations.

Key Assumptions and Methods

The projection is based upon the following assumptions and methods:

- December 31, 2019 non-economic assumptions remain unchanged.
- December 31, 2019 retirement benefit formulas remain unchanged.
- December 31, 2019 1937 Act statutes remain unchanged.
- UAAL amortization method remains unchanged.
- December 31, 2019 economic assumptions remain unchanged, including the 7.00% investment earnings assumption.

- We have assumed that returns of 7.00% are actually earned each year on a market value basis starting in 2020.
- Active payroll grows at 3.25% per annum.
- Deferred investment gains and losses are recognized per the asset smoothing schedule prepared by the Association as of December 31, 2019. They are funded as a level percentage of the Association's total active payroll base.
- The AVR used for these projections is based on the December 31, 2019 Actuarial Valuation and is assumed to stay constant during the projection period.
- All other actuarial assumptions used in the December 31, 2019 Actuarial Valuation are realized.
- No changes are made to actuarial methodologies, such as adjusting for the contribution rate delay in advance and the continuation of the current pooling arrangement among different employers within a cost group.
- 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.
- On July 30, 2020, the California Supreme Court issued a decision in the case of Alameda County Deputy Sheriffs' Association et al. v. Alameda County Employees' Retirement Association and Board of Retirement of ACERA. That decision may affect the benefits paid by CCCERA to its members. However, the case has been remanded and is pending with the trial court.
- It is important to note that these projections are based on plan assets as of December 31, 2019. Due to the COVID-19 pandemic, market conditions have changed significantly since the valuation date. The Plan's funded status does not reflect short-term fluctuations of the market, but rather is based on the market values on the last day of the Plan Year.

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, 2019 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 Andy Yeung, ASA, MAAA, FCA, Enrolled Actuary.

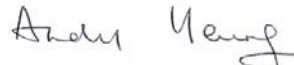
The undersigned are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.

Please let us know if you have any questions.

Sincerely,



Paul Angelo, FSA, MAAA, FCA, EA
Senior Vice President & Actuary



Andy Yeung, ASA, MAAA, FCA, EA
Vice President & Actuary

EK/hy
Enclosure

Contra Costa County Employees' Retirement Association
Estimated Employer Rate Change by Cost Group (CG) Based on December 31, 2019 Valuation

	CG#1 & 2 Combined Enhanced General	CG#1 & 2 County and Courts with POB	CG#1 & 2 Moraga-Orinda FD with POB	CG#1 & 2 First Five with Prepayment	CG#1 & 2 Other District without POB
Market Value of Assets (MVA)*	\$5,201,962,153				
Projected Payroll for 2020	\$705,756,649				
Asset Volatility Ratio (AVR) = MVA/Payroll	7.37				
Relative Volatility Ratio = CG AVR / Total Plan AVR	0.75				
Estimated Incremental Rate Change as of 12/31/2020	-0.16%	-0.16%	-0.16%	-0.16%	-0.16%
Estimated Incremental Rate Change as of 12/31/2021	-0.34%	-0.34%	-0.34%	-0.34%	-0.34%
Estimated Incremental Rate Change as of 12/31/2022**	-6.32%	-6.13%	-0.56%	-6.92%	-15.14%
Estimated Incremental Rate Change as of 12/31/2023	-0.86%	-0.86%	-0.86%	-0.86%	-0.86%
Estimated Incremental Rate Change as of 12/31/2024	-0.33%	-0.33%	-0.33%	-0.33%	-0.33%
Cumulative Rate Change as of 12/31/2020	-0.16%	-0.16%	-0.16%	-0.16%	-0.16%
Cumulative Rate Change as of 12/31/2021	-0.50%	-0.50%	-0.50%	-0.50%	-0.50%
Cumulative Rate Change as of 12/31/2022**	-6.82%	-6.63%	-1.06%	-7.42%	-15.64%
Cumulative Rate Change as of 12/31/2023	-7.68%	-7.49%	-1.92%	-8.28%	-16.50%
Cumulative Rate Change as of 12/31/2024	-8.01%	-7.82%	-2.25%	-8.61%	-16.83%

	CG#3 Enhanced CCC Sanitary District	CG#4 Enhanced Housing Authority	CG#5 Enhanced CCC SPD	CG#6 Non-Enhanced District
Market Value of Assets (MVA)*	\$364,800,250	\$60,159,714	\$53,434,110	\$7,772,260
Projected Payroll for 2020	\$37,881,590	\$5,851,340	\$6,357,887	\$942,576
Asset Volatility Ratio (AVR) = MVA/Payroll	9.63	10.28	8.40	8.25
Relative Volatility Ratio = CG AVR / Total Plan AVR	0.98	1.05	0.86	0.84
Estimated Incremental Rate Change as of 12/31/2020	-0.13%	-0.06%	0.05%	0.00%
Estimated Incremental Rate Change as of 12/31/2021	-0.41%	-0.41%	-0.31%	0.00%
Estimated Incremental Rate Change as of 12/31/2022**	-12.98%	-18.06%	2.22%	0.00%
Estimated Incremental Rate Change as of 12/31/2023	-1.48%	-1.91%	-0.24%	0.00%
Estimated Incremental Rate Change as of 12/31/2024	-0.60%	-0.79%	-0.03%	0.00%
Cumulative Rate Change as of 12/31/2020	-0.13%	-0.06%	0.05%	0.00%
Cumulative Rate Change as of 12/31/2021	-0.54%	-0.47%	-0.26%	0.00%
Cumulative Rate Change as of 12/31/2022**	-13.52%	-18.53%	1.96%	0.00%
Cumulative Rate Change as of 12/31/2023	-15.00%	-20.44%	1.72%	0.00%
Cumulative Rate Change as of 12/31/2024	-15.60%	-21.23%	1.69%	0.00%

* Excludes Post Retirement Death Benefit reserve and terminated employers' assets from bookkeeping accounts.

** Includes the impact of the December 31, 2007 UAAL charge and POB credit layers dropping off due to being fully amortized.

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

Contra Costa County Employees' Retirement Association
Estimated Employer Rate Change by Cost Group (CG) Based on December 31, 2019 Valuation

	CG#7 & 9 Combined Enhanced County	CG#8 Enhanced CCCFPD	CG#10 Enhanced Moraga-Orinda FD	CG#11 Enhanced San Ramon Valley FD
Market Value of Assets (MVA)*	\$1,904,461,853	\$915,191,677	\$174,010,168	\$420,163,390
Projected Payroll for 2020	\$102,915,034	\$40,809,742	\$8,261,794	\$22,575,038
Asset Volatility Ratio (AVR) = MVA/Payroll	18.51	22.43	21.06	18.61
Relative Volatility Ratio = CG AVR / Total Plan AVR	1.89	2.29	2.15	1.90
Estimated Incremental Rate Change as of 12/31/2020	-0.27%	-0.29%	-0.39%	-0.22%
Estimated Incremental Rate Change as of 12/31/2021	-0.79%	-0.92%	-0.94%	-0.79%
Estimated Incremental Rate Change as of 12/31/2022**	-16.84%	3.15%	4.39%	-35.42%
Estimated Incremental Rate Change as of 12/31/2023	-2.22%	-0.87%	-0.71%	-3.67%
Estimated Incremental Rate Change as of 12/31/2024	-0.85%	-0.17%	-0.11%	-1.53%
Cumulative Rate Change as of 12/31/2020	-0.27%	-0.29%	-0.39%	-0.22%
Cumulative Rate Change as of 12/31/2021	-1.06%	-1.21%	-1.33%	-1.01%
Cumulative Rate Change as of 12/31/2022**	-17.90%	1.94%	3.06%	-36.43%
Cumulative Rate Change as of 12/31/2023	-20.12%	1.07%	2.35%	-40.10%
Cumulative Rate Change as of 12/31/2024	-20.97%	0.90%	2.24%	-41.63%

	CG#12 Non-Enhanced Rodeo-Hercules FPD	CG#13 Enhanced East CCCFPD	Total Plan
Market Value of Assets (MVA)*	\$38,003,108	\$45,571,463	\$9,185,530,147
Projected Payroll for 2020	\$2,272,509	\$3,907,103	\$937,531,262
Asset Volatility Ratio (AVR) = MVA/Payroll	16.72	11.66	9.80
Relative Volatility Ratio = CG AVR / Total Plan AVR	1.71	1.19	1.00
Estimated Incremental Rate Change as of 12/31/2020	0.60%	-6.41%	-0.20%
Estimated Incremental Rate Change as of 12/31/2021	-0.40%	-2.58%	-0.44%
Estimated Incremental Rate Change as of 12/31/2022**	-23.64%	-20.08%	-8.04%
Estimated Incremental Rate Change as of 12/31/2023	-2.65%	-2.21%	-1.11%
Estimated Incremental Rate Change as of 12/31/2024	-1.08%	-0.90%	-0.42%
Cumulative Rate Change as of 12/31/2020	0.60%	-6.41%	-0.20%
Cumulative Rate Change as of 12/31/2021	0.20%	-8.99%	-0.64%
Cumulative Rate Change as of 12/31/2022**	-23.44%	-29.07%	-8.68%
Cumulative Rate Change as of 12/31/2023	-26.09%	-31.28%	-9.79%
Cumulative Rate Change as of 12/31/2024	-27.17%	-32.18%	-10.21%

* Excludes Post Retirement Death Benefit reserve and terminated employers' assets from bookkeeping accounts.

** Includes the impact of the December 31, 2007 UAAL charge and POB credit layers dropping off due to being fully amortized.

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



**CONTRA COSTA COUNTY
EMPLOYEES' RETIREMENT ASSOCIATION**

**CONTRIBUTION RATE PACKET FOR
JULY 1, 2021 through JUNE 30, 2022**

CONTRA COSTA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

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MEMORANDUM

Date: October 14, 2020

To: Interested Parties and Participating Employers

From: Gail Strohl, Chief Executive Officer

Subject: Contribution Rates Effective July 1, 2021

At its October 14, 2020 meeting, the Retirement Board reviewed the actuary's valuation report for the year ending December 31, 2019 and adopted the recommended employer and employee contribution rates, which will become effective on July 1, 2021. A copy of the December 31, 2019 Actuarial Valuation can be found on CCCERA's website at www.cccera.org under the Actuarial Valuations link.

Enclosed are the employer and employee contribution rates to be used effective July 1, 2021 through June 30, 2022.

Please note the following:

- ✓ **The rates are effective July 1, 2021 through June 30, 2022 and have not yet been adopted by the County Board of Supervisors.**
- ✓ **The rates are BEFORE ANY EMPLOYER SUBVENTION of the employee contribution.**
The rates quoted here are the employer required rates without taking into consideration any employer subvention of employee contributions. A convenient methodology for adding subvention is included for your use on page 21. Note that subvention is not always permitted for PEPRAs members.
- ✓ **The rates are BEFORE ANY INCREASE IN EMPLOYEE RATE to pay a portion of the employer contribution.**
If an employee's rate needs to be increased to pay a portion of the employer contribution, both employee and employer rates would need to be adjusted accordingly. A convenient methodology for adding subvention is included for your use on page 21.

