

AGENDA

RETIREMENT BOARD MEETING

REGULAR MEETING October 28, 2020, 9:00 a.m.

The Board of Retirement meeting will be accessible telephonically at +1 (224) 501-3412, access code 194-140-493 due to the Contra Costa County and State of California Coronavirus (COVID-19) Shelter In Place Orders, and as permitted by Executive Order N-29-20 issued on March 17, 2020.

Persons who wish to make public comment may submit their comment to publiccomment@cccera.org on the day of the meeting, either before or during the meeting. Public comments are limited to any item of interest to the public that is within the subject matter jurisdiction of the Board of Retirement. (Gov't Code Section 54954.3(a).) All comments submitted will be included in the record of the meeting. The comments will be read into the record at the meeting, subject to a three-minute time limit per comment.

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

- 1. Pledge of Allegiance.
- 2. Roll Call.
- 3. Accept comments from the public.
- 4. Approve minutes from the September 23, 2020 meeting.
- 5. Presentation of the CCCERA Asset Liability Study from Verus Investments.
- 6. Consider and take possible action to accept the GASB 68 report from Segal Consulting.
- 7. Consider and take possible action to authorize the CEO to execute an agreement with the Housing Authority of Contra Costa County for contribution and reporting deadlines.

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

8. 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 meeting.

Meeting Date
10/28/20
Agenda Item
#4



RETIREMENT BOARD MEETING MINUTES

REGULAR MEETING September 23, 2020 9:00 a.m.

The Board of Retirement meeting will be accessible telephonically at (224) 501-3412, access code 303-229-293 due to the Contra Costa County and State of California Coronavirus (COVID-19) Shelter In Place Orders, and as permitted by Executive Order N-29-20 issued on March 17, 2020.

1. Pledge of Allegiance

The Board and staff joined in the *Pledge of Allegiance*.

2. Roll Call

Present: Candace Andersen, Donald Finley, Scott Gordon, Jerry Holcombe, Louie Kroll,

Jay Kwon, David MacDonald, John Phillips, William Pigeon, Mike Sloan, Todd

Smithey and Russell Watts

Absent: None

Staff: Gail Strohl, Chief Executive Officer; Christina Dunn, Deputy Chief Executive

Officer; Timothy Price, Chief Investment Officer; Karen Levy, General Counsel; Wrally Dutkiewicz, Compliance Officer; Anne Sommers, Administrative/HR Manager; Henry Gudino, Accounting Manager; Tim Hoppe, Retirement Services

Manager; and Jasmine Lee, Member Services Manager

Outside Professional Support: Representing:

Scott Whalen Verus Investments

Marcel Schindler StepStone
Urs von Buren StepStone
Ariel Goldblatt StepStone
Michael Thibault ICON

Michael Thibault ICON
Sue Ziegler Segal
Chris Fikes Segal

3. Accept comments from the public

No member of the public offered comment.

4. Approval of Minutes

It was **M/S/C** to approve the minutes from the August 26, 2020 meeting. (Yes: Andersen, Gordon, Holcombe, Kroll, MacDonald, Phillips, Smithey and Watts)

Finley and Pigeon were present for subsequent discussion and voting.

5. Review of private credit

a. Presentation from Staff

Garbharran reviewed CCCERA's private credit program.

b. Presentation from StepStone – Marcel Schindler, Urs Von Buren and Ariel Goldblatt
 Schindler, Von Buren, and Goldblatt provided an update on CCCERA's private credit program.

Gordon was no longer present for subsequent discussion and voting.

6. Review of report on Risk Diversifying Sub-portfolio

Price reviewed the role of Risk Diversifying in CCCERA's portfolio.

MacDonald was no longer present for subsequent discussion and voting.

It was the consensus of the Board to move to Item 8.

8. Consider and take possible action to authorize the CEO to execute a contract with ICON Integration and Design, Inc. for data cleansing services

Strohl introduced CCCERA's PAS Oversight Team and Michael Thiebalt with ICON.

Gordon was present for subsequent discussion and voting.

Thiebalt provided a brief background on ICON and a review of CCCERA's data cleansing project.

It was **M/S/C** to authorize the CEO to execute a contract with ICON Integration and Design, Inc. for data cleansing services for a total not-to-exceed \$2,115,000. (Yes: Andersen, Finley, Gordon, Holcombe, Kroll, Phillips, Pigeon, Smithey and Watts)

7. Risk tolerance report

Whalen provided an enterprise risk tolerance assessment for CCCERA.

9. <u>Appointment of ad hoc advisory committee to review the Chief Executive Officer compensation package</u>

Smithey appointed himself, Gordon and MacDonald to an ad hoc advisory committee to review the Chief Executive Officer's compensation package.

10. Consider authorizing the attendance of Board:

- **a.** There was no action taken on this item: NCPERS Fall Conference, September 29-30, 2020, Virtual.
- **b.** It was **M/S/C** to authorize the attendance of 4 Board members at the CALAPRS Trustees' Round Table, October 23, 2020, Virtual. (Yes: Andersen, Finley, Gordon, Holcombe, Kroll, Phillips, Smithey and Watts)
- c. It was M/S/C to authorize the attendance of 3 Board members at the Portfolio Risk in a Post-COVID World, GlobalARC Interactive, October 26-28, 2020, Virtual. (Yes: Andersen, Finley, Gordon, Holcombe, Kroll, Phillips, Smithey and Watts)

11. Miscellaneous

(a) Staff Report –

<u>Strohl</u> reported CCCERA is working on an employer newsletter.

(b) Outside Professionals' Report -

None

(c) Trustees' comments –

<u>Gordon</u> asked that the meeting be adjourned in memory of Dr. Kent Hobert, a long-time physician who worked at the County Hospital and had a private practice in Martinez.

<u>Smithey</u> reported there is an Audit Committee meeting following this meeting.

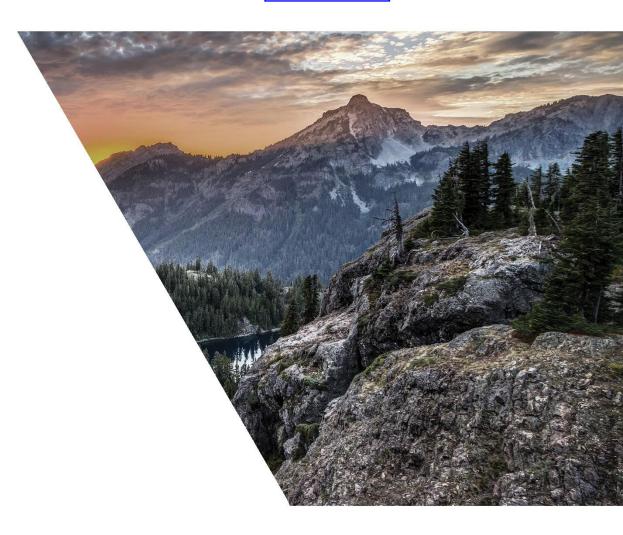
It was **M/S/C** to adjourn the meeting in memory of Dr. Kent Hobert. (Yes: Andersen, Finley, Gordon, Holcombe, Kroll, Phillips, Smithey and Watts)

Todd Smithey, Chairman	David MacDonald, Secretary

Meeting Date
10/28/20
Agenda Item
#5







OCTOBER 2020

Asset/Liability Study

Contra Costa County Employees' Retirement Association

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VERUSINVESTMENTS.COM

SEATTLE 206-622-3700 LOS ANGELES 310-297-1777 SAN FRANCISCO 415-362-3484 PITTSBURGH 412-784-6678

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Introduction and objectives



Introduction and objectives

Introduction

- CCCERA's FFP strategy was initiated in 2015
- The strategy has met or exceeded performance expectations through various market environments, particularly during market turmoil
- Big question now is following 5 years of experience with FFP, do any improvement opportunities exist

Objective

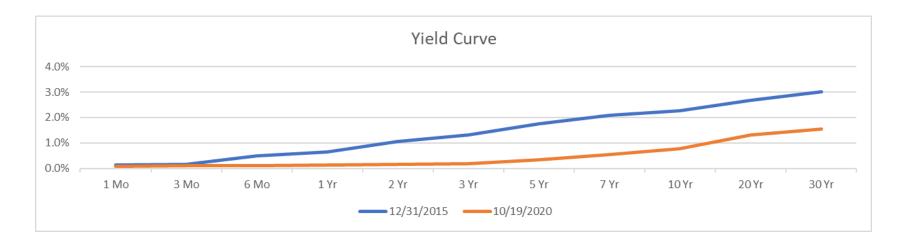
 The objective of this review is to determine if an adjustment to the asset allocation is appropriate at this time with particular emphasis on the size of the liquidity pool

Setting the stage



Then and now

	12/31/15	10/19/20
Fed Funds Target Rate	0.25% - 0.50%	0.00% - 0.25%
30-day T-bill	0.14%	0.09%
10-yr Treasury	2.27%	0.78%
10-yr Global Equity CMA	7.4%	6.4%
10-yr ST credit CMA	2.6%	1.9%





Returns and plan value

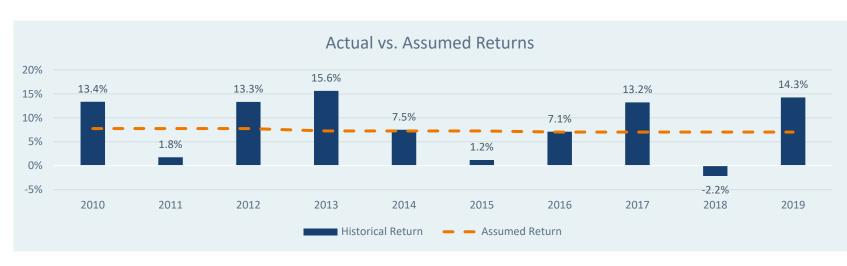


Despite
ongoing
volatility, the
Plan has
significantly
recovered since
the Global
Financial
Crisis





Returns and funding

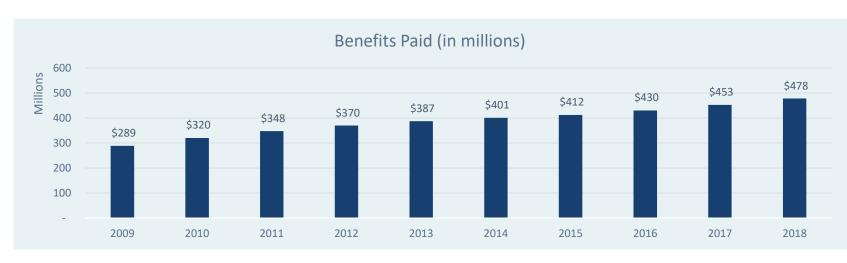


Although returns have periodically fallen short of the discount rate, the Plan's funding level has increased steadily in the last 10 years

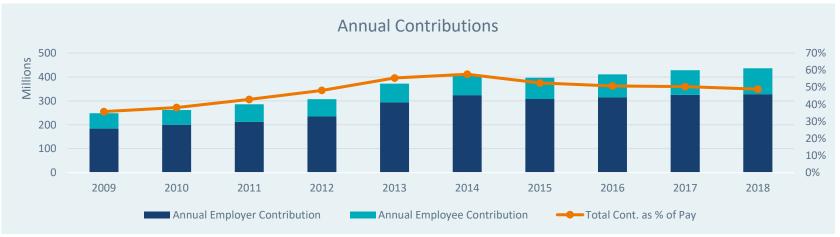




Benefit payments and contributions

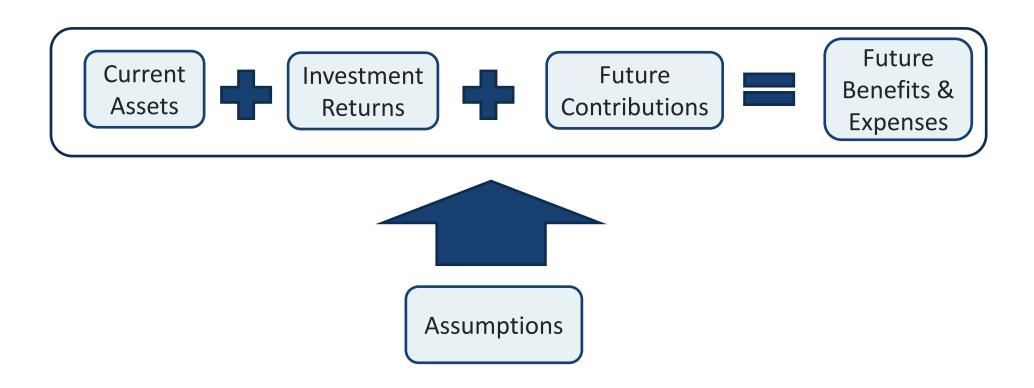


Aggregate benefits have increased steadily, as contribution levels have stabilized





The pension equation





The pension equation in action



The Plan anticipates becoming fully funded within the next 10 years



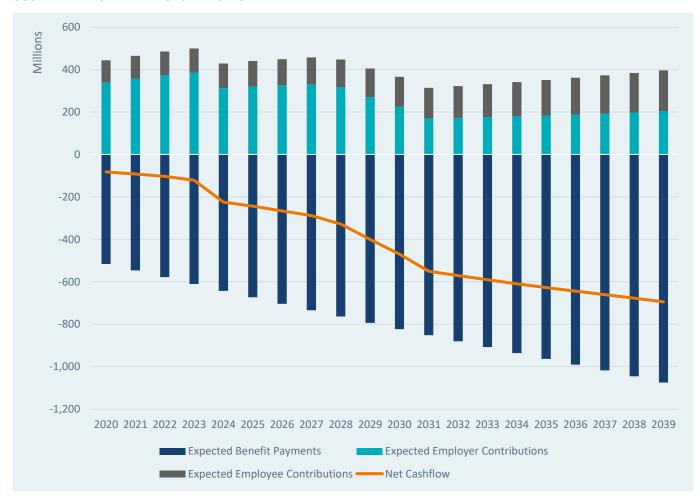


Deterministic projections



Expected Cash Flow

CCCERA EXPECTED NET CASH FLOWS

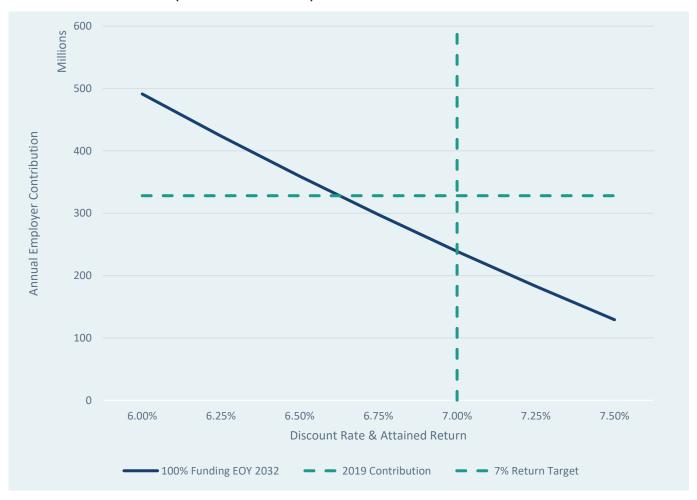


Source: Verus. Based on preliminary CCCERA AL study results using an expected 7.0% asset return.



Cost of de-risking

THE COST OF DE-RISKING (FULL FUNDING 2028)



Currently, the Plan contributes more today with the expectation of lower contributions in the future.

Lower discount rates lead to higher contributions in order to meet the same financial objective (full funding).

Data displayed in this chart assumes investment returns equal the discount rate for the entire modeling period and all other assumptions (mortality, disability, plan growth, etc.) are met exactly.

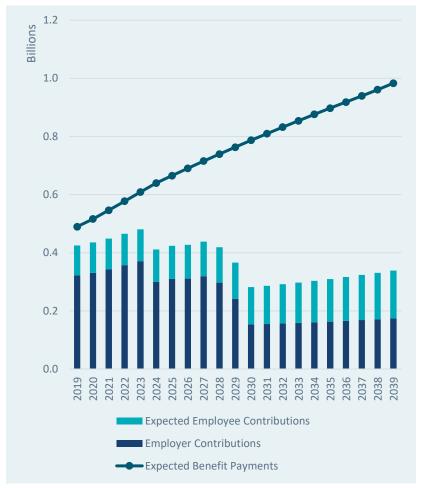


Baseline Projection: 7.0% Return

FUNDED STATUS PROJECTION



CASHFLOW PROJECTION





Baseline Projection: w/ 6.27% Return

FUNDED STATUS PROJECTION



CASHFLOW PROJECTION



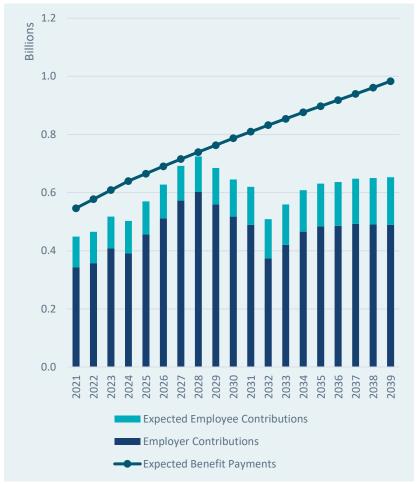


Baseline Projection: w/ 25% Drawdown

FUNDED STATUS PROJECTION: -25% YR1 7.0% THEREAFTER



CASHFLOW PROJECTION: -25% YR1 7.0% THEREAFTER



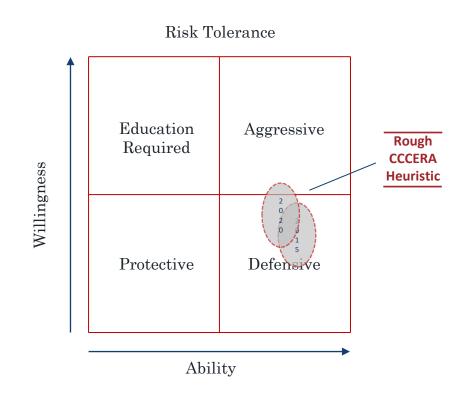


Risk tolerance and liquidity



Risk tolerance assessment

- Plan sponsor health remains high (as reflected in fiscal fitness of Contra Costa County), notwithstanding incremental risk associated with global pandemic:
 - High credit rating;
 - Manageable debt load;
 - Diversified employer base and low unemployment; and
 - Steadily growing revenue.
- Survey responses indicate similar willingness to accept risk as compared to original study conducted in 2015 but with a modest increase in collective risk tolerance:
 - Reduction in peer risk;
 - Increase in willingness to deviate from the herd;
 and
 - Broad agreement that key-person risk exists within investment staff (i.e., CIO).
- Unanimously high confidence in governance structure.
- Sense that additional study on appropriate size of liquidity reserve is warranted.





Liquidity Assessment

The table below left provides an overview of the assets necessary to maintain a liquidity pool today based on number of years locked in (from 1 to 10 years) and amount of contributions assumed to act as a buffer in the portfolio (from Gross, 0% to Net, 100%).

- In general, as year lock-in increases and contributions decrease the size of the liquidity pool in the portfolio increase.
- A large liquidity pool may have negative return implications for the broader portfolio, requiring increased illiquidity.

% OF TOTAL ASSETS NECESSARY FOR LIQUIDITY POOL

Assumed		Gross				Net
Contribu	Contributions		25%	50%	75%	100%
	1	5%	4%	3%	2%	1%
	2	11%	9%	6%	4%	2%
3 4	3	17%	13%	10%	6%	3%
	4	23%	18%	14%	9%	4%
# of Years	5	30%	24%	17%	11%	5%
Secured	6	36%	29%	22%	15%	8%
	7	43%	35%	27%	18%	10%
	8	51%	41%	32%	22%	13%
	9	58%	47%	37%	26%	16%
	10	65%	54%	42%	31%	19%

Source: Verus, MPI. Liquidity pool allocation targets based on a 7.0% expected return from the 2020 preliminary CCCERA AL study. Liquidity pool assets expected to earn 1% annually.



Stochastic projections



Mixes

Cash 0% 3% 3% 3% Short-Term Credit 23% 8% 8% 14	Mix 3 Mix 4 3% 3% 4% 14% 7% 17% 3% 0%	Mix 5 3% 20% 23%	Mix 6 3% 20%	1.9	Return (a)	Standad Deviation	Sharpe Ratio (a)
Cash 0% 3% 3% Short-Term Credit 23% 8% 8% 14	3% 3% 4% 14% 7% 17% 3% 0%	3% 20%	3% 20%	1.9			Ratio (a)
Short-Term Credit 23% 8% 8% 14	4% 14% 7% 17% 3% 0%	20%	20%		1.9	1 2	
	7% 17% 3% 0%			1 0			-
Liquidity Bucket (Provide) 23% 11% 11% 17	3% 0%	23%		1.9	2.0	3.6	0.01
			23%				
, and the second		3%	0%	0.7	0.9	6.7	-0.14
US TIPS 0% 3% 0% 39	3% 0%	3%	0%	1.0	1.1	5.4	-0.15
Core Fixed 0% 5% 4% 59	5% 4%	5%	4%	1.5	1.7	6.3	-0.03
Bank Loans 0% 0% 0% 09	0%	0%	0%	3.4	3.9	10.0	0.20
Hedge Funds 7% 5% 3% 5%	5% 3%	5%	3%	4.0	4.3	7.7	0.31
Diversifying Bucket (Protect) 10% 15% 7% 15	5% 7%	15%	7%				
US Large 5% 13% 12% 11	1% 10%	9%	10%	5.1	6.2	15.5	0.28
US Small 0% 3% 3% 3°	3% 3%	2%	3%	5.3	7.3	21.1	0.26
Int'l Dev 13% 10% 11% 89	3% 10%	7%	8%	5.5	6.9	17.5	0.29
Emerging Mkt 11% 8% 10% 75	7% 9%	5%	8%	5.7	8.6	25.6	0.26
REITS 1% 0% 0% 0'	0% 0%	0%	0%	6.6	8.2	19.1	0.33
Risk Parity 5% 0% 3% 09	3%	0%	3%	6.9	7.4	1.0	0.55
Total Liquid Growth 35% 34% 39% 29	9% 35%	23%	32%				
Private Equity (Direct) 8% 12% 17% 11	1% 16%	11%	15%	8.9	11.7	25.3	0.39
Private Credit 12% 10% 12% 10	0% 13%	10%	13%	8.2	10.0	20.0	0.40
Core Real Estate 0% 3% 0% 39	3% 0%	3%	0%	6.6	7.3	12.4	0.44
Value Add Real Estate 5% 5% 5% 5	5% 5%	5%	5%	8.6	10.0	17.7	0.46
Opportunistic Real Estate 4% 5% 5% 5%	5% 5%	5%	5%	10.6	12.9	23.0	0.48
Infrastructure 3% 5% 4% 59	5% 2%	5%	0%	7.2	8.6	17.8	0.38
Total Illiquid Growth 32% 40% 43% 39	9% 41%	39%	38%				
Growth Bucket (Produce) 67% 74% 82% 68	8% 76%	62%	70%				
Total Allocation 100% 100% 100% 100%	100%	100%	100%				
Exp. Ret. (50th Percentile) 6.3% 6.6% 7.1% 6.3	.3% 6.9%	6.1%	6.6%				
Risk (StdDev) 10.5% 11.3% 12.8% 10.	0.4% 11.9%	9.5%	11.0%				
Sharpe Ratio 0.46 0.46 0.46 0.46	.47 0.47	0.48	0.47				



Liquidity impact

The table below provides an overview of proposed mixes and their relation to the maximum amount of liquidity affordable for that portfolio.

COMPARISON OF MIXES AND LIQUIDITY POOL LOCK-IN AMOUNTS

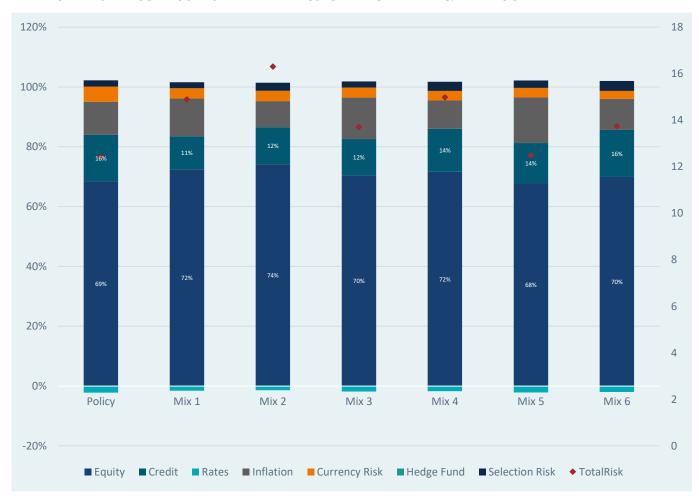
Mix	Expected 10 Year Return	% in CDI Like Assets	% in Illiquid Assets	Max CDI Lock-in (Years, Gross)	Max CDI Lock-in (Years, Net)
Policy	6.3%	23.0%	36.0%	4	>10
Mix 1	6.6%	11.0%	40.0%	2	7
Mix 2	7.1%	11.0%	42.0%	2	7
Mix 3	6.3%	17.0%	39.0%	3	9
Mix 4	6.9%	17.0%	42.0%	3	9
Mix 5	6.1%	23.0%	39.0%	4	>10
Mix 6	6.6%	23.0%	41.0%	4	>10

Source: Verus, MPI. Liquidity pool allocation targets based on a 7.0% expected return from the 2020 preliminary CCCERA AL study. Liquidity pool assets expected to earn 1% annually.



Risk Decomposition

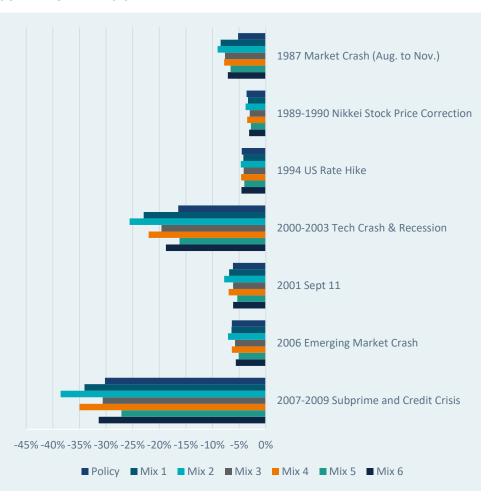
BARRAONE RISK DECOMPOSITION: 1-YEAR PROJECTED VOLATILITY & BREAKOUT



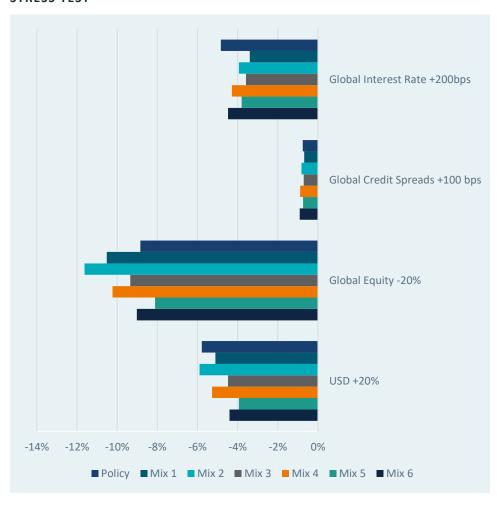


Scenario and Stress Test

SCENARIO ANALYSIS



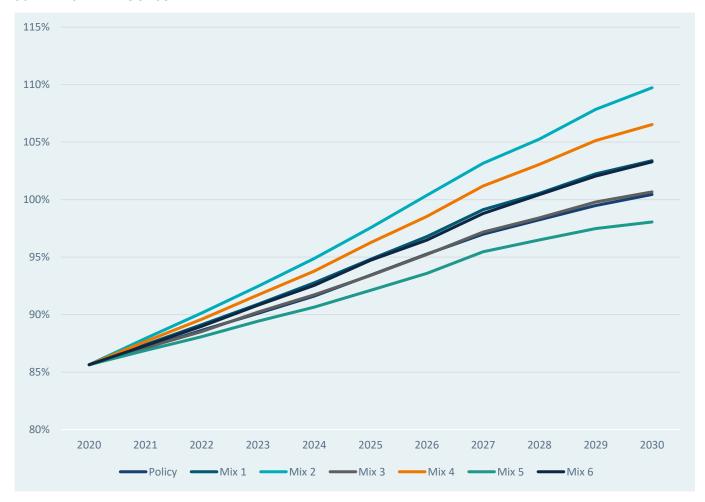
STRESS TEST





Mix Median Projections

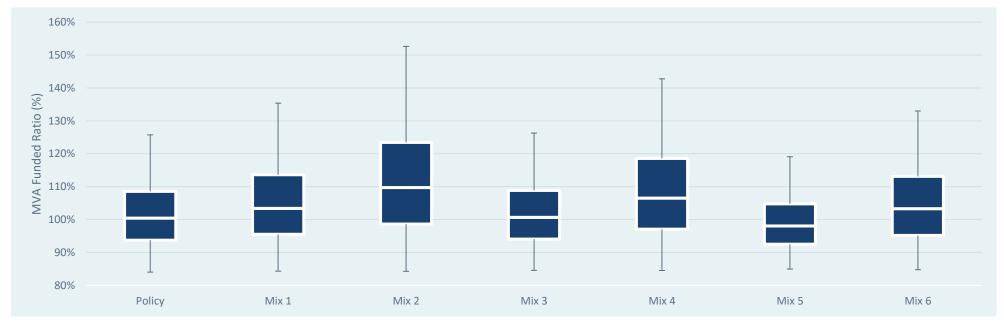
50TH PERCENTILE OUTCOME: MVA FR BY MIX





Range of Funded Ratio Outcomes

MARKET VALUE OF ASSETS FUNDED RATIO: END OF YEAR 10

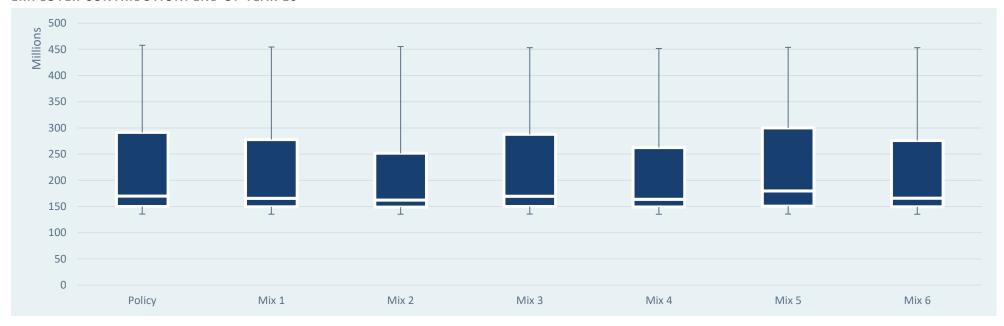


	Policy	Mix 1	Mix 2	Mix 3	Mix 4	Mix 5	Mix 6
Best Case (95%)	125.8%	135.4%	152.7%	126.3%	142.8%	119.1%	133.0%
Upper Quartile (75%)	108.6%	113.6%	123.4%	108.8%	118.6%	104.8%	113.1%
Median Outcome (50%)	100.4%	103.4%	109.7%	100.7%	106.5%	98.1%	103.3%
Lower Quartile (25%)	93.7%	95.5%	98.6%	94.1%	97.1%	92.5%	95.2%
Worst Case (5%)	84.0%	84.3%	84.3%	84.6%	84.5%	84.9%	84.8%



Range of Employer Contribution Outcomes

EMPLOYER CONTRIBUTION: END OF YEAR 10

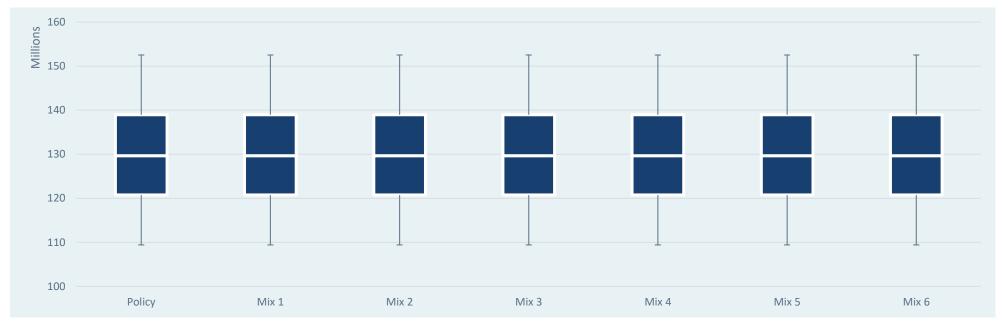


	Policy	Mix 1	Mix 2	Mix 3	Mix 4	Mix 5	Mix 6
Worst Case (95%)	457.9M	454.3M	455.3M	453.2M	451.7M	453.7M	453.3M
Lower Quartile (25%)	291.4M	277.8M	251.7M	287.8M	262.5M	300.0M	276.0M
Median Outcome (50%)	169.7M	165.6M	162.4M	169.7M	163.9M	179.6M	165.9M
Upper Quartile (75%)	150.2M	149.3M	148.7M	150.1M	149.0M	150.8M	149.4M
Best Case (5%)	135.4M	135.3M	135.2M	135.4M	135.2M	135.6M	135.3M



Range of Employee Contribution Outcomes

EMPLOYEE CONTRIBUTION: END OF YEAR 10



	Policy	Mix 1	Mix 2	Mix 3	Mix 4	Mix 5	Mix 6
Worst Case (95%)	152.5M						
Lower Quartile (25%)	139.0M						
Median Outcome (50%)	129.7M						
Upper Quartile (75%)	120.8M						
Best Case (5%)	109.4M						



Observations and next steps

Observations

- Five years of favorable experience with FFP strategy
- Similar and possibly slightly higher risk tolerance
- Persistently unfavorable economic environment and stubbornly low return expectations
- Somewhat smaller liquidity pool, combined with commensurately larger commitment to private investments may be appropriate

Next Steps

- Select preferred liquidity pool size
- Provide instruction/direction on asset allocation preferences/constraints
- Conduct additional asset-only analysis
- Finalize asset allocation and update investment policy

Appendix



Notes

- Actuarial assumed rate of return: 7.0%
 - 2.75% inflation
 - 4.25% real return
- Plan projections assume constant population
- COLA: Plan contains a COLA which changes based on the CPI on maximums which differ based on benefit tier.
 - General T1, T3 (non disability), T4, T5 (non-disability) and Safety TA, TD (3% Maximum)
 - General T2, T3 (disability), T5 (disability) (4% maximum)
 - General T4, T5 (select set) and Safety TC, TE (2% Maximum)
 - Inflation in this study is projected based on the Verus CMA assumption of 1.9%, which differs from the actuarial assumed of 2.75%
- Amortization: Any new UAAL is amortized over a period of 18 years.
- Asset growth projections are supplied by Verus' 2020 Capital Market Assumptions







MEMORANDUM

Date: October 28, 2020

To: CCCERA Board of Retirement

From: Gail Strohl, Chief Executive Officer

Subject: Consider and take possible action to accept the GASB 68 report from Segal

Consulting.

Background

The Governmental Accounting Standards Board (GASB) issued Statement No. 68 in June 2012 to be effective for fiscal years beginning after June 15, 2014. This Statement's objective is to improve accounting and financial reporting. CCCERA's participating employers can utilize the information contained in the GASB 68 report in their own reporting. Employers are currently assessed a pro-rata share of the report preparation cost. The Segal Consulting report is based on a December 31, 2019 measurement date for employer reporting as of June 30, 2020.

Recommendation

Consider and take possible action to accept the GASB 68 report from Segal Consulting.

Contra Costa County Employees' Retirement Association (CCCERA)

Governmental Accounting Standards Board Statement 68 (GAS 68) Actuarial Valuation

Actuarial Valuation Based on December 31, 2019 Measurement Date for Employer Reporting as of June 30, 2020 Meeting Date 10/28/20 Agenda Item **#6**

This report has been prepared at the request of the Board of Retirement to assist the sponsors of the Fund in preparing their financial report for their liabilities associated with the CCCERA pension plan. This valuation report may not otherwise be copied or reproduced in any form without the consent of the Board of Retirement and may only be provided to other parties in its entirety, unless expressly authorized by Segal. The measurements shown in this actuarial valuation may not be applicable for other purposes.

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Segal





October 20, 2020

Board of Retirement Contra Costa County Employees' Retirement Association 1200 Concord Avenue, Suite 300 Concord, CA 94520

Dear Board Members:

We are pleased to submit this Governmental Accounting Standards Board Statement 68 (GAS 68) Actuarial Valuation based on a December 31, 2019 measurement date for employer reporting as of June 30, 2020. It contains various information that will need to be disclosed in order for CCCERA employers to comply with GAS 68.

This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board to assist the sponsors in preparing their financial report for their liabilities associated with the CCCERA pension plan. The census and financial information on which our calculations were based were provided by CCCERA. That assistance is gratefully acknowledged.

The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and changes in plan provisions or applicable law.

The actuarial calculations were completed under the supervision of Andy Yeung, ASA, MAAA, FCA, Enrolled Actuary. We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in the actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board are reasonably related to the experience of and expectations for CCCERA.

We look forward to reviewing this report with you and to answering any questions.

Sincerely,

Segal

Paul Angelo, FSA, MAAA, FCA, EA Senior Vice President and Actuary Andy Yeung, ASA, MAAA, FCA, EA

Vice President and Actuary

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Purpose and Basis

This report has been prepared by Segal to present certain disclosure information required by Governmental Accounting Standards Board Statement 68 (GAS 68) for employer reporting as of June 30, 2020. The results used in preparing this GAS 68 report are comparable to those used in preparing the Governmental Accounting Standards Board Statement 67 (GAS 67) report for the plan based on a reporting date and a measurement date as of December 31, 2019. This valuation is based on:

- The benefit provisions of CCCERA, as administered by the Board of Retirement;
- The characteristics of covered active members, inactive vested members, and retired members and beneficiaries as of December 31, 2018, provided by CCCERA;
- The assets of the Plan as of December 31, 2019, provided by CCCERA;
- Economic assumptions regarding future salary increases and investment earnings adopted by the Board for the December 31, 2019 valuation; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc. adopted by the Board for the December 31, 2019 valuation.

General Observations on GAS 68 Actuarial Valuation

- 1. It is important to note that Governmental Accounting Standards Board (GASB) rules only define pension liability and expense for financial reporting purposes, and do not apply to contribution amounts for pension funding purposes. Employers and plans should develop and adopt funding policies under current practices.
- 2. When measuring pension liability GASB uses the same actuarial cost method (Entry Age method) and the same type of discount rate (expected return on assets) as CCCERA uses for funding. This means that the Total Pension Liability (TPL) measure for financial reporting shown in this report is determined generally on the same basis as CCCERA's Actuarial Accrued Liability (AAL) measure for funding. We note that the same is generally true for the Normal Cost component of the annual plan cost for funding and financial reporting.
- 3. The Net Pension Liability (NPL) is equal to the difference between the TPL and the Plan Fiduciary Net Position. The Plan Fiduciary Net Position is equal to the fair value of assets and therefore, the NPL measure is very similar to an Unfunded Actuarial Accrued Liability (UAAL) on a market value basis.

- 4. The TPL and the Plan Fiduciary Net Position include liabilities and assets held for the Post Retirement Death Benefit Reserve. The TPL only includes a liability up to the amount in the Post Retirement Death Benefit Reserve. This is because we understand that the post retirement death benefit is a non-vested benefit and once the reserve is depleted no further benefits would need to be paid.
- 5. Based on discussions with CCCERA and their auditors, starting with the June 30, 2017 reporting date for the employers, the employer contributions exclude any employer subvention of member contributions and include any member subvention of employer contributions. This change has not been applied on a retroactive basis prior to the June 30, 2017 reporting date.
- 6. Prior to the June 30, 2017 reporting date, the Pension Expense, NPL and other results attributed to the three terminated employers (Delta Diablo Sanitation District, Diablo Water District and City of Pittsburg) were allocated to other employers within the applicable Cost Groups. Starting with the December 31, 2016 funding valuation, the assets and liabilities associated with the three terminated employers have been moved to their own Cost Group. Therefore, we have directly allocated to each of these terminated employers their Pension Expense and NPL starting with the June 30, 2017 reporting date. In particular, the TPL for each terminated employers is obtained directly from internal valuation results for that specific employer. Furthermore, the Plan Fiduciary Net Position for each terminated employer has been set equal to the amount in their respective bookkeeping account.

Highlights of the Valuation

- 1. For this report, the reporting dates for the employer are June 30, 2020 and June 30, 2019. The NPL was measured as of December 31, 2019 and December 31, 2018, respectively. The Plan Fiduciary Net Position was valued as of the measurement dates and the TPL was determined based upon rolling forward the TPL from actuarial valuations as of December 31, 2018 and December 31, 2017, respectively. In addition, changes in actuarial assumptions or plan provisions that occurred between the valuation date and the measurement date have been reflected, if any. Consistent with the provisions of GAS 68, the assets and liabilities measured as of December 31, 2019 and December 31, 2018 are not adjusted or rolled forward to the June 30, 2020 and June 30, 2019 reporting dates, respectively.
- 2. The NPL decreased from \$1.43 billion as of December 31, 2018 to \$0.86 billion as of December 31, 2019 primarily as a result of a favorable return on the fair value of assets (about 14.4%) during calendar year 2019 that was greater than the assumed return of 7.00%. Changes in these values during the last two calendar years ending December 31, 2019 and December 31, 2018 can be found in *Section 2, Schedule of Changes in Net Pension Liability* on page 19.
- 3. The discount rate used to measure the TPL and NPL as of December 31, 2019 and 2018 was 7.00%, following the same assumptions used by CCCERA in the actuarial valuations as of December 31, 2019 and December 31, 2018, respectively. The detailed calculations used in this derivation can be found in *Section 3, Appendix A*. Various other information that is required to be disclosed can be found throughout *Section 2*.

- 4. Results shown in this report exclude any employer contributions made after the measurement date of December 31, 2019. For employers that participate in the prepayment program, it is our understanding that the portion of the prepayment made in July 2019 that was for the period from January 1, 2020 through June 30, 2020 has also been excluded. Employers should consult with their auditors to determine the deferred outflow that should be created for these contributions.
- 5. Prior to December 31, 2019, Safety members from East Contra Costa Fire Protection District were pooled with Contra Costa 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 now under their own cost group (Cost Group 13).
- 6. All Cost Groups except Cost Groups #1, #2, and #6 only have one active employer, so all of the NPL for those Cost Groups are allocated to that employer. The NPL has already been reduced by any proceeds from Pension Obligation Bonds and any UAAL prepayments.

For Cost Groups #1, #2, and #6, the NPL is allocated based on the actual compensation by employer within the Cost Group. The steps we used are as follows:

- a. Calculate ratio of employer's compensation to the total compensation for the Cost Group.
- b. Multiply this ratio by an "adjusted" NPL. This adjusted NPL is larger than the actual NPL as it excludes proceeds from Pension Obligation Bonds and any UAAL prepayments from the Cost Group's assets when determining the employer's proportionate share of the NPL for the Cost Group. It also excludes the NPLs for the three terminated employers.
- c. Subtract from the adjusted NPL the outstanding balance of the proceeds from any Pension Obligation Bonds and any UAAL prepayments for those employers in each Cost Group that are subject to these adjustments.
- d. If the employer is in several Cost Groups, the employer's total allocated NPL is the sum of its allocated NPL from each Cost Group.

Proportionate share of total plan NPL is then the ratio of the employer's total allocated NPL to the total NPL of all employers. The NPL allocation can be found in *Section 2, Determination of Proportionate Share* on page 23.

- 7. It is important to note that this actuarial valuation is 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.
- 8. 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.

9. The following table contains a summary with the names for all active participating employers in CCCERA. Also shown are the employer name abbreviations and employer numbers that are used throughout the rest of this report.

	Summary of Active Participating Employers wi	thin CCCERA
#	Employer Name	Abbreviation
1	Bethel Island Municipal Improvement District	1 - BIMID
2	Byron-Brentwood-Knightsen Union Cemetery District	2 - Union Cemetery
3	Contra Costa Mosquito & Vector Control District	3 - CC Mosquito
4	Contra Costa County Fire Protection District	4 - CCCFPD
5	Central Contra Costa Sanitary District	5 - CCCSD
6	First 5 CC Children & Families Commission	6 - First 5
7	Contra Costa County	7 - County
8	Contra Costa County Employees' Retirement Association	8 - CCCERA (the employer)
9	East Contra Costa Fire Protection District	9 - ECCFPD
10	Contra Costa Housing Authority	10 - Housing Authority
11	In-Home Supportive Services Authority	11 - IHSS
12	Contra Costa Local Agency Formation Commission	12 - LAFCO
13	Moraga-Orinda Fire Protection District	13 - MOFD
14	Rodeo Sanitary District	14 - Rodeo SD
15	Rodeo-Hercules Fire Protection District	15 - RHFD
16	San Ramon Valley Fire Protection District	16 - SRVFPD
17	Contra Costa Superior Court	17 - Court
18	Delta Diablo Sanitation District (Terminated Employer)	18 - DDSD (Term)
19	Diablo Water District (Terminated Employer)	19 - DWD (Term)
20	City of Pittsburg (Terminated Employer)	20 - Pittsburg (Term)

Summary of Key Valuation Results

Reporting Date for Employer under GAS 68 ¹ Measurement Date for Employer under GAS 68		June 30, 2020	June 30, 2019
		December 31, 2019	December 31, 2018
Disclosure Elements for	Service Cost ²	\$231,469,293	\$229,098,552
Plan Year Ending	Total Pension Liability	10,121,098,471	9,578,029,937
December 31:	 Plan Fiduciary Net Position 	9,257,012,679	8,149,985,793
	Net Pension Liability	864,085,792	1,428,044,144
	Pension expense	278,978,389	303,347,051
Schedule of Contributions	Actuarially determined contributions ³	\$326,716,796	\$324,863,103
for Plan Year Ending	 Actual contributions³ 	326,716,796	324,863,103
December 31:	 Contribution deficiency / (excess) 	0	0
Demographic Data for Plan	Number of retired members and beneficiaries	9,737	9,547
Year Ending December 31:4	 Number of inactive vested members⁵ 	3,638	3,477
	Number of active members	10,075	10,021
Key Assumptions as of	Investment rate of return	7.00%	7.00%
December 31:	Inflation rate	2.75%	2.75%
	Projected salary increases ⁶	General: 3.75% to 15.25% Safety: 4.25% to 16.25%	General: 3.75% to 15.25% Safety: 4.25% to 16.25%

Investment rate of return: 7.00% Inflation rate: 2.75%

Projected salary increases: General: 4.00% to 13.25% Safety: 4.00% to 13.75%

³ See footnote (1) under Schedule of Employer Contributions on page 20.

Includes inactive members with member contributions on deposit.

⁶ For December 31, 2019 and December 31, 2018 measurement dates, includes inflation at 2.75% plus real across-the-board salary increases of 0.50% plus merit and promotion increases that vary by service.



¹ The reporting date and measurement date for the plan are December 31, 2019 and December 31, 2018.

² Excludes administrative expense load. The service cost is based on the previous year's valuation, meaning the December 31, 2019 and December 31, 2018 measurement date values are based on the valuations as of December 31, 2018 and December 31, 2017, respectively. The key assumptions in the December 31, 2017 valuation were as follows:

⁴ Data as of December 31, 2018 is used in the measurement of the TPL as of December 31, 2019.

Important Information About Actuarial Valuations

An actuarial valuation is a budgeting tool with respect to the financing of future projected obligations of a pension plan. It is an estimated forecast – the actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.

In order to prepare a valuation, Segal relies on a number of input items. These include:

Plan of Benefits	Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan description in this report (as well as the plan summary included in our funding valuation report) to confirm that Segal has correctly interpreted the plan of benefits.
Participant Data	An actuarial valuation for a plan is based on data provided to the actuary by CCCERA. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
Assets	This valuation is based on the fair value of assets as of the measurement date, as provided by CCCERA.
Actuarial Assumptions	In preparing an actuarial valuation, Segal projects the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This projection requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of each participant for each year. In addition, the benefits projected to be paid for each of those events in each future year reflect actuarial assumptions as to salary increases and cost-of-living adjustments (if any). The forecasted benefits are then discounted to a present value, typically based on an estimate of the rate of return that will be achieved on the plan's assets or, if there are no assets, a rate of return based on a yield or index rate of 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher (or equivalent quality on another rating scale). There is a reasonable range for each assumption used in the projection and the results may vary materially based on which assumptions are selected. It is important for any user of an actuarial valuation to understand this concept. Actuarial assumptions are periodically reviewed to ensure that future valuations reflect emerging plan experience. While future changes in actuarial assumptions may have a significant impact on the reported results, that does not mean that the previous assumptions were unreasonable.

The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

The valuation is prepared at the request of the Board to assist the sponsors of the Fund in preparing items related to the pension plan in their financial reports. Segal is not responsible for the use or misuse of its report, particularly by any other party.

An actuarial valuation is a measurement of the plan's assets and liabilities at a specific date. Accordingly, except where otherwise noted, Segal did not perform an analysis of the potential range of future financial measures. The actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.

If CCCERA is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.

Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our understanding of applicable guidance in these areas and of the plan's provisions, but they may be subject to alternative interpretations. The Board should look to their other advisors for expertise in these areas.

As Segal has no discretionary authority with respect to the management or assets of CCCERA, it is not a fiduciary in its capacity as actuaries and consultants with respect to CCCERA.

General Information About the Pension Plan

Plan Description

Plan administration. The Contra Costa County Employees' Retirement Association (CCCERA) was established by the County of Contra Costa in 1945. CCCERA is governed by the County Employees' Retirement Law of 1937 (California Government Code Section 31450 et seq.), the California Public Employees' Pension Reform Act of 2013 (PEPRA), and the regulations, procedures, and policies adopted by CCCERA's Board of Retirement. CCCERA is a cost-sharing multiple employer public employee retirement association whose main function is to provide service retirement, disability, death and survivor benefits to the General and Safety members employed by the County of Contra Costa. CCCERA also provides retirement benefits to the employee members for 16 other participating agencies which are members of CCCERA.

The management of CCCERA is vested with the CCCERA Board of Retirement. The Board consists of twelve trustees. Of the twelve members, three are alternates. Four trustees are appointed by the County Board of Supervisors; four trustees (including the Safety alternate) are elected by CCCERA's active members; two trustees (including one alternate) are elected by the retired membership. Board members serve three-year terms, with the exception of the County Treasurer who is elected by the general public and serves during his tenure in office.

Plan membership. At December 31, 2019, pension plan membership consisted of the following:

Retired members or beneficiaries currently receiving benefits	9,737
Inactive vested members entitled to but not yet receiving benefits ¹	3,638
Active members	<u>10,075</u>
Total	23,450

Note: Data as of December 31, 2019 is not used in the measurement of the TPL as of December 31, 2019.

Benefits provided. CCCERA provides service retirement, disability, death and survivor benefits to eligible employees. All regular full-time employees of the County of Contra Costa or participating agencies become members of CCCERA effective on the first day of the first full pay period after employment. Part-time employees in permanent positions must work at least 20 hours a week in order



¹ Includes inactive members with member contributions on deposit.

to be a member of CCCERA. There are separate retirement plans for General and Safety members. Safety membership is extended to those involved in active law enforcement, fire suppression, and certain other "Safety" classifications. There are currently five tiers applicable to Safety members. Safety members with membership dates before January 1, 2013 are included in Tier A (Enhanced and Non-Enhanced). County Sheriff's Department Safety members hired on or after January 1, 2007, but before January 1, 2013 are placed in Safety Tier C Enhanced. Any new Safety Member who becomes a member on or after January 1, 2013 is designated PEPRA Safety Tier D or E (Safety members from certain bargaining units) and is subject to the provisions of California Government Code 7522 et seq.

All other employees are classified as General members. There are currently eight tiers applicable to General members. General Tier 1 (Enhanced and Non-Enhanced) includes general members hired before July 1, 1980 and electing not to transfer to Tier 2 Plan. In addition, certain General members with membership dates before January 1, 2013 hired by specific employers who did not adopt Tier 2 are placed in Tier 1. General Tier 2 includes most General members hired on or after August 1, 1980 and all General members hired before July 1, 1980 electing to transfer to the Tier 2 Plan. Effective October 1, 2002, for the County, Tier 2 was eliminated and all County employees (excluding CNA employees) in Tier 2 were placed in Tier 3 (Enhanced and Non-Enhanced). Effective January 1, 2005, all CNA employees in Tier 2 were placed in Tier 3. New General Members who become a member on or after January 1, 2013 are designated as PEPRA General Tier 4 (hired by specific employers who did not adopt Tier 2) and Tier 5 (with 2%/3% maximum COLAs) and are subject to the provisions of California Government Code 7522 et. seq.

General members hired prior to January 1, 2013, are eligible to retire once they attain the age of 70 regardless of service or at age 50 and have acquired 10 or more years of retirement service credit. A member with 30 years of service is eligible to retire regardless of age. General members who are first hired on or after January 1, 2013, are eligible to retire once they have attained the age of 70 regardless of service or at age 52, and have acquired five years of retirement service credit.

Safety members hired prior to January 1, 2013, are eligible to retire once they attain the age of 70 regardless of service or at age 50 and have acquired 10 or more years of retirement service credit. A member with 20 years of service is eligible to retire regardless of age. Safety members who are first hired on or after January 1, 2013, are eligible to retire once they have attained the age of 70 regardless of service or at age 50, and have acquired five years of retirement service credit.

The retirement benefit the member will receive is based upon age at retirement, final average compensation, years of retirement service credit and retirement plan and tier.

General Tier 1 and Tier 3 benefits are calculated pursuant to the provisions of Sections §31676.11 and §31676.16 for Non-Enhanced and Enhanced benefit formulae, respectively. The monthly allowance is equal to 1/60th (Non-Enhanced) and 1/50th (Enhanced) of final compensation times years of accrued retirement service credit times age factor from either section §31676.11 (Non-Enhanced) or §31676.16 (Enhanced). Note that for members previously covered under the Non-Enhanced formula (§31676.11), they are entitled to at least the benefits they could have received under the Non-Enhanced formula (§31676.11). General Tier 2 benefit is calculated

pursuant to the provisions of Sections §31752. General member benefits for those with membership dates on or after January 1, 2013 (PEPRA General Tier 4 and Tier 5) are calculated pursuant to the provisions found in California Government Code Section §7522.20(a). The monthly allowance is equal to the final compensation multiplied by years of accrued retirement credit multiplied by the age factor from Section §7522.20(a).

Safety member benefits are calculated pursuant to the provisions of California Government Code Sections §31664 and §31664.1 for Non-Enhanced and Enhanced formulae, respectively. The monthly allowance is equal to 1/50th (or 2%) of final compensation times years of accrued retirement service credit times age factor from Section §31664 (Non-Enhanced) or 3% of final compensation times years of accrued retirement service credit times age factor from §31664.1 (Enhanced). For those Safety member with membership dates on or after January 1, 2013 (PEPRA Safety Tier D and Tier E) benefits are calculated pursuant to the provisions found in California Government Code Section §7522.25(d). The monthly allowance is equal to the final compensation multiplied by years of accrued retirement service credit multiplied by the age factor from Section §7522.25(d).

For members with membership dates before January 1, 2013, the maximum monthly retirement allowance is 100% of final compensation. There is no final compensation limit on the maximum retirement benefit for members with membership dates on or after January 1, 2013. However, the maximum amount of compensation earnable that can be taken into account for 2019 for members with membership dates on or after January 1, 1996 but before January 1, 2013 is \$280,000. For members with membership dates on or after January 1, 2013 the maximum amount of pensionable compensation that can be taken into account for 2019 is equal to \$124,180 for those enrolled in Social Security (\$149,016 for those not enrolled in Social Security). These limits are adjusted on an annual basis. Members are exempt from paying member contributions and employers are exempt from paying employer contributions on compensation in excess of the annual cap.

Final average compensation consists of the highest 12 consecutive months for General Tier 1, General Tier 3 (non-disability) and Safety Tier A members and the highest 36 consecutive months for General Tier 2, General Tier 3 (disability), PEPRA General Tier 4, PEPRA General Tier 5, Safety Tier C, PEPRA Safety Tier D and PEPRA Safety Tier E members.

The member may elect an unmodified retirement allowance, or choose an optional retirement allowance. The unmodified retirement allowance provides the highest monthly benefit and a 60% continuance to an eligible surviving spouse or domestic partner. An eligible surviving spouse or domestic partner is one married to or registered with the member one year prior to the effective retirement date or at least two years prior to the date of death and has attained age 55 on or prior to the date of death. There are four optional retirement allowances the member may choose. Each of the optional retirement allowances requires a reduction in the unmodified retirement allowance in order to allow the member the ability to provide certain benefits to a surviving spouse, domestic partner, or named beneficiary having an insurable interest in the life of the member.

CCCERA provides an annual cost-of-living benefit to all retirees. The cost-of-living adjustment, based upon the Consumer Price Index for the San Francisco-Oakland-Hayward Area, is capped at 3.0% for General Tier 1, General Tier 3 (non-disability benefits),

PEPRA General Tier 4, PEPRA General Tier 5-3% (non-disability benefits), Safety Tier A and PEPRA Safety Tier D. The cost-of-living adjustment is capped at 4.0% for General Tier 3 (disability benefits), General Tier 2 and PEPRA General Tier 5-3% (disability benefits). The cost-of-living adjustment is capped at 2.0% for General Tier 5-2%, Safety Tier C and PEPRA Safety Tier E.

The County of Contra Costa and participating agencies contribute to the retirement plan based upon actuarially determined contribution rates adopted by the Board of Retirement. Employer contribution rates are adopted annually based upon recommendations received from CCCERA's actuary after the completion of the annual actuarial valuation. The average employer contribution rate as of December 31, 2019 for the fiscal year beginning July 1, 2019 (based on the December 31, 2017 valuation) was 36.07% of compensation.

Members are required to make contributions to CCCERA regardless of the retirement plan or tier in which they are included. The average member contribution rate as of December 31, 2019 for the fiscal year beginning July 1, 2019 (based on the December 31, 2017 valuation) was 12.03% of compensation.

Net Pension Liability

The components of the Net Pension Liability were as follows:

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Total Pension Liability	\$10,121,098,471	\$9,578,029,937
Plan Fiduciary Net Position	(9,257,012,679)	(8,149,985,793)
Net Pension Liability	\$864,085,792	\$1,428,044,144
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	91.46%	85.09%

The Net Pension Liability (NPL) was measured as of December 31, 2019 and December 31, 2018. The Plan Fiduciary Net Position (plan assets) was valued as of the measurement dates and the Total Pension Liability (TPL) was determined based upon rolling forward the TPL from actuarial valuations as of December 31, 2018 and December 31, 2017, respectively.

Plan Provisions. The plan provisions used in the measurement of the NPL as of December 31, 2019 and December 31, 2018 are the same as those used in the CCCERA actuarial valuations as of December 31, 2019 and December 31, 2018, respectively. The TPL and the Plan Fiduciary Net Position include liabilities and assets held for the Post Retirement Death Benefit Reserve.

Actuarial Assumptions. The TPLs as of December 31, 2019 and December 31, 2018 that were measured by actuarial valuations as of December 31, 2018 and December 31, 2017, respectively, used the following actuarial assumptions, which were based on the results of an experience study for the period from January 1, 2015 through December 31, 2017, applied to all periods included in the measurement. They are the same actuarial assumptions as those used for the December 31, 2019 funding actuarial valuation and the December 31, 2018 funding actuarial valuation.