THE BOARD OF SUPERVISORS OF CONTRA COSTA COUNTY, CALIFORNIA

Adopted this Order on _____, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

SUBJECT: Approving Contribution Rates to be charged Resolution No. _____
by the Contra Costa County
Employees' Retirement Association.

Pursuant to Government Code Section 31454 and on recommendation of the Board of the Contra Costa County Employees' Retirement Association, BE IT RESOLVED that the following contribution rates are approved to be effective for the period July 1, 2021 through June 30, 2022.

I. Employer Contribution Rates for Basic and Cost-of-Living Components and Non-refundability Discount Factors

A. For General Members (Sec. 31676.11, Sec. 31676.16 and Sec. 7522.20(a))
See attached Exhibit A

B. For Safety Members (Sec. 31664, Sec. 31664.1 and Sec. 7522.25(d))
See attached Exhibit B

II. Employee Contribution Rates for Basic and Cost-of-Living Components

See attached Exhibits C through P

The Pension Obligation Bonds (POB) issued by the County in March 1994 and April 2003, affected contribution rates for certain County employers. The following non-County employers who participate in the Retirement Association are referred to as "Districts".

Bethel Island Municipal Improvement District
Byron, Brentwood Knightsen Union Cemetery District
Central Contra Costa Sanitary District
Contra Costa County Employees' Retirement Association
Contra Costa Housing Authority
Contra Costa Mosquito and Vector Control District
Local Agency Formation Commission (LAFCO)
Rodeo Sanitary District

In-Home Supportive Services Authority
First 5 - Children & Families Commission
Contra Costa County Fire Protection District
East Contra Costa Fire Protection District
Moraga-Orinda Fire Protection District
Rodeo-Hercules Fire Protection District
San Ramon Valley Fire Protection District

All other departments/employers are referred to as "County" including the Superior Court of California, Contra Costa County.

Contra Costa County Fire Protection District and Moraga-Orinda Fire Protection District issued Pension Obligation Bonds in 2005 which affected contribution rates for these two employers. Subsequently, Contra Costa County Fire Protection District has made additional payments to CCCERA for its UAAL in 2006 and 2007.

First 5 - Children & Families Commission made a UAAL prepayment in 2013 which affected contribution rates for that employer.

Central Contra Costa Sanitary District made a UAAL prepayment in 2013, 2014 and 2015 which affected contribution rates for that employer.

Local Agency Formation Commission made a UAAL prepayment in 2017 and 2019 which affected contribution rates for that employer.

San Ramon Valley Fire Protection District made a UAAL prepayment in 2017, 2018 and 2019 which affected contribution rates for the Safety members of that employer.

Effective with the December 31, 2019 valuation, Safety members of the East Contra Costa Fire Protection District are depooled from the Contra Cost County Fire Protection District's Safety cost group (Cost Group 8). Safety members of the East Contra Costa Fire Protection District are under their own cost group (Cost Group 13).

Exhibit A - 1

CONTRA COSTA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION EMPLOYER CONTRIBUTION RATES EFFECTIVE FOR JULY 1, 2021 THROUGH JUNE 30, 2022 for General Tiers 1 and 3 Legacy Members

GENERAL TIERS - ENHANCED

Tier 1 BASIC Enhanced

First \$350 monthly & in Social Security
Excess of \$350 monthly & in Social Security

All Eligible \$ if NOT in Social Security

Tier 1 COL Enhanced

First \$350 monthly
Excess of \$350 monthly

All Eligible \$ if NOT in Social Security

Non-Refundability Factor

Cost Group #1					Cost Group #3	Cost Group #4	Cost Group #5
Moraga-Orinda		Districts			Central Contra Costa	Contra Costa	Contra Costa County
County	Fire District	First 5	LAFCO	without POB	Sanitary District	Housing Authority	Fire Protection District
16.41%	N/A	16.32%	18.55%	19.72%	N/A	20.73%	N/A
24.62%	N/A	24.48%	27.83%	29.59%	N/A	31.09%	N/A
24.62%	20.11%	N/A	N/A	29.59%	36.05%	N/A	24.44%
3.67%	N/A	3.74%	5.91%	6.36%	N/A	9.90%	N/A
5.51%	N/A	5.62%	8.87%	9.53%	N/A	14.85%	N/A
5.51%	4.10%	N/A	N/A	9.53%	15.41%	N/A	11.98%
0.9682	0.9682	0.9682	0.9682	0.9682	0.9609	0.9609	0.9752

Tier 3 BASIC Enhanced

First \$350 monthly
Excess of \$350 monthly

All Eligible \$ if NOT in Social Security

Tier 3 COL Enhanced

First \$350 monthly
Excess of \$350 monthly

All Eligible \$ if NOT in Social Security

Non-Refundability Factor

Cost Group #2	
County	Districts without POB
15.60%	18.98%
23.40%	28.47%
N/A	28.47%
3.48%	6.18%
5.21%	9.27%
N/A	9.27%
0.9561	0.9561

Cost Group

Cost Group #1

Employer Name

County General
LAFCO
CC Mosquito & Vector Control District
Bethel Island Municipal Improvement District
First 5 - Children and Families Commission
Contra Costa County Employees' Retirement Association
Superior Court
East Contra Costa Fire Protection District
Moraga-Orinda Fire Protection District
Rodeo-Hercules Fire Protection District
San Ramon Valley Fire Protection District

Tier

Tier 1 Enhanced (2% @ 55)

Cost Group #2

County General
In-Home Supportive Services Authority
CC Mosquito & Vector Control District
Superior Court

Tier 3 Enhanced (2% @ 55)

Cost Group #3

Central Contra Costa Sanitary District

Tier 1 Enhanced (2% @ 55)

Cost Group #4

Contra Costa Housing Authority

Tier 1 Enhanced (2% @ 55)

Cost Group #5

Contra Costa County Fire Protection District

Tier 1 Enhanced (2% @ 55)

Cost Group #6

Rodeo Sanitary District
Byron Brentwood Cemetery District

Tier 1 Non-enhanced (1.67% @ 55)

Basic rates shown include an administrative expense load of 0.65% of payroll. This load has been incorporated and adjusted as appropriate into the first \$350 and excess of \$350 monthly rates shown.

GENERAL TIER NON-ENHANCED

Tier 1 BASIC NON-Enhanced

First \$350 monthly
Excess of \$350 monthly

All Eligible \$ if NOT in Social Security

Tier 1 COL NON-Enhanced

First \$350 monthly
Excess of \$350 monthly

All Eligible \$ if NOT in Social Security

Non-Refundability Factor

Cost Group #6	
Districts	without POB
9.06%	
13.58%	
N/A	
2.69%	
4.04%	
N/A	
0.9496	

Exhibit A - 2

CONTRA COSTA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

EMPLOYER CONTRIBUTION RATES EFFECTIVE FOR JULY 1, 2021 THROUGH JUNE 30, 2022 for General Tiers 4 and 5 PEPRAs Members with 2% Maximum COLA

GENERAL PEPRAs TIERS

Tier 4 BASIC

All Eligible \$

Tier 4 COL

All Eligible \$

Non-Refundability Factor

Cost Group #1					Cost Group #3	Cost Group #4	Cost Group #5
County	Moraga-Orinda Fire District	First 5	LAFCO	Districts without POB	Central Contra Costa Sanitary District	Contra Costa Housing Authority	Contra Costa County Fire Protection District
19.98%	N/A	N/A	N/A	N/A	N/A	N/A	20.53%
3.81%	N/A	N/A	N/A	N/A	N/A	N/A	10.45%
0.9587	N/A	N/A	N/A	N/A	N/A	N/A	0.9541

Tier 5 BASIC

All Eligible \$

Tier 5 COL

All Eligible \$

Non-Refundability Factor

Cost Group #2	
County	Districts without POB
19.35%	24.35%
3.64%	7.65%
0.9582	0.9582

Cost Group	Employer Name	Tier
Cost Group #1	County General	Tier 4 (2.5% @ 67)
	LAFCO	
	CC Mosquito & Vector Control District	
	Bethel Island Municipal Improvement District	
	First 5 - Children and Families Commission	
	Contra Costa County Employees' Retirement Association	
	Superior Court	
	East Contra Costa Fire Protection District	
	Moraga-Orinda Fire Protection District	
	Rodeo-Hercules Fire Protection District	
	San Ramon Valley Fire Protection District	
Cost Group #2	County General	Tier 5 (2.5% @ 67)
	In-Home Supportive Services Authority	
	CC Mosquito & Vector Control District	
	Superior Court	
Cost Group #3	Central Contra Costa Sanitary District	Tier 4 (2.5% @ 67)
Cost Group #4	Contra Costa Housing Authority	Tier 4 (2.5% @ 67)
Cost Group #5	Contra Costa County Fire Protection District	Tier 4 (2.5% @ 67)
Cost Group #6	Rodeo Sanitary District	Tier 4 (2.5% @ 67)
	Byron Brentwood Cemetery District	

Some tiers are not applicable to the employers as shown above in the rate table.

Basic rates shown include an administrative expense load of 0.65% of payroll.

Exhibit A - 3

CONTRA COSTA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

EMPLOYER CONTRIBUTION RATES EFFECTIVE FOR JULY 1, 2021 THROUGH JUNE 30, 2022 for General Tiers 4 and 5 PEPRA Members with 3% Maximum COLA

GENERAL PEPRA TIERS

Tier 4 BASIC

All Eligible \$

Tier 4 COL

All Eligible \$

Non-Refundability Factor

Cost Group #1					Cost Group #3	Cost Group #4	Cost Group #5	Cost Group #6
County	Moraga-Orinda Fire District	First 5	LAFCO	Districts without POB	Central Contra Costa Sanitary District	Contra Costa Housing Authority	Contra Costa County Fire Protection District	Districts without POB
20.02%	15.79%	19.87%	23.25%	25.02%	31.24%	25.64%	21.66%	9.39%
4.78%	3.44%	4.89%	8.13%	8.79%	14.50%	13.77%	11.95%	3.15%
0.9609	0.9609	0.9609	0.9609	0.9609	0.9667	0.9662	0.9581	0.9651

Tier 5 BASIC

All Eligible \$

Tier 5 COL

All Eligible \$

Non-Refundability Factor

Cost Group #2	
County	Districts without POB
19.52%	24.52%
4.55%	8.56%
0.9607	0.9607

Cost Group	Employer Name	Tier
Cost Group #1	County General LAFCO CC Mosquito & Vector Control District Bethel Island Municipal Improvement District First 5 - Children and Families Commission Contra Costa County Employees' Retirement Association Superior Court East Contra Costa Fire Protection District Moraga-Orinda Fire Protection District Rodeo-Hercules Fire Protection District San Ramon Valley Fire Protection District	Tier 4 (2.5% @ 67)
Cost Group #2	County General In-Home Supportive Services Authority CC Mosquito & Vector Control District Superior Court	Tier 5 (2.5% @ 67)
Cost Group #3	Central Contra Costa Sanitary District	Tier 4 (2.5% @ 67)
Cost Group #4	Contra Costa Housing Authority	Tier 4 (2.5% @ 67)
Cost Group #5	Contra Costa County Fire Protection District	Tier 4 (2.5% @ 67)
Cost Group #6	Rodeo Sanitary District Byron Brentwood Cemetery District	Tier 4 (2.5% @ 67)

Basic rates shown include an administrative expense load of 0.65% of payroll.