Inflation:	2.75%
Salary Increases:	General: 3.75% to 15.25% and Safety: 4.25% to 16.25%, varying by service, including inflation.
Investment Rate of Return:	7.00%, net of pension plan investment expense, including inflation.
Administrative Expenses for December 31, 2019 Valuation:	1.14% of payroll allocated to both the employer and member based on the components of the Normal Cost rates for the employer and member.
Administrative Expenses for December 31, 2018 Valuation:	1.10% of payroll allocated to both the employer and member based on the components of the Normal Cost rates for the employer and member.
Other Assumptions:	See analysis of actuarial experience during the period January 1, 2015 through December 31, 2017.

Determination of Discount Rate and Investment Rates of Return

The long-term expected rate of return on pension plan investments was determined in 2019 using a building-block method in which expected future real rates of return (expected returns, net of inflation) are developed for each major asset class. These returns are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage, adding expected inflation and subtracting expected investment expenses and a risk margin. The target allocation and projected arithmetic real rates of return for each major asset class, after deducting inflation but before deducting investment expenses are shown in the following table. This information was used in the derivation of the long-term expected investment rate of return assumption for the December 31, 2019 and December 31, 2018 actuarial valuations. This information will be subject to change every three years based on the results of an actuarial experience study.

Asset Class	Target Allocation	Long-Term Expected Arithmetic Real Rate of Return
Large Cap US Equity	5.00%	5.44%
Developed International Equity	13.00%	6.54%
Emerging Market Equity	11.00%	8.73%
Short-Term Gov't/Credit	23.00%	0.84%
US Treasury	3.00%	1.05%
Private Equity	8.00%	9.27%
Risk Diversifying	7.00%	3.53%
Global Infrastructure	3.00%	7.90%
Private Credit	12.00%	5.80%
REIT	1.00%	6.80%
Value Add Real Estate	5.00%	8.80%
Opportunistic Real Estate	4.00%	12.00%
Risk Parity	<u>5.00%</u>	5.80%
Total	100.00%	

Discount Rate. The discount rate used to measure the TPL was 7.00% as of December 31, 2019 and December 31, 2018. The projection of cash flows used to determine the discount rate assumed employer and employee contributions will be made at rates equal to the actuarially determined contribution rates. For this purpose, only employer and employee contributions that are intended to fund benefits for current plan members and their beneficiaries are included. Projected employer contributions that are intended to fund the service costs for future plan members and their beneficiaries, as well as projected contributions from future plan members, are not included. Based on those assumptions, the Plan Fiduciary Net Position was projected to be available to make all projected future benefit payments for current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the TPL as of both December 31, 2019 and December 31, 2018.

Discount Rate Sensitivity

Sensitivity of the Net Pension Liability to Changes in the Discount Rate. The following presents the Net Pension Liability (NPL) of CCCERA as of December 31, 2019, calculated using the discount rate of 7.00%, as well as what CCCERA's NPL would be if it were calculated using a discount rate that is 1-percentage-point lower (6.00%) or 1-percentage-point higher (8.00%) than the current rate.

Employer	1% Decrease (6.00%)	Current Discount Rate (7.00%)	1% Increase (8.00%)
1 - BIMID	\$517,472	\$222,616	\$(19,022)
2 - Union Cemetery	68,951	(147,526)	(324,931)
3 - CC Mosquito	6,526,241	2,807,582	(239,899)
4 - CCCFPD	260,518,455	115,666,974	(3,040,343)
5 - CCCSD	121,416,887	64,117,450	17,159,957
6 - First 5	4,276,546	1,480,016	(811,770)
7 - County	1,544,232,726	561,509,768	(243,842,058)
8 - CCCERA (the employer)	10,522,862	4,526,924	(386,810)
9 - ECCFPD	12,899,463	5,817,871	14,432
10 - Housing Authority	15,206,560	6,324,839	(953,825)
11 - IHSS	1,857,190	798,961	(68,269)
12 - LAFCO	388,989	132,109	(78,407)
13 - MOFD	54,252,828	26,734,009	4,182,046
14 - Rodeo SD	234,166	(501,019)	(1,103,511)
15 - RHFD	15,379,109	9,024,195	3,816,276
16 - SRVFPD	109,001,061	43,246,471	(10,640,109)
17 - Court	42,634,293	14,549,842	(8,465,661)
18 - DDSD (Term)	3,518,494	1,673,872	162,185
19 - DWD (Term)	1,278,040	944,895	671,879
20 - Pittsburg (Term)	<u>11,440,579</u>	<u>5,155,943</u>	<u>5,617</u>
Total for all Employers	\$2,216,170,912	\$864,085,792	\$(243,962,223)

Schedule of Changes in Net Pension Liability

Reporting Date for Employer under GAS 68 Measurement Date for Employer under GAS 68	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
Total Pension Liability		
Service Cost	\$231,469,293	\$229,098,552
Interest	678,035,229	647,734,058
Change of benefit terms	0	0
Differences between expected and actual experience	119,868,899	52,852,841
Changes of assumptions or other inputs	0	(92,418,915)
Benefit payments, including refunds of member contributions	(486,304,887)	(461,254,259)
• Other	<u>0</u>	<u>0</u>
Net change in Total Pension Liability	\$543,068,534	\$376,012,277
Total Pension Liability – beginning	<u>9,578,029,937</u>	<u>9,202,017,660</u>
Total Pension Liability – ending	\$10,121,098,471	\$9,578,029,937
Plan Fiduciary Net Position		
Contributions – employer ¹	\$327,982,796	\$325,117,103
• Contributions – member ¹	108,487,711	103,541,529
Net investment income ²	1,168,171,585	(195,030,888)
Benefit payments, including refunds of member contributions	(486,304,887)	(461,254,259)
Administrative expense	(10,200,473)	(9,337,053)
Other expenses	<u>(1,109,846)</u>	<u>(3,631,688)</u>
Net change in Plan Fiduciary Net Position	\$1,107,026,886	\$(240,595,256)
Plan Fiduciary Net Position – beginning	<u>8,149,985,793</u>	<u>8,390,581,049</u>
Plan Fiduciary Net Position – ending	\$9,257,012,679	\$8,149,985,793
Net Pension Liability – ending	\$864,085,792	\$1,428,044,144
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	91.46%	85.09%
Covered payroll ³	\$892,379,335	\$850,929,106
Net Pension Liability as percentage of covered payroll	96.83%	167.82%



See footnote (1) under Schedule of Employer Contributions on page 20.
 Includes Contribution Prepayment Discount.

³ Covered payroll represents payroll on which contributions to the pension plan are based.

Schedule of Employer Contributions

Year Ended December 31	Determined Contributions ¹	Actuarially Determined Contributions ¹	Contribution Deficiency / (Excess)	Covered Payroll ²	Contributions as a Percentage of Covered Payroll
2010	\$183,950,930	\$183,950,930	\$0	\$694,443,999	26.49%
2011	200,388,994	200,388,994	0	687,443,206	29.15%
2012	212,321,325	212,321,325	0	666,394,146	31.86%
2013	228,017,452	228,017,452 ³	0	638,635,912	35.70%
2014	288,760,413	288,760,4134	0	671,485,798	43.00%
2015	321,220,270	321,220,2705	0	709,818,858	45.25%
2016	307,909,509	307,909,509	0	755,138,882	40.78%
2017	314,512,561	314,512,561 ⁶	0	809,960,088	38.83%
2018	324,863,103	324,863,103 ⁷	0	850,929,106	38.18%
2019	326,716,796	326,716,7968	0	892,379,335	36.61%

See accompanying notes to this schedule on the next page.



Starting with the year ended December 31, 2016, includes "member subvention of employer contributions" and excludes "employer subvention of member contributions". Prior to that year, the contributions excluded "member subvention of employer contributions" and included "employer subvention of member contributions".

² Covered payroll represents payroll on which contributions to the pension plan are based.

³ Excludes additional contributions towards UAAL of \$7,000,000.

⁴ Excludes additional contributions towards UAAL of \$5,000,000.

⁵ Excludes additional contributions towards UAAL of \$2,500,000.

⁶ Excludes additional contributions towards UAAL of \$324,000.

⁷ Excludes additional contributions towards UAAL of \$254,000.

⁸ Excludes additional contributions towards UAAL of \$1,266,000.

Notes to Schedule:

Methods and assumptions used to establish "actuarially determined contribution" rates:

Valuation Date:	Actuarially determined contribution rates are calculated as of December 31, two and a half years prior to the end of the fiscal year in which contributions are reported
Actuarial Cost Method:	Entry Age Actuarial Cost Method
Amortization Method	Level percent of payroll
Remaining Amortization Period:	Remaining balance of December 31, 2007 UAAL is amortized over a fixed (decreasing or closed) period with 4 years remaining as of December 31, 2018 and 3 years remaining as of December 31, 2019.
	Any changes in UAAL after December 31, 2007 will be separately amortized over a fixed 18-year period effective with that valuation.
	Effective December 31, 2013, any changes in UAAL due to plan amendments (with the exception of a change due to retirement incentives) will be amortized over a 10-year fixed period effective with that valuation. The entire increase in UAAL resulting from a temporary retirement incentive will be funded in full upon adoption of the incentive.
Asset Valuation Method:	Market value of assets less unrecognized returns in each of the last nine semi-annual accounting periods. Unrecognized return is equal to the difference between the actual market return and the expected return on the market value, and is recognized semi-annually over a five-year period. The Actuarial Value of Assets is reduced by the value of the non-valuation reserves and designations.

Actuarial Assumptions:

Valuation Date:	December 31, 2019 Valuation	December 31, 2018 Valuation
Investment Rate of Return:	7.00%, net of pension plan investment expenses, including inflation	7.00%, net of pension plan investment expenses, including inflation
Inflation Rate:	2.75%	2.75%
Administrative Expenses:	1.14% of payroll allocated to both the employer and member based on the components of the Normal Cost rates for the employer and member.	1.10% of payroll allocated to both the employer and member based on the components of the Normal Cost rates for the employer and member.
Real Across-the-Board Salary Increase:	0.50%	0.50%
Projected Salary Increases:1	General: 3.75% to 15.25% and Safety: 4.25% to 16.25%	General: 3.75% to 15.25% and Safety: 4.25% to 16.25%
Cost-of-Living Adjustments:	2.75% per year except for Safety Tier C, PEPRA Tier E benefits and PEPRA Tier 4 (2% COLA) and Tier 5 (2% COLA) benefits for members covered under certain memoranda of understanding are assumed to increase at 2% per year.	2.75% per year except for Safety Tier C, PEPRA Tier E benefits and PEPRA Tier 4 (2% COLA) and Tier 5 (2% COLA) benefits for members covered under certain memoranda of understanding are assumed to increase at 2% per year.
	All increases are contingent upon actual increases in CPI.	All increases are contingent upon actual increases in CPI.
Other Assumptions:	Same as those that will be used in the December 31, 2019 funding actuarial valuation	Same as those used in the December 31, 201 funding actuarial valuation

¹ For December 31, 2019 and December 31, 2018 valuation dates, includes inflation at 2.75% plus real across-the-board salary increases of 0.50% plus merit and promotion increases that vary by service.

Determination of Proportionate Share

Actual Compensation by Employer and Cost Group January 1, 2019 to December 31, 2019

Employer	Cost Groups #1 & 2	Cost Groups #1 & 2 Percentage	Cost Group #3	Cost Group #3 Percentage	Cost Group #4	Cost Group #4 Percentage
1 - BIMID	\$264,807	0.039%	\$0	0.000%	\$0	0.000%
2 - Union Cemetery	0	0.000%	0	0.000%	0	0.000%
3 - CC Mosquito	3,339,694	0.496%	0	0.000%	0	0.000%
4 - CCCFPD	0	0.000%	0	0.000%	0	0.000%
5 - CCCSD	0	0.000%	36,087,017	100.000%	0	0.000%
6 - First 5	2,511,538	0.373%	0	0.000%	0	0.000%
7 - County	630,341,490	93.656%	0	0.000%	0	0.000%
8 - CCCERA (the Employer)	5,384,897	0.800%	0	0.000%	0	0.000%
9 - ECCFPD	216,200	0.032%	0	0.000%	0	0.000%
10 - Housing Authority	0	0.000%	0	0.000%	5,607,319	100.000%
11 - IHSS	950,386	0.141%	0	0.000%	0	0.000%
12 - LAFCO	230,702	0.034%	0	0.000%	0	0.000%
13 - MOFD	664,782	0.099%	0	0.000%	0	0.000%
14 - Rodeo SD	0	0.000%	0	0.000%	0	0.000%
15 - RHFD	72,417	0.011%	0	0.000%	0	0.000%
16 - SRVFPD	3,842,834	0.571%	0	0.000%	0	0.000%
17 - Court	25,222,390	3.748%	0	0.000%	0	0.000%
18 - DDSD (Term)	N/A	N/A	N/A	N/A	N/A	N/A
19 - DWD (Term)	N/A	N/A	N/A	N/A	N/A	N/A
20 - Pittsburg (Term)	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	N/A	<u>N/A</u>	<u>N/A</u>
Total	\$673,042,138	100.000%	\$36,087,017	100.000%	\$5,607,319	100.000%

Determination of Proportionate Share (continued)

Actual Compensation by Employer and Cost Group (continued) January 1, 2019 to December 31, 2019

Employer	Cost Group #5	Cost Group #5 Percentage	Cost Group #6	Cost Group #6 Percentage	Cost Groups #7 & 9	Cost Groups #7 & 9 Percentage
1 - BIMID	\$0	0.000%	\$0	0.000%	\$0	0.000%
2 - Union Cemetery	0	0.000%	216,414	22.747%	0	0.000%
3 - CC Mosquito	0	0.000%	0	0.000%	0	0.000%
4 - CCCFPD	5,875,765	100.000%	0	0.000%	0	0.000%
5 - CCCSD	0	0.000%	0	0.000%	0	0.000%
6 - First 5	0	0.000%	0	0.000%	0	0.000%
7 - County	0	0.000%	0	0.000%	98,536,139	100.000%
8 - CCCERA (the Employer)	0	0.000%	0	0.000%	0	0.000%
9 - ECCFPD	0	0.000%	0	0.000%	0	0.000%
10 - Housing Authority	0	0.000%	0	0.000%	0	0.000%
11 - IHSS	0	0.000%	0	0.000%	0	0.000%
12 - LAFCO	0	0.000%	0	0.000%	0	0.000%
13 - MOFD	0	0.000%	0	0.000%	0	0.000%
14 - Rodeo SD	0	0.000%	734,973	77.253%	0	0.000%
15 - RHFD	0	0.000%	0	0.000%	0	0.000%
16 - SRVFPD	0	0.000%	0	0.000%	0	0.000%
17 - Court	0	0.000%	0	0.000%	0	0.000%
18 - DDSD (Term)	N/A	N/A	N/A	N/A	N/A	N/A
19 - DWD (Term)	N/A	N/A	N/A	N/A	N/A	N/A
20 - Pittsburg (Term)	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Total	\$5,875,765	100.000%	\$951,387	100.000%	\$98,536,139	100.000%

Determination of Proportionate Share (continued)

Actual Compensation by Employer and Cost Group (continued) January 1, 2019 to December 31, 2019

Employer	Cost Group #8	Cost Group #8 Percentage	Cost Group #10	Cost Group #10 Percentage	Cost Group #11	Cost Group #11 Percentage
1 - BIMID	\$0	0.000%	\$0	0.000%	\$0	0.000%
2 - Union Cemetery	0	0.000%	0	0.000%	0	0.000%
3 - CC Mosquito	0	0.000%	0	0.000%	0	0.000%
4 - CCCFPD	37,998,385	100.000%	0	0.000%	0	0.000%
5 - CCCSD	0	0.000%	0	0.000%	0	0.000%
6 - First 5	0	0.000%	0	0.000%	0	0.000%
7 - County	0	0.000%	0	0.000%	0	0.000%
8 - CCCERA (the Employer)	0	0.000%	0	0.000%	0	0.000%
9 - ECCFPD	0	0.000%	0	0.000%	0	0.000%
10 - Housing Authority	0	0.000%	0	0.000%	0	0.000%
11 - IHSS	0	0.000%	0	0.000%	0	0.000%
12 - LAFCO	0	0.000%	0	0.000%	0	0.000%
13 - MOFD	0	0.000%	7,652,297	100.000%	0	0.000%
14 - Rodeo SD	0	0.000%	0	0.000%	0	0.000%
15 - RHFD	0	0.000%	0	0.000%	0	0.000%
16 - SRVFPD	0	0.000%	0	0.000%	20,929,094	100.000%
17 - Court	0	0.000%	0	0.000%	0	0.000%
18 - DDSD (Term)	N/A	N/A	N/A	N/A	N/A	N/A
19 - DWD (Term)	N/A	N/A	N/A	N/A	N/A	N/A
20 - Pittsburg (Term)	<u>N/A</u>	N/A	<u>N/A</u>	N/A	<u>N/A</u>	N/A
Total	\$37,998,385	100.000%	\$7,652,297	100.000%	\$20,929,094	100.000%

Determination of Proportionate Share (continued)

Actual Compensation by Employer and Cost Group (continued) January 1, 2019 to December 31, 2019

Employer	Cost Group #12	Cost Group #12 Percentage	Cost Group #13	Cost Group #13 Percentage	Total Compensation	Total Percentage
1 - BIMID	\$0	0.000%	\$0	0.000%	\$264,807	0.030%
2 - Union Cemetery	0	0.000%	0	0.000%	216,414	0.024%
3 - CC Mosquito	0	0.000%	0	0.000%	3,339,694	0.374%
4 - CCCFPD	0	0.000%	0	0.000%	43,874,150	4.917%
5 - CCCSD	0	0.000%	0	0.000%	36,087,017	4.044%
6 - First 5	0	0.000%	0	0.000%	2,511,538	0.281%
7 - County	0	0.000%	0	0.000%	728,877,628	81.678%
8 - CCCERA (the Employer)	0	0.000%	0	0.000%	5,384,897	0.603%
9 - ECCFPD	0	0.000%	3,413,711	100.000%	3,629,911	0.407%
10 - Housing Authority	0	0.000%	0	0.000%	5,607,319	0.628%
11 - IHSS	0	0.000%	0	0.000%	950,386	0.107%
12 - LAFCO	0	0.000%	0	0.000%	230,702	0.026%
13 - MOFD	0	0.000%	0	0.000%	8,317,080	0.932%
14 - Rodeo SD	0	0.000%	0	0.000%	734,973	0.082%
15 - RHFD	2,286,083	100.000%	0	0.000%	2,358,500	0.264%
16 - SRVFPD	0	0.000%	0	0.000%	24,771,927	2.776%
17 - Court	0	0.000%	0	0.000%	25,222,390	2.826%
18 - DDSD (Term)	N/A	N/A	N/A	N/A	N/A	N/A
19 - DWD (Term)	N/A	N/A	N/A	N/A	N/A	N/A
20 - Pittsburg (Term)	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Total	\$2,286,083	100.000%	\$3,413,711	100.000%	\$892,379,335	100.000%

Determination of Proportionate Share (continued)

PART ONE - Allocation of December 31, 2019 Net Pension Liability (NPL) Excluding Pension Obligation Bonds (POB) and UAAL Prepayments for Certain Employers

Employer	Cost Groups #1 & 2	Cost Groups #1 & 2 Percentage	Cost Group #3	Cost Group #3 Percentage	Cost Group #4	Cost Group #4 Percentage
1 - BIMID	\$222,616	0.039%	\$0	0.000%	\$0	0.000%
2 - Union Cemetery	0	0.000%	0	0.000%	0	0.000%
3 - CC Mosquito	2,807,582	0.496%	0	0.000%	0	0.000%
4 - CCCFPD	0	0.000%	0	0.000%	0	0.000%
5 - CCCSD	0	0.000%	64,117,450	100.000%	0	0.000%
6 - First 5	2,111,376	0.373%	0	0.000%	0	0.000%
7 - County	529,909,476	93.656%	0	0.000%	0	0.000%
8 - CCCERA (the Employer)	4,526,924	0.800%	0	0.000%	0	0.000%
9 - ECCFPD	181,753	0.032%	0	0.000%	0	0.000%
10 - Housing Authority	0	0.000%	0	0.000%	6,324,839	100.000%
11 - IHSS	798,961	0.141%	0	0.000%	0	0.000%
12 - LAFCO	193,944	0.034%	0	0.000%	0	0.000%
13 - MOFD	558,863	0.099%	0	0.000%	0	0.000%
14 - Rodeo SD	0	0.000%	0	0.000%	0	0.000%
15 - RHFD	60,879	0.011%	0	0.000%	0	0.000%
16 - SRVFPD	3,230,557	0.571%	0	0.000%	0	0.000%
17 - Court	21,203,718	3.748%	0	0.000%	0	0.000%
18 - DDSD (Term)	0	0.000%	0	0.000%	0	0.000%
19 - DWD (Term)	0	0.000%	0	0.000%	0	0.000%
20 - Pittsburg (Term)	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>
Total	\$565,806,649	100.000%	\$64,117,450	100.000%	\$6,324,839	100.000%

Determination of Proportionate Share (continued)

PART ONE - Allocation of December 31, 2019 Net Pension Liability (NPL)

Excluding Pension Obligation Bonds (POB) and UAAL Prepayments for Certain Employers (continued)

Employer	Cost Group #5	Cost Group #5 Percentage	Cost Group #6	Cost Group #6 Percentage	Cost Groups #7 & 9	Cost Groups #7 & 9 Percentage
1 - BIMID	\$0	0.000%	\$0	0.000%	\$0	0.000%
2 - Union Cemetery	0	0.000%	(147,526)	22.747%	0	0.000%
3 - CC Mosquito	0	0.000%	0	0.000%	0	0.000%
4 - CCCFPD	9,616,312	100.000%	0	0.000%	0	0.000%
5 - CCCSD	0	0.000%	0	0.000%	0	0.000%
6 - First 5	0	0.000%	0	0.000%	0	0.000%
7 - County	0	0.000%	0	0.000%	197,889,614	100.000%
8 - CCCERA (the Employer)	0	0.000%	0	0.000%	0	0.000%
9 - ECCFPD	0	0.000%	0	0.000%	0	0.000%
10 - Housing Authority	0	0.000%	0	0.000%	0	0.000%
11 - IHSS	0	0.000%	0	0.000%	0	0.000%
12 - LAFCO	0	0.000%	0	0.000%	0	0.000%
13 - MOFD	0	0.000%	0	0.000%	0	0.000%
14 - Rodeo SD	0	0.000%	(501,019)	77.253%	0	0.000%
15 - RHFD	0	0.000%	0	0.000%	0	0.000%
16 - SRVFPD	0	0.000%	0	0.000%	0	0.000%
17 - Court	0	0.000%	0	0.000%	0	0.000%
18 - DDSD (Term)	0	0.000%	0	0.000%	0	0.000%
19 - DWD (Term)	0	0.000%	0	0.000%	0	0.000%
20 - Pittsburg (Term)	<u>0</u>	0.000%	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>
Total	\$9,616,312	100.000%	\$(648,545)	100.000%	\$197,889,614	100.000%

Determination of Proportionate Share (continued)

PART ONE - Allocation of December 31, 2019 Net Pension Liability (NPL)

Excluding Pension Obligation Bonds (POB) and UAAL Prepayments for Certain Employers (continued)

Employer	Cost Group #8	Cost Group #8 Percentage	Cost Group #10	Cost Group #10 Percentage	Cost Group #11	Cost Group #11 Percentage
1 - BIMID	\$0	0.000%	\$0	0.000%	\$0	0.000%
2 - Union Cemetery	0	0.000%	0	0.000%	0	0.000%
3 - CC Mosquito	0	0.000%	0	0.000%	0	0.000%
4 - CCCFPD	106,050,662	100.000%	0	0.000%	0	0.000%
5 - CCCSD	0	0.000%	0	0.000%	0	0.000%
6 - First 5	0	0.000%	0	0.000%	0	0.000%
7 - County	0	0.000%	0	0.000%	0	0.000%
8 - CCCERA (the Employer)	0	0.000%	0	0.000%	0	0.000%
9 - ECCFPD	0	0.000%	0	0.000%	0	0.000%
10 - Housing Authority	0	0.000%	0	0.000%	0	0.000%
11 - IHSS	0	0.000%	0	0.000%	0	0.000%
12 - LAFCO	0	0.000%	0	0.000%	0	0.000%
13 - MOFD	0	0.000%	26,442,352	100.000%	0	0.000%
14 - Rodeo SD	0	0.000%	0	0.000%	0	0.000%
15 - RHFD	0	0.000%	0	0.000%	0	0.000%
16 - SRVFPD	0	0.000%	0	0.000%	40,015,914	100.000%
17 - Court	0	0.000%	0	0.000%	0	0.000%
18 - DDSD (Term)	0	0.000%	0	0.000%	0	0.000%
19 - DWD (Term)	0	0.000%	0	0.000%	0	0.000%
20 - Pittsburg (Term)	<u>0</u>	0.000%	<u>0</u>	0.000%	<u>0</u>	0.000%
Total	\$106,050,662	100.000%	\$26,442,352	100.000%	\$40,015,914	100.000%

Determination of Proportionate Share (continued)

PART ONE - Allocation of December 31, 2019 Net Pension Liability (NPL)

Excluding Pension Obligation Bonds (POB) and UAAL Prepayments for Certain Employers (continued)

Employer	Cost Group #12	Cost Group #12 Percentage	Cost Group #13	Cost Group #13 Percentage	Terminated Employers	Terminated Employers Percentage
1 - BIMID	\$0	0.000%	\$0	0.000%	\$0	0.000%
2 - Union Cemetery	0	0.000%	0	0.000%	0	0.000%
3 - CC Mosquito	0	0.000%	0	0.000%	0	0.000%
4 - CCCFPD	0	0.000%	0	0.000%	0	0.000%
5 - CCCSD	0	0.000%	0	0.000%	0	0.000%
6 - First 5	0	0.000%	0	0.000%	0	0.000%
7 - County	0	0.000%	0	0.000%	0	0.000%
8 - CCCERA (the Employer)	0	0.000%	0	0.000%	0	0.000%
9 - ECCFPD	0	0.000%	5,636,118	100.000%	0	0.000%
10 - Housing Authority	0	0.000%	0	0.000%	0	0.000%
11 - IHSS	0	0.000%	0	0.000%	0	0.000%
12 - LAFCO	0	0.000%	0	0.000%	0	0.000%
13 - MOFD	0	0.000%	0	0.000%	0	0.000%
14 - Rodeo SD	0	0.000%	0	0.000%	0	0.000%
15 - RHFD	8,963,316	100.000%	0	0.000%	0	0.000%
16 - SRVFPD	0	0.000%	0	0.000%	0	0.000%
17 - Court	0	0.000%	0	0.000%	0	0.000%
18 - DDSD (Term) ¹	0	0.000%	0	0.000%	1,673,872	21.530%
19 - DWD (Term) ¹	0	0.000%	0	0.000%	944,895	12.153%
20 - Pittsburg (Term) ¹	<u>0</u>	<u>0.000%</u>	<u>0</u>	0.000%	<u>5,155,943</u>	<u>66.317%</u>
Total	\$8,963,316	100.000%	\$5,636,118	100.000%	\$7,774,710	100.000%

¹ The NPLs for the three terminated employers are determined based on the Plan's Fiduciary Net Positions from the December 31, 2019 bookkeeping account letters and the TPLs obtained from internal valuation results (by rolling forward their TPLs from December 31, 2018).

Determination of Proportionate Share (continued)

PART ONE - Allocation of December 31, 2019 Net Pension Liability (NPL)

Excluding Pension Obligation Bonds (POB) and UAAL Prepayments for Certain Employers (continued)

Employer	Total NPL	Total Percentage
1 - BIMID	\$222,616	0.021%
2 - Union Cemetery	(147,526)	(0.014%)
3 - CC Mosquito	2,807,582	0.270%
4 - CCCFPD	115,666,974	11.143%
5 - CCCSD	64,117,450	6.177%
6 - First 5	2,111,376	0.203%
7 - County	727,799,090	70.116%
8 - CCCERA (the Employer)	4,526,924	0.436%
9 - ECCFPD	5,817,871	0.560%
10 - Housing Authority	6,324,839	0.609%
11 - IHSS	798,961	0.077%
12 - LAFCO	193,944	0.019%
13 - MOFD	27,001,215	2.601%
14 - Rodeo SD	(501,019)	(0.048%)
15 - RHFD	9,024,195	0.869%
16 - SRVFPD	43,246,471	4.166%
17 - Court	21,203,718	2.043%
18 - DDSD (Term)	1,673,872	0.161%
19 - DWD (Term)	944,895	0.091%
20 - Pittsburg (Term)	<u>5,155,943</u>	0.497%
Total	\$1,037,989,391	100.000%

Determination of Proportionate Share (continued)

PART TWO - Allocation of December 31, 2019 Net Pension Liability (NPL) <u>Including</u> Pension Obligation Bonds (POB) and UAAL Prepayments for Certain Employers

Employer	Cost Groups #1 & 2	Cost Groups #1 & 2 Percentage	Cost Group #3	Cost Group #3 Percentage	Cost Group #4	Cost Group #4 Percentage
1 - BIMID	\$222,616	0.057%	\$0	0.000%	\$0	0.000%
2 - Union Cemetery	0	0.000%	0	0.000%	0	0.000%
3 - CC Mosquito	2,807,582	0.716%	0	0.000%	0	0.000%
4 - CCCFPD	0	0.000%	0	0.000%	0	0.000%
5 - CCCSD	0	0.000%	64,117,450	100.000%	0	0.000%
6 - First 5	1,480,016	0.378%	0	0.000%	0	0.000%
7 - County	363,620,154	92.783%	0	0.000%	0	0.000%
8 - CCCERA (the Employer)	4,526,924	1.155%	0	0.000%	0	0.000%
9 - ECCFPD	181,753	0.046%	0	0.000%	0	0.000%
10 - Housing Authority	0	0.000%	0	0.000%	6,324,839	100.000%
11 - IHSS	798,961	0.204%	0	0.000%	0	0.000%
12 - LAFCO	132,109	0.034%	0	0.000%	0	0.000%
13 - MOFD	291,657	0.074%	0	0.000%	0	0.000%
14 - Rodeo SD	0	0.000%	0	0.000%	0	0.000%
15 - RHFD	60,879	0.016%	0	0.000%	0	0.000%
16 - SRVFPD	3,230,557	0.824%	0	0.000%	0	0.000%
17 - Court	14,549,842	3.713%	0	0.000%	0	0.000%
18 - DDSD (Term)	0	0.000%	0	0.000%	0	0.000%
19 - DWD (Term)	0	0.000%	0	0.000%	0	0.000%
20 - Pittsburg (Term)	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>	<u>0</u>	0.000%
Total	\$391,903,050	100.000%	\$64,117,450	100.000%	\$6,324,839	100.000%

Determination of Proportionate Share (continued)

PART TWO - Allocation of December 31, 2019 Net Pension Liability (NPL)
Including Pension Obligation Bonds (POB) and UAAL Prepayments for Certain Employers (continued)

Employer	Cost Group #5	Cost Group #5 Percentage	Cost Group #6	Cost Group #6 Percentage	Cost Groups #7 & 9	Cost Groups #7 & 9 Percentage
1 - BIMID	\$0	0.000%	\$0	0.000%	\$0	0.000%
2 - Union Cemetery	0	0.000%	(147,526)	22.747%	0	0.000%
3 - CC Mosquito	0	0.000%	0	0.000%	0	0.000%
4 - CCCFPD	9,616,312	100.000%	0	0.000%	0	0.000%
5 - CCCSD	0	0.000%	0	0.000%	0	0.000%
6 - First 5	0	0.000%	0	0.000%	0	0.000%
7 - County	0	0.000%	0	0.000%	197,889,614	100.000%
8 - CCCERA (the Employer)	0	0.000%	0	0.000%	0	0.000%
9 - ECCFPD	0	0.000%	0	0.000%	0	0.000%
10 - Housing Authority	0	0.000%	0	0.000%	0	0.000%
11 - IHSS	0	0.000%	0	0.000%	0	0.000%
12 - LAFCO	0	0.000%	0	0.000%	0	0.000%
13 - MOFD	0	0.000%	0	0.000%	0	0.000%
14 - Rodeo SD	0	0.000%	(501,019)	77.253%	0	0.000%
15 - RHFD	0	0.000%	0	0.000%	0	0.000%
16 - SRVFPD	0	0.000%	0	0.000%	0	0.000%
17 - Court	0	0.000%	0	0.000%	0	0.000%
18 - DDSD (Term)	0	0.000%	0	0.000%	0	0.000%
19 - DWD (Term)	0	0.000%	0	0.000%	0	0.000%
20 - Pittsburg (Term)	<u>0</u>	<u>0.000%</u>	<u>0</u>	0.000%	<u>0</u>	<u>0.000%</u>
Total	\$9,616,312	100.000%	\$(648,545)	100.000%	\$197,889,614	100.000%

Determination of Proportionate Share (continued)

PART TWO - Allocation of December 31, 2019 Net Pension Liability (NPL)

Including Pension Obligation Bonds (POB) and UAAL Prepayments for Certain Employers (continued)

Employer	Cost Group #8	Cost Group #8 Percentage	Cost Group #10	Cost Group #10 Percentage	Cost Group #11	Cost Group #11 Percentage
1 - BIMID	\$0	0.000%	\$0	0.000%	\$0	0.000%
2 - Union Cemetery	0	0.000%	0	0.000%	0	0.000%
3 - CC Mosquito	0	0.000%	0	0.000%	0	0.000%
4 - CCCFPD	106,050,662	100.000%	0	0.000%	0	0.000%
5 - CCCSD	0	0.000%	0	0.000%	0	0.000%
6 - First 5	0	0.000%	0	0.000%	0	0.000%
7 - County	0	0.000%	0	0.000%	0	0.000%
8 - CCCERA (the Employer)	0	0.000%	0	0.000%	0	0.000%
9 - ECCFPD	0	0.000%	0	0.000%	0	0.000%
10 - Housing Authority	0	0.000%	0	0.000%	0	0.000%
11 - IHSS	0	0.000%	0	0.000%	0	0.000%
12 - LAFCO	0	0.000%	0	0.000%	0	0.000%
13 - MOFD	0	0.000%	26,442,352	100.000%	0	0.000%
14 - Rodeo SD	0	0.000%	0	0.000%	0	0.000%
15 - RHFD	0	0.000%	0	0.000%	0	0.000%
16 - SRVFPD	0	0.000%	0	0.000%	40,015,914	100.000%
17 - Court	0	0.000%	0	0.000%	0	0.000%
18 - DDSD (Term)	0	0.000%	0	0.000%	0	0.000%
19 - DWD (Term)	0	0.000%	0	0.000%	0	0.000%
20 - Pittsburg (Term)	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>
Total	\$106,050,662	100.000%	\$26,442,352	100.000%	\$40,015,914	100.000%

Determination of Proportionate Share (continued)

PART TWO - Allocation of December 31, 2019 Net Pension Liability (NPL)
Including Pension Obligation Bonds (POB) and UAAL Prepayments for Certain Employers (continued)

Employer	Cost Group #12	Cost Group #12 Percentage	Cost Group #13	Cost Group #13 Percentage	Terminated Employers	Terminated Employers Percentage
1 - BIMID	\$0	0.000%	\$0	0.000%	\$0	0.000%
2 - Union Cemetery	0	0.000%	0	0.000%	0	0.000%
3 - CC Mosquito	0	0.000%	0	0.000%	0	0.000%
4 - CCCFPD	0	0.000%	0	0.000%	0	0.000%
5 - CCCSD	0	0.000%	0	0.000%	0	0.000%
6 - First 5	0	0.000%	0	0.000%	0	0.000%
7 - County	0	0.000%	0	0.000%	0	0.000%
8 - CCCERA (the Employer)	0	0.000%	0	0.000%	0	0.000%
9 - ECCFPD	0	0.000%	5,636,118	100.000%	0	0.000%
10 - Housing Authority	0	0.000%	0	0.000%	0	0.000%
11 - IHSS	0	0.000%	0	0.000%	0	0.000%
12 - LAFCO	0	0.000%	0	0.000%	0	0.000%
13 - MOFD	0	0.000%	0	0.000%	0	0.000%
14 - Rodeo SD	0	0.000%	0	0.000%	0	0.000%
15 - RHFD	8,963,316	100.000%	0	0.000%	0	0.000%
16 - SRVFPD	0	0.000%	0	0.000%	0	0.000%
17 - Court	0	0.000%	0	0.000%	0	0.000%
18 - DDSD (Term) ¹	0	0.000%	0	0.000%	1,673,872	21.530%
19 - DWD (Term) ¹	0	0.000%	0	0.000%	944,895	12.153%
20 - Pittsburg (Term) ¹	<u>0</u>	0.000%	<u>0</u>	0.000%	<u>5,155,943</u>	<u>66.317%</u>
Total	\$8,963,316	100.000%	\$5,636,118	100.000%	\$7,774,710	100.000%

¹ The NPLs for the three terminated employers are determined based on the Plan's Fiduciary Net Positions from the December 31, 2019 bookkeeping account letters and the TPLs obtained from internal valuation results (by rolling forward their TPLs from December 31, 2018).

Determination of Proportionate Share (continued)

PART TWO - Allocation of December 31, 2019 Net Pension Liability (NPL)

Including Pension Obligation Bonds (POB) and UAAL Prepayments for Certain Employers (continued)

Total

			Total Percentage Excluding
Employer	Total NPL	Total Percentage	Terminated Employers ¹
1 - BIMID	\$222,616	0.026%	0.026%
2 - Union Cemetery	(147,526)	(0.017%)	(0.017%)
3 - CC Mosquito	2,807,582	0.325%	0.328%
4 - CCCFPD	115,666,974	13.386%	13.508%
5 - CCCSD	64,117,450	7.420%	7.488%
6 - First 5	1,480,016	0.171%	0.173%
7 - County	561,509,768	64.983%	65.573%
8 - CCCERA (the Employer)	4,526,924	0.524%	0.529%
9 - ECCFPD	5,817,871	0.673%	0.679%
10 - Housing Authority	6,324,839	0.732%	0.739%
11 - IHSS	798,961	0.092%	0.093%
12 - LAFCO	132,109	0.015%	0.015%
13 - MOFD	26,734,009	3.094%	3.122%
14 - Rodeo SD	(501,019)	(0.058%)	(0.059%)
15 - RHFD	9,024,195	1.044%	1.054%
16 - SRVFPD	43,246,471	5.005%	5.050%
17 - Court	14,549,842	1.684%	1.699%
18 - DDSD (Term)	1,673,872	0.194%	N/A
19 - DWD (Term)	944,895	0.109%	N/A
20 - Pittsburg (Term)	<u>5,155,943</u>	<u>0.597%</u>	<u>N/A</u>
Total	\$864,085,792	100.000%	100.000%



¹ For informational purposes; these percentages show the allocation of the NPL for employers excluding terminated employers.

Determination of Proportionate Share (continued)

Notes Regarding Determination of Proportionate Share as of December 31, 2019 Measurement Date

- 1. Based on actual January 1, 2019 through December 31, 2019 compensation information that was provided by CCCERA.
- 2. The Net Pension Liability (NPL) for each Cost Group is the Total Pension Liability (TPL) minus the Plan's Fiduciary Net Position (plan assets). The TPL for each Cost Group is obtained from internal valuation results based on the actual participants in each Cost Group. The Plan's Fiduciary Net Position for each Cost Group was determined by adjusting the Valuation Value of Assets (VVA) for each Cost Group (which is used to determine employer contribution rates) by the ratio of the total CCCERA Plan's Fiduciary Net Position (excluding the terminated employers' assets and the Post Retirement Death Benefit reserve) to total CCCERA VVA (excluding the terminated employers' VVA). The Post Retirement Death Benefit reserve is allocated to Cost Groups #1 and #2. The liability for the post-retirement death benefit up to the amount in the Post Retirement Death Benefit reserve is also allocated to Cost Groups #1 and #2.
- For terminated employers, the TPL is obtained from internal valuation results for each employer. The Plan's Fiduciary Net
 Position for each terminated employer has been set equal to the amount in their respective bookkeeping account. The NPL is
 then determined separately for each terminated employer.
- 4. For Cost Groups that have one employer, all of the NPL for that Cost Group is allocated to the corresponding employer. The NPL has already been reduced by any proceeds from Pension Obligation Bonds and any UAAL prepayments.
- 5. For Cost Groups that have multiple employers, the NPL is allocated based on the actual compensation within the Cost Group.
 - a. Calculate ratio of employer's compensation to the total compensation for the Cost Group.
 - b. Multiply this ratio by an "adjusted" NPL. This adjusted NPL is larger than the actual NPL as it excludes proceeds from Pension Obligation Bonds and any Unfunded Actuarial Accrued Liability (UAAL) prepayments from the Cost Group's assets when determining the employer's proportionate share of the NPL for the Cost Group. It also excludes the NPLs for the three terminated employers. The allocation of the adjusted NPL is shown above in PART ONE of the Determination of Proportionate Share Schedule.
 - c. The amounts of the proceeds from Pension Obligation Bonds and UAAL prepayments as of December 31, 2019 allocated to those employers within each Cost Group are as follows:

Cost Group #1: County	\$166,289,322	Cost Group #1: LAFCO	\$61,835
Cost Group #1: Court	\$6,653,876	Cost Group #1: First 5	\$631,360
Cost Group #1: MOFD	\$267,206		

Note that the proceeds from Pension Obligation Bonds for Contra Costa County and the Superior Court as of December 31, 2019 (total of \$172,943,198) were allocated proportionally based on the compensation information.

Determination of Proportionate Share (continued)

Notes Regarding Determination of Proportionate Share as of December 31, 2019 Measurement Date (continued)

Effective December 31, 2019 with the depooling of Safety members of ECCCFPD from CCCFPD in Cost Group #8, CCCFPD is now the only employer in Cost Group #8 and therefore, the outstanding balance of CCCFPD's proceeds from Pension Obligation Bonds is included in Cost Group #8 and no longer tracked separately.

- d. Subtract from the adjusted NPL in PART ONE the outstanding balance of the proceeds from any Pension Obligation Bonds and any UAAL prepayments for those employers in each Cost Group that are subject to these adjustments. The resulting actual NPL is shown in PART TWO of the Determination of Proportionate Share Schedule.
- 6. If an employer is in several Cost Groups, the employer's total allocated NPL is the sum of its allocated NPL from each Cost Group.
- 7. Cost Group #1 and Cost Group #2 were combined and Cost Group #7 and Cost Group #9 were combined consistent with the determination of the UAAL rate in the annual funding actuarial valuation.

The following items are allocated based on the corresponding employer allocation percentage or proportionate share shown above after excluding the terminated employers.

- Net Pension Liability
- Service Cost
- Interest on the Total Pension Liability
- Benefit changes
- Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability
- Expensed portion of current-period changes of assumptions or other inputs
- Member contributions
- Projected earnings on plan investments
- Expensed portion of current-period differences between actual and projected earnings on plan investments
- Administrative expense
- Other expenses
- Recognition of beginning of year deferred outflows of resources as pension expense
- Recognition of beginning of year deferred inflows of resources as pension expense

Determination of Proportionate Share (continued)

Actual Compensation by Employer and Cost Group January 1, 2018 to December 31, 2018

Employer	Cost Groups #1 & 2	Cost Groups #1 & 2 Percentage	Cost Group #3	Cost Group #3 Percentage	Cost Group #4	Cost Group #4 Percentage
1 - BIMID	\$261,689	0.041%	\$0	0.000%	\$0	0.000%
2 - Union Cemetery	0	0.000%	0	0.000%	0	0.000%
3 - CC Mosquito	3,235,876	0.504%	0	0.000%	0	0.000%
4 - CCCFPD	0	0.000%	0	0.000%	0	0.000%
5 - CCCSD	0	0.000%	33,793,159	100.000%	0	0.000%
6 - First 5	2,525,004	0.393%	0	0.000%	0	0.000%
7 - County	600,140,253	93.521%	0	0.000%	0	0.000%
8 - CCCERA (the Employer)	4,996,878	0.779%	0	0.000%	0	0.000%
9 - ECCFPD	151,631	0.024%	0	0.000%	0	0.000%
10 - Housing Authority	0	0.000%	0	0.000%	5,288,211	100.000%
11 - IHSS	894,727	0.139%	0	0.000%	0	0.000%
12 - LAFCO	228,637	0.036%	0	0.000%	0	0.000%
13 - MOFD	766,265	0.119%	0	0.000%	0	0.000%
14 - Rodeo SD	0	0.000%	0	0.000%	0	0.000%
15 - RHFD	70,710	0.011%	0	0.000%	0	0.000%
16 - SRVFPD	3,803,163	0.593%	0	0.000%	0	0.000%
17 - Court	24,642,251	3.840%	0	0.000%	0	0.000%
18 - DDSD (Term)	N/A	N/A	N/A	N/A	N/A	N/A
19 - DWD (Term)	N/A	N/A	N/A	N/A	N/A	N/A
20 - Pittsburg (Term)	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Total	\$641,717,085	100.000%	\$33,793,159	100.000%	\$5,288,211	100.000%

Determination of Proportionate Share (continued)

Actual Compensation by Employer and Cost Group (continued)
January 1, 2018 to December 31, 2018

Employer	Cost Group #5	Cost Group #5 Percentage	Cost Group #6	Cost Group #6 Percentage	
1 - BIMID	\$0	0.000%	\$0	0.000%	
2 - Union Cemetery	0	0.000%	192,930	21.858%	
3 - CC Mosquito	0	0.000%	0	0.000%	
4 - CCCFPD	5,329,149	100.000%	0	0.000%	
5 - CCCSD	0	0.000%	0	0.000%	
6 - First 5	0	0.000%	0	0.000%	
7 - County	0	0.000%	0	0.000%	
8 - CCCERA (the Employer)	0	0.000%	0	0.000%	
9 - ECCFPD	0	0.000%	0	0.000%	
10 - Housing Authority	0	0.000%	0	0.000%	
11 - IHSS	0	0.000%	0	0.000%	
12 - LAFCO	0	0.000%	0	0.000%	
13 - MOFD	0	0.000%	0	0.000%	
14 - Rodeo SD	0	0.000%	689,729	78.142%	
15 - RHFD	0	0.000%	0	0.000%	
16 - SRVFPD	0	0.000%	0	0.000%	
17 - Court	0	0.000%	0	0.000%	
18 - DDSD (Term)	N/A	N/A	N/A	N/A	
19 - DWD (Term)	N/A	N/A	N/A	N/A	
20 - Pittsburg (Term)	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	
Total	\$5,329,149	100.000%	\$882,659	100.000%	

Determination of Proportionate Share (continued)

Actual Compensation by Employer and Cost Group (continued) January 1, 2018 to December 31, 2018

Employer	Cost Groups #7 & 9	Cost Groups #7 & 9 Percentage	Cost Group #8	Cost Group #8 Percentage	Cost Group #10	Cost Group #10 Percentage
1 - BIMID	\$0	0.000%	\$0	0.000%	\$0	0.000%
2 - Union Cemetery	0	0.000%	0	0.000%	0	0.000%
3 - CC Mosquito	0	0.000%	0	0.000%	0	0.000%
4 - CCCFPD	0	0.000%	34,943,479	92.115%	0	0.000%
5 - CCCSD	0	0.000%	0	0.000%	0	0.000%
6 - First 5	0	0.000%	0	0.000%	0	0.000%
7 - County	95,661,123	100.000%	0	0.000%	0	0.000%
8 - CCCERA (the Employer)	0	0.000%	0	0.000%	0	0.000%
9 - ECCFPD	0	0.000%	2,991,338	7.885%	0	0.000%
10 - Housing Authority	0	0.000%	0	0.000%	0	0.000%
11 - IHSS	0	0.000%	0	0.000%	0	0.000%
12 - LAFCO	0	0.000%	0	0.000%	0	0.000%
13 - MOFD	0	0.000%	0	0.000%	7,373,168	100.000%
14 - Rodeo SD	0	0.000%	0	0.000%	0	0.000%
15 - RHFD	0	0.000%	0	0.000%	0	0.000%
16 - SRVFPD	0	0.000%	0	0.000%	0	0.000%
17 - Court	0	0.000%	0	0.000%	0	0.000%
18 - DDSD (Term)	N/A	N/A	N/A	N/A	N/A	N/A
19 - DWD (Term)	N/A	N/A	N/A	N/A	N/A	N/A
20 - Pittsburg (Term)	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Total	\$95,661,123	100.000%	\$37,934,817	100.000%	\$7,373,168	100.000%

Determination of Proportionate Share (continued)

Actual Compensation by Employer and Cost Group (continued) January 1, 2018 to December 31, 2018

Employer	Cost Group #11	Cost Group #11 Percentage	Cost Group #12	Cost Group #12 Percentage	Total Compensation	Total Percentage
1 - BIMID	\$0	0.000%	\$0	0.000%	\$261,689	0.031%
2 - Union Cemetery	0	0.000%	0	0.000%	192,930	0.023%
3 - CC Mosquito	0	0.000%	0	0.000%	3,235,876	0.380%
4 - CCCFPD	0	0.000%	0	0.000%	40,272,628	4.733%
5 - CCCSD	0	0.000%	0	0.000%	33,793,159	3.971%
6 - First 5	0	0.000%	0	0.000%	2,525,004	0.297%
7 - County	0	0.000%	0	0.000%	695,801,377	81.770%
8 - CCCERA (the Employer)	0	0.000%	0	0.000%	4,996,878	0.587%
9 - ECCFPD	0	0.000%	0	0.000%	3,142,969	0.369%
10 - Housing Authority	0	0.000%	0	0.000%	5,288,211	0.621%
11 - IHSS	0	0.000%	0	0.000%	894,727	0.105%
12 - LAFCO	0	0.000%	0	0.000%	228,637	0.027%
13 - MOFD	0	0.000%	0	0.000%	8,139,433	0.957%
14 - Rodeo SD	0	0.000%	0	0.000%	689,729	0.081%
15 - RHFD	0	0.000%	2,275,546	100.000%	2,346,256	0.276%
16 - SRVFPD	20,674,190	100.000%	0	0.000%	24,477,353	2.877%
17 - Court	0	0.000%	0	0.000%	24,642,251	2.896%
18 - DDSD (Term)	N/A	N/A	N/A	N/A	N/A	N/A
19 - DWD (Term)	N/A	N/A	N/A	N/A	N/A	N/A
20 - Pittsburg (Term)	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Total	\$20,674,190	100.000%	\$2,275,546	100.000%	\$850,929,106	100.000%

Determination of Proportionate Share (continued)

PART ONE - Allocation of December 31, 2018 Net Pension Liability (NPL) Excluding Pension Obligation Bonds (POB) and UAAL Prepayments for Certain Employers

Employer	Cost Groups #1 & 2	Cost Groups #1 & 2 Percentage	Cost Group #3	Cost Group #3 Percentage	Cost Group #4	Cost Group #4 Percentage
1 - BIMID	\$383,118	0.041%	\$0	0.000%	\$0	0.000%
2 - Union Cemetery	0	0.000%	0	0.000%	0	0.000%
3 - CC Mosquito	4,737,389	0.504%	0	0.000%	0	0.000%
4 - CCCFPD	0	0.000%	0	0.000%	0	0.000%
5 - CCCSD	0	0.000%	90,430,104	100.000%	0	0.000%
6 - First 5	3,696,657	0.393%	0	0.000%	0	0.000%
7 - County	878,617,625	93.521%	0	0.000%	0	0.000%
8 - CCCERA (the Employer)	7,315,532	0.779%	0	0.000%	0	0.000%
9 - ECCFPD	221,991	0.024%	0	0.000%	0	0.000%
10 - Housing Authority	0	0.000%	0	0.000%	10,796,497	100.000%
11 - IHSS	1,309,899	0.139%	0	0.000%	0	0.000%
12 - LAFCO	334,730	0.036%	0	0.000%	0	0.000%
13 - MOFD	1,121,828	0.119%	0	0.000%	0	0.000%
14 - Rodeo SD	0	0.000%	0	0.000%	0	0.000%
15 - RHFD	103,521	0.011%	0	0.000%	0	0.000%
16 - SRVFPD	5,567,909	0.593%	0	0.000%	0	0.000%
17 - Court	36,076,760	3.840%	0	0.000%	0	0.000%
18 - DDSD (Term)	0	0.000%	0	0.000%	0	0.000%
19 - DWD (Term)	0	0.000%	0	0.000%	0	0.000%
20 - Pittsburg (Term)	<u>0</u>	0.000%	<u>0</u>	<u>0.000%</u>	<u>0</u>	0.000%
Total	\$939,486,959	100.000%	\$90,430,104	100.000%	\$10,796,497	100.000%

Determination of Proportionate Share (continued)

PART ONE - Allocation of December 31, 2018 Net Pension Liability (NPL)

Excluding Pension Obligation Bonds (POB) and UAAL Prepayments for Certain Employers (continued)

Employer	Cost Group #5	Cost Group #5 Percentage	Cost Group #6	Cost Group #6 Percentage	Cost Groups #7 & 9	Cost Groups #7 & 9 Percentage
1 - BIMID	\$0	0.000%	\$0	0.000%	\$0	0.000%
2 - Union Cemetery	0	0.000%	52,348	21.858%	0	0.000%
3 - CC Mosquito	0	0.000%	0	0.000%	0	0.000%
4 - CCCFPD	11,919,203	100.000%	0	0.000%	0	0.000%
5 - CCCSD	0	0.000%	0	0.000%	0	0.000%
6 - First 5	0	0.000%	0	0.000%	0	0.000%
7 - County	0	0.000%	0	0.000%	308,223,719	100.000%
8 - CCCERA (the Employer)	0	0.000%	0	0.000%	0	0.000%
9 - ECCFPD	0	0.000%	0	0.000%	0	0.000%
10 - Housing Authority	0	0.000%	0	0.000%	0	0.000%
11 - IHSS	0	0.000%	0	0.000%	0	0.000%
12 - LAFCO	0	0.000%	0	0.000%	0	0.000%
13 - MOFD	0	0.000%	0	0.000%	0	0.000%
14 - Rodeo SD	0	0.000%	187,143	78.142%	0	0.000%
15 - RHFD	0	0.000%	0	0.000%	0	0.000%
16 - SRVFPD	0	0.000%	0	0.000%	0	0.000%
17 - Court	0	0.000%	0	0.000%	0	0.000%
18 - DDSD (Term)	0	0.000%	0	0.000%	0	0.000%
19 - DWD (Term)	0	0.000%	0	0.000%	0	0.000%
20 - Pittsburg (Term)	<u>0</u>	0.000%	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>
Total	\$11,919,203	100.000%	\$239,491	100.000%	\$308,223,719	100.000%

Determination of Proportionate Share (continued)

PART ONE - Allocation of December 31, 2018 Net Pension Liability (NPL)

Excluding Pension Obligation Bonds (POB) and UAAL Prepayments for Certain Employers (continued)

Employer	Cost Group #8	Cost Group #8 Percentage	Cost Group #10	Cost Group #10 Percentage	Cost Group #11	Cost Group #11 Percentage
1 - BIMID	\$0	0.000%	\$0	0.000%	\$0	0.000%
2 - Union Cemetery	0	0.000%	0	0.000%	0	0.000%
3 - CC Mosquito	0	0.000%	0	0.000%	0	0.000%
4 - CCCFPD	210,540,497	92.115%	0	0.000%	0	0.000%
5 - CCCSD	0	0.000%	0	0.000%	0	0.000%
6 - First 5	0	0.000%	0	0.000%	0	0.000%
7 - County	0	0.000%	0	0.000%	0	0.000%
8 - CCCERA (the Employer)	0	0.000%	0	0.000%	0	0.000%
9 - ECCFPD	18,023,325	7.885%	0	0.000%	0	0.000%
10 - Housing Authority	0	0.000%	0	0.000%	0	0.000%
11 - IHSS	0	0.000%	0	0.000%	0	0.000%
12 - LAFCO	0	0.000%	0	0.000%	0	0.000%
13 - MOFD	0	0.000%	33,636,062	100.000%	0	0.000%
14 - Rodeo SD	0	0.000%	0	0.000%	0	0.000%
15 - RHFD	0	0.000%	0	0.000%	0	0.000%
16 - SRVFPD	0	0.000%	0	0.000%	64,010,051	100.000%
17 - Court	0	0.000%	0	0.000%	0	0.000%
18 - DDSD (Term)	0	0.000%	0	0.000%	0	0.000%
19 - DWD (Term)	0	0.000%	0	0.000%	0	0.000%
20 - Pittsburg (Term)	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>
Total	\$228,563,822	100.000%	\$33,636,062	100.000%	\$64,010,051	100.000%

Determination of Proportionate Share (continued)

PART ONE - Allocation of December 31, 2018 Net Pension Liability (NPL)

Excluding Pension Obligation Bonds (POB) and UAAL Prepayments for Certain Employers (continued)

Employer	Cost Group #12	Cost Group #12 Percentage	Terminated Employers	Terminated Employers Percentage	Total NPL	Total Percentage
1 - BIMID	\$0	0.000%	\$0	0.000%	\$383,118	0.022%
2 - Union Cemetery	0	0.000%	0	0.000%	52,348	0.003%
3 - CC Mosquito	0	0.000%	0	0.000%	4,737,389	0.277%
4 - CCCFPD	0	0.000%	0	0.000%	222,459,700	13.007%
5 - CCCSD	0	0.000%	0	0.000%	90,430,104	5.287%
6 - First 5	0	0.000%	0	0.000%	3,696,657	0.216%
7 - County	0	0.000%	0	0.000%	1,186,841,344	69.392%
8 - CCCERA (the Employer)	0	0.000%	0	0.000%	7,315,532	0.428%
9 - ECCFPD	0	0.000%	0	0.000%	18,245,316	1.067%
10 - Housing Authority	0	0.000%	0	0.000%	10,796,497	0.631%
11 - IHSS	0	0.000%	0	0.000%	1,309,899	0.077%
12 - LAFCO	0	0.000%	0	0.000%	334,730	0.020%
13 - MOFD	0	0.000%	0	0.000%	34,757,890	2.032%
14 - Rodeo SD	0	0.000%	0	0.000%	187,143	0.011%
15 - RHFD	11,613,459	100.000%	0	0.000%	11,716,980	0.685%
16 - SRVFPD	0	0.000%	0	0.000%	69,577,960	4.068%
17 - Court	0	0.000%	0	0.000%	36,076,760	2.109%
18 - DDSD (Term) ¹	0	0.000%	2,433,196	21.312%	2,433,196	0.142%
19 - DWD (Term) ¹	0	0.000%	1,034,726	9.063%	1,034,726	0.060%
20 - Pittsburg (Term) ¹	<u>0</u>	<u>0.000%</u>	7,949,368	<u>69.626%</u>	<u>7,949,368</u>	<u>0.465%</u>
Total	\$11,613,459	100.000%	\$11,417,290	100.000%	\$1,710,336,657	100.000%

¹ The NPLs for the three terminated employers are determined based on the Plan's Fiduciary Net Positions from the December 31, 2018 bookkeeping account letters and the TPLs obtained from internal valuation results (by rolling forward their TPLs from December 31, 2017).