Exhibit B - 1

CONTRA COSTA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

EMPLOYER CONTRIBUTION RATES EFFECTIVE FOR JULY 1, 2021 THROUGH JUNE 30, 2022 for Safety Tiers A and C Legacy Members

SAFETY TIERS ENHANCED

Safety A BASIC Enhanced

All eligible \$

Safety A COL Enhanced

All eligible \$

Non-Refundability Factor

Cost Group #7	Cost Group #8	Cost Group #10	Cost Group #11	Cost Group #13
County	Contra Costa County Fire Protection District	Moraga-Orinda Fire Protection District	San Ramon Valley Fire Protection District	East Contra Costa Fire Protection District
44.36%	34.21%	34.83%	52.06%	48.58%
27.46%	36.25%	38.14%	27.91%	21.35%
0.9621	0.9674	0.9654	0.9682	0.9561

Safety C BASIC Enhanced

All eligible \$

Safety C COL Enhanced

All eligible \$

Non-Refundability Factor

Cost Group #9
County
42.65%
24.78%
0.9628

Cost Group

Employer Name

Tier

Cost Group # 7	County Safety	Tier A Enhanced (3% @ 50)
Cost Group # 8	Contra Costa County Fire Protection District	Tier A Enhanced (3% @ 50)
Cost Group # 9	County Safety	Tier C Enhanced (3% @ 50)
Cost Group # 10	Moraga-Orinda Fire Protection District	Tier A Enhanced (3% @ 50)
Cost Group # 11	San Ramon Valley Fire Protection District	Tier A Enhanced (3% @ 50)
Cost Group # 12	Rodeo Hercules Fire Protection District	Tier A Non-enhanced (2% @ 50)
Cost Group # 13	East Contra Costa Fire Protection District	Tier A Enhanced (3% @ 50)

SAFETY TIER NON-ENHANCED

Safety A BASIC NON-Enhanced

All eligible \$

Monthly Contribution Towards UAAL

Safety A COL NON-Enhanced

All eligible \$

Monthly Contribution Towards UAAL

Non-Refundability Factor

Cost Group #12
Rodeo-Hercules Fire Protection District
18.73%
\$62,273
5.21%
\$47,830
0.9651

Basic rates shown include an administrative expense load of 0.65% of payroll.

Exhibit B - 2

CONTRA COSTA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

EMPLOYER CONTRIBUTION RATES EFFECTIVE FOR JULY 1, 2021 THROUGH JUNE 30, 2022 for Safety Tiers D and E PEPRA Members

SAFETY PEPRA TIERS

Safety D BASIC (3% Maximum COLA)

All eligible \$
Monthly Contribution Towards UAAL

Safety D COL (3% Maximum COLA)

All eligible \$
Monthly Contribution Towards UAAL

Non-Refundability Factor

Cost Group #7	Cost Group #8	Cost Group #10	Cost Group #11	Cost Group #12	Cost Group #13
County	Contra Costa County Fire Protection District	Moraga-Orinda Fire Protection District	San Ramon Valley Fire Protection District	Rodeo-Hercules Fire Protection District	East Contra Costa Fire Protection District
36.32%	23.92%	26.06%	40.58%	11.50%	37.54%
N/A	N/A	N/A	N/A	\$17,140	N/A
26.15%	34.25%	36.38%	25.47%	4.76%	19.27%
N/A	N/A	N/A	N/A	\$13,165	N/A
0.9711	0.9755	0.9721	0.9747	0.9771	0.9763

Safety E BASIC (2% Maximum COLA)

All eligible \$

Safety E COL (2% Maximum COLA)

All eligible \$

Non-Refundability Factor

Cost Group #8	Cost Group #9
Contra Costa County Fire Protection District	County
23.96%	35.06%
32.56%	23.95%
0.9706	0.9698

Cost Group	Employer Name	Tier
Cost Group # 7	County Safety	Tier D (2.7% @ 57)
Cost Group # 8	Contra Costa County Fire Protection District	Tier D (2.7% @ 57)
	Contra Costa County Fire Protection District	Tier E (2.7% @ 57)
Cost Group # 9	County Safety	Tier E (2.7% @ 57)
Cost Group # 10	Moraga-Orinda Fire Protection District	Tier D (2.7% @ 57)
Cost Group # 11	San Ramon Valley Fire Protection District	Tier D (2.7% @ 57)
Cost Group # 12	Rodeo Hercules Fire Protection District	Tier D (2.7% @ 57)
Cost Group # 13	East Contra Costa Fire Protection District	Tier D (2.7% @ 57)

Basic rates shown include an administrative expense load of 0.65% of payroll.

Exhibit C

GENERAL Cost Group #1 Non-PEPRA Member Contribution Rates

Membership Date before January 1, 2013

Effective 7/1/21 - 6/30/22

Expressed as a Percentage of Monthly Payroll*

<u>Entry Age</u>	<u>Basic not in Social Security</u>	<u>Basic in Social Security*</u>	<u>COLA</u>	<u>Total not in Social Security</u>	<u>Total in Social Security*</u>
15	5.32%	5.33%	2.70%	8.02%	8.03%
16	5.41%	5.42%	2.75%	8.16%	8.17%
17	5.51%	5.52%	2.81%	8.32%	8.33%
18	5.61%	5.62%	2.86%	8.47%	8.48%
19	5.71%	5.72%	2.92%	8.63%	8.64%
20	5.81%	5.82%	2.97%	8.78%	8.79%
21	5.91%	5.92%	3.03%	8.94%	8.95%
22	6.01%	6.02%	3.09%	9.10%	9.11%
23	6.12%	6.13%	3.15%	9.27%	9.28%
24	6.23%	6.24%	3.21%	9.44%	9.45%
25	6.34%	6.35%	3.27%	9.61%	9.62%
26	6.45%	6.46%	3.33%	9.78%	9.79%
27	6.57%	6.58%	3.40%	9.97%	9.98%
28	6.68%	6.69%	3.46%	10.14%	10.15%
29	6.80%	6.81%	3.53%	10.33%	10.34%
30	6.92%	6.93%	3.59%	10.51%	10.52%
31	7.05%	7.06%	3.67%	10.72%	10.73%
32	7.17%	7.18%	3.73%	10.90%	10.91%
33	7.30%	7.31%	3.81%	11.11%	11.12%
34	7.44%	7.45%	3.89%	11.33%	11.34%
35	7.57%	7.58%	3.96%	11.53%	11.54%
36	7.71%	7.72%	4.04%	11.75%	11.76%
37	7.85%	7.86%	4.11%	11.96%	11.97%
38	7.99%	8.00%	4.19%	12.18%	12.19%
39	8.14%	8.15%	4.28%	12.42%	12.43%
40	8.29%	8.30%	4.36%	12.65%	12.66%
41	8.45%	8.46%	4.45%	12.90%	12.91%
42	8.60%	8.61%	4.53%	13.13%	13.14%
43	8.75%	8.76%	4.62%	13.37%	13.38%
44	8.90%	8.91%	4.70%	13.60%	13.61%
45	9.06%	9.07%	4.79%	13.85%	13.86%
46	9.22%	9.23%	4.88%	14.10%	14.11%
47	9.38%	9.39%	4.97%	14.35%	14.36%
48	9.53%	9.54%	5.05%	14.58%	14.59%
49	9.68%	9.69%	5.14%	14.82%	14.83%
50	9.84%	9.85%	5.23%	15.07%	15.08%
51	10.00%	10.01%	5.32%	15.32%	15.33%
52	10.16%	10.17%	5.41%	15.57%	15.58%
53	10.32%	10.33%	5.49%	15.81%	15.82%
54	10.48%	10.49%	5.58%	16.06%	16.07%
55	10.63%	10.64%	5.67%	16.30%	16.31%
56	10.70%	10.71%	5.71%	16.41%	16.42%
57	10.67%	10.68%	5.69%	16.36%	16.37%
58	10.64%	10.65%	5.67%	16.31%	16.32%
59	10.33%	10.34%	5.50%	15.83%	15.84%
60 and over	10.33%	10.34%	5.50%	15.83%	15.84%

Administrative Expense: 0.49% of payroll added to Basic rates.

COLA Loading: 55.90% applied to Basic rates prior to adjustment for administrative expenses.

***NOTE:** For members in Social Security, the rate should only be applied to monthly compensation in excess of \$116.67.
The rate should be applied to compensation up to the annual IRC 401(a)(17) compensation limit.

Exhibit D

GENERAL Cost Group #2 Non-PEPRA Member Contribution Rates

Membership Date before January 1, 2013

Effective 7/1/21 - 6/30/22

Expressed as a Percentage of Monthly Payroll*

<u>Entry Age</u>	<u>Basic not in Social Security</u>	<u>Basic in Social Security*</u>	<u>COLA</u>	<u>Total not in Social Security</u>	<u>Total in Social Security*</u>
15	5.31%	5.32%	2.35%	7.66%	7.67%
16	5.40%	5.41%	2.40%	7.80%	7.81%
17	5.50%	5.51%	2.44%	7.94%	7.95%
18	5.59%	5.60%	2.49%	8.08%	8.09%
19	5.69%	5.70%	2.54%	8.23%	8.24%
20	5.79%	5.80%	2.59%	8.38%	8.39%
21	5.90%	5.91%	2.64%	8.54%	8.55%
22	6.00%	6.01%	2.69%	8.69%	8.70%
23	6.11%	6.12%	2.74%	8.85%	8.86%
24	6.22%	6.23%	2.80%	9.02%	9.03%
25	6.33%	6.34%	2.85%	9.18%	9.19%
26	6.44%	6.45%	2.90%	9.34%	9.35%
27	6.55%	6.56%	2.96%	9.51%	9.52%
28	6.67%	6.68%	3.02%	9.69%	9.70%
29	6.79%	6.80%	3.07%	9.86%	9.87%
30	6.91%	6.92%	3.13%	10.04%	10.05%
31	7.03%	7.04%	3.19%	10.22%	10.23%
32	7.16%	7.17%	3.25%	10.41%	10.42%
33	7.29%	7.30%	3.32%	10.61%	10.62%
34	7.42%	7.43%	3.38%	10.80%	10.81%
35	7.55%	7.56%	3.45%	11.00%	11.01%
36	7.69%	7.70%	3.51%	11.20%	11.21%
37	7.83%	7.84%	3.58%	11.41%	11.42%
38	7.98%	7.99%	3.66%	11.64%	11.65%
39	8.13%	8.14%	3.73%	11.86%	11.87%
40	8.27%	8.28%	3.80%	12.07%	12.08%
41	8.42%	8.43%	3.87%	12.29%	12.30%
42	8.58%	8.59%	3.95%	12.53%	12.54%
43	8.73%	8.74%	4.02%	12.75%	12.76%
44	8.88%	8.89%	4.09%	12.97%	12.98%
45	9.04%	9.05%	4.17%	13.21%	13.22%
46	9.20%	9.21%	4.25%	13.45%	13.46%
47	9.36%	9.37%	4.33%	13.69%	13.70%
48	9.50%	9.51%	4.40%	13.90%	13.91%
49	9.67%	9.68%	4.48%	14.15%	14.16%
50	9.82%	9.83%	4.55%	14.37%	14.38%
51	9.98%	9.99%	4.63%	14.61%	14.62%
52	10.14%	10.15%	4.71%	14.85%	14.86%
53	10.33%	10.34%	4.80%	15.13%	15.14%
54	10.45%	10.46%	4.86%	15.31%	15.32%
55	10.59%	10.60%	4.93%	15.52%	15.53%
56	10.70%	10.71%	4.98%	15.68%	15.69%
57	10.68%	10.69%	4.97%	15.65%	15.66%
58	10.66%	10.67%	4.96%	15.62%	15.63%
59	10.05%	10.06%	4.67%	14.72%	14.73%
60 and over	10.05%	10.06%	4.67%	14.72%	14.73%

Administrative Expense: 0.49% of payroll added to Basic rates.