Determination of Proportionate Share (continued)

PART TWO - Allocation of December 31, 2018 Net Pension Liability (NPL) <u>Including</u> Pension Obligation Bonds (POB) and UAAL Prepayments for Certain Employers

Employer	Cost Groups #1 & 2	Cost Groups #1 & 2 Percentage	Cost Group #3	Cost Group #3 Percentage	Cost Group #4	Cost Group #4 Percentage
1 - BIMID	\$383,118	0.053%	\$0	0.000%	\$0	0.000%
2 - Union Cemetery	0	0.000%	0	0.000%	0	0.000%
3 - CC Mosquito	4,737,389	0.659%	0	0.000%	0	0.000%
4 - CCCFPD	0	0.000%	0	0.000%	0	0.000%
5 - CCCSD	0	0.000%	90,430,104	100.000%	0	0.000%
6 - First 5	2,881,759	0.401%	0	0.000%	0	0.000%
7 - County	667,808,028	92.901%	0	0.000%	0	0.000%
8 - CCCERA (the Employer)	7,315,532	1.018%	0	0.000%	0	0.000%
9 - ECCFPD	221,991	0.031%	0	0.000%	0	0.000%
10 - Housing Authority	0	0.000%	0	0.000%	10,796,497	100.000%
11 - IHSS	1,309,899	0.182%	0	0.000%	0	0.000%
12 - LAFCO	304,195	0.042%	0	0.000%	0	0.000%
13 - MOFD	782,743	0.109%	0	0.000%	0	0.000%
14 - Rodeo SD	0	0.000%	0	0.000%	0	0.000%
15 - RHFD	103,521	0.014%	0	0.000%	0	0.000%
16 - SRVFPD	5,567,909	0.775%	0	0.000%	0	0.000%
17 - Court	27,420,745	3.815%	0	0.000%	0	0.000%
18 - DDSD (Term)	0	0.000%	0	0.000%	0	0.000%
19 - DWD (Term)	0	0.000%	0	0.000%	0	0.000%
20 - Pittsburg (Term)	<u>0</u>	0.000%	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>
Total	\$718,836,829	100.000%	\$90,430,104	100.000%	\$10,796,497	100.000%

Determination of Proportionate Share (continued)

PART TWO - Allocation of December 31, 2018 Net Pension Liability (NPL)

Including Pension Obligation Bonds (POB) and UAAL Prepayments for Certain Employers (continued)

Employer	Cost Group #5	Cost Group #5 Percentage	Cost Group #6	Cost Group #6 Percentage	Cost Groups #7 & 9	Cost Groups #7 & 9 Percentage
1 - BIMID	\$0	0.000%	\$0	0.000%	\$0	0.000%
2 - Union Cemetery	0	0.000%	52,348	21.858%	0	0.000%
3 - CC Mosquito	0	0.000%	0	0.000%	0	0.000%
4 - CCCFPD	11,919,203	100.000%	0	0.000%	0	0.000%
5 - CCCSD	0	0.000%	0	0.000%	0	0.000%
6 - First 5	0	0.000%	0	0.000%	0	0.000%
7 - County	0	0.000%	0	0.000%	308,223,719	100.000%
8 - CCCERA (the Employer)	0	0.000%	0	0.000%	0	0.000%
9 - ECCFPD	0	0.000%	0	0.000%	0	0.000%
10 - Housing Authority	0	0.000%	0	0.000%	0	0.000%
11 - IHSS	0	0.000%	0	0.000%	0	0.000%
12 - LAFCO	0	0.000%	0	0.000%	0	0.000%
13 - MOFD	0	0.000%	0	0.000%	0	0.000%
14 - Rodeo SD	0	0.000%	187,143	78.142%	0	0.000%
15 - RHFD	0	0.000%	0	0.000%	0	0.000%
16 - SRVFPD	0	0.000%	0	0.000%	0	0.000%
17 - Court	0	0.000%	0	0.000%	0	0.000%
18 - DDSD (Term)	0	0.000%	0	0.000%	0	0.000%
19 - DWD (Term)	0	0.000%	0	0.000%	0	0.000%
20 - Pittsburg (Term)	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>
Total	\$11,919,203	100.000%	\$239,491	100.000%	\$308,223,719	100.000%

Determination of Proportionate Share (continued)

PART TWO - Allocation of December 31, 2018 Net Pension Liability (NPL)
Including Pension Obligation Bonds (POB) and UAAL Prepayments for Certain Employers (continued)

Employer	Cost Group #8	Cost Group #8 Percentage	Cost Group #10	Cost Group #10 Percentage	Cost Group #11	Cost Group #11 Percentage
1 - BIMID	\$0	0.000%	\$0	0.000%	\$0	0.000%
2 - Union Cemetery	0	0.000%	0	0.000%	0	0.000%
3 - CC Mosquito	0	0.000%	0	0.000%	0	0.000%
4 - CCCFPD	148,898,114	89.203%	0	0.000%	0	0.000%
5 - CCCSD	0	0.000%	0	0.000%	0	0.000%
6 - First 5	0	0.000%	0	0.000%	0	0.000%
7 - County	0	0.000%	0	0.000%	0	0.000%
8 - CCCERA (the Employer)	0	0.000%	0	0.000%	0	0.000%
9 - ECCFPD	18,023,325	10.797%	0	0.000%	0	0.000%
10 - Housing Authority	0	0.000%	0	0.000%	0	0.000%
11 - IHSS	0	0.000%	0	0.000%	0	0.000%
12 - LAFCO	0	0.000%	0	0.000%	0	0.000%
13 - MOFD	0	0.000%	33,636,062	100.000%	0	0.000%
14 - Rodeo SD	0	0.000%	0	0.000%	0	0.000%
15 - RHFD	0	0.000%	0	0.000%	0	0.000%
16 - SRVFPD	0	0.000%	0	0.000%	64,010,051	100.000%
17 - Court	0	0.000%	0	0.000%	0	0.000%
18 - DDSD (Term)	0	0.000%	0	0.000%	0	0.000%
19 - DWD (Term)	0	0.000%	0	0.000%	0	0.000%
20 - Pittsburg (Term)	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>	<u>0</u>	0.000%
Total	\$166,921,439	100.000%	\$33,636,062	100.000%	\$64,010,051	100.000%

Determination of Proportionate Share (continued)

PART TWO - Allocation of December 31, 2018 Net Pension Liability (NPL)

Including Pension Obligation Bonds (POB) and UAAL Prepayments for Certain Employers (continued)

1 - BIMID \$0 0.000% \$0 0.000% \$383,118 0.027% 0.027% 2 - Union Cemetery 0 0.000% 0 0.000% 52,348 0.004% 0.004% 3 - CC Mosquito 0 0.000% 0 0.000% 4,737,389 0.332% 0.334% 4 - CCCFPD 0 0.000% 0 0.000% 160,817,317 11.261% 11.352% 5 - CCCSD 0 0.000% 0 0.000% 90,430,104 6.332% 6.383% 6 - First 5 0 0.000% 0 0.000% 2,881,759 0.202% 0.203% 7 - County 0 0.000% 0 0.000% 976,031,747 68.347% 68.898% 8 - CCCERA (the Employer) 0 0.000% 0 0.000% 7,315,532 0.512% 0.516% 9 - ECCFPD 0 0.000% 0 0.000% 10,796,497 0.756% 0.762% 11 - IHSS 0 0.000% 0 0.000% 10,	Employer	Cost Group #12	Cost Group #12 Percentage	Terminated Employers	Terminated Employers Percentage	Total NPL	Total Percentage	Total Percentage Excluding Terminated Employers ¹
3 - CC Mosquito 0 0.000% 0 0.000% 4,737,389 0.332% 0.334% 4 - CCCFPD 0 0.000% 0 0.000% 160,817,317 11.261% 11.352% 5 - CCCSD 0 0.000% 0 0.000% 90,430,104 6.332% 6.383% 6 - First 5 0 0.000% 0 0.000% 2,881,759 0.202% 0.203% 7 - County 0 0.000% 0 0.000% 976,031,747 68.347% 68.898% 8 - CCCERA (the Employer) 0 0.000% 0 0.000% 7,315,532 0.512% 0.516% 9 - ECCFPD 0 0.000% 0 0.000% 18,245,316 1.278% 1.288% 10 - Housing Authority 0 0.000% 0 0.000% 10,796,497 0.756% 0.762% 11 - IHSS 0 0.000% 0 0.000% 10,796,497 0.756% 0.02% 12 - LAFCO 0 0.000% 0 0.000%	1 - BIMID	\$0	0.000%	\$0	0.000%	\$383,118	0.027%	0.027%
4 - CCCFPD 0 0.000% 0 0.000% 160,817,317 11.261% 11.352% 5 - CCCSD 0 0.000% 0 0.000% 90,430,104 6.332% 6.383% 6 - First 5 0 0.000% 0 0.000% 2,881,759 0.202% 0.203% 7 - County 0 0.000% 0 0.000% 976,031,747 68.347% 68.898% 8 - CCCERA (the Employer) 0 0.000% 0 0.000% 7,315,532 0.512% 0.516% 9 - ECCFPD 0 0.000% 0 0.000% 18,245,316 1.278% 1.288% 10 - Housing Authority 0 0.000% 0 0.000% 10,796,497 0.756% 0.762% 11 - IHSS 0 0.000% 0 0.000% 1,309,899 0.092% 0.092% 12 - LAFCO 0 0.000% 0 0.000% 304,195 0.021% 0.021% 13 - MOFD 0 0.000% 0 0.000% 34,	2 - Union Cemetery	0	0.000%	0	0.000%	52,348	0.004%	0.004%
5 - CCCSD 0 0.000% 0 0.000% 90,430,104 6.332% 6.383% 6 - First 5 0 0.000% 0 0.000% 2,881,759 0.202% 0.203% 7 - County 0 0.000% 0 0.000% 976,031,747 68.347% 68.898% 8 - CCCERA (the Employer) 0 0.000% 0 0.000% 7,315,532 0.512% 0.516% 9 - ECCFPD 0 0.000% 0 0.000% 18,245,316 1.278% 1.288% 10 - Housing Authority 0 0.000% 0 0.000% 10,796,497 0.756% 0.762% 11 - IHSS 0 0.000% 0 0.000% 13,09,899 0.092% 0.092% 12 - LAFCO 0 0.000% 0 0.000% 304,195 0.021% 0.021% 13 - MOFD 0 0.000% 0 0.000% 34,418,805 2.410% 2.430% 14 - Rodeo SD 0 0.000% 0 0.000% 187	3 - CC Mosquito	0	0.000%	0	0.000%	4,737,389	0.332%	0.334%
6 - First 5 0 0.000% 0 0.000% 2,881,759 0.202% 0.203% 7 - County 0 0.000% 0 0.000% 976,031,747 68.347% 68.898% 8 - CCCERA (the Employer) 0 0.000% 0 0.000% 7,315,532 0.512% 0.516% 9 - ECCFPD 0 0.000% 0 0.000% 18,245,316 1.278% 1.288% 10 - Housing Authority 0 0.000% 0 0.000% 10,796,497 0.756% 0.762% 11 - IHSS 0 0.000% 0 0.000% 1,309,899 0.092% 0.092% 12 - LAFCO 0 0.000% 0 0.000% 304,195 0.021% 0.021% 13 - MOFD 0 0.000% 0 0.000% 34,418,805 2.410% 2.430% 14 - Rodeo SD 0 0.000% 0 0.000% 187,143 0.013% 0.013% 15 - RHFD 11,613,459 100.000% 0 0.000%	4 - CCCFPD	0	0.000%	0	0.000%	160,817,317	11.261%	11.352%
7 - County 0 0.000% 0 0.000% 976,031,747 68.347% 68.898% 8 - CCCERA (the Employer) 0 0.000% 0 0.000% 7,315,532 0.512% 0.516% 9 - ECCFPD 0 0.000% 0 0.000% 18,245,316 1.278% 1.288% 10 - Housing Authority 0 0.000% 0 0.000% 10,796,497 0.756% 0.762% 11 - IHSS 0 0.000% 0 0.000% 1,309,899 0.092% 0.092% 12 - LAFCO 0 0.000% 0 0.000% 304,195 0.021% 0.021% 13 - MOFD 0 0.000% 0 0.000% 34,418,805 2.410% 2.430% 14 - Rodeo SD 0 0.000% 0 0.000% 187,143 0.013% 0.013% 15 - RHFD 11,613,459 100.000% 0 0.000% 11,716,980 0.820% 0.827% 16 - SRVFPD 0 0.000% 0 0.000%	5 - CCCSD	0	0.000%	0	0.000%	90,430,104	6.332%	6.383%
8 - CCCERA (the Employer) 0 0.000% 0 0.000% 7,315,532 0.512% 0.516% 9 - ECCFPD 0 0.000% 0 0.000% 18,245,316 1.278% 1.288% 10 - Housing Authority 0 0.000% 0 0.000% 10,796,497 0.756% 0.762% 11 - IHSS 0 0.000% 0 0.000% 1,309,899 0.092% 0.092% 12 - LAFCO 0 0.000% 0 0.000% 304,195 0.021% 0.021% 13 - MOFD 0 0.000% 0 0.000% 34,418,805 2.410% 2.430% 14 - Rodeo SD 0 0.000% 0 0.000% 187,143 0.013% 0.013% 15 - RHFD 11,613,459 100.000% 0 0.000% 11,716,980 0.820% 0.827% 16 - SRVFPD 0 0.000% 0 0.000% 69,577,960 4.872% 4.912% 17 - Court 0 0.000% 0 0.000% 27,420,745 1.920% 1.936% 18 - DDSD (Term)² 0 0.00	6 - First 5	0	0.000%	0	0.000%	2,881,759	0.202%	0.203%
9 - ECCFPD 0 0.000% 0 0.000% 18,245,316 1.278% 1.288% 10 - Housing Authority 0 0.000% 0 0.000% 10,796,497 0.756% 0.762% 11 - IHSS 0 0.000% 0 0.000% 1,309,899 0.092% 0.092% 12 - LAFCO 0 0.000% 0 0.000% 304,195 0.021% 0.021% 13 - MOFD 0 0.000% 0 0.000% 34,418,805 2.410% 2.430% 14 - Rodeo SD 0 0.000% 0 0.000% 187,143 0.013% 0.013% 15 - RHFD 11,613,459 100.000% 0 0.000% 11,716,980 0.820% 0.827% 16 - SRVFPD 0 0.000% 0 0.000% 69,577,960 4.872% 4.912% 17 - Court 0 0.000% 0 0.000% 27,420,745 1.920% 1.936% 18 - DDSD (Term)² 0 0.000% 2,433,196 21.312%	7 - County	0	0.000%	0	0.000%	976,031,747	68.347%	68.898%
10 - Housing Authority 0 0.000% 0 0.000% 10,796,497 0.756% 0.762% 11 - IHSS 0 0.000% 0 0.000% 1,309,899 0.092% 0.092% 12 - LAFCO 0 0.000% 0 0.000% 304,195 0.021% 0.021% 13 - MOFD 0 0.000% 0 0.000% 34,418,805 2.410% 2.430% 14 - Rodeo SD 0 0.000% 0 0.000% 187,143 0.013% 0.013% 15 - RHFD 11,613,459 100.000% 0 0.000% 11,716,980 0.820% 0.827% 16 - SRVFPD 0 0.000% 0 0.000% 69,577,960 4.872% 4.912% 17 - Court 0 0.000% 0 0.000% 27,420,745 1.920% 1.936% 18 - DDSD (Term)² 0 0.000% 2,433,196 21.312% 2,433,196 0.170% N/A 19 - DWD (Term)² 0 0.000% 7,949,368 69.626% </th <td>8 - CCCERA (the Employer)</td> <td>0</td> <td>0.000%</td> <td>0</td> <td>0.000%</td> <td>7,315,532</td> <td>0.512%</td> <td>0.516%</td>	8 - CCCERA (the Employer)	0	0.000%	0	0.000%	7,315,532	0.512%	0.516%
11 - IHSS 0 0.000% 0 0.000% 1,309,899 0.092% 0.092% 12 - LAFCO 0 0.000% 0 0.000% 304,195 0.021% 0.021% 13 - MOFD 0 0.000% 0 0.000% 34,418,805 2.410% 2.430% 14 - Rodeo SD 0 0.000% 0 0.000% 187,143 0.013% 0.013% 15 - RHFD 11,613,459 100.000% 0 0.000% 11,716,980 0.820% 0.827% 16 - SRVFPD 0 0.000% 0 0.000% 69,577,960 4.872% 4.912% 17 - Court 0 0.000% 0 0.000% 27,420,745 1.920% 1.936% 18 - DDSD (Term)² 0 0.000% 2,433,196 21.312% 2,433,196 0.170% N/A 19 - DWD (Term)² 0 0.000% 7,949,368 69.626% 7,949,368 0.557% N/A	9 - ECCFPD	0	0.000%	0	0.000%	18,245,316	1.278%	1.288%
12 - LAFCO 0 0.000% 0 0.000% 304,195 0.021% 0.021% 13 - MOFD 0 0.000% 0 0.000% 34,418,805 2.410% 2.430% 14 - Rodeo SD 0 0.000% 0 0.000% 187,143 0.013% 0.013% 15 - RHFD 11,613,459 100.000% 0 0.000% 11,716,980 0.820% 0.827% 16 - SRVFPD 0 0.000% 0 0.000% 69,577,960 4.872% 4.912% 17 - Court 0 0.000% 0 0.000% 27,420,745 1.920% 1.936% 18 - DDSD (Term)² 0 0.000% 2,433,196 21.312% 2,433,196 0.170% N/A 19 - DWD (Term)² 0 0.000% 1,034,726 9.063% 1,034,726 0.072% N/A 20 - Pittsburg (Term)² 0 0.000% 7,949,368 69.626% 7,949,368 0.557% N/A	10 - Housing Authority	0	0.000%	0	0.000%	10,796,497	0.756%	0.762%
13 - MOFD 0 0.000% 0 0.000% 34,418,805 2.410% 2.430% 14 - Rodeo SD 0 0.000% 0 0.000% 187,143 0.013% 0.013% 15 - RHFD 11,613,459 100.000% 0 0.000% 11,716,980 0.820% 0.827% 16 - SRVFPD 0 0.000% 0 0.000% 69,577,960 4.872% 4.912% 17 - Court 0 0.000% 0 0.000% 27,420,745 1.920% 1.936% 18 - DDSD (Term)² 0 0.000% 2,433,196 21.312% 2,433,196 0.170% N/A 19 - DWD (Term)² 0 0.000% 1,034,726 9.063% 1,034,726 0.072% N/A 20 - Pittsburg (Term)² 0 0.000% 7,949,368 69.626% 7,949,368 0.557% N/A	11 - IHSS	0	0.000%	0	0.000%	1,309,899	0.092%	0.092%
14 - Rodeo SD 0 0.000% 0 0.000% 187,143 0.013% 0.013% 15 - RHFD 11,613,459 100.000% 0 0.000% 11,716,980 0.820% 0.827% 16 - SRVFPD 0 0.000% 0 0.000% 69,577,960 4.872% 4.912% 17 - Court 0 0.000% 0 0.000% 27,420,745 1.920% 1.936% 18 - DDSD (Term)² 0 0.000% 2,433,196 21.312% 2,433,196 0.170% N/A 19 - DWD (Term)² 0 0.000% 1,034,726 9.063% 1,034,726 0.072% N/A 20 - Pittsburg (Term)² 0 0.000% 7,949,368 69.626% 7,949,368 0.557% N/A	12 - LAFCO	0	0.000%	0	0.000%	304,195	0.021%	0.021%
15 - RHFD 11,613,459 100.000% 0 0.000% 11,716,980 0.820% 0.827% 16 - SRVFPD 0 0.000% 0 0.000% 69,577,960 4.872% 4.912% 17 - Court 0 0.000% 0 0.000% 27,420,745 1.920% 1.936% 18 - DDSD (Term)² 0 0.000% 2,433,196 21.312% 2,433,196 0.170% N/A 19 - DWD (Term)² 0 0.000% 1,034,726 9.063% 1,034,726 0.072% N/A 20 - Pittsburg (Term)² 0 0.000% 7,949,368 69.626% 7,949,368 0.557% N/A	13 - MOFD	0	0.000%	0	0.000%	34,418,805	2.410%	2.430%
16 - SRVFPD 0 0.000% 0 0.000% 69,577,960 4.872% 4.912% 17 - Court 0 0.000% 0 0.000% 27,420,745 1.920% 1.936% 18 - DDSD (Term)² 0 0.000% 2,433,196 21.312% 2,433,196 0.170% N/A 19 - DWD (Term)² 0 0.000% 1,034,726 9.063% 1,034,726 0.072% N/A 20 - Pittsburg (Term)² 0 0.000% 7,949,368 69.626% 7,949,368 0.557% N/A	14 - Rodeo SD	0	0.000%	0	0.000%	187,143	0.013%	0.013%
17 - Court 0 0.000% 0 0.000% 27,420,745 1.920% 1.936% 18 - DDSD (Term)² 0 0.000% 2,433,196 21.312% 2,433,196 0.170% N/A 19 - DWD (Term)² 0 0.000% 1,034,726 9.063% 1,034,726 0.072% N/A 20 - Pittsburg (Term)² 0 0.000% 7,949,368 69.626% 7,949,368 0.557% N/A	15 - RHFD	11,613,459	100.000%	0	0.000%	11,716,980	0.820%	0.827%
18 - DDSD (Term)² 0 0.000% 2,433,196 21.312% 2,433,196 0.170% N/A 19 - DWD (Term)² 0 0.000% 1,034,726 9.063% 1,034,726 0.072% N/A 20 - Pittsburg (Term)² 0 0.000% 7,949,368 69.626% 7,949,368 0.557% N/A	16 - SRVFPD	0	0.000%	0	0.000%	69,577,960	4.872%	4.912%
19 - DWD (Term)² 0 0.000% 1,034,726 9.063% 1,034,726 0.072% N/A 20 - Pittsburg (Term)² 0 0.000% 7,949,368 69.626% 7,949,368 0.557% N/A	17 - Court	0	0.000%	0	0.000%	27,420,745	1.920%	1.936%
20 - Pittsburg (Term) ² <u>0</u> <u>0.000%</u> <u>7,949,368</u> <u>69.626%</u> <u>7,949,368</u> <u>0.557%</u> <u>N/A</u>	18 - DDSD (Term) ²	0	0.000%	2,433,196	21.312%	2,433,196	0.170%	N/A
	19 - DWD (Term) ²	0	0.000%	1,034,726	9.063%	1,034,726	0.072%	N/A
Total \$11,613,459 100.000% \$11,417,290 100.000% \$1,428,044,144 100.000% 100.000%	20 - Pittsburg (Term) ²	<u>0</u>	<u>0.000%</u>	<u>7,949,368</u>	<u>69.626%</u>	<u>7,949,368</u>	<u>0.557%</u>	<u>N/A</u>
	Total	\$11,613,459	100.000%	\$11,417,290	100.000%	\$1,428,044,144	100.000%	100.000%

Note: Results may not add due to rounding.

² The NPLs for the three terminated employers are determined based on the Plan's Fiduciary Net Positions from the December 31, 2018 bookkeeping account letters and the TPLs obtained from internal valuation results (by rolling forward their TPLs from December 31, 2017).



Total

¹ For informational purposes; these percentages show the allocation of the NPL for employers excluding terminated employers.

Determination of Proportionate Share (continued)

Notes Regarding Determination of Proportionate Share as of December 31, 2018 Measurement Date

- 1. Based on actual January 1, 2018 through December 31, 2018 compensation information that was provided by CCCERA.
- 2. The Net Pension Liability (NPL) for each Cost Group is the Total Pension Liability (TPL) minus the Plan's Fiduciary Net Position (plan assets). The TPL for each Cost Group is obtained from internal valuation results based on the actual participants in each Cost Group. The Plan's Fiduciary Net Position for each Cost Group was determined by adjusting the Valuation Value of Assets (VVA) for each Cost Group (which is used to determine employer contribution rates) by the ratio of the total CCCERA Plan's Fiduciary Net Position (excluding the terminated employers' assets and the Post Retirement Death Benefit reserve) to total CCCERA VVA (excluding the terminated employers' VVA). The Post Retirement Death Benefit reserve is allocated to Cost Groups #1 and #2. The liability for the post-retirement death benefit up to the amount in the Post Retirement Death Benefit reserve is also allocated to Cost Groups #1 and #2.
- 3. For terminated employers, the TPL is obtained from internal valuation results for each employer. The Plan's Fiduciary Net Position for each terminated employer has been set equal to the amount in their respective bookkeeping account. The NPL is then determined separately for each terminated employer.
- 4. For Cost Groups that have one employer, all of the NPL for that Cost Group is allocated to the corresponding employer. The NPL has already been reduced by any proceeds from Pension Obligation Bonds and any UAAL prepayments.
- 5. For Cost Groups that have multiple employers, the NPL is allocated based on the actual compensation within the Cost Group.
 - a. Calculate ratio of employer's compensation to the total compensation for the Cost Group.
 - b. Multiply this ratio by an "adjusted" NPL. This adjusted NPL is larger than the actual NPL as it excludes proceeds from Pension Obligation Bonds and any Unfunded Actuarial Accrued Liability (UAAL) prepayments from the Cost Group's assets when determining the employer's proportionate share of the NPL for the Cost Group. It also excludes the NPLs for the three terminated employers. The allocation of the adjusted NPL is shown above in PART ONE of the Determination of Proportionate Share Schedule.
 - c. The amounts of the proceeds from Pension Obligation Bonds and UAAL prepayments as of December 31, 2018 allocated to those employers within each Cost Group are as follows:

Cost Group #1: County	\$210,809,597	Cost Group #1: LAFCO	\$30,535
Cost Group #1: Court	\$8,656,015	Cost Group #1: First 5	\$814,898
Cost Group #1: MOFD	\$339,085	Cost Group #8: CCCFPD	\$61,642,383

Note that the proceeds from Pension Obligation Bonds for Contra Costa County and the Superior Court as of December 31, 2018 (total of \$219,465,612) were allocated proportionally based on the compensation information.

Determination of Proportionate Share (continued)

Notes Regarding Determination of Proportionate Share as of December 31, 2018 Measurement Date (continued)

- d. Subtract from the adjusted NPL in PART ONE the outstanding balance of the proceeds from any Pension Obligation Bonds and any UAAL prepayments for those employers in each Cost Group that are subject to these adjustments. The resulting actual NPL is shown in PART TWO of the Determination of Proportionate Share Schedule.
- 6. If an employer is in several Cost Groups, the employer's total allocated NPL is the sum of its allocated NPL from each Cost Group.
- 7. Cost Group #1 and Cost Group #2 were combined and Cost Group #7 and Cost Group #9 were combined consistent with the determination of the UAAL rate in the annual funding actuarial valuation.

The following items are allocated based on the corresponding employer allocation percentage or proportionate share shown above after excluding the terminated employers.

- Net Pension Liability
- Service Cost
- Interest on the Total Pension Liability
- Benefit changes
- Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability
- Expensed portion of current-period changes of assumptions or other inputs
- Member contributions
- Projected earnings on plan investments
- Expensed portion of current-period differences between actual and projected earnings on plan investments
- Administrative expense
- Other expenses
- Recognition of beginning of year deferred outflows of resources as pension expense
- Recognition of beginning of year deferred inflows of resources as pension expense

Pension Expense

Total for All Employers

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Service cost	\$231,469,293	\$229,098,552
Interest on the Total Pension Liability	678,035,229	647,734,058
 Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions 	0	0
Benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	26,578,469	11,565,173
Expensed portion of current-period changes of assumptions or other inputs	0	(20,222,957)
Member contributions ¹	(108,487,711)	(103,541,529)
Projected earnings on plan investments	(568,344,712)	(585,734,855)
 Expensed portion of current-period differences between projected and actual earnings on plan investments 	(119,965,375)	156,153,149
Administrative expense	10,200,473	9,337,053
Other expenses	1,109,846	3,631,688
Recognition of beginning of year deferred outflows of resources as pension expense	261,557,550	101,497,331
Recognition of beginning of year deferred inflows of resources as pension expense	(133,174,673)	(146,170,612)
 Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions 	<u>0</u>	<u>0</u>
Pension Expense	\$278,978,389	\$303,347,051



¹ Includes "employer subvention of member contributions" and excludes "member subvention of employer contributions".

Pension Expense (continued)

1 - BIMID

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Service cost	\$60,175	\$61,958
Interest on the Total Pension Liability	175,146	173,997
 Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions 	1,123	20,236
Benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	6,879	3,101
Expensed portion of current-period changes of assumptions or other inputs	0	(5,467)
Member contributions ¹	(28,204)	(28,002)
Projected earnings on plan investments	(146,840)	(157,353)
 Expensed portion of current-period differences between projected and actual earnings on plan investments 	(30,990)	41,951
Administrative expense	2,652	2,525
Other expenses	289	982
Recognition of beginning of year deferred outflows of resources as pension expense	67,665	27,413
Recognition of beginning of year deferred inflows of resources as pension expense	(34,441)	(39,348)
 Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions 	<u>51,398</u>	<u> 28,730</u>
Pension Expense	\$124,852	\$130,723



¹ Includes "employer subvention of member contributions" and excludes "member subvention of employer contributions".

Pension Expense (continued)

2 - Union Cemetery

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Service cost	\$(39,878)	\$8,466
Interest on the Total Pension Liability	(116,068)	23,774
 Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions 	(25,512)	8,905
Benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	(4,559)	424
Expensed portion of current-period changes of assumptions or other inputs	0	(747)
Member contributions ¹	18,690	(3,826)
Projected earnings on plan investments	97,310	(21,500)
 Expensed portion of current-period differences between projected and actual earnings on plan investments 	20,537	5,732
Administrative expense	(1,757)	345
Other expenses	(191)	134
Recognition of beginning of year deferred outflows of resources as pension expense	(44,841)	3,746
Recognition of beginning of year deferred inflows of resources as pension expense	22,824	(5,376)
 Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions 	<u>19,776</u>	<u>27,880</u>
Pension Expense	\$(53,669)	\$47,957

¹ Includes "employer subvention of member contributions" and excludes "member subvention of employer contributions".

Pension Expense (continued)

3 - CC Mosquito

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Service cost	\$758,916	\$766,137
Interest on the Total Pension Liability	2,208,901	2,151,528
 Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions 	21,425	(58,408)
Benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	86,763	38,339
Expensed portion of current-period changes of assumptions or other inputs	0	(67,596)
Member contributions ¹	(355,696)	(346,257)
Projected earnings on plan investments	(1,851,911)	(1,945,725)
 Expensed portion of current-period differences between projected and actual earnings on plan investments 	(390,842)	518,738
Administrative expense	33,444	31,224
Other expenses	3,639	12,145
Recognition of beginning of year deferred outflows of resources as pension expense	853,379	338,970
Recognition of beginning of year deferred inflows of resources as pension expense	(434,363)	(486,551)
 Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions 	<u>(76,553)</u>	<u>(68,744)</u>
Pension Expense	\$857,102	\$883,800



¹ Includes "employer subvention of member contributions" and excludes "member subvention of employer contributions".

Pension Expense (continued)

4 - CCCFPD

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Service cost	\$31,265,919	\$26,007,565
Interest on the Total Pension Liability	91,002,457	73,036,651
 Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions 	1,622,073	(7,439,424)
Benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	3,574,449	1,301,475
Expensed portion of current-period changes of assumptions or other inputs	0	(2,294,635)
Member contributions ¹	(14,654,009)	(11,754,169)
Projected earnings on plan investments	(76,295,153)	(66,050,349)
 Expensed portion of current-period differences between projected and actual earnings on plan investments 	(16,101,942)	17,609,273
Administrative expense	1,377,838	1,059,954
Other expenses	149,913	412,274
Recognition of beginning of year deferred outflows of resources as pension expense	35,157,577	11,506,829
Recognition of beginning of year deferred inflows of resources as pension expense	(17,894,927)	(16,516,655)
 Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions 	(7,093,726)	<u>83,520</u>
Pension Expense	\$32,110,469	\$26,962,309



¹ Includes "employer subvention of member contributions" and excludes "member subvention of employer contributions".

Pension Expense (continued)

5 - CCCSD

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Service cost	\$17,331,576	\$14,624,463
Interest on the Total Pension Liability	50,445,216	41,069,656
 Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions 	1,136,413	(4,296,855)
Benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	1,981,417	731,840
Expensed portion of current-period changes of assumptions or other inputs	0	(1,290,309)
Member contributions ¹	(8,123,128)	(6,609,554)
Projected earnings on plan investments	(42,292,544)	(37,141,149)
 Expensed portion of current-period differences between projected and actual earnings on plan investments 	(8,925,758)	9,901,971
Administrative expense	763,774	596,029
Other expenses	83,101	231,828
Recognition of beginning of year deferred outflows of resources as pension expense	19,488,832	6,470,470
Recognition of beginning of year deferred inflows of resources as pension expense	(9,919,660)	(9,287,574)
 Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions 	(3,033,565)	<u>(101,258)</u>
Pension Expense	\$18,935,674	\$14,899,558



¹ Includes "employer subvention of member contributions" and excludes "member subvention of employer contributions".

Pension Expense (continued)

6 - First 5

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Service cost	\$400,063	\$466,040
Interest on the Total Pension Liability	1,164,421	1,308,777
 Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions 	(48,254)	107,547
Benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	45,737	23,322
Expensed portion of current-period changes of assumptions or other inputs	0	(41,119)
Member contributions ¹	(187,505)	(210,628)
Projected earnings on plan investments	(976,234)	(1,183,586)
 Expensed portion of current-period differences between projected and actual earnings on plan investments 	(206,032)	315,549
Administrative expense	17,630	18,994
Other expenses	1,918	7,388
Recognition of beginning of year deferred outflows of resources as pension expense	449,859	206,196
Recognition of beginning of year deferred inflows of resources as pension expense	(228,974)	(295,969)
 Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions 	<u>190,317</u>	<u>138,125</u>
Pension Expense	\$622,946	\$860,636



¹ Includes "employer subvention of member contributions" and excludes "member subvention of employer contributions".

Pension Expense (continued)

7 - County

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Service cost	\$151,781,600	\$157,844,999
Interest on the Total Pension Liability	441,774,922	443,273,714
 Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions 	(2,920,305)	17,217,254
Benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	17,352,300	7,898,908
Expensed portion of current-period changes of assumptions or other inputs	0	(13,926,587)
Member contributions ¹	(71,138,449)	(71,338,347)
Projected earnings on plan investments	(370,377,749)	(400,872,484)
 Expensed portion of current-period differences between projected and actual earnings on plan investments 	(78,167,494)	106,874,120
Administrative expense	6,688,768	6,433,071
Other expenses	727,761	2,502,171
Recognition of beginning of year deferred outflows of resources as pension expense	170,673,806	69,837,194
Recognition of beginning of year deferred inflows of resources as pension expense	(86,871,609)	(100,242,809)
 Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions 	<u>15,670,697</u>	<u>3,191,355</u>
Pension Expense	\$195,194,248	\$228,692,559



¹ Includes "employer subvention of member contributions" and excludes "member subvention of employer contributions".

Pension Expense (continued)

8 - CCCERA (the employer)

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Service cost	\$1,223,672	\$1,183,076
Interest on the Total Pension Liability	3,561,615	3,322,416
 Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions 	85,016	17,163
Benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	139,895	59,204
Expensed portion of current-period changes of assumptions or other inputs	0	(104,382)
Member contributions ¹	(573,522)	(534,694)
Projected earnings on plan investments	(2,986,007)	(3,004,611)
 Expensed portion of current-period differences between projected and actual earnings on plan investments 	(630,191)	801,041
Administrative expense	53,925	48,217
Other expenses	5,867	18,754
Recognition of beginning of year deferred outflows of resources as pension expense	1,375,982	523,442
Recognition of beginning of year deferred inflows of resources as pension expense	(700,364)	(751,338)
 Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions 	<u>213,842</u>	<u>188,479</u>
Pension Expense	\$1,769,730	\$1,766,767



¹ Includes "employer subvention of member contributions" and excludes "member subvention of employer contributions".

Pension Expense (continued)

9 - ECCFPD

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Service cost	\$1,572,628	\$2,950,654
Interest on the Total Pension Liability	4,577,284	8,286,277
 Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions 	(946,278)	(1,811,053)
Benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	179,789	147,657
Expensed portion of current-period changes of assumptions or other inputs	0	(260,335)
Member contributions ¹	(737,074)	(1,333,554)
Projected earnings on plan investments	(3,837,529)	(7,493,655)
 Expensed portion of current-period differences between projected and actual earnings on plan investments 	(809,903)	1,997,837
Administrative expense	69,303	120,256
Other expenses	7,540	46,774
Recognition of beginning of year deferred outflows of resources as pension expense	1,768,372	1,305,492
Recognition of beginning of year deferred inflows of resources as pension expense	(900,087)	(1,873,875)
 Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions 	<u>(2,320,681)</u>	<u>(1,754,821)</u>
Pension Expense	\$(1,376,636)	\$327,654



¹ Includes "employer subvention of member contributions" and excludes "member subvention of employer contributions".

Pension Expense (continued)

10 - Housing Authority

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Service cost	\$1,709,668	\$1,746,022
Interest on the Total Pension Liability	4,976,147	4,903,328
 Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions 	(80,284)	(85,560)
Benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	195,456	87,375
Expensed portion of current-period changes of assumptions or other inputs	0	(154,051)
Member contributions ¹	(801,303)	(789,118)
Projected earnings on plan investments	(4,171,930)	(4,434,301)
 Expensed portion of current-period differences between projected and actual earnings on plan investments 	(880,478)	1,182,201
Administrative expense	75,342	71,160
Other expenses	8,197	27,678
Recognition of beginning of year deferred outflows of resources as pension expense	1,922,468	772,513
Recognition of beginning of year deferred inflows of resources as pension expense	(978,521)	(1,108,848)
 Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions 	<u>(6,767)</u>	<u>64,550</u>
Pension Expense	\$1,967,995	\$2,282,949

¹ Includes "employer subvention of member contributions" and excludes "member subvention of employer contributions".

Pension Expense (continued)

11 - IHSS

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Service cost	\$215,966	\$211,837
Interest on the Total Pension Liability	628,593	594,903
 Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions 	9,374	(7,196)
Benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	24,690	10,601
Expensed portion of current-period changes of assumptions or other inputs	0	(18,690)
Member contributions ¹	(101,221)	(95,741)
Projected earnings on plan investments	(527,003)	(537,997)
 Expensed portion of current-period differences between projected and actual earnings on plan investments 	(111,223)	143,432
Administrative expense	9,517	8,634
Other expenses	1,036	3,358
Recognition of beginning of year deferred outflows of resources as pension expense	242,848	93,726
Recognition of beginning of year deferred inflows of resources as pension expense	(123,608)	(134,532)
 Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions 	<u>33,812</u>	<u>39,566</u>
Pension Expense	\$302,781	\$311,901



¹ Includes "employer subvention of member contributions" and excludes "member subvention of employer contributions".

Pension Expense (continued)

12 - LAFCO

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Service cost	\$35,710	\$49,194
Interest on the Total Pension Liability	103,938	138,153
 Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions 	(33)	2,051
Benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	4,083	2,462
Expensed portion of current-period changes of assumptions or other inputs	0	(4,340)
Member contributions ¹	(16,737)	(22,234)
Projected earnings on plan investments	(87,140)	(124,938)
 Expensed portion of current-period differences between projected and actual earnings on plan investments 	(18,391)	33,309
Administrative expense	1,574	2,005
Other expenses	171	780
Recognition of beginning of year deferred outflows of resources as pension expense	40,155	21,766
Recognition of beginning of year deferred inflows of resources as pension expense	(20,439)	(31,242)
 Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions 	<u>18</u>	<u>(4,742)</u>
Pension Expense	\$42,909	\$62,224



¹ Includes "employer subvention of member contributions" and excludes "member subvention of employer contributions".

Pension Expense (continued)

13 - MOFD

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Service cost	\$7,226,468	\$5,566,249
Interest on the Total Pension Liability	21,033,320	15,631,614
 Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions 	568,963	(1,696,380)
Benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	826,159	278,547
Expensed portion of current-period changes of assumptions or other inputs	0	(491,107)
Member contributions ¹	(3,386,969)	(2,515,677)
Projected earnings on plan investments	(17,634,034)	(14,136,376)
 Expensed portion of current-period differences between projected and actual earnings on plan investments 	(3,721,628)	3,768,811
Administrative expense	318,458	226,856
Other expenses	34,649	88,237
Recognition of beginning of year deferred outflows of resources as pension expense	8,125,941	2,462,740
Recognition of beginning of year deferred inflows of resources as pension expense	(4,136,039)	(3,534,965)
 Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions 	(2,389,698)	<u>(1,199,925)</u>
Pension Expense	\$6,865,590	\$4,448,624



¹ Includes "employer subvention of member contributions" and excludes "member subvention of employer contributions".

Pension Expense (continued)

14 - Rodeo SD

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Service cost	\$(135,431)	\$30,264
Interest on the Total Pension Liability	(394,183)	84,993
 Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions 	(86,807)	30,323
Benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	(15,483)	1,515
Expensed portion of current-period changes of assumptions or other inputs	0	(2,670)
Member contributions ¹	63,475	(13,678)
Projected earnings on plan investments	330,477	(76,863)
 Expensed portion of current-period differences between projected and actual earnings on plan investments 	69,747	20,492
Administrative expense	(5,968)	1,233
Other expenses	(649)	480
Recognition of beginning of year deferred outflows of resources as pension expense	(152,287)	13,390
Recognition of beginning of year deferred inflows of resources as pension expense	77,513	(19,220)
 Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions 	<u>78,164</u>	<u>93,973</u>
Pension Expense	\$(171,432)	\$164,232



¹ Includes "employer subvention of member contributions" and excludes "member subvention of employer contributions".

Pension Expense (continued)

15 – RHFD

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Service cost	\$2,439,330	\$1,894,884
Interest on the Total Pension Liability	7,099,900	5,321,373
 Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions 	50,959	(1,389,022)
Benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	278,874	94,824
Expensed portion of current-period changes of assumptions or other inputs	0	(167,185)
Member contributions ¹	(1,143,288)	(856,396)
Projected earnings on plan investments	(5,952,454)	(4,812,359)
 Expensed portion of current-period differences between projected and actual earnings on plan investments 	(1,256,254)	1,282,993
Administrative expense	107,497	77,227
Other expenses	11,696	30,038
Recognition of beginning of year deferred outflows of resources as pension expense	2,742,951	838,375
Recognition of beginning of year deferred inflows of resources as pension expense	(1,396,140)	(1,203,386)
 Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions 	<u>(1,313,432)</u>	<u>(514,333)</u>
Pension Expense	\$1,669,639	\$597,033



¹ Includes "employer subvention of member contributions" and excludes "member subvention of employer contributions".

Pension Expense (continued)

16 - SRVFPD

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Service cost	\$11,689,945	\$11,252,228
Interest on the Total Pension Liability	34,024,709	31,599,465
 Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions 	856,030	(1,636,227)
Benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	1,336,443	563,086
Expensed portion of current-period changes of assumptions or other inputs	0	(992,779)
Member contributions ¹	(5,478,955)	(5,085,466)
Projected earnings on plan investments	(28,525,827)	(28,576,826)
 Expensed portion of current-period differences between projected and actual earnings on plan investments 	(6,020,320)	7,618,690
Administrative expense	515,157	458,592
Other expenses	56,051	178,371
Recognition of beginning of year deferred outflows of resources as pension expense	13,144,989	4,978,454
Recognition of beginning of year deferred inflows of resources as pension expense	(6,690,695)	(7,145,966)
 Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions 	<u>(955,471)</u>	<u>(690,117)</u>
Pension Expense	\$13,952,056	\$12,521,505



¹ Includes "employer subvention of member contributions" and excludes "member subvention of employer contributions".

Pension Expense (continued)

17 - Court

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Service cost	\$3,932,966	\$4,434,516
Interest on the Total Pension Liability	11,447,272	12,453,381
 Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions 	(243,903)	1,016,646
Benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	449,633	221,913
Expensed portion of current-period changes of assumptions or other inputs	0	(391,255)
Member contributions ¹	(1,843,340)	(2,004,188)
Projected earnings on plan investments	(9,597,229)	(11,262,156)
 Expensed portion of current-period differences between projected and actual earnings on plan investments 	(2,025,476)	3,002,534
Administrative expense	173,319	180,731
Other expenses	18,858	70,296
Recognition of beginning of year deferred outflows of resources as pension expense	4,422,500	1,962,014
Recognition of beginning of year deferred inflows of resources as pension expense	(2,251,017)	(2,816,233)
 Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions 	<u>931,869</u>	<u>477,762</u>
Pension Expense	\$5,415,452	\$7,345,961

¹ Includes "employer subvention of member contributions" and excludes "member subvention of employer contributions".

Pension Expense (continued)

18 - DDSD (Term)

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Service cost	\$0	\$0
Interest on the Total Pension Liability	939,597	938,381
 Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions 	0	0
Benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	36,828	(2,652)
Expensed portion of current-period changes of assumptions or other inputs	0	5,046
Member contributions ¹	(476)	0
Projected earnings on plan investments	(757,663)	(838,762)
 Expensed portion of current-period differences between projected and actual earnings on plan investments 	(164,297)	221,774
Administrative expense	0	0
Other expenses	0	0
Recognition of beginning of year deferred outflows of resources as pension expense	293,619	66,799
Recognition of beginning of year deferred inflows of resources as pension expense	(147,272)	(144,620)
 Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions 	<u>0</u>	<u>0</u>
Pension Expense	\$200,336	\$245,966

¹ Includes "employer subvention of member contributions" and excludes "member subvention of employer contributions".

Pension Expense (continued)

19 - DWD (Term)

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Service cost	\$0	\$0
Interest on the Total Pension Liability	176,860	189,103
 Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions 	0	0
Benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	15,218	20,143
Expensed portion of current-period changes of assumptions or other inputs	0	(3,790)
Member contributions ¹	0	0
Projected earnings on plan investments	(99,625)	(124,733)
 Expensed portion of current-period differences between projected and actual earnings on plan investments 	(22,912)	32,554
Administrative expense	0	0
Other expenses	0	0
Recognition of beginning of year deferred outflows of resources as pension expense	85,568	32,871
Recognition of beginning of year deferred inflows of resources as pension expense	(27,723)	(23,933)
 Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions 	<u>0</u>	<u>0</u>
Pension Expense	\$127,386	\$122,215

¹ Includes "employer subvention of member contributions" and excludes "member subvention of employer contributions".

Pension Expense (continued)

20 - Pittsburg (Term)

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Service cost	\$0	\$0
Interest on the Total Pension Liability	3,205,182	3,232,574
 Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions 	0	0
Benefit changes	0	0
 Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability 	63,898	83,089
Expensed portion of current-period changes of assumptions or other inputs	0	(10,959)
Member contributions ¹	0	0
Projected earnings on plan investments	(2,655,627)	(2,939,132)
 Expensed portion of current-period differences between projected and actual earnings on plan investments 	(571,528)	780,147
Administrative expense	0	0
Other expenses	0	0
Recognition of beginning of year deferred outflows of resources as pension expense	898,167	34,931
Recognition of beginning of year deferred inflows of resources as pension expense	(519,131)	(508,172)
 Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions 	<u>0</u>	<u>0</u>
Pension Expense	\$420,961	\$672,478

¹ Includes "employer subvention of member contributions" and excludes "member subvention of employer contributions".

Deferred Outflows of Resources and Deferred Inflows of Resources

Total For All Employers

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Deferred Outflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$75,302,276	\$92,645,193
Changes of assumptions or other inputs	12,966	8,322,631
Net difference between projected and actual earnings on pension plan investments (if any)	0	426,567,118
Difference between actual and expected experience in the Total Pension Liability	123,232,411	41,644,407
Total Deferred Outflows of Resources	\$198,547,653	\$569,179,349
Deferred Inflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$75,302,276	\$92,645,193
Changes of assumptions or other inputs	51,985,967	72,213,970
Net difference between actual and projected earnings on pension plan investments (if any)	199,917,754	0
Difference between expected and actual experience in the Total Pension Liability	<u>12,779,453</u>	<u>30,804,038</u>
Total Deferred Inflows of Resources	\$339,985,450	\$195,663,201
Deferred outflows of resources and deferred inflows of resources related to pension will	be recognized as follow	ws:
Reporting Date for Employer under GAS 68 Year Ended June 30:		
2020	N/A	\$128,382,877
2021	\$(49,676,762)	43,710,144
2022	(43,181,988)	50,204,918
2023	57,831,303	151,218,209
2024	(106,410,350)	0
2025	0	0

¹ Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

Deferred Outflows of Resources and Deferred Inflows of Resources (continued)

1 – BIMID

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Deferred Outflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$101,937	\$152,245
Changes of assumptions or other inputs	0	2,246
Net difference between projected and actual earnings on pension plan investments (if any)	0	114,792
Difference between actual and expected experience in the Total Pension Liability	<u>31,807</u>	<u>11,069</u>
Total Deferred Outflows of Resources	\$133,744	\$280,352
Deferred Inflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$0	\$2,852
Changes of assumptions or other inputs	13,505	19,516
Net difference between actual and projected earnings on pension plan investments (if any)	51,639	0
Difference between expected and actual experience in the Total Pension Liability	<u>3,321</u>	<u>8,328</u>
Total Deferred Inflows of Resources	\$68,465	\$30,696
Deferred outflows of resources and deferred inflows of resources related to pension will	be recognized as follow	ws:
Reporting Date for Employer under GAS 68 Year Ended June 30:		
2020	N/A	\$85,961
2021	\$39,172	62,611
2022	25,439	48,947
2023	27,577	52,137
2024	(26,909)	0
2025	0	0

¹ Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

Deferred Outflows of Resources and Deferred Inflows of Resources (continued)

2 - Union Cemetery

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Deferred Outflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$26,005	\$48,042
Changes of assumptions or other inputs	0	307
Net difference between projected and actual earnings on pension plan investments (if any)	0	15,685
Difference between actual and expected experience in the Total Pension Liability	<u>(21,078)</u>	<u>1,512</u>
Total Deferred Outflows of Resources	\$4,927	\$65,546
Deferred Inflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$90,835	\$3,549
Changes of assumptions or other inputs	(8,950)	2,667
Net difference between actual and projected earnings on pension plan investments (if any)	(34,221)	0
Difference between expected and actual experience in the Total Pension Liability	<u>(2,200)</u>	<u>1,138</u>
Total Deferred Inflows of Resources	\$45,464	\$7,354
Deferred outflows of resources and deferred inflows of resources related to pension will	be recognized as follov	vs:
Reporting Date for Employer under GAS 68 Year Ended June 30:		
2020	N/A	\$24,499
2021	\$(7,373)	11,185
2022	(8,044)	11,885
2023	(30,322)	10,623
2024	5,202	0
2025	0	0

¹ Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

Deferred Outflows of Resources and Deferred Inflows of Resources (continued)

3 - CC Mosquito

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Deferred Outflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$127,895	\$94,346
Changes of assumptions or other inputs	0	27,772
Net difference between projected and actual earnings on pension plan investments (if any)	0	1,419,449
Difference between actual and expected experience in the Total Pension Liability	<u>401,140</u>	<u>136,871</u>
Total Deferred Outflows of Resources	\$529,035	\$1,678,438
Deferred Inflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$150,108	\$268,315
Changes of assumptions or other inputs	170,322	241,317
Net difference between actual and projected earnings on pension plan investments (if any)	651,256	0
Difference between expected and actual experience in the Total Pension Liability	41,878	<u>102,981</u>
Total Deferred Inflows of Resources	\$1,013,564	\$612,613
Deferred outflows of resources and deferred inflows of resources related to pension will	be recognized as follow	ws:
Reporting Date for Employer under GAS 68 Year Ended June 30:		
2020	N/A	\$350,826
2021	\$(163,595)	121,882
2022	(161,559)	124,347
2023	176,290	468,770
2024	(335,665)	0
2025	0	0

¹ Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

Deferred Outflows of Resources and Deferred Inflows of Resources (continued)

4 - CCCFPD

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Deferred Outflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$6,604,480	\$2,720,914
Changes of assumptions or other inputs	0	942,751
Net difference between projected and actual earnings on pension plan investments (if any)	0	48,185,181
Difference between actual and expected experience in the Total Pension Liability	16,526,192	4,646,267
Total Deferred Outflows of Resources	\$23,130,672	\$56,495,113
Deferred Inflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$19,953,922	\$28,857,560
Changes of assumptions or other inputs	7,016,930	8,191,846
Net difference between actual and projected earnings on pension plan investments (if any)	26,830,498	0
Difference between expected and actual experience in the Total Pension Liability	<u>1,725,275</u>	<u>3,495,840</u>
Total Deferred Inflows of Resources	\$55,526,625	\$40,545,246
Deferred outflows of resources and deferred inflows of resources related to pension will	be recognized as follow	ws:
Reporting Date for Employer under GAS 68 Year Ended June 30:		
	N/A	\$7,414,256
2021	\$(12,777,458)	(2,801,621)
2022	(11,300,096)	(1,465,470)
2023	5,133,314	12,802,702
2024	(13,451,713)	0
2025	0	0

¹ Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

Deferred Outflows of Resources and Deferred Inflows of Resources (continued)

5 - CCCSD

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Deferred Outflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$8,537,264	\$7,636,777
Changes of assumptions or other inputs	0	530,124
Net difference between projected and actual earnings on pension plan investments (if any)	0	27,095,284
Difference between actual and expected experience in the Total Pension Liability	<u>9,160,932</u>	<u>2,612,669</u>
Total Deferred Outflows of Resources	\$17,698,196	\$37,874,854
Deferred Inflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$11,042,919	\$17,164,806
Changes of assumptions or other inputs	3,889,681	4,606,404
Net difference between actual and projected earnings on pension plan investments (if any)	14,872,898	0
Difference between expected and actual experience in the Total Pension Liability	<u>956,369</u>	<u>1,965,766</u>
Total Deferred Inflows of Resources	\$30,761,867	\$23,736,976
Deferred outflows of resources and deferred inflows of resources related to pension will I	be recognized as follow	vs:
Reporting Date for Employer under GAS 68 Year Ended June 30:		
2020	N/A	\$5,124,501
2021	\$(3,928,236)	1,403,504
2022	(4,783,965)	475,439
2023	2,984,195	7,134,434
2024	(7,335,665)	0
2025	0	0

¹ Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

Deferred Outflows of Resources and Deferred Inflows of Resources (continued)

6 - First 5

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Deferred Outflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$300,603	\$495,162
Changes of assumptions or other inputs	0	16,894
Net difference between projected and actual earnings on pension plan investments (if any)	0	863,452
Difference between actual and expected experience in the Total Pension Liability	<u>211,461</u>	<u>83,259</u>
Total Deferred Outflows of Resources	\$512,064	\$1,458,767
Deferred Inflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$176,074	\$10,945
Changes of assumptions or other inputs	89,785	146,793
Net difference between actual and projected earnings on pension plan investments (if any)	343,309	0
Difference between expected and actual experience in the Total Pension Liability	<u>22,076</u>	<u>62,644</u>
Total Deferred Inflows of Resources	\$631,244	\$220,382
Deferred outflows of resources and deferred inflows of resources related to pension will	be recognized as follow	ws:
Reporting Date for Employer under GAS 68 Year Ended June 30:		
2020	N/A	\$450,292
2021	\$(6,500)	215,241
2022	(17,601)	206,143
2023	112,236	366,709
2024	(207,315)	0
2025	0	0

¹ Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

Deferred Outflows of Resources and Deferred Inflows of Resources (continued)

7 - County

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Deferred Outflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$45,513,306	\$67,617,522
Changes of assumptions or other inputs	0	5,721,740
Net difference between projected and actual earnings on pension plan investments (if any)	0	292,445,286
Difference between actual and expected experience in the Total Pension Liability	80,227,033	<u>28,199,103</u>
Total Deferred Outflows of Resources	\$125,740,339	\$393,983,651
Deferred Inflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$20,415,227	\$16,598,469
Changes of assumptions or other inputs	34,063,958	49,717,915
Net difference between actual and projected earnings on pension plan investments (if any)	130,249,683	0
Difference between expected and actual experience in the Total Pension Liability	<u>8,375,413</u>	<u>21,216,932</u>
Total Deferred Inflows of Resources	\$193,104,281	\$87,533,316
Deferred outflows of resources and deferred inflows of resources related to pension will	be recognized as follow	ws:
Reporting Date for Employer under GAS 68 Year Ended June 30:		
2020	N/A	\$103,722,474
2021	\$(23,407,139)	41,762,411
2022	(17,674,122)	47,713,271
2023	44,524,504	113,252,179
2024	(70,807,185)	0
2025	0	0



¹ Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

Deferred Outflows of Resources and Deferred Inflows of Resources (continued)

8 - CCCERA (the Employer)

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Deferred Outflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$658,195	\$582,902
Changes of assumptions or other inputs	0	42,885
Net difference between projected and actual earnings on pension plan investments (if any)	0	2,191,930
Difference between actual and expected experience in the Total Pension Liability	646,795	<u>211,357</u>
Total Deferred Outflows of Resources	\$1,304,990	\$3,029,074
Deferred Inflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$0	\$9,271
Changes of assumptions or other inputs	274,626	372,645
Net difference between actual and projected earnings on pension plan investments (if any)	1,050,080	0
Difference between expected and actual experience in the Total Pension Liability	<u>67,523</u>	<u>159,025</u>
Total Deferred Inflows of Resources	\$1,392,229	\$540,941
Deferred outflows of resources and deferred inflows of resources related to pension will	be recognized as follow	ws:
Reporting Date for Employer under GAS 68 Year Ended June 30:		
2020	N/A	\$873,806
2021	\$41,689	441,686
2022	(11,624)	387,571
2023	398,182	785,070
2024	(515,486)	0
2025	0	0



¹ Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

Deferred Outflows of Resources and Deferred Inflows of Resources (continued)

9 - ECCFPD

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Deferred Outflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$617,470	\$1,084,092
Changes of assumptions or other inputs	0	106,959
Net difference between projected and actual earnings on pension plan investments (if any)	0	5,466,786
Difference between actual and expected experience in the Total Pension Liability	<u>831,242</u>	<u>527,136</u>
Total Deferred Outflows of Resources	\$1,448,712	\$7,184,973
Deferred Inflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$7,975,841	\$7,441,710
Changes of assumptions or other inputs	352,941	929,395
Net difference between actual and projected earnings on pension plan investments (if any)	1,349,533	0
Difference between expected and actual experience in the Total Pension Liability	<u>86,779</u>	<u>396,616</u>
Total Deferred Inflows of Resources	\$9,765,094	\$8,767,721
Deferred outflows of resources and deferred inflows of resources related to pension will	be recognized as follow	vs:
Reporting Date for Employer under GAS 68 Year Ended June 30:		
2020	N/A	\$(674,697)
2021	\$(2,678,815)	(839,983)
2022	(2,848,076)	(969,378)
2023	(1,588,680)	901,310
2024	(1,200,811)	0
2025	0	0

¹ Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

Deferred Outflows of Resources and Deferred Inflows of Resources (continued)

10 - Housing Authority

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Deferred Outflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$115,359	\$204,887
Changes of assumptions or other inputs	0	63,292
Net difference between projected and actual earnings on pension plan investments (if any)	0	3,234,920
Difference between actual and expected experience in the Total Pension Liability	<u>903,676</u>	<u>311,928</u>
Total Deferred Outflows of Resources	\$1,019,035	\$3,815,027
Deferred Inflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$501,682	\$316,182
Changes of assumptions or other inputs	383,696	549,961
Net difference between actual and projected earnings on pension plan investments (if any)	1,467,131	0
Difference between expected and actual experience in the Total Pension Liability	94,341	234,694
Total Deferred Inflows of Resources	\$2,446,850	\$1,100,837
Deferred outflows of resources and deferred inflows of resources related to pension will	be recognized as follow	ws:
Reporting Date for Employer under GAS 68 Year Ended June 30:		
2020	N/A	\$967,229
2021	\$(453,904)	321,542
2022	(446,996)	329,990
2023	294,824	1,095,429
2024	(821,739)	0
2025	0	0