COLA Loading: 48.80% applied to Basic rates prior to adjustment for administrative expenses.

***NOTE:** For members in Social Security, the rate should only be applied to monthly compensation in excess of \$116.67.
The rate should be applied to compensation up to the annual IRC 401(a)(17) compensation limit.

Exhibit E
GENERAL Cost Group #3 Non-PEPRA Member Contribution Rates
Membership Date before January 1, 2013
Effective 7/1/21 - 6/30/22
Expressed as a Percentage of Monthly Payroll*

<u>Entry Age</u>	<u>Basic</u>	<u>COLA</u>	<u>Total</u>
15	5.50%	2.72%	8.22%
16	5.59%	2.77%	8.36%
17	5.69%	2.83%	8.52%
18	5.79%	2.88%	8.67%
19	5.90%	2.94%	8.84%
20	6.00%	2.99%	8.99%
21	6.11%	3.05%	9.16%
22	6.22%	3.11%	9.33%
23	6.33%	3.17%	9.50%
24	6.44%	3.23%	9.67%
25	6.55%	3.29%	9.84%
26	6.67%	3.36%	10.03%
27	6.79%	3.42%	10.21%
28	6.91%	3.49%	10.40%
29	7.03%	3.55%	10.58%
30	7.16%	3.62%	10.78%
31	7.29%	3.69%	10.98%
32	7.42%	3.77%	11.19%
33	7.55%	3.84%	11.39%
34	7.68%	3.91%	11.59%
35	7.82%	3.98%	11.80%
36	7.97%	4.06%	12.03%
37	8.11%	4.14%	12.25%
38	8.26%	4.22%	12.48%
39	8.42%	4.31%	12.73%
40	8.57%	4.39%	12.96%
41	8.73%	4.48%	13.21%
42	8.88%	4.56%	13.44%
43	9.04%	4.65%	13.69%
44	9.20%	4.73%	13.93%
45	9.37%	4.82%	14.19%
46	9.52%	4.91%	14.43%
47	9.68%	4.99%	14.67%
48	9.84%	5.08%	14.92%
49	10.00%	5.17%	15.17%
50	10.16%	5.25%	15.41%
51	10.32%	5.34%	15.66%
52	10.49%	5.43%	15.92%
53	10.65%	5.52%	16.17%
54	10.79%	5.60%	16.39%
55	10.89%	5.65%	16.54%
56	11.00%	5.71%	16.71%
57	10.96%	5.69%	16.65%
58	10.72%	5.56%	16.28%
59	10.28%	5.32%	15.60%
60 and over	10.28%	5.32%	15.60%

Administrative Expense: 0.49% of payroll added to Basic rates.

COLA Loading: 54.33% applied to Basic rates prior to adjustment for administrative expenses.

***NOTE:** The rate should be applied to all compensation up to the annual IRC 401(a)(17) compensation limit.

Exhibit F

GENERAL Cost Group #4 Non-PEPRA Member Contribution Rates

Membership Date before January 1, 2013

Effective 7/1/21 - 6/30/22

Expressed as a Percentage of Monthly Payroll*

<u>Entry Age</u>	<u>Basic not in Social Security</u>	<u>Basic in Social Security*</u>	<u>COLA</u>	<u>Total not in Social Security</u>	<u>Total in Social Security*</u>
15	5.29%	5.30%	2.61%	7.90%	7.91%
16	5.39%	5.40%	2.66%	8.05%	8.06%
17	5.48%	5.49%	2.71%	8.19%	8.20%
18	5.58%	5.59%	2.77%	8.35%	8.36%
19	5.68%	5.69%	2.82%	8.50%	8.51%
20	5.78%	5.79%	2.87%	8.65%	8.66%
21	5.88%	5.89%	2.93%	8.81%	8.82%
22	5.99%	6.00%	2.99%	8.98%	8.99%
23	6.09%	6.10%	3.04%	9.13%	9.14%
24	6.20%	6.21%	3.10%	9.30%	9.31%
25	6.31%	6.32%	3.16%	9.47%	9.48%
26	6.42%	6.43%	3.22%	9.64%	9.65%
27	6.54%	6.55%	3.29%	9.83%	9.84%
28	6.65%	6.66%	3.35%	10.00%	10.01%
29	6.77%	6.78%	3.41%	10.18%	10.19%
30	6.89%	6.90%	3.48%	10.37%	10.38%
31	7.02%	7.03%	3.55%	10.57%	10.58%
32	7.14%	7.15%	3.61%	10.75%	10.76%
33	7.27%	7.28%	3.68%	10.95%	10.96%
34	7.40%	7.41%	3.75%	11.15%	11.16%
35	7.54%	7.55%	3.83%	11.37%	11.38%
36	7.67%	7.68%	3.90%	11.57%	11.58%
37	7.81%	7.82%	3.98%	11.79%	11.80%
38	7.96%	7.97%	4.06%	12.02%	12.03%
39	8.11%	8.12%	4.14%	12.25%	12.26%
40	8.26%	8.27%	4.22%	12.48%	12.49%
41	8.41%	8.42%	4.30%	12.71%	12.72%
42	8.56%	8.57%	4.38%	12.94%	12.95%
43	8.71%	8.72%	4.47%	13.18%	13.19%
44	8.86%	8.87%	4.55%	13.41%	13.42%
45	9.03%	9.04%	4.64%	13.67%	13.68%
46	9.18%	9.19%	4.72%	13.90%	13.91%
47	9.33%	9.34%	4.80%	14.13%	14.14%
48	9.48%	9.49%	4.88%	14.36%	14.37%
49	9.65%	9.66%	4.98%	14.63%	14.64%
50	9.79%	9.80%	5.05%	14.84%	14.85%
51	9.96%	9.97%	5.15%	15.11%	15.12%
52	10.12%	10.13%	5.23%	15.35%	15.36%
53	10.30%	10.31%	5.33%	15.63%	15.64%
54	10.45%	10.46%	5.41%	15.86%	15.87%
55	10.59%	10.60%	5.49%	16.08%	16.09%
56	10.65%	10.66%	5.52%	16.17%	16.18%
57	10.69%	10.70%	5.54%	16.23%	16.24%
58	10.53%	10.54%	5.45%	15.98%	15.99%
59	10.07%	10.08%	5.20%	15.27%	15.28%
60 and over	10.07%	10.08%	5.20%	15.27%	15.28%

Administrative Expense: 0.49% of payroll added to Basic rates.

COLA Loading: 54.33% applied to Basic rates prior to adjustment for administrative expenses.

***NOTE:** For members in Social Security, the rate should only be applied to monthly compensation in excess of \$116.67.
The rate should be applied to compensation up to the annual IRC 401(a)(17) compensation limit.

Exhibit G
GENERAL Cost Group #5 Non-PEPRA Member Contribution Rates
Membership Date before January 1, 2013
Effective 7/1/21 - 6/30/22
Expressed as a Percentage of Monthly Payroll*

<u>Entry Age</u>	<u>Basic</u>	<u>COLA</u>	<u>Total</u>
15	5.33%	2.79%	8.12%
16	5.42%	2.84%	8.26%
17	5.52%	2.90%	8.42%
18	5.62%	2.96%	8.58%
19	5.72%	3.01%	8.73%
20	5.82%	3.07%	8.89%
21	5.92%	3.13%	9.05%
22	6.03%	3.19%	9.22%
23	6.13%	3.25%	9.38%
24	6.24%	3.31%	9.55%
25	6.35%	3.38%	9.73%
26	6.47%	3.45%	9.92%
27	6.58%	3.51%	10.09%
28	6.70%	3.58%	10.28%
29	6.82%	3.65%	10.47%
30	6.94%	3.72%	10.66%
31	7.06%	3.79%	10.85%
32	7.19%	3.86%	11.05%
33	7.32%	3.94%	11.26%
34	7.45%	4.01%	11.46%
35	7.59%	4.09%	11.68%
36	7.72%	4.17%	11.89%
37	7.87%	4.25%	12.12%
38	8.01%	4.33%	12.34%
39	8.16%	4.42%	12.58%
40	8.31%	4.51%	12.82%
41	8.47%	4.60%	13.07%
42	8.62%	4.68%	13.30%
43	8.77%	4.77%	13.54%
44	8.92%	4.86%	13.78%
45	9.08%	4.95%	14.03%
46	9.24%	5.04%	14.28%
47	9.40%	5.13%	14.53%
48	9.55%	5.22%	14.77%
49	9.71%	5.31%	15.02%
50	9.87%	5.40%	15.27%
51	10.03%	5.50%	15.53%
52	10.18%	5.58%	15.76%
53	10.35%	5.68%	16.03%
54	10.51%	5.77%	16.28%
55	10.62%	5.84%	16.46%
56	10.69%	5.88%	16.57%
57	10.75%	5.91%	16.66%
58	10.63%	5.84%	16.47%
59	10.31%	5.66%	15.97%
60 and over	10.31%	5.66%	15.97%

Administrative Expense: 0.49% of payroll added to Basic rates.

COLA Loading: 57.62% applied to Basic rates prior to adjustment for administrative expenses.

***NOTE:** The rate should be applied to all compensation up to the annual IRC 401(a)(17) compensation limit.

Exhibit H

GENERAL Cost Group #6 Non-PEPRA Member Contribution Rates

Membership Date before January 1, 2013

Effective 7/1/21 - 6/30/22

Expressed as a Percentage of Monthly Payroll*

<u>Entry Age</u>	<u>Basic not in Social Security</u>	<u>Basic in Social Security*</u>	<u>COLA</u>	<u>Total not in Social Security</u>	<u>Total in Social Security*</u>
15	6.05%	6.06%	2.46%	8.51%	8.52%
16	6.16%	6.17%	2.51%	8.67%	8.68%
17	6.26%	6.27%	2.55%	8.81%	8.82%
18	6.38%	6.39%	2.61%	8.99%	9.00%
19	6.49%	6.50%	2.66%	9.15%	9.16%
20	6.61%	6.62%	2.71%	9.32%	9.33%
21	6.72%	6.73%	2.76%	9.48%	9.49%
22	6.84%	6.85%	2.81%	9.65%	9.66%
23	6.96%	6.97%	2.86%	9.82%	9.83%
24	7.09%	7.10%	2.92%	10.01%	10.02%
25	7.22%	7.23%	2.98%	10.20%	10.21%
26	7.35%	7.36%	3.04%	10.39%	10.40%
27	7.48%	7.49%	3.09%	10.57%	10.58%
28	7.61%	7.62%	3.15%	10.76%	10.77%
29	7.75%	7.76%	3.21%	10.96%	10.97%
30	7.89%	7.90%	3.27%	11.16%	11.17%
31	8.03%	8.04%	3.34%	11.37%	11.38%
32	8.19%	8.20%	3.41%	11.60%	11.61%
33	8.33%	8.34%	3.47%	11.80%	11.81%
34	8.49%	8.50%	3.54%	12.03%	12.04%
35	8.65%	8.66%	3.61%	12.26%	12.27%
36	8.81%	8.82%	3.68%	12.49%	12.50%
37	8.97%	8.98%	3.75%	12.72%	12.73%
38	9.13%	9.14%	3.82%	12.95%	12.96%
39	9.29%	9.30%	3.89%	13.18%	13.19%
40	9.46%	9.47%	3.97%	13.43%	13.44%
41	9.62%	9.63%	4.04%	13.66%	13.67%
42	9.78%	9.79%	4.11%	13.89%	13.90%
43	9.95%	9.96%	4.19%	14.14%	14.15%
44	10.11%	10.12%	4.26%	14.37%	14.38%
45	10.27%	10.28%	4.33%	14.60%	14.61%
46	10.45%	10.46%	4.41%	14.86%	14.87%
47	10.61%	10.62%	4.48%	15.09%	15.10%
48	10.80%	10.81%	4.56%	15.36%	15.37%
49	10.95%	10.96%	4.63%	15.58%	15.59%
50	11.09%	11.10%	4.69%	15.78%	15.79%
51	11.20%	11.21%	4.74%	15.94%	15.95%
52	11.15%	11.16%	4.72%	15.87%	15.88%
53	11.07%	11.08%	4.68%	15.75%	15.76%
54	10.61%	10.62%	4.48%	15.09%	15.10%
55	10.61%	10.62%	4.48%	15.09%	15.10%
56	10.61%	10.62%	4.48%	15.09%	15.10%
57	10.61%	10.62%	4.48%	15.09%	15.10%
58	10.61%	10.62%	4.48%	15.09%	15.10%
59	10.61%	10.62%	4.48%	15.09%	15.10%
60 and over	10.61%	10.62%	4.48%	15.09%	15.10%

Administrative Expense: 0.49% of payroll added to Basic rates.

COLA Loading: 44.25% applied to Basic rates prior to adjustment for administrative expenses.

***NOTE:** For members in Social Security, the rate should only be applied to monthly compensation in excess of \$116.67.
The rate should be applied to compensation up to the annual IRC 401(a)(17) compensation limit.

Exhibit I
SAFETY Cost Group #7 Non-PEPRA Member Contribution Rates
Membership Date before January 1, 2013
Effective 7/1/21 - 6/30/22
Expressed as a Percentage of Monthly Payroll*

<u>Entry Age</u>	<u>Basic</u>	<u>COLA</u>	<u>Total</u>
15	9.48%	6.31%	15.79%
16	9.48%	6.31%	15.79%
17	9.48%	6.31%	15.79%
18	9.48%	6.31%	15.79%
19	9.48%	6.31%	15.79%
20	9.48%	6.31%	15.79%
21	9.48%	6.31%	15.79%
22	9.62%	6.40%	16.02%
23	9.76%	6.50%	16.26%
24	9.91%	6.61%	16.52%
25	10.06%	6.71%	16.77%
26	10.21%	6.82%	17.03%
27	10.37%	6.93%	17.30%
28	10.52%	7.04%	17.56%
29	10.68%	7.15%	17.83%
30	10.85%	7.27%	18.12%
31	11.02%	7.39%	18.41%
32	11.19%	7.51%	18.70%
33	11.37%	7.63%	19.00%
34	11.55%	7.76%	19.31%
35	11.74%	7.89%	19.63%
36	11.93%	8.03%	19.96%
37	12.12%	8.16%	20.28%
38	12.31%	8.29%	20.60%
39	12.52%	8.44%	20.96%
40	12.74%	8.59%	21.33%
41	12.95%	8.74%	21.69%
42	13.18%	8.90%	22.08%
43	13.41%	9.06%	22.47%
44	13.67%	9.25%	22.92%
45	13.89%	9.40%	23.29%
46	13.91%	9.41%	23.32%
47	13.94%	9.44%	23.38%
48	13.75%	9.30%	23.05%
49 and over	13.23%	8.94%	22.17%

Administrative Expense: 0.49% of payroll added to Basic rates.

COLA Loading: 70.15% applied to Basic rates prior to adjustment for administrative expenses.

***NOTE:** The rate should be applied to all compensation up to the annual IRC 401(a)(17) compensation limit.

Exhibit J
SAFETY Cost Group #8 Non-PEPRA Member Contribution Rates
Membership Date before January 1, 2013
Effective 7/1/21 - 6/30/22
Expressed as a Percentage of Monthly Payroll*

<u>Entry Age</u>	<u>Basic</u>	<u>COLA</u>	<u>Total</u>
15	9.46%	6.59%	16.05%
16	9.46%	6.59%	16.05%
17	9.46%	6.59%	16.05%
18	9.46%	6.59%	16.05%
19	9.46%	6.59%	16.05%
20	9.46%	6.59%	16.05%
21	9.46%	6.59%	16.05%
22	9.60%	6.69%	16.29%
23	9.74%	6.80%	16.54%
24	9.89%	6.91%	16.80%
25	10.04%	7.02%	17.06%
26	10.19%	7.13%	17.32%
27	10.34%	7.24%	17.58%
28	10.50%	7.36%	17.86%
29	10.66%	7.47%	18.13%
30	10.82%	7.59%	18.41%
31	10.99%	7.72%	18.71%
32	11.17%	7.85%	19.02%
33	11.34%	7.97%	19.31%
34	11.53%	8.11%	19.64%
35	11.72%	8.25%	19.97%
36	11.90%	8.39%	20.29%
37	12.10%	8.53%	20.63%
38	12.29%	8.67%	20.96%
39	12.49%	8.82%	21.31%
40	12.71%	8.98%	21.69%
41	12.93%	9.14%	22.07%
42	13.16%	9.31%	22.47%
43	13.39%	9.48%	22.87%
44	13.64%	9.66%	23.30%
45	13.85%	9.82%	23.67%
46	13.92%	9.87%	23.79%
47	13.86%	9.83%	23.69%
48	13.77%	9.76%	23.53%
49 and over	13.26%	9.38%	22.64%

Administrative Expense: 0.49% of payroll added to Basic rates.

COLA Loading: 73.49% applied to Basic rates prior to adjustment for administrative expenses.

***NOTE:** The rate should be applied to all compensation up to the annual IRC 401(a)(17) compensation limit.

Exhibit K
SAFETY Cost Group #9 Non-PEPRA Member Contribution Rates
Membership Date before January 1, 2013
Effective 7/1/21 - 6/30/22
Expressed as a Percentage of Monthly Payroll*

<u>Entry Age</u>	<u>Basic</u>	<u>COLA</u>	<u>Total</u>
15	9.06%	3.90%	12.96%
16	9.06%	3.90%	12.96%
17	9.06%	3.90%	12.96%
18	9.06%	3.90%	12.96%
19	9.06%	3.90%	12.96%
20	9.06%	3.90%	12.96%
21	9.06%	3.90%	12.96%
22	9.19%	3.96%	13.15%
23	9.33%	4.02%	13.35%
24	9.47%	4.09%	13.56%
25	9.61%	4.15%	13.76%
26	9.75%	4.21%	13.96%
27	9.90%	4.28%	14.18%
28	10.05%	4.35%	14.40%
29	10.20%	4.42%	14.62%
30	10.36%	4.49%	14.85%
31	10.52%	4.56%	15.08%
32	10.69%	4.64%	15.33%
33	10.86%	4.72%	15.58%
34	11.03%	4.80%	15.83%
35	11.20%	4.87%	16.07%
36	11.38%	4.95%	16.33%
37	11.56%	5.04%	16.60%
38	11.73%	5.11%	16.84%
39	11.93%	5.21%	17.14%
40	12.12%	5.29%	17.41%
41	12.31%	5.38%	17.69%
42	12.51%	5.47%	17.98%
43	12.68%	5.55%	18.23%
44	12.78%	5.59%	18.37%
45	12.79%	5.60%	18.39%
46	12.67%	5.54%	18.21%
47	12.41%	5.42%	17.83%
48	12.74%	5.57%	18.31%
49 and over	13.32%	5.84%	19.16%

Administrative Expense: 0.49% of payroll added to Basic rates.

COLA Loading: 45.50% applied to Basic rates prior to adjustment for administrative expenses.

***NOTE:** The rate should be applied to all compensation up to the annual IRC 401(a)(17) compensation limit.

Exhibit L

SAFETY Cost Group #10 Non-PEPRA Member Contribution Rates

Membership Date before January 1, 2013

Effective 7/1/21 - 6/30/22

Expressed as a Percentage of Monthly Payroll*

<u>Entry Age</u>	<u>Basic</u>	<u>COLA</u>	<u>Total</u>
15	9.46%	6.33%	15.79%
16	9.46%	6.33%	15.79%
17	9.46%	6.33%	15.79%
18	9.46%	6.33%	15.79%
19	9.46%	6.33%	15.79%
20	9.46%	6.33%	15.79%
21	9.46%	6.33%	15.79%
22	9.60%	6.43%	16.03%
23	9.74%	6.52%	16.26%
24	9.89%	6.63%	16.52%
25	10.04%	6.74%	16.78%
26	10.19%	6.84%	17.03%
27	10.34%	6.95%	17.29%
28	10.50%	7.06%	17.56%
29	10.66%	7.17%	17.83%
30	10.82%	7.29%	18.11%
31	10.99%	7.41%	18.40%
32	11.17%	7.53%	18.70%
33	11.34%	7.65%	18.99%
34	11.53%	7.79%	19.32%
35	11.72%	7.92%	19.64%
36	11.90%	8.05%	19.95%
37	12.10%	8.19%	20.29%
38	12.29%	8.32%	20.61%
39	12.49%	8.46%	20.95%
40	12.71%	8.62%	21.33%
41	12.93%	8.77%	21.70%
42	13.16%	8.94%	22.10%
43	13.39%	9.10%	22.49%
44	13.64%	9.27%	22.91%
45	13.85%	9.42%	23.27%
46	13.92%	9.47%	23.39%
47	13.86%	9.43%	23.29%
48	13.77%	9.37%	23.14%
49 and over	13.26%	9.01%	22.27%

Administrative Expense: 0.49% of payroll added to Basic rates.