¹ Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

Deferred Outflows of Resources and Deferred Inflows of Resources (continued)

11 - IHSS

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Deferred Outflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$73,005	\$81,110
Changes of assumptions or other inputs	0	7,679
Net difference between projected and actual earnings on pension plan investments (if any)	0	392,481
Difference between actual and expected experience in the Total Pension Liability	<u>114,153</u>	<u>37,845</u>
Total Deferred Outflows of Resources	\$187,158	\$519,115
Deferred Inflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$18,495	\$25,691
Changes of assumptions or other inputs	48,469	66,725
Net difference between actual and projected earnings on pension plan investments (if any)	185,330	0
Difference between expected and actual experience in the Total Pension Liability	<u>11,917</u>	<u>28,475</u>
Total Deferred Inflows of Resources	\$264,211	\$120,891
Deferred outflows of resources and deferred inflows of resources related to pension will	be recognized as follow	vs:
Reporting Date for Employer under GAS 68 Year Ended June 30:		
	N/A	\$151,983
2021	\$(13,627)	63,171
2022	(28,391)	48,352
2023	58,815	134,718
2024	(93,850)	0
2025	0	0

¹ Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

Deferred Outflows of Resources and Deferred Inflows of Resources (continued)

12 - LAFCO

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Deferred Outflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$8,179	\$12,318
Changes of assumptions or other inputs	0	1,783
Net difference between projected and actual earnings on pension plan investments (if any)	0	91,145
Difference between actual and expected experience in the Total Pension Liability	<u> 18,875</u>	<u>8,789</u>
Total Deferred Outflows of Resources	\$27,054	\$114,035
Deferred Inflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$114	\$4,121
Changes of assumptions or other inputs	8,014	15,495
Net difference between actual and projected earnings on pension plan investments (if any)	30,644	0
Difference between expected and actual experience in the Total Pension Liability	<u>1,971</u>	<u>6,613</u>
Total Deferred Inflows of Resources	\$40,743	\$26,229
Deferred outflows of resources and deferred inflows of resources related to pension will	be recognized as follow	vs:
Reporting Date for Employer under GAS 68 Year Ended June 30:		
	N/A	\$27,461
2021	\$(3,715)	13,234
2022	(3,639)	13,706
2023	9,989	33,405
2024	(16,324)	0
2025	0	0

¹ Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

Deferred Outflows of Resources and Deferred Inflows of Resources (continued)

13 - MOFD

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Deferred Outflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$3,070,716	\$1,753,189
Changes of assumptions or other inputs	0	201,772
Net difference between projected and actual earnings on pension plan investments (if any)	0	10,312,797
Difference between actual and expected experience in the Total Pension Liability	<u>3,819,685</u>	<u>994,414</u>
Total Deferred Outflows of Resources	\$6,890,401	\$13,262,172
Deferred Inflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$5,066,860	\$8,136,089
Changes of assumptions or other inputs	1,621,817	1,753,254
Net difference between actual and projected earnings on pension plan investments (if any)	6,201,310	0
Difference between expected and actual experience in the Total Pension Liability	<u>398,761</u>	748,194
Total Deferred Inflows of Resources	\$13,288,748	\$10,637,537
Deferred outflows of resources and deferred inflows of resources related to pension will	be recognized as follow	ws:
Reporting Date for Employer under GAS 68 Year Ended June 30:		
2020	N/A	\$715,362
2021	\$(2,704,099)	(676,189)
2022	(2,077,806)	(95,256)
2023	1,393,674	2,680,718
2024	(3,010,116)	0
2025	0	0

¹ Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

Deferred Outflows of Resources and Deferred Inflows of Resources (continued)

14 - Rodeo SD

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Deferred Outflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$116,109	\$199,722
Changes of assumptions or other inputs	0	1,097
Net difference between projected and actual earnings on pension plan investments (if any)	0	56,073
Difference between actual and expected experience in the Total Pension Liability	<u>(71,584)</u>	<u>5,407</u>
Total Deferred Outflows of Resources	\$44,525	\$262,299
Deferred Inflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$307,799	\$8,554
Changes of assumptions or other inputs	(30,394)	9,533
Net difference between actual and projected earnings on pension plan investments (if any)	(116,218)	0
Difference between expected and actual experience in the Total Pension Liability	<u>(7,473)</u>	<u>4,068</u>
Total Deferred Inflows of Resources	\$153,714	\$22,155
Deferred outflows of resources and deferred inflows of resources related to pension will	be recognized as follov	vs:
Reporting Date for Employer under GAS 68 Year Ended June 30:		
2020	N/A	\$95,047
2021	\$(6,392)	57,081
2022	(17,272)	50,901
2023	(103,102)	37,115
2024	17,577	0
2025	0	0

¹ Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

Deferred Outflows of Resources and Deferred Inflows of Resources (continued)

15 - RHFD

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Deferred Outflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$1,001,406	\$1,343,137
Changes of assumptions or other inputs	0	68,688
Net difference between projected and actual earnings on pension plan investments (if any)	0	3,510,721
Difference between actual and expected experience in the Total Pension Liability	<u>1,289,353</u>	<u>338,522</u>
Total Deferred Outflows of Resources	\$2,290,759	\$5,261,068
Deferred Inflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$3,648,450	\$5,482,478
Changes of assumptions or other inputs	547,452	596,849
Net difference between actual and projected earnings on pension plan investments (if any)	2,093,282	0
Difference between expected and actual experience in the Total Pension Liability	<u>134,604</u>	<u>254,703</u>
Total Deferred Inflows of Resources	\$6,423,788	\$6,334,030
Deferred outflows of resources and deferred inflows of resources related to pension will	be recognized as follow	ws:
Reporting Date for Employer under GAS 68 Year Ended June 30:		
2020	N/A	\$(256,396)
2021	\$(1,419,021)	(590,386)
2022	(1,489,966)	(676,186)
2023	(136,003)	450,006
2024	(1,088,039)	0
2025	0	0

¹ Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

Deferred Outflows of Resources and Deferred Inflows of Resources (continued)

16 - SRVFPD

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Deferred Outflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$5,733,622	\$4,456,142
Changes of assumptions or other inputs	0	407,883
Net difference between projected and actual earnings on pension plan investments (if any)	0	20,847,423
Difference between actual and expected experience in the Total Pension Liability	<u>6,178,942</u>	<u>2,010,218</u>
Total Deferred Outflows of Resources	\$11,912,564	\$27,721,666
Deferred Inflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$4,253,985	\$6,936,643
Changes of assumptions or other inputs	2,623,545	3,544,220
Net difference between actual and projected earnings on pension plan investments (if any)	10,031,596	0
Difference between expected and actual experience in the Total Pension Liability	<u>645,059</u>	<u>1,512,483</u>
Total Deferred Inflows of Resources	\$17,554,185	\$11,993,346
Deferred outflows of resources and deferred inflows of resources related to pension will	be recognized as follow	ws:
Reporting Date for Employer under GAS 68 Year Ended June 30:		
2020	N/A	\$5,321,439
2021	\$(1,607,720)	2,160,267
2022	(1,953,395)	1,805,499
2023	2,821,651	6,441,115
2024	(4,902,157)	0
2025	0	0

¹ Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

Deferred Outflows of Resources and Deferred Inflows of Resources (continued)

17 - Court

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Deferred Outflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$2,696,725	\$4,162,686
Changes of assumptions or other inputs	0	160,747
Net difference between projected and actual earnings on pension plan investments (if any)	0	8,215,991
Difference between actual and expected experience in the Total Pension Liability	<u>2,078,843</u>	<u>792,229</u>
Total Deferred Outflows of Resources	\$4,775,568	\$13,331,653
Deferred Inflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$1,699,965	\$1,377,958
Changes of assumptions or other inputs	882,665	1,396,781
Net difference between actual and projected earnings on pension plan investments (if any)	3,375,030	0
Difference between expected and actual experience in the Total Pension Liability	<u>217,024</u>	<u>596,071</u>
Total Deferred Inflows of Resources	\$6,174,684	\$3,370,810
Deferred outflows of resources and deferred inflows of resources related to pension will	be recognized as follow	ws:
Reporting Date for Employer under GAS 68 Year Ended June 30:		
2020	N/A	\$3,405,606
2021	\$(520,464)	1,401,280
2022	(268,777)	1,668,462
2023	1,310,678	3,485,495
2024	(1,920,553)	0
2025	0	0

¹ Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

Deferred Outflows of Resources and Deferred Inflows of Resources (continued)

18 - DDSD (Term)

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Deferred Outflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$0	\$0
Changes of assumptions or other inputs	12,966	18,012
Net difference between projected and actual earnings on pension plan investments (if any)	0	453,235
Difference between actual and expected experience in the Total Pension Liability	<u>234,809</u>	<u>172,343</u>
Total Deferred Outflows of Resources	\$247,775	\$643,590
Deferred Inflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$0	\$0
Changes of assumptions or other inputs	0	0
Net difference between actual and projected earnings on pension plan investments (if any)	281,109	0
Difference between expected and actual experience in the Total Pension Liability	<u>6,815</u>	<u>9,467</u>
Total Deferred Inflows of Resources	\$287,924	\$9,467
Deferred outflows of resources and deferred inflows of resources related to pension will	be recognized as follow	ws:
Reporting Date for Employer under GAS 68 Year Ended June 30:		
2020	N/A	\$146,347
2021	\$18,878	146,347
2022	(9,177)	118,292
2023	95,668	223,137
2024	(145,518)	0
2025	0	0



¹ Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

Deferred Outflows of Resources and Deferred Inflows of Resources (continued)

19 - DWD (Term)

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Deferred Outflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$0	\$0
Changes of assumptions or other inputs	0	0
Net difference between projected and actual earnings on pension plan investments (if any)	0	58,418
Difference between actual and expected experience in the Total Pension Liability	<u>157,123</u>	<u>156,720</u>
Total Deferred Outflows of Resources	\$157,123	\$215,138
Deferred Inflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$0	\$0
Changes of assumptions or other inputs	9,741	13,531
Net difference between actual and projected earnings on pension plan investments (if any)	41,849	0
Difference between expected and actual experience in the Total Pension Liability	<u>0</u>	<u>0</u>
Total Deferred Inflows of Resources	\$51,590	\$13,531
Deferred outflows of resources and deferred inflows of resources related to pension will	be recognized as follow	ws:
Reporting Date for Employer under GAS 68 Year Ended June 30:		
2020	N/A	\$57,845
2021	\$50,151	57,845
2022	36,347	44,041
2023	34,182	41,876
2024	(15,147)	0
2025	0	0

¹ Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

Deferred Outflows of Resources and Deferred Inflows of Resources (continued)

20 - Pittsburg (Term)

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Deferred Outflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$0	\$0
Changes of assumptions or other inputs	0	0
Net difference between projected and actual earnings on pension plan investments (if any)	0	1,596,069
Difference between actual and expected experience in the Total Pension Liability	493,012	<u>386,749</u>
Total Deferred Outflows of Resources	\$493,012	\$1,982,818
Deferred Inflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$0	\$0
Changes of assumptions or other inputs	28,164	39,123
Net difference between actual and projected earnings on pension plan investments (if any)	962,016	0
Difference between expected and actual experience in the Total Pension Liability	<u>0</u>	<u>0</u>
Total Deferred Inflows of Resources	\$990,180	\$39,123
Deferred outflows of resources and deferred inflows of resources related to pension will	be recognized as follow	ws:
Reporting Date for Employer under GAS 68 Year Ended June 30:		
	N/A	\$379,036
2021	\$(128,594)	379,036
2022	(143,268)	364,362
2023	313,631	821,261
2024	(538,937)	0
2025	0	0



¹ Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

Deferred Outflows of Resources and Deferred Inflows of Resources (continued)

There are changes in each employer's proportionate share of the total NPL during the measurement period ended December 31, 2019. The net effect of the change on the employer's proportionate share of the collective NPL and collective deferred outflows of resources and deferred inflows of resources for the current period (i.e., 2019) is recognized over the average of the expected remaining service lives of all employees that are provided with pensions through CCCERA which is 4.51 years determined as of December 31, 2018 (the beginning of the measurement period ended December 31, 2019). This is described in Paragraph 33a. of GAS 68.

In addition, the difference between the actual employer contributions and the proportionate share of the employer contributions during the measurement period ended December 31, 2019 is recognized over the same period. This difference is calculated based on actual employer contributions reported to us by CCCERA for each active employer.

The net effects of the change on the employer's proportionate share of the collective NPL and collective deferred outflows of resources and deferred inflows of resources for prior periods are continued to be recognized based on the expected remaining service lives of all employees calculated as of those prior measurement dates.

The average of the expected remaining service lives of all employees was determined by:

- Calculating each active employees' expected remaining service life as the present value of \$1 per year of future service at zero percent interest.
- Setting the remaining service life to zero for each non-active or retired member.
- Dividing the sum of the above amounts by the total number of active, non-active and retired members.

Schedule of Proportionate Share of the Net Pension Liability

Total for All Employers

Reporting Date for Employer Under GAS 68 as of June 30	Proportion of the Net Pension Liability	Proportionate Share of Net Pension Liability	Covered payroll ¹	Proportionate Share of the Net Pension Liability as a Percentage of its Covered Payroll	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability
2014	100.000%	\$1,471,449,251	\$638,635,912	230.41%	81.44%
2015	100.000%	1,195,701,397	671,485,798	178.07%	85.25%
2016	100.000%	1,507,127,140	709,818,858	212.33%	82.24%
2017	100.000%	1,400,454,923	755,138,882	185.46%	84.16%
2018	100.000%	811,436,611	809,960,088	100.18%	91.18%
2019	100.000%	1,428,044,144	850,929,106	167.82%	85.09%
2020	100.000%	864,085,792	892,379,335	96.83%	91.46%



¹ Covered payroll represents payroll on which contributions to the pension plan are based.

Schedule of Proportionate Share of the Net Pension Liability (continued)

1 - BIMID

Reporting Date for Employer under GAS 68 as of June 30	Proportion of the Net Pension Liability	Proportionate Share of Net Pension Liability	Covered Payroll ¹	Proportionate Share of the Net Pension Liability as a Percentage of its Covered Payroll	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability
2014	0.010%	\$141,029	\$98,547	143.11%	74.40%
2015	0.010%	114,600	63,762	179.73%	79.57%
2016	0.007%	111,818	58,347	191.64%	77.84%
2017	0.010%	137,084	82,174	166.82%	80.32%
2018	0.019%	157,443	166,430	94.60%	88.49%
2019	0.027%	383,118	261,689	146.40%	82.28%
2020	0.026%	222,616	264,807	84.07%	89.91%

¹ Covered payroll represents payroll on which contributions to the pension plan are based.

Schedule of Proportionate Share of the Net Pension Liability (continued)

2 - Union Cemetery

Reporting Date for Employer under GAS 68 as of June 30	Proportion of the Net Pension Liability	Proportionate Share of Net Pension Liability	Covered Payroll ¹	Proportionate Share of the Net Pension Liability as a Percentage of its Covered Payroll	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability
2014	0.006%	\$81,639	\$202,342	40.35%	94.52%
2015	0.006%	66,340	213,716	31.04%	95.83%
2016	0.010%	147,774	213,336	69.27%	91.43%
2017	0.005%	75,800	226,811	33.42%	95.67%
2018	0.004%	29,395	166,890	17.61%	98.00%
2019	0.004%	52,348	192,930	27.13%	96.58%
2020	(0.017%)	(147,526)	216,414	(68.17%)	109.10%



¹ Covered payroll represents payroll on which contributions to the pension plan are based.

Schedule of Proportionate Share of the Net Pension Liability (continued)

3 - CC Mosquito

Reporting Date for Employer under GAS 68 as of June 30	Proportion of the Net Pension Liability	Proportionate Share of Net Pension Liability	Covered Payroll ¹	Proportionate Share of the Net Pension Liability as a Percentage of its Covered Payroll	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability
2014	0.427%	\$6,281,902	\$2,787,246	225.38%	74.40%
2015	0.427%	5,104,681	2,840,172	179.73%	79.57%
2016	0.376%	5,665,700	2,956,365	191.64%	77.84%
2017	0.367%	5,140,418	3,081,368	166.82%	80.32%
2018	0.372%	3,017,908	3,190,169	94.60%	88.49%
2019	0.332%	4,737,389	3,235,876	146.40%	82.28%
2020	0.325%	2,807,582	3,339,694	84.07%	89.91%



¹ Covered payroll represents payroll on which contributions to the pension plan are based.

Schedule of Proportionate Share of the Net Pension Liability (continued)

4 - CCCFPD

Reporting Date for Employer under GAS 68 as of June 30	Proportion of the Net Pension Liability	Proportionate Share of Net Pension Liability	Covered Payroll ¹	Proportionate Share of the Net Pension Liability as a Percentage of its Covered Payroll	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability
2014	9.723%	\$143,074,496	\$30,880,667	463.31%	83.82%
2015	9.723%	116,262,504	29,582,625	393.01%	86.85%
2016	11.568%	174,340,795	32,275,397	540.17%	81.54%
2017	11.934%	167,124,048	35,011,978	477.33%	82.69%
2018	13.583%	110,215,347	36,028,772	305.91%	88.88%
2019	11.261%	160,817,317	40,272,628	399.32%	83.99%
2020	13.386%	115,666,974	43,874,150	263.63%	89.33%

¹ Covered payroll represents payroll on which contributions to the pension plan are based.

Schedule of Proportionate Share of the Net Pension Liability (continued)

5 - CCCSD

Reporting Date for Employer under GAS 68 as of June 30	Proportion of the Net Pension Liability	Proportionate Share of Net Pension Liability	Covered Payroll ¹	Proportionate Share of the Net Pension Liability as a Percentage of its Covered Payroll	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability
2014	7.488%	\$110,183,830	\$25,791,346	427.21%	67.22%
2015	7.488%	89,535,510	26,906,131	332.77%	73.86%
2016	6.088%	91,746,888	29,061,743	315.70%	74.14%
2017	6.273%	87,847,116	31,584,169	278.14%	76.44%
2018	7.863%	63,806,000	33,306,938	191.57%	83.58%
2019	6.332%	90,430,104	33,793,159	267.60%	77.86%
2020	7.420%	64,117,450	36,087,017	177.67%	85.05%

¹ Covered payroll represents payroll on which contributions to the pension plan are based.

Schedule of Proportionate Share of the Net Pension Liability (continued)

6 - First 5

Reporting Date for Employer under GAS 68 as of June 30	Proportion of the Net Pension Liability	Proportionate Share of Net Pension Liability	Covered Payroll ¹	Proportionate Share of the Net Pension Liability as a Percentage of its Covered Payroll	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability
2014	0.141%	\$2,071,332	\$1,631,923	126.93%	86.00%
2015	0.141%	1,683,167	1,735,009	97.01%	88.97%
2016	0.164%	2,465,341	1,962,961	125.59%	85.48%
2017	0.173%	2,423,899	2,140,380	113.25%	86.64%
2018	0.159%	1,289,083	2,405,397	53.59%	93.48%
2019	0.202%	2,881,759	2,525,004	114.13%	86.19%
2020	0.171%	1,480,016	2,511,538	58.93%	92.93%

¹ Covered payroll represents payroll on which contributions to the pension plan are based.

Schedule of Proportionate Share of the Net Pension Liability (continued)

7 - County

Reporting Date for Employer under GAS 68 as of June 30	Proportion of the Net Pension Liability	Proportionate Share of Net Pension Liability	Covered Payroll ¹	Proportionate Share of the Net Pension Liability as a Percentage of its Covered Payroll	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability
2014	67.521%	\$993,538,168	\$513,965,613	193.31%	82.57%
2015	67.521%	807,350,288	547,669,428	147.42%	86.21%
2016	67.951%	1,024,104,604	578,312,679	177.08%	83.30%
2017	67.071%	939,305,464	613,565,068	153.09%	85.20%
2018	62.058%	503,558,908	661,575,196	76.12%	92.40%
2019	68.347%	976,031,747	695,801,377	140.27%	85.94%
2020	64.983%	561,509,768	728,877,628	77.04%	92.37%

¹ Covered payroll represents payroll on which contributions to the pension plan are based.

Schedule of Proportionate Share of the Net Pension Liability (continued)

8 - CCCERA (the Employer)

Reporting Date for Employer under GAS 68 as of June 30	Proportion of the Net Pension Liability	Proportionate Share of Net Pension Liability	Covered Payroll ¹	Proportionate Share of the Net Pension Liability as a Percentage of its Covered Payroll	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability
2014	0.490%	\$7,215,926	\$3,280,849	219.94%	74.40%
2015	0.490%	5,863,670	3,262,463	179.73%	79.57%
2016	0.474%	7,138,680	3,724,967	191.64%	77.84%
2017	0.462%	6,475,713	3,881,797	166.82%	80.32%
2018	0.528%	4,287,094	4,531,800	94.60%	88.49%
2019	0.512%	7,315,532	4,996,878	146.40%	82.28%
2020	0.524%	4,526,924	5,384,897	84.07%	89.91%

¹ Covered payroll represents payroll on which contributions to the pension plan are based.

Schedule of Proportionate Share of the Net Pension Liability (continued)

9 - ECCFPD

Reporting Date for Employer under GAS 68 as of June 30	Proportion of the Net Pension Liability	Proportionate Share of Net Pension Liability	Covered Payroll ¹	Proportionate Share of the Net Pension Liability as a Percentage of its Covered Payroll	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability
2014	2.033%	\$29,920,976	\$3,075,280	972.95%	69.43%
2015	2.033%	24,313,820	3,033,964	801.39%	74.65%
2016	1.526%	22,992,216	2,578,801	891.59%	70.89%
2017	1.668%	23,362,447	2,981,911	783.47%	73.30%
2018	2.015%	16,350,262	2,932,872	557.48%	81.00%
2019	1.278%	18,245,316	3,142,969	580.51%	77.80%
2020	0.673%	5,817,871	3,629,911	160.28%	89.02%

¹ Covered payroll represents payroll on which contributions to the pension plan are based.

Schedule of Proportionate Share of the Net Pension Liability (continued)

10 - Housing Authority

Reporting Date for Employer under GAS 68 as of June 30	Proportion of the Net Pension Liability	Proportionate Share of Net Pension Liability	Covered Payroll ¹	Proportionate Share of the Net Pension Liability as a Percentage of its Covered Payroll	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability
2014	0.724%	\$10,648,283	\$4,677,572	227.65%	80.04%
2015	0.724%	8,652,807	4,691,885	184.42%	84.06%
2016	0.716%	10,788,391	4,841,907	222.81%	80.83%
2017	0.726%	10,162,604	5,215,890	194.84%	82.73%
2018	0.772%	6,267,604	5,183,762	120.91%	89.72%
2019	0.756%	10,796,497	5,288,211	204.16%	83.10%
2020	0.732%	6,324,839	5,607,319	112.80%	90.49%

¹ Covered payroll represents payroll on which contributions to the pension plan are based.

Schedule of Proportionate Share of the Net Pension Liability (continued)

11 - IHSS

Reporting Date for Employer under GAS 68 as of June 30	Proportion of the Net Pension Liability	Proportionate Share of Net Pension Liability	Covered Payroll ¹	Proportionate Share of the Net Pension Liability as a Percentage of its Covered Payroll	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability
2014	0.087%	\$1,280,362	\$600,371	213.26%	74.40%
2015	0.087%	1,040,424	578,877	179.73%	79.57%
2016	0.086%	1,292,792	674,579	191.64%	77.84%
2017	0.092%	1,294,522	775,987	166.82%	80.32%
2018	0.098%	794,473	839,821	94.60%	88.49%
2019	0.092%	1,309,899	894,727	146.40%	82.28%
2020	0.092%	798,961	950,386	84.07%	89.91%

¹ Covered payroll represents payroll on which contributions to the pension plan are based.

Schedule of Proportionate Share of the Net Pension Liability (continued)

12 - LAFCO

Reporting Date for Employer under GAS 68 as of June 30	Proportion of the Net Pension Liability	Proportionate Share of Net Pension Liability	Covered Payroll ¹	Proportionate Share of the Net Pension Liability as a Percentage of its Covered Payroll	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability
2014	0.030%	\$448,684	\$202,880	221.16%	74.40%
2015	0.030%	364,601	202,859	179.73%	79.57%
2016	0.027%	400,173	208,810	191.64%	77.84%
2017	0.026%	359,329	215,396	166.82%	80.32%
2018	0.022%	181,268	221,780	81.73%	90.06%
2019	0.021%	304,195	228,637	133.05%	83.90%
2020	0.015%	132,109	230,702	57.26%	93.13%

¹ Covered payroll represents payroll on which contributions to the pension plan are based.

Schedule of Proportionate Share of the Net Pension Liability (continued)

13 - MOFD

Reporting Date for Employer under GAS 68 as of June 30	Proportion of the Net Pension Liability	Proportionate Share of Net Pension Liability	Covered Payroll ¹	Proportionate Share of the Net Pension Liability as a Percentage of its Covered Payroll	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability
2014	2.393%	\$35,211,427	\$7,353,174	478.86%	80.06%
2015	2.393%	28,612,847	7,350,163	389.28%	83.79%
2016	2.608%	39,299,357	6,858,003	573.04%	78.77%
2017	2.326%	32,569,913	7,347,757	443.26%	82.41%
2018	2.896%	23,498,575	7,960,215	295.20%	87.85%
2019	2.410%	34,418,805	8,139,433	422.86%	82.47%
2020	3.094%	26,734,009	8,317,080	321.44%	87.02%

¹ Covered payroll represents payroll on which contributions to the pension plan are based.

Schedule of Proportionate Share of the Net Pension Liability (continued)

14 - Rodeo SD

Reporting Date for Employer under GAS 68 as of June 30	Proportion of the Net Pension Liability	Proportionate Share of Net Pension Liability	Covered Payroll ¹	Proportionate Share of the Net Pension Liability as a Percentage of its Covered Payroll	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability
2014	0.015%	\$225,142	\$546,354	41.21%	94.52%
2015	0.015%	182,951	589,379	31.04%	95.83%
2016	0.026%	393,628	568,265	69.27%	91.43%
2017	0.015%	203,750	609,667	33.42%	95.67%
2018	0.014%	111,965	635,682	17.61%	98.00%
2019	0.013%	187,143	689,729	27.13%	96.58%
2020	(0.058%)	(501,019)	734,973	(68.17%)	109.10%

¹ Covered payroll represents payroll on which contributions to the pension plan are based.

Schedule of Proportionate Share of the Net Pension Liability (continued)

15 - RHFD

Reporting Date for Employer under GAS 68 as of June 30	Proportion of the Net Pension Liability	Proportionate Share of Net Pension Liability	Covered Payroll ¹	Proportionate Share of the Net Pension Liability as a Percentage of its Covered Payroll	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability
2014	1.129%	\$16,612,346	\$1,766,704	940.30%	59.86%
2015	1.129%	13,499,212	2,069,510	652.29%	65.89%
2016	1.012%	15,252,152	2,342,844	651.01%	63.59%
2017	1.049%	14,693,106	2,241,786	655.42%	66.55%
2018	1.441%	11,693,174	2,194,605	532.81%	74.20%
2019	0.820%	11,716,980	2,346,256	499.39%	74.46%
2020	1.044%	9,024,195	2,358,500	382.62%	81.03%

¹ Covered payroll represents payroll on which contributions to the pension plan are based.

Schedule of Proportionate Share of the Net Pension Liability (continued)

16 - SRVFPD

Reporting Date for Employer under GAS 68 as of June 30	Proportion of the Net Pension Liability	Proportionate Share of Net Pension Liability	Covered Payroll ¹	Proportionate Share of the Net Pension Liability as a Percentage of its Covered Payroll	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability
2014	5.815%	\$85,561,055	\$19,053,093	449.07%	76.94%
2015	5.815%	69,527,014	18,614,252	373.51%	81.67%
2016	5.357%	80,736,003	19,540,557	413.17%	79.70%
2017	5.176%	72,491,195	22,113,973	327.81%	82.68%
2018	5.806%	47,110,096	23,767,950	198.21%	89.41%
2019	4.872%	69,577,960	24,477,353	284.25%	84.91%
2020	5.005%	43,246,471	24,771,927	174.58%	91.21%

¹ Covered payroll represents payroll on which contributions to the pension plan are based.

Schedule of Proportionate Share of the Net Pension Liability (continued)

17 - Court

Reporting Date for Employer under GAS 68 as of June 30	Proportion of the Net Pension Liability	Proportionate Share of Net Pension Liability	Covered Payroll ¹	Proportionate Share of the Net Pension Liability as a Percentage of its Covered Payroll	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability
2014	1.968%	\$28,952,654	\$22,721,953	127.42%	84.75%
2015	1.968%	23,526,961	22,081,605	106.55%	87.89%
2016	2.007%	30,250,828	23,639,297	127.97%	85.21%
2017	1.939%	27,158,829	24,062,771	112.87%	86.68%
2018	1.554%	12,606,159	24,851,809	50.73%	93.83%
2019	1.920%	27,420,745	24,642,251	111.28%	86.53%
2020	1.684%	14,549,842	25,222,390	57.69%	93.08%

¹ Covered payroll represents payroll on which contributions to the pension plan are based.