COLA Loading: 70.53% applied to Basic rates prior to adjustment for administrative expenses.

*NOTE: The rate should be applied to all compensation up to the annual IRC 401(a)(17) compensation limit.
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Exhibit M
SAFETY Cost Group #11 Non-PEPRA Member Contribution Rates
Membership Date before January 1, 2013
Effective 7/1/21 - 6/30/22
Expressed as a Percentage of Monthly Payroll*

<u>Entry Age</u>	<u>Basic</u>	<u>COLA</u>	<u>Total</u>
15	9.63%	6.78%	16.41%
16	9.63%	6.78%	16.41%
17	9.63%	6.78%	16.41%
18	9.63%	6.78%	16.41%
19	9.63%	6.78%	16.41%
20	9.63%	6.78%	16.41%
21	9.63%	6.78%	16.41%
22	9.78%	6.89%	16.67%
23	9.92%	6.99%	16.91%
24	10.07%	7.10%	17.17%
25	10.22%	7.21%	17.43%
26	10.38%	7.33%	17.71%
27	10.53%	7.44%	17.97%
28	10.69%	7.56%	18.25%
29	10.85%	7.68%	18.53%
30	11.02%	7.81%	18.83%
31	11.19%	7.93%	19.12%
32	11.37%	8.07%	19.44%
33	11.55%	8.20%	19.75%
34	11.74%	8.34%	20.08%
35	11.92%	8.47%	20.39%
36	12.11%	8.62%	20.73%
37	12.31%	8.76%	21.07%
38	12.51%	8.91%	21.42%
39	12.71%	9.06%	21.77%
40	12.92%	9.22%	22.14%
41	13.14%	9.38%	22.52%
42	13.37%	9.55%	22.92%
43	13.61%	9.73%	23.34%
44	13.84%	9.90%	23.74%
45	14.07%	10.07%	24.14%
46	14.10%	10.09%	24.19%
47	14.04%	10.05%	24.09%
48	13.78%	9.85%	23.63%
49 and over	13.01%	9.28%	22.29%

Administrative Expense: 0.49% of payroll added to Basic rates.

COLA Loading: 74.14% applied to Basic rates prior to adjustment for administrative expenses.

***NOTE:** The rate should be applied to all compensation up to the annual IRC 401(a)(17) compensation limit.

Exhibit N
SAFETY Cost Group #12 Non-PEPRA Member Contribution Rates
Membership Date before January 1, 2013
Effective 7/1/21 - 6/30/22
Expressed as a Percentage of Monthly Payroll*

<u>Entry Age</u>	<u>Basic</u>	<u>COLA</u>	<u>Total</u>
15	9.59%	6.98%	16.57%
16	9.59%	6.98%	16.57%
17	9.59%	6.98%	16.57%
18	9.59%	6.98%	16.57%
19	9.59%	6.98%	16.57%
20	9.59%	6.98%	16.57%
21	9.59%	6.98%	16.57%
22	9.73%	7.09%	16.82%
23	9.88%	7.21%	17.09%
24	10.02%	7.31%	17.33%
25	10.18%	7.44%	17.62%
26	10.33%	7.55%	17.88%
27	10.48%	7.67%	18.15%
28	10.64%	7.79%	18.43%
29	10.80%	7.91%	18.71%
30	10.97%	8.04%	19.01%
31	11.14%	8.17%	19.31%
32	11.32%	8.31%	19.63%
33	11.49%	8.44%	19.93%
34	11.68%	8.59%	20.27%
35	11.88%	8.74%	20.62%
36	12.06%	8.88%	20.94%
37	12.25%	9.03%	21.28%
38	12.45%	9.18%	21.63%
39	12.66%	9.34%	22.00%
40	12.88%	9.51%	22.39%
41	13.09%	9.67%	22.76%
42	13.33%	9.85%	23.18%
43	13.56%	10.03%	23.59%
44	13.78%	10.20%	23.98%
45	13.99%	10.36%	24.35%
46	14.05%	10.41%	24.46%
47	13.97%	10.35%	24.32%
48	13.81%	10.22%	24.03%
49 and over	13.07%	9.66%	22.73%

Administrative Expense: 0.49% of payroll added to Basic rates.

COLA Loading: 76.75% applied to Basic rates prior to adjustment for administrative expenses.

***NOTE:** The rate should be applied to all compensation up to the annual IRC 401(a)(17) compensation limit.

Exhibit O
SAFETY Cost Group #13 Non-PEPRA Member Contribution Rates
Membership Date before January 1, 2013
Effective 7/1/21 - 6/30/22
Expressed as a Percentage of Monthly Payroll*

<u>Entry Age</u>	<u>Basic</u>	<u>COLA</u>	<u>Total</u>
15	9.46%	6.85%	16.31%
16	9.46%	6.85%	16.31%
17	9.46%	6.85%	16.31%
18	9.46%	6.85%	16.31%
19	9.46%	6.85%	16.31%
20	9.46%	6.85%	16.31%
21	9.46%	6.85%	16.31%
22	9.60%	6.96%	16.56%
23	9.74%	7.07%	16.81%
24	9.89%	7.18%	17.07%
25	10.04%	7.30%	17.34%
26	10.19%	7.41%	17.60%
27	10.34%	7.53%	17.87%
28	10.50%	7.65%	18.15%
29	10.66%	7.77%	18.43%
30	10.82%	7.89%	18.71%
31	10.99%	8.02%	19.01%
32	11.17%	8.16%	19.33%
33	11.34%	8.29%	19.63%
34	11.53%	8.44%	19.97%
35	11.72%	8.58%	20.30%
36	11.90%	8.72%	20.62%
37	12.10%	8.87%	20.97%
38	12.29%	9.02%	21.31%
39	12.49%	9.17%	21.66%
40	12.71%	9.34%	22.05%
41	12.93%	9.51%	22.44%
42	13.16%	9.68%	22.84%
43	13.39%	9.86%	23.25%
44	13.64%	10.05%	23.69%
45	13.85%	10.21%	24.06%
46	13.92%	10.26%	24.18%
47	13.86%	10.22%	24.08%
48	13.77%	10.15%	23.92%
49 and over	13.26%	9.76%	23.02%

Administrative Expense: 0.49% of payroll added to Basic rates.

COLA Loading: 76.42% applied to Basic rates prior to adjustment for administrative expenses.

***NOTE:** The rate should be applied to all compensation up to the annual IRC 401(a)(17) compensation limit.

Exhibit P
PEPRA Tiers Member Contribution Rates
Membership Date on or after January 1, 2013
Effective 7/1/21 - 6/30/22
Expressed as a Percentage of Monthly Payroll*

<u>General Tiers</u>	<u>Basic</u>	<u>COLA</u>	<u>Total</u>
Cost Group #1 – PEPRA Tier 4 (2% COLA)	8.87%	2.02%	10.89%
Cost Group #1 – PEPRA Tier 4 (3% COLA)	8.91%	2.99%	11.90%
Cost Group #2 - PEPRA Tier 5 (2% COLA)	8.24%	1.85%	10.09%
Cost Group #2 - PEPRA Tier 5 (3%/4% COLA)	8.41%	2.76%	11.17%
Cost Group #3 - PEPRA Tier 4 (3% COLA)	8.37%	2.87%	11.24%
Cost Group #4 - PEPRA Tier 4 (3% COLA)	8.60%	2.92%	11.52%
Cost Group #5 - PEPRA Tier 4 (2% COLA)	10.28%	2.29%	12.57%
Cost Group #5 - PEPRA Tier 4 (3% COLA)	11.41%	3.79%	15.20%
Cost Group #6 - PEPRA Tier 4 (3% COLA)	9.23%	3.15%	12.38%

<u>Safety Tiers</u>	<u>Basic</u>	<u>COLA</u>	<u>Total</u>
Cost Group #7 - PEPRA Tier D	14.50%	5.79%	20.29%
Cost Group #8 - PEPRA Tier D	12.33%	5.08%	17.41%
Cost Group #8 - PEPRA Tier E	12.37%	3.39%	15.76%
Cost Group #9 - PEPRA Tier E	13.24%	3.59%	16.83%
Cost Group #10 - PEPRA Tier D	12.44%	5.13%	17.57%
Cost Group #11 - PEPRA Tier D	11.42%	4.70%	16.12%
Cost Group #12 - PEPRA Tier D	11.50%	4.76%	16.26%
Cost Group #13 - PEPRA Tier D	12.25%	5.06%	17.31%

The Basic rates shown above also include an administrative expense load of 0.49% of payroll.

<p>*NOTE: The rate should be applied to all compensation (whether or not in Social Security) up to the applicable annual Gov. Code 7522.10(d) compensation limit.</p>
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CONTRA COSTA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

SUBVENTION

All rates are shown as a percent of payroll.

Employee contribution rates vary depending upon their tier and age at entry. To compute the exact subvention percent for each employee, do the following:

Employee rate – Decrease the employee's rate by the subvention percent (i.e. 25%, 50%, etc.).

Employer rate – Increase the employer's rate by a **percent** of the employee's decrease using the applicable refundability factor (found on Exhibits A and B):

EXAMPLE FOR COST GROUP #3 LEGACY MEMBERS:

If the subvention percent is 25%, and
the employee's rate is 6.00%,

Employee rates should be decreased by 1.50% ($25\% \times 6.00\%$)
The employer rate should be increased by 1.44% ($1.50\% \times 0.9609$)

Please note that for PEPRA members, subvention is generally not permitted. The standard under Gov. Code §7522.30(a) is that employees pay at least 50 percent of normal costs and that employers not pay any of the required employee contribution, but there are some exceptions. Gov. Code §7522.30(f) allows the terms (regarding the employee's required contribution) of a contract, including a memorandum of understanding, that is in effect on January 1, 2013, to continue through the length of a contract. This means that it is possible that an employer will subvent a portion of a PEPRA member's required contribution until the expiration date of the current contract, so long as it has been determined that the contract has been impaired.

CAUTION – these rates are for employer **subvention** of up to one-half the member contribution under Gov. Code §31581.1, NOT employer **pick-up** of employee contribution rates. When an employer subvents, the contribution subvented is not placed in the member's account and is therefore not available to the member as a refund. For this reason, the employer pays the contribution at a discount (i.e. "Refundability Factor").

Employer **pick-ups** of employee contributions are those made under Gov. Code §31581.2 and Internal Revenue Code §414 (h)(2) for the sole purpose of deferring income tax. These contributions are added to the member's account, are available to the member as a refund and are considered by CCCERA as part of the member's compensation for retirement purposes.

EMPLOYEE PAYMENT OF EMPLOYER COST

There are several reasons why the attached contribution rates may need to be adjusted to increase the employee portion including the following:

Gov. Code §31631 allows for members to pay all or part of the employer contributions.

Gov. Code §31639.95 allows for Safety members to pay a portion of the employer cost for the "3% at 50" enhanced benefit.

Gov. Code §7522.30(c) requires that an employee's contribution rate be at least equal to that of similarly situated employees.

Gov. Code §7522.30(e) allows the employee contributions to be more than one-half of the normal cost rate if the increase has been agreed to through the collective bargaining process.

If you need to increase the employee contribution rate for any reason, you will need to adjust both employee and employer rates as follows:

Employee rate – Increase the employee's rate by the desired percent of payroll.

Employer rate – Decrease the employer's rate by a **percent** of the cost-sharing percent of payroll using the applicable refundability factor:

EXAMPLE FOR COST GROUP #11 LEGACY MEMBERS:

If the required increase in the employee rate is 8.00%,

Employee rates should be increased by 8.00%.

The employer rate should be decreased by 7.75% ($8.00\% \times 0.9682$)

PREPAYMENT DISCOUNT FACTOR FOR 2021-22

Employer Contribution Prepayment Program & Discount Factor for 2021-22 is **0.9696**

If you are currently participating in the prepayment program and wish to continue, you do not need to do anything other than prepay the July 1, 2021 through June 30, 2022 contributions on or before July 31, 2021. If you wish to start participating, please contact the Accounting Department at CCCERA by March 31, 2021.

The discount factor is calculated assuming the prepayment will be received on July 31 in accordance with Gov. Code §31582(b) in lieu of 12 equal payments due at the end of each month in accordance with Gov. Code §31582(a). The discount factor for the fiscal year July 1, 2021 through June 30, 2022 will be **0.9696** based on the interest assumption of 7.00% per annum. It is calculated by discounting each of the 12 equal payments back to the date that the prepayment is made and is the sum of the discount factors shown in the table below divided by 12. Each of the discount factors below is based on how many months early the payment is made.

Payment Number	Number of Months Payment is Made Early	Discount Factor
1	0	1.0000
2	1	0.9944
3	2	0.9888
4	3	0.9832
5	4	0.9777
6	5	0.9722
7	6	0.9667
8	7	0.9613
9	8	0.9559
10	9	0.9505
11	10	0.9452
12	11	0.9399
Sum of Discount Factors Divided by 12:		0.9696



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Via Email

November 25, 2020

Gail Strohl
Chief Executive Officer
Contra Costa County Employees' Retirement Association
1200 Concord Avenue, Suite 300
Concord, CA 94520

**Re: Contra Costa County Employees' Retirement Association (CCCERA)
Reconciliations of Employer Contribution Rate and Unfunded Actuarial Accrued
Liability by Cost Group & Allocation of Unfunded Actuarial Accrued Liability by
Employers Based on the December 31, 2019 Actuarial Valuation**

Dear Gail:

As requested, we are providing the following information regarding the December 31, 2019 valuation.

Exhibit A – A reconciliation of employer contribution rate changes separately for each of CCCERA's cost groups.

Exhibit B – A reconciliation of the Unfunded Actuarial Accrued Liability (UAAL) separately for each of CCCERA's cost groups.

Exhibit C – Allocation of the UAAL for each participating employer.

Reconciliation of Employer Contribution Rate Changes for Each Cost Group

Exhibit A details the changes in the recommended employer contribution rates for each cost group from the December 31, 2018 valuation to the December 31, 2019 valuation.

Observations

- The average employer rate decreased slightly from 35.73% of payroll as of December 31, 2018 to 35.66% of payroll as of December 31, 2019. As discussed in our December 31, 2019 actuarial valuation report, this decrease is primarily due to the effect of changes in member demographics on Normal Cost and other gains, partially offset by an investment return on actuarial value (i.e. after asset smoothing) less than the 7.00% assumed rate.
- The investment loss was allocated to each cost group in proportion to the assets for each cost group.

- There are other various changes shown in Exhibit A including the 18-month delay in implementation of the contribution rates calculated in the December 31, 2018 valuation, higher than expected individual salary increases, amortizing the prior year's UAAL over a greater than expected projected total payroll, etc.
- Prior to December 31, 2019, Safety members from East Contra Costa Fire Protection District were pooled with Contra Costa County Fire Protection District in Cost Group 8. Effective with the December 31, 2019 valuation, the Board took action upon a request made by East Contra Costa Fire Protection District to depool Safety members of the East Contra Costa Fire Protection District from Safety members of the Contra Cost County Fire Protection District. The depooled assets for the two employers were allocated based on their respective actuarial accrued liability as of December 31, 2018. Safety members of the East Contra Costa Fire Protection District are under their own cost group (Cost Group 13).
- In the December 31, 2019 valuation, there was a refinement made to the Entry Age actuarial cost method calculation as recommended in the December 31, 2018 actuarial audit. This refinement does not change the present value of future benefits but it does increase the normal cost slightly, with an offsetting decrease in the actuarial accrued liability. These changes result in a net increase in the average employer and member contribution rates of 0.14% and 0.04% of pay, respectively.

Reconciliation of UAAL for Each Cost Group

Exhibit B presents the changes in the UAAL by cost group from the December 31, 2018 valuation to the December 31, 2019 valuation. Note that we have combined the results for Cost Group #1 with #2 and Cost Group #7 with #9 as the UAAL for these cost groups is still pooled.

Exhibit B shows that the decrease in UAAL is mainly due to contributions paying down a portion of the UAAL, offset to some degree by an investment return on actuarial value (i.e. after asset smoothing) less than the 7.00% assumed rate. The investment loss was again generally allocated amongst the cost groups in proportion to the valuation value of assets for each cost group. All other elements of the changes in UAAL were determined based on the data specific to each separate cost group.

Allocation of UAAL by Employer

Exhibit C provides an allocation of the UAAL as of December 31, 2019 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 projected 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 or withdrawal by that employer. It is also not the Net Pension Liability (NPL) allocated to each employer for financial reporting purposes as shown in the Governmental Accounting Standards (GAS) Statement No. 68 report.

Based on the above method, we have prepared the breakdown of the UAAL for each participating employer as shown in the enclosed Exhibit C. We also show the projected payroll for each participating employer that was used in the determination of the UAAL.

Summary of Cost Groups and Employers

The following table provides a brief summary of the employers included within each cost group, as referenced in Exhibit A and Exhibit B.

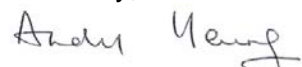
Cost Group	Employers
Cost Group #1	General County and Small Districts
Cost Group #2	General County and Small Districts
Cost Group #3	Central Contra Costa Sanitary District
Cost Group #4	Contra Costa Housing Authority
Cost Group #5	Contra Costa County Fire Protection District - General
Cost Group #6	Small Districts Non-Enhanced
Cost Group #7	Safety County (Tiers A and D)
Cost Group #8	Contra Costa County Fire Protection District - Safety
Cost Group #9	Safety County (Tiers C and E)
Cost Group #10	Moraga-Orinda Fire District
Cost Group #11	San Ramon Valley Fire District
Cost Group #12	Rodeo-Hercules Fire Protection District Non-Enhanced
Cost Group #13	East Contra Costa Fire Protection District

All results shown in this letter are based on the December 31, 2019 actuarial valuation including the participant data and actuarial assumptions on which that valuation was based. That valuation and these calculations were completed under the supervision of Andy Yeung, ASA, MAAA, FCA, 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.

If you have any questions, please do not hesitate to give us a call.

Sincerely,



Andy Yeung, ASA, MAAA, FCA, EA
Vice President & Actuary

EK/hy
Enclosures

Reconciliation of Recommended Employer Contribution from December 31, 2018 to December 31, 2019 Valuation

	Cost Group #1	Cost Group #2	Cost Group #3	Cost Group #4	Cost Group #5	Cost Group #6 ¹	Cost Group #7
Recommended Employer Contribution Rate in December 31, 2018 Valuation	31.11%	26.42%	49.86%	42.22%	32.80%	15.60%	70.32%
1. Effect of investment return less than expected (after smoothing)	0.40%	0.40%	0.52%	0.56%	0.46%	0.00%	1.01%
2. Effect of actual contributions less/(more) than expected ²	0.00%	0.00%	(0.10%)	0.20%	0.04%	0.00%	(0.23%)
3. Effect of additional UAAL contributions	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
4. Effect of individual salary increases higher/(lower) than expected	0.20%	0.20%	0.52%	1.11%	0.28%	0.00%	0.70%
5. Effect of amortizing prior year's UAAL over a smaller/(larger) than expected projected total payroll	(0.11%)	(0.11%)	(1.18%)	0.30%	(1.23%)	0.00%	0.05%
6. Effect of COLA increases for retirees and beneficiaries lower than expected	(0.05%)	(0.05%)	(0.08%)	(0.07%)	(0.07%)	0.00%	(0.15%)
7. Effect of changes in member demographics on Normal Cost	(0.15%)	(0.24%)	(0.25%)	(0.78%)	(0.40%)	0.32%	(0.19%)
8. Effect of change in administrative expense load	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%
9. Effect of other experience (gains)/losses ^{3, 4}	(0.30%)	(0.47%)	0.43%	(1.08%)	1.51%	0.00%	(0.56%)
10. Effect of change in method	<u>1.49%</u>	<u>0.02%</u>	<u>0.42%</u>	<u>0.63%</u>	<u>0.72%</u>	<u>0.00%</u>	<u>0.25%</u>
Total Change	1.50%	(0.23%)	0.30%	0.89%	1.33%	0.34%	0.90%
Recommended Employer Contribution Rate in December 31, 2019 Valuation	32.61%	26.19%	50.16%	43.11%	34.13%	15.94%	71.22%

Note: These rates do not include any employer subvention of member contributions, or member subvention of employer contributions. This Exhibit also excludes withdrawn employers.

¹ This cost group has no Unfunded Actuarial Accrued Liability (UAAL).

² Due to delay in implementation of contribution rates calculated in the December 31, 2018 valuation.

³ Other differences in actual versus expected experience including (but not limited to) mortality, retirement, disability, termination and leave cashout experience.

⁴ The effect of other experience gains for Cost Group #4 of 1.08% includes a mortality gain of 0.92%.
The effect of other experience losses for Cost Group #5 of 1.51% includes a mortality loss of 0.99%.

Reconciliation of Recommended Employer Contribution from December 31, 2018 to December 31, 2019 Valuation

	Cost Group #8	Cost Group #9	Cost Group #10	Cost Group #11	Cost Group #12	Cost Group #13	Total Average Recommended Rate
Recommended Employer Contribution Rate in December 31, 2018 Valuation	65.26%	61.10%	70.81%	75.79%	85.28%	111.83%	35.73%
1. Effect of investment return less than expected (after smoothing)	1.22%	1.01%	1.15%	1.01%	0.91%	0.63%	0.54%
2. Effect of actual contributions less/(more) than expected ¹	(0.63%)	(0.23%)	(0.16%)	0.09%	0.08%	(1.11%)	(0.06%)
3. Effect of additional UAAL contributions	0.00%	0.00%	0.00%	(0.43%)	0.00%	0.00%	(0.01%)
4. Effect of individual salary increases higher/(lower) than expected	0.60%	0.70%	1.08%	0.62%	(1.20%)	1.58%	0.32%
5. Effect of amortizing prior year's UAAL over a smaller/(larger) than expected projected total payroll	(2.82%)	0.05%	(3.33%)	(0.58%)	6.72%	(4.91%)	(0.26%)
6. Effect of COLA increases for retirees and beneficiaries lower than expected ²	(0.66%)	(0.15%)	(0.15%)	(0.18%)	(0.15%)	(0.06%)	(0.09%)
7. Effect of changes in member demographics on Normal Cost	(1.96%)	(0.26%)	(0.41%)	(0.64%)	0.14%	(0.38%)	(0.33%)
8. Effect of change in administrative expense load	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%
9. Effect of other experience (gains)/losses ^{3, 4}	5.59%	(0.56%)	1.26%	0.28%	0.83%	(39.49%)	(0.34%)
10. Effect of change in method	<u>0.44%</u>	<u>0.00%</u>	<u>0.35%</u>	<u>0.64%</u>	<u>0.32%</u>	<u>(0.07%)</u>	<u>0.14%</u>
Total Change	1.80%	0.58%	(0.19%)	0.83%	7.67%	(43.79%)	(0.07%)
Recommended Employer Contribution Rate in December 31, 2019 Valuation	67.06%	61.68%	70.62%	76.62%	92.95%	68.04%	35.66%

Note: These rates do not include any employer subvention of member contributions, or member subvention of employer contributions. This Exhibit also excludes withdrawn employers.

¹ Due to delay in implementation of contribution rates calculated in the December 31, 2018 valuation.

² The effect of COLA increases lower than expected for Cost Group #8 of 0.66% includes the impact of other various changes to the benefit amounts.

³ Other differences in actual versus expected experience including (but not limited to) mortality, retirement, disability, termination and leave cashout experience.

⁴ The effect of other experience losses for Cost Group #8 of 5.59% is primarily a result of the depooling as mentioned earlier in this letter.

The effect of other experience losses for Cost Group #10 of 1.26% includes a disability loss of 1.74%.

The effect of other experience losses for Cost Group #12 of 0.83% includes a mortality loss of 0.37%.

The effect of other experience gains for Cost Group #13 of 39.49% is primarily a result of the depooling as mentioned earlier in this letter.

Reconciliation of Unfunded Actuarial Accrued Liability from December 31, 2018 to December 31, 2019 Valuation

	Cost Groups #1 & #2	Cost Group #3	Cost Group #4	Cost Group #5	Cost Group #6	Cost Groups #7 & #9	Cost Group #8
1. Unfunded actuarial accrued liability at beginning of year¹	\$476,534,868	\$73,982,842	\$7,540,395	\$10,224,049	\$(498,374)	\$236,746,543	\$120,271,168
2. Total Normal Cost at middle of year ²	157,621,002	9,058,129	1,488,299	1,429,504	262,268	41,547,841	16,009,523
3. Expected administrative expenses	7,447,469	389,869	63,037	63,218	10,342	1,097,771	405,775
4. Expected employer and member contributions	(252,536,721)	(21,673,423)	(3,080,883)	(2,535,692)	(271,005)	(83,627,630)	(30,438,324)
5. Interest (whole year on (1) plus half year on (2) + (3) + (4))	<u>29,637,676</u>	<u>4,735,836</u>	<u>470,078</u>	<u>673,563</u>	<u>(36,491)</u>	<u>15,016,333</u>	<u>6,570,804</u>
6. Expected unfunded actuarial accrued liability at end of year	\$418,704,294	\$66,493,253	\$6,480,926	\$9,854,642	\$(533,260)	\$210,780,858	\$112,818,946
7. Actuarial (gain)/loss due to all changes:							
a. Investment return less than expected	\$36,911,584	\$2,588,515	\$426,876	\$379,153	\$55,150	\$13,513,498	\$6,493,929
b. Actual contributions less/(more) than expected	(407,409)	(479,185)	151,379	31,552	(75,720)	(3,046,595)	(3,374,215)
c. Gain from additional UAAL contributions	(31,680)	0	0	0	0	0	0
d. Individual salary increases higher/(lower) than expected	18,844,907	2,591,693	843,246	236,118	33,568	9,445,400	3,208,196
e. COLA increases for retirees and beneficiaries lower than expected ³	(4,345,489)	(389,799)	(53,382)	(58,638)	(4,764)	(2,007,158)	(3,512,270)
f. Other experience (gain)/loss ^{4, 5}	(42,127,787)	2,054,494	(823,652)	1,244,867	(455,667)	(7,591,958)	9,088,683
g. Method change	<u>(9,437,845)</u>	<u>(2,095,302)</u>	<u>(103,353)</u>	<u>(866,741)</u>	<u>0</u>	<u>(1,626,137)</u>	<u>(2,989,978)</u>
h. Total changes	\$(593,719)	\$4,270,416	\$441,114	\$966,311	\$(447,433)	\$8,687,050	\$8,914,345
8. Unfunded actuarial accrued liability at end of year	\$418,110,575	\$70,763,669	\$6,922,040	\$10,820,953	\$(980,693)	\$219,467,908	\$121,733,291

Note: Results may not add due to rounding.

¹ The UAAL at beginning of year for Cost Group # 8 reflects depooling as of beginning of year. The UAAL allocated to Contra Costa County Fire Protection District Safety members before depooling is \$113,128,971.

² Excludes administrative expense load.

³ Also includes impact of other changes to the benefit amounts.

⁴ Other differences in actual versus expected experience including (but not limited to) mortality, retirement, disability, termination and leave cashout experience.

⁵ The effect of other experience gains for Cost Groups #1 & 2 of \$42,127,787 includes a retirement gain of \$42,365,000. The effect of other experience losses for Cost Group #5 of \$1,244,867 includes a mortality loss of \$819,000.

Reconciliation of Unfunded Actuarial Accrued Liability from December 31, 2018 to December 31, 2019 Valuation

	Cost Group #10	Cost Group #11	Cost Group #12	Cost Group #13	Withdrawn Employers	Total
1. Unfunded actuarial accrued liability at beginning of year¹	\$28,941,275	\$50,715,454	\$10,069,997	\$8,700,371	\$8,736,936	\$1,031,965,524
2. Total Normal Cost at middle of year ²	3,111,943	9,170,174	817,884	0	0	240,516,567
3. Expected administrative expenses	81,571	237,723	26,742	36,782	0	9,860,300
4. Expected employer and member contributions	(6,533,697)	(20,051,373)	(2,398,638)	(4,316,294)	(1,180,054)	(428,643,735)
5. Interest (whole year on (1) plus half year on (2) + (3) + (4))	<u>1,901,043</u>	<u>3,157,495</u>	<u>649,755</u>	<u>3,298,141</u>	<u>(907,500)</u>	<u>65,166,733</u>
6. Expected unfunded actuarial accrued liability at end of year	\$27,502,135	\$43,229,473	\$9,165,740	\$7,719,000	\$6,649,382	\$918,865,389
7. Actuarial (gain)/loss due to all changes:						
a. Investment return less than expected	\$1,234,725	\$2,981,355	\$269,659	\$323,362	\$393,621	\$65,571,424
b. Actual contributions less/(more) than expected	(175,163)	260,656	25,149	(567,361)	(492)	(7,657,405)
c. Gain from additional UAAL contributions	0	(1,267,559)	0	0	0	(1,299,239)
d. Individual salary increases higher/(lower) than expected	1,167,459	1,818,810	(354,865)	806,193	0	38,640,728
e. COLA increases for retirees and beneficiaries lower than expected ³	(164,670)	(539,294)	(45,172)	(31,413)	(358,911)	(11,510,960)
f. Other experience (gain)/loss ⁴	1,349,048	843,868	251,697	(1,176,848)	1,309,326	(36,033,928)
g. Method changes	<u>(471,164)</u>	<u>(1,623,299)</u>	<u>(241,485)</u>	<u>(67,201)</u>	<u>0</u>	<u>(19,522,505)</u>
h. Total changes	\$2,940,235	\$2,474,537	\$(95,017)	\$(713,268)	\$1,343,544	\$28,188,115
8. Unfunded actuarial accrued liability at end of year	\$30,442,370	\$45,704,010	\$9,070,723	\$7,005,732	\$7,992,926	\$947,053,504

Note: Results may not add due to rounding.

¹ The UAAL at beginning of year for Cost Group # 13 reflects depooling as of beginning of year. The UAAL allocated to East Contra Costa Fire Protection District Safety members before depooling is \$15,842,568.

² Excludes administrative expense load.

³ Also includes impact of other changes to the benefit amounts.

⁴ Other differences in actual versus expected experience including (but not limited to) mortality, retirement, disability, termination and leave cashout experience.

Contra Costa County Employees' Retirement Association UAAL Breakdown December 31, 2019 Valuation

Employer	Unfunded Actuarial Accrued Liability (UAAL)	Projected Payroll
County	\$607,938,000	\$764,447,597
Superior Court	15,160,000	25,816,324
Districts:		
• Bethel Island Municipal Improvement District	\$234,000	\$279,517
• Byron, Brentwood, Knightsen Union Cemetery District	(176,000)	168,696
• Central Contra Costa Sanitary District	70,764,000	37,881,590
• First Five - Contra Costa Children & Families Commission	1,530,000	2,577,090
• Contra Costa County Employees' Retirement Association	4,812,000	5,736,401
• Contra Costa County Fire Protection District	132,554,000	47,167,629
• Contra Costa Housing Authority	6,922,000	5,851,340
• Contra Costa Mosquito and Vector Control District	2,919,000	3,480,292
• East Contra Costa Fire Protection District	7,209,000	4,149,275
• In-Home Supportive Services Authority	874,000	1,041,569
• Local Agency Formation Commission	82,000	171,732
• Moraga-Orinda Fire Protection District	30,726,000	8,918,107
• Rodeo Sanitary District	(805,000)	773,881
• Rodeo-Hercules Fire Protection District	9,137,000	2,351,081
• San Ramon Valley Fire Protection District	49,180,000	26,719,142
• Withdrawn Employers	<u>7,993,000</u>	<u>0</u>
Grand Total	\$947,054,000	\$937,531,262

Note: Results may not add due to rounding.