Schedule of Proportionate Share of the Net Pension Liability (continued)

18 - DDSD (Term)

Reporting Date for Employer under GAS 68 as of June 30 ¹	Proportion of the Net Pension Liability	Proportionate Share of Net Pension Liability	Covered Payroll ²	Proportionate Share of the Net Pension Liability as a Percentage of its Covered Payroll	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability
2014	N/A	N/A	N/A	N/A	N/A
2015	N/A	N/A	N/A	N/A	N/A
2016	N/A	N/A	N/A	N/A	N/A
2017	0.137%	\$1,918,215	N/A	N/A	86.09%
2018	0.177%	1,435,257	N/A	N/A	89.73%
2019	0.170%	2,433,196	N/A	N/A	82.38%
2020	0.194%	1,673,872	N/A	N/A	87.88%

¹ Prior to the June 30, 2017 reporting date, the Pension Expense, NPL and other results attributed to the three terminated employers (Delta Diablo Sanitation District, Diablo Water District and City of Pittsburg) were allocated to other employers within the applicable Cost Groups. Starting with the December 31, 2016 funding valuation, the assets and liabilities associated with the three terminated employers have been moved to their own Cost Group. Therefore, we have directly allocated to each of these terminated employers their Pension Expense and NPL starting with the June 30, 2017 reporting date.

² Covered payroll represents payroll on which contributions to the pension plan are based.

Schedule of Proportionate Share of the Net Pension Liability (continued)

19 - DWD (Term)

Reporting Date for Employer under GAS 68 as of June 30 ¹	Proportion of the Net Pension Liability	Proportionate Share of Net Pension Liability	Covered Payroll ²	Proportionate Share of the Net Pension Liability as a Percentage of its Covered Payroll	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability
2014	N/A	N/A	N/A	N/A	N/A
2015	N/A	N/A	N/A	N/A	N/A
2016	N/A	N/A	N/A	N/A	N/A
2017	0.059%	\$823,144	N/A	N/A	71.42%
2018	0.102%	827,520	N/A	N/A	70.60%
2019	0.072%	1,034,726	N/A	N/A	61.21%
2020	0.109%	944,895	N/A	N/A	62.11%

¹ Prior to the June 30, 2017 reporting date, the Pension Expense, NPL and other results attributed to the three terminated employers (Delta Diablo Sanitation District, Diablo Water District and City of Pittsburg) were allocated to other employers within the applicable Cost Groups. Starting with the December 31, 2016 funding valuation, the assets and liabilities associated with the three terminated employers have been moved to their own Cost Group. Therefore, we have directly allocated to each of these terminated employers their Pension Expense and NPL starting with the June 30, 2017 reporting date.

Covered payroll represents payroll on which contributions to the pension plan are based.

Schedule of Proportionate Share of the Net Pension Liability (continued)

20 - Pittsburg (Term)

Reporting Date for Employer under GAS 68 as of June 30 ¹	Proportion of the Net Pension Liability	Proportionate Share of Net Pension Liability	Covered Payroll ²	Proportionate Share of the Net Pension Liability as a Percentage of its Covered Payroll	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability
2014	N/A	N/A	N/A	N/A	N/A
2015	N/A	N/A	N/A	N/A	N/A
2016	N/A	N/A	N/A	N/A	N/A
2017	0.492%	\$6,888,327	N/A	N/A	85.75%
2018	0.517%	4,199,080	N/A	N/A	91.20%
2019	0.557%	7,949,368	N/A	N/A	83.25%
2020	0.597%	5,155,943	N/A	N/A	89.04%

¹ Prior to the June 30, 2017 reporting date, the Pension Expense, NPL and other results attributed to the three terminated employers (Delta Diablo Sanitation District, Diablo Water District and City of Pittsburg) were allocated to other employers within the applicable Cost Groups. Starting with the December 31, 2016 funding valuation, the assets and liabilities associated with the three terminated employers have been moved to their own Cost Group. Therefore, we have directly allocated to each of these terminated employers their Pension Expense and NPL starting with the June 30, 2017 reporting date.

Covered payroll represents payroll on which contributions to the pension plan are based.

Schedule of Reconciliation of Net Pension Liability

Total for All Employers

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Beginning Net Pension Liability	\$1,428,044,144	\$811,436,611
Pension Expense	278,978,389	303,347,051
Employer Contributions ¹	(327,982,796)	(325,117,103)
New Net Deferred Inflows/Outflows	(386,571,068)	593,704,304
Change in Allocation of Prior Deferred Inflows/Outflows	0	0
New Net Deferred Flows Due to Change in Proportion ²	0	0
Recognition of Prior Deferred Inflows/Outflows	(128,382,877)	44,673,281
Recognition of Prior Deferred Flows Due to Change in Proportion ²	<u>0</u>	<u>0</u>
Ending Net Pension Liability	\$864,085,792	\$1,428,044,144

¹ Includes "member subvention of employer contributions" and excludes "employer subvention of member contributions".

² Includes differences between employer contributions and proportionate share of contributions.

Schedule of Reconciliation of Net Pension Liability (continued)

1 - BIMID

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Beginning Net Pension Liability	\$383,118	\$157,443
Pension Expense	124,852	130,723
Employer Contributions ¹	(100,977)	(100,193)
New Net Deferred Inflows/Outflows	(99,814)	159,357
Change in Allocation of Prior Deferred Inflows/Outflows	(3,883)	(19,660)
 New Net Deferred Flows Due to Change in Proportion² 	3,942	72,243
Recognition of Prior Deferred Inflows/Outflows	(33,224)	11,935
 Recognition of Prior Deferred Flows Due to Change in Proportion² 	<u>(51,398)</u>	(28,730)
Ending Net Pension Liability	\$222,616	\$383,118

¹ Includes "member subvention of employer contributions" and excludes "employer subvention of member contributions".

² Includes differences between employer contributions and proportionate share of contributions.

Schedule of Reconciliation of Net Pension Liability (continued)

2 - Union Cemetery

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Beginning Net Pension Liability	\$52,348	\$29,395
Pension Expense	(53,669)	47,957
Employer Contributions ¹	(47,474)	(52,206)
New Net Deferred Inflows/Outflows	66,146	21,774
Change in Allocation of Prior Deferred Inflows/Outflows	(77,571)	(114)
New Net Deferred Flows Due to Change in Proportion ²	(89,547)	31,792
Recognition of Prior Deferred Inflows/Outflows	22,017	1,630
Recognition of Prior Deferred Flows Due to Change in Proportion ²	<u>(19,776)</u>	<u>(27,880)</u>
Ending Net Pension Liability	\$(147,526)	\$52,348

¹ Includes "member subvention of employer contributions" and excludes "employer subvention of member contributions".

² Includes differences between employer contributions and proportionate share of contributions.

Schedule of Reconciliation of Net Pension Liability (continued)

3 - CC Mosquito

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Beginning Net Pension Liability	\$4,737,389	\$3,017,908
Pension Expense	857,102	883,800
Employer Contributions ¹	(1,236,556)	(1,248,984)
New Net Deferred Inflows/Outflows	(1,258,832)	1,970,504
Change in Allocation of Prior Deferred Inflows/Outflows	(24,261)	106,352
New Net Deferred Flows Due to Change in Proportion ²	75,203	(208,516)
Recognition of Prior Deferred Inflows/Outflows	(419,016)	147,581
Recognition of Prior Deferred Flows Due to Change in Proportion ²	<u>76,553</u>	<u>68,744</u>
Ending Net Pension Liability	\$2,807,582	\$4,737,389

¹ Includes "member subvention of employer contributions" and excludes "employer subvention of member contributions".

² Includes differences between employer contributions and proportionate share of contributions.

Schedule of Reconciliation of Net Pension Liability (continued)

4 - CCCFPD

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Beginning Net Pension Liability	\$160,817,317	\$110,215,347
Pension Expense	32,110,469	26,962,309
Employer Contributions ¹	(28,914,991)	(27,764,181)
New Net Deferred Inflows/Outflows	(51,861,451)	66,891,513
Change in Allocation of Prior Deferred Inflows/Outflows	7,991,076	6,144,765
New Net Deferred Flows Due to Change in Proportion ²	5,693,478	(26,558,742)
Recognition of Prior Deferred Inflows/Outflows	(17,262,650)	5,009,826
Recognition of Prior Deferred Flows Due to Change in Proportion ²	<u>7,093,726</u>	(83,520)
Ending Net Pension Liability	\$115,666,974	\$160,817,317

¹ Includes "member subvention of employer contributions" and excludes "employer subvention of member contributions".

² Includes differences between employer contributions and proportionate share of contributions.

Schedule of Reconciliation of Net Pension Liability (continued)

5 - CCCSD

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Beginning Net Pension Liability	\$90,430,104	\$63,806,000
Pension Expense	18,935,674	14,899,558
Employer Contributions ¹	(18,046,778)	(17,520,615)
New Net Deferred Inflows/Outflows	(28,748,258)	37,614,149
Change in Allocation of Prior Deferred Inflows/Outflows	4,093,506	4,052,424
New Net Deferred Flows Due to Change in Proportion ²	3,988,809	(15,339,774)
Recognition of Prior Deferred Inflows/Outflows	(9,569,172)	2,817,104
Recognition of Prior Deferred Flows Due to Change in Proportion ²	<u>3,033,565</u>	<u>101,258</u>
Ending Net Pension Liability	\$64,117,450	\$90,430,104

¹ Includes "member subvention of employer contributions" and excludes "employer subvention of member contributions".

² Includes differences between employer contributions and proportionate share of contributions.

Schedule of Reconciliation of Net Pension Liability (continued)

6 - First 5

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Beginning Net Pension Liability	\$2,881,759	\$1,289,083
Pension Expense	622,946	860,636
Employer Contributions ¹	(667,123)	(688,531)
New Net Deferred Inflows/Outflows	(663,593)	1,198,660
Change in Allocation of Prior Deferred Inflows/Outflows	(113,400)	(113,681)
New Net Deferred Flows Due to Change in Proportion ²	(169,371)	383,944
Recognition of Prior Deferred Inflows/Outflows	(220,885)	89,773
Recognition of Prior Deferred Flows Due to Change in Proportion ²	<u>(190,317)</u>	<u>(138,125)</u>
Ending Net Pension Liability	\$1,480,016	\$2,881,759

¹ Includes "member subvention of employer contributions" and excludes "employer subvention of member contributions".

² Includes differences between employer contributions and proportionate share of contributions.

Schedule of Reconciliation of Net Pension Liability (continued)

7 - County

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Beginning Net Pension Liability	\$976,031,747	\$503,558,908
Pension Expense	195,194,248	228,692,559
Employer Contributions ¹	(235,901,955)	(234,219,710)
New Net Deferred Inflows/Outflows	(251,763,403)	405,977,670
Change in Allocation of Prior Deferred Inflows/Outflows	(12,327,698)	(16,657,534)
New Net Deferred Flows Due to Change in Proportion ²	(10,250,277)	61,465,594
Recognition of Prior Deferred Inflows/Outflows	(83,802,197)	30,405,615
Recognition of Prior Deferred Flows Due to Change in Proportion ²	<u>(15,670,697)</u>	<u>(3,191,355)</u>
Ending Net Pension Liability	\$561,509,768	\$976,031,747

¹ Includes "member subvention of employer contributions" and excludes "employer subvention of member contributions".

² Includes differences between employer contributions and proportionate share of contributions.

Schedule of Reconciliation of Net Pension Liability (continued)

8 - CCCERA (the Employer)

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Beginning Net Pension Liability	\$7,315,532	\$4,287,094
Pension Expense	1,769,730	1,766,767
Employer Contributions ¹	(1,982,965)	(1,924,361)
New Net Deferred Inflows/Outflows	(2,029,731)	3,042,875
Change in Allocation of Prior Deferred Inflows/Outflows	45,412	42,468
New Net Deferred Flows Due to Change in Proportion ²	298,406	61,272
Recognition of Prior Deferred Inflows/Outflows	(675,618)	227,896
Recognition of Prior Deferred Flows Due to Change in Proportion ²	<u>(213,842)</u>	<u>(188,479)</u>
Ending Net Pension Liability	\$4,526,924	\$7,315,532

¹ Includes "member subvention of employer contributions" and excludes "employer subvention of member contributions".

² Includes differences between employer contributions and proportionate share of contributions.

Schedule of Reconciliation of Net Pension Liability (continued)

9 - ECCFPD

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Beginning Net Pension Liability	\$18,245,316	\$16,350,262
Pension Expense	(1,376,636)	327,654
Employer Contributions ¹	(4,317,176)	(3,831,375)
New Net Deferred Inflows/Outflows	(2,608,551)	7,589,088
Change in Allocation of Prior Deferred Inflows/Outflows	(2,256,044)	1,951,943
New Net Deferred Flows Due to Change in Proportion ²	(3,321,434)	(6,465,460)
Recognition of Prior Deferred Inflows/Outflows	(868,285)	568,383
Recognition of Prior Deferred Flows Due to Change in Proportion ²	<u>2,320,681</u>	<u>1,754,821</u>
Ending Net Pension Liability	\$5,817,871	\$18,245,316

¹ Includes "member subvention of employer contributions" and excludes "employer subvention of member contributions".

² Includes differences between employer contributions and proportionate share of contributions.

Schedule of Reconciliation of Net Pension Liability (continued)

10 - Housing Authority

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Beginning Net Pension Liability	\$10,796,497	\$6,267,604
Pension Expense	1,967,995	2,282,949
Employer Contributions ¹	(2,297,649)	(2,254,454)
New Net Deferred Inflows/Outflows	(2,835,860)	4,490,773
Change in Allocation of Prior Deferred Inflows/Outflows	(87,169)	43,287
New Net Deferred Flows Due to Change in Proportion ²	(281,795)	(305,447)
Recognition of Prior Deferred Inflows/Outflows	(943,947)	336,335
Recognition of Prior Deferred Flows Due to Change in Proportion ²	<u>6,767</u>	<u>(64,550)</u>
Ending Net Pension Liability	\$6,324,839	\$10,796,497

¹ Includes "member subvention of employer contributions" and excludes "employer subvention of member contributions".

² Includes differences between employer contributions and proportionate share of contributions.

Schedule of Reconciliation of Net Pension Liability (continued)

11 - IHSS

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Beginning Net Pension Liability	\$1,309,899	\$794,473
Pension Expense	302,781	311,901
Employer Contributions ¹	(338,443)	(333,234)
New Net Deferred Inflows/Outflows	(358,229)	544,849
Change in Allocation of Prior Deferred Inflows/Outflows	3,102	16,361
New Net Deferred Flows Due to Change in Proportion ²	32,903	(25,691)
Recognition of Prior Deferred Inflows/Outflows	(119,240)	40,806
Recognition of Prior Deferred Flows Due to Change in Proportion ²	<u>(33,812)</u>	<u>(39,566)</u>
Ending Net Pension Liability	\$798,961	\$1,309,899

¹ Includes "member subvention of employer contributions" and excludes "employer subvention of member contributions".

² Includes differences between employer contributions and proportionate share of contributions.

Schedule of Reconciliation of Net Pension Liability (continued)

12 - LAFCO

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Beginning Net Pension Liability	\$304,195	\$181,268
Pension Expense	42,909	62,224
Employer Contributions ¹	(113,500)	(90,110)
New Net Deferred Inflows/Outflows	(59,234)	126,529
Change in Allocation of Prior Deferred Inflows/Outflows	(22,413)	2,745
New Net Deferred Flows Due to Change in Proportion ²	(114)	7,321
Recognition of Prior Deferred Inflows/Outflows	(19,716)	9,476
Recognition of Prior Deferred Flows Due to Change in Proportion ²	<u>(18)</u>	<u>4,742</u>
Ending Net Pension Liability	\$132,109	\$304,195

¹ Includes "member subvention of employer contributions" and excludes "employer subvention of member contributions".

² Includes differences between employer contributions and proportionate share of contributions.

Schedule of Reconciliation of Net Pension Liability (continued)

13 - MOFD

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Beginning Net Pension Liability	\$34,418,805	\$23,498,575
Pension Expense	6,865,590	4,448,624
Employer Contributions ¹	(5,527,403)	(5,346,581)
New Net Deferred Inflows/Outflows	(11,986,693)	14,316,406
Change in Allocation of Prior Deferred Inflows/Outflows	2,566,856	1,285,706
New Net Deferred Flows Due to Change in Proportion ²	1,997,058	(6,056,075)
Recognition of Prior Deferred Inflows/Outflows	(3,989,902)	1,072,225
Recognition of Prior Deferred Flows Due to Change in Proportion ²	<u>2,389,698</u>	<u>1,199,925</u>
Ending Net Pension Liability	\$26,734,009	\$34,418,805

¹ Includes "member subvention of employer contributions" and excludes "employer subvention of member contributions".

² Includes differences between employer contributions and proportionate share of contributions.

Schedule of Reconciliation of Net Pension Liability (continued)

14 - Rodeo SD

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Beginning Net Pension Liability	\$187,143	\$111,965
Pension Expense	(171,432)	164,232
Employer Contributions ¹	(167,397)	(188,839)
New Net Deferred Inflows/Outflows	224,641	77,842
Change in Allocation of Prior Deferred Inflows/Outflows	(265,890)	1,835
 New Net Deferred Flows Due to Change in Proportion² 	(304,694)	108,251
Recognition of Prior Deferred Inflows/Outflows	74,774	5,830
 Recognition of Prior Deferred Flows Due to Change in Proportion² 	<u>(78,164)</u>	<u>(93,973)</u>
Ending Net Pension Liability	\$(501,019)	\$187,143

¹ Includes "member subvention of employer contributions" and excludes "employer subvention of member contributions".

² Includes differences between employer contributions and proportionate share of contributions.

Schedule of Reconciliation of Net Pension Liability (continued)

15 - RHFD

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Beginning Net Pension Liability	\$11,716,980	\$11,693,174
Pension Expense	1,669,639	597,033
Employer Contributions ¹	(1,302,356)	(3,010,225)
New Net Deferred Inflows/Outflows	(4,046,167)	4,873,645
Change in Allocation of Prior Deferred Inflows/Outflows	840,613	1,642,816
New Net Deferred Flows Due to Change in Proportion ²	178,865	(4,958,807)
Recognition of Prior Deferred Inflows/Outflows	(1,346,811)	365,011
Recognition of Prior Deferred Flows Due to Change in Proportion ²	<u>1,313,432</u>	<u>514,333</u>
Ending Net Pension Liability	\$9,024,195	\$11,716,980

¹ Includes "member subvention of employer contributions" and excludes "employer subvention of member contributions".

² Includes differences between employer contributions and proportionate share of contributions.

Schedule of Reconciliation of Net Pension Liability (continued)

16 - SRVFPD

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Beginning Net Pension Liability	\$69,577,960	\$47,110,096
Pension Expense	13,952,056	12,521,505
Employer Contributions ¹	(18,913,604)	(18,481,702)
New Net Deferred Inflows/Outflows	(19,390,364)	28,940,758
Change in Allocation of Prior Deferred Inflows/Outflows	514,579	2,471,004
New Net Deferred Flows Due to Change in Proportion ²	3,004,667	(5,841,330)
Recognition of Prior Deferred Inflows/Outflows	(6,454,294)	2,167,512
Recognition of Prior Deferred Flows Due to Change in Proportion ²	<u>955,471</u>	<u>690,117</u>
Ending Net Pension Liability	\$43,246,471	\$69,577,960

¹ Includes "member subvention of employer contributions" and excludes "employer subvention of member contributions".

² Includes differences between employer contributions and proportionate share of contributions.

Schedule of Reconciliation of Net Pension Liability (continued)

17 - Court

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Beginning Net Pension Liability	\$27,420,745	\$12,606,159
Pension Expense	5,415,452	7,345,961
Employer Contributions ¹	(6,926,395)	(6,972,122)
New Net Deferred Inflows/Outflows	(6,523,694)	11,405,582
Change in Allocation of Prior Deferred Inflows/Outflows	(876,815)	(970,717)
New Net Deferred Flows Due to Change in Proportion ²	(856,099)	3,629,425
Recognition of Prior Deferred Inflows/Outflows	(2,171,483)	854,219
Recognition of Prior Deferred Flows Due to Change in Proportion ²	<u>(931,869)</u>	<u>(477,762)</u>
Ending Net Pension Liability	\$14,549,842	\$27,420,745

¹ Includes "member subvention of employer contributions" and excludes "employer subvention of member contributions".

² Includes differences between employer contributions and proportionate share of contributions.

Schedule of Reconciliation of Net Pension Liability (continued)

18 - DDSD (Term)

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Beginning Net Pension Liability	\$2,433,196	\$1,435,257
Pension Expense	200,336	245,966
Employer Contributions ¹	(285,388)	(221,489)
New Net Deferred Inflows/Outflows	(527,925)	895,641
Change in Allocation of Prior Deferred Inflows/Outflows	0	0
New Net Deferred Flows Due to Change in Proportion ²	0	0
Recognition of Prior Deferred Inflows/Outflows	(146,347)	77,821
Recognition of Prior Deferred Flows Due to Change in Proportion ²	<u>0</u>	<u>0</u>
Ending Net Pension Liability	\$1,673,872	\$2,433,196

¹ Includes "member subvention of employer contributions" and excludes "employer subvention of member contributions".

² Includes differences between employer contributions and proportionate share of contributions.

Schedule of Reconciliation of Net Pension Liability (continued)

19 - DWD (Term)

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Beginning Net Pension Liability	\$1,034,726	\$827,520
Pension Expense	127,386	122,215
Employer Contributions ¹	(121,143)	(94,668)
New Net Deferred Inflows/Outflows	(38,229)	188,597
Change in Allocation of Prior Deferred Inflows/Outflows	0	0
New Net Deferred Flows Due to Change in Proportion ²	0	0
Recognition of Prior Deferred Inflows/Outflows	(57,845)	(8,938)
Recognition of Prior Deferred Flows Due to Change in Proportion ²	<u>0</u>	<u>0</u>
Ending Net Pension Liability	\$944,895	\$1,034,726

¹ Includes "member subvention of employer contributions" and excludes "employer subvention of member contributions".

² Includes differences between employer contributions and proportionate share of contributions.

Schedule of Reconciliation of Net Pension Liability (continued)

20 - Pittsburg (Term)

Reporting Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GAS 68	December 31, 2019	December 31, 2018
Beginning Net Pension Liability	\$7,949,368	\$4,199,080
Pension Expense	420,961	672,478
Employer Contributions ¹	(773,523)	(773,523)
New Net Deferred Inflows/Outflows	(2,061,827)	3,378,092
Change in Allocation of Prior Deferred Inflows/Outflows	0	0
New Net Deferred Flows Due to Change in Proportion ²	0	0
Recognition of Prior Deferred Inflows/Outflows	(379,036)	473,241
Recognition of Prior Deferred Flows Due to Change in Proportion ²	<u>0</u>	<u>0</u>
Ending Net Pension Liability	\$5,155,943	\$7,949,368

¹ Includes "member subvention of employer contributions" and excludes "employer subvention of member contributions".

² Includes differences between employer contributions and proportionate share of contributions.

Schedule of Recognition of Changes in Total Net Pension Liability

Increase / (Decrease) in Pension Expense Arising from the Recognition of the Effects of Differences Between Expected and Actual Experience on Total Pension Liability

Reporting Date for Employer Under GAS 68 Year Ended	Differences Between Expected and Actual	Recognition Period	Re	eporting Date fo	r Employer und	ler GAS 68 Yea	r Ended June 3	0:
June 30	Experience	(Years)	2019	2020	2021	2022	2023	2024
2015	\$(183,604,761) ¹	4.60	\$(23,948,449)	\$0	\$0	\$0	\$0	\$0
2016	(62,117,935) ¹	4.52	(13,742,906)	(7,146,311)	0	0	0	0
2017	(19,957,982)1	4.57	(4,367,173)	(4,367,173)	(2,489,290)	0	0	0
2018	(29,192,221)1	4.58	(6,373,848)	(6,373,848)	(6,373,848)	(3,696,829)	0	0
2019	52,852,841	4.57	11,565,173	11,565,173	11,565,173	11,565,173	6,592,149	0
2020	119,868,899	4.51	<u>N/A</u>	26,578,469	<u>26,578,469</u>	<u>26,578,469</u>	<u>26,578,469</u>	13,555,023
Net Increase/(Decrease) in Pen	sion Expense	\$(36,867,203)	\$20,256,310	\$29,280,504	\$34,446,813	\$33,170,618	\$13,555,023

As described in Section 2, Schedule of Deferred Outflows of Resources and Deferred Inflows of Resources, for the current period, the average of the expected remaining service lives of all employees that are provided with pensions through CCCERA (active and inactive members) determined as of December 31, 2018 (the beginning of the measurement period ending December 31, 2019) is 4.51 years.

¹ The amortization amounts prior to June 30, 2019 have been omitted from this Schedule. Those amounts can be found in prior years' GAS 68 reports.

Schedule of Recognition of Changes in Total Net Pension Liability (continued)

Increase / (Decrease) in Pension Expense Arising from the Recognition of the Effects of Assumption Changes or Other Inputs

Reporting Date for Employer Under GAS 68 Year Ended	Assumption Changes or	Recognition Period	R0	eporting Date fo	or Employer und 2021	der GAS 68 Yea 2022	r Ended June 30	:
2015	Other Inputs	(Years)			\$0	\$0	\$0	\$0
2015	\$(75,608)1	4.00	\$(9,860)	\$0	ΦΟ	φυ	φυ	ΦΟ
2016	72,186,307 ¹	4.52	15,970,422	8,304,619	0	0	0	0
2017	0 1	4.57	0	0	0	0	0	0
2018	0 1	4.58	0	0	0	0	0	0
2019	(92,418,915)	4.57	(20,222,957)	(20,222,957)	(20,222,957)	(20,222,957)	(11,527,087)	0
2020	0	4.51	<u>N/A</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Net Increase/(I	Decrease) in Pen	sion Expense	\$(4,262,395)	\$(11,918,338)	\$(20,222,957)	\$(20,222,957)	\$(11,527,087)	\$0

As described in Section 2, Schedule of Deferred Outflows of Resources and Deferred Inflows of Resources, for the current period, the average of the expected remaining service lives of all employees that are provided with pensions through CCCERA (active and inactive members) determined as of December 31, 2018 (the beginning of the measurement period ending December 31, 2019) is 4.51 years.

¹ The amortization amounts prior to June 30, 2019 have been omitted from this Schedule. Those amounts can be found in prior years' GAS 68 reports.

Schedule of Recognition of Changes in Total Net Pension Liability (continued)

Increase / (Decrease) in Pension Expense Arising from the Recognition of the Net Difference Between Projected and Actual Earnings on Pension Plan Investments

Reporting Date for Employer Under GAS 68 Year Ended June 30	Net Difference Between Projected and Actual	Recognition Period	Ro	eporting Date fo	or Employer und 2021	der GAS 68 Yea 2022	r Ended June 3	30: 2024
2015	Earnings \$(13,358,454) ¹	(Years) 5.00	\$(2,671,690)	\$0	\$0	\$0	\$0	\$0
2016	426,961,542 1	5.00	85,392,308	85,392,310	0	0	0	0
2017	(6,642,338)1	5.00	(1,328,468)	(1,328,468)	(1,328,466)	0	0	0
2018	(467,968,086)1	5.00	(93,593,617)	(93,593,617)	(93,593,617)	(93,593,618)	0	0
2019	780,765,743	5.00	156,153,149	156,153,149	156,153,149	156,153,149	156,153,147	0
2020	(599,826,873)	5.00	<u>N/A</u>	(119,965,375)	(119,965,375)	(119,965,375)	(119,965,375)	(119,965,373)
Net Increase/(Decrease) in Pen	sion Expense	\$143,951,682	\$26,657,999	\$(58,734,309)	\$(57,405,844)	\$36,187,772	\$(119,965,373)

The differences between projected and actual earnings on pension plan investments are recognized over a five-year period per Paragraph 33b. of GAS 68.

¹ The amortization amounts prior to June 30, 2019 have been omitted from this Schedule. Those amounts can be found in prior years' GAS 68 reports.

Schedule of Recognition of Changes in Total Net Pension Liability (continued)

Total Increase / (Decrease) in Pension Expense

Reporting Date for Employer Under GAS 68 Year Ended June 30	Total Increase / (Decrease)	Re	eporting Date fo 2020	or Employer und 2021	der GAS 68 Year 2022	r Ended June 3 2023	30: 2024
2015	\$(197,038,823) ¹	\$(26,629,999)	\$0	\$0	\$0	\$0	\$0
2016	437,029,914 ¹	87,619,824	86,550,618	0	0	0	0
2017	(26,600,320)1	(5,695,641)	(5,695,641)	(3,817,756)	0	0	0
2018	(497,160,307) ¹	(99,967,465)	(99,967,465)	(99,967,465)	(97,290,447)	0	0
2019	741,199,669	147,495,365	147,495,365	147,495,365	147,495,365	151,218,209	0
2020	(479,957,974)	<u>N/A</u>	(93,386,906)	(93,386,906)	(93,386,906)	(93,386,906)	(106,410,350)
Net Increase/((Decrease) in Pension Expense	\$102,822,084	\$34,995,971	\$(49,676,762)	\$(43,181,988)	\$57,831,303	\$(106,410,350)

¹ The amortization amounts prior to June 30, 2019 have been omitted from this Schedule. Those amounts can be found in prior years' GAS 68 reports.

Allocation of Changes in Total Net Pension Liability

In addition to the amounts shown in Section 2, Schedule of Recognition of Changes in Total Net Pension Liability, there are changes in each employer's proportionate share of the total NPL during the measurement period ending on December 31, 2019. The net effect of the change in the employer's proportionate share of the collective NPL and collective deferred outflows of resources and deferred inflows of resources is also recognized over the average of the expected remaining service lives of all employees that are provided with pensions through CCCERA as shown earlier. The difference between the actual employer contributions and the proportionate share of the employer contributions during the measurement period ending on December 31, 2019 is recognized over the same period. These amounts are shown on the following table, with the corresponding amounts for the measurement periods shown on the following pages. While these amounts are different for each employer, they sum to zero over the entire CCCERA.

Allocation of Changes in Total Net Pension Liability (continued)

		Recognition	Reporting	Date for Emplo	yer Under GAS	68 Year Ended	June 30:
	Total Change	Period (Years)	2020	2021	2022	2023	2024
1 - BIMID	\$5,065	4.51	\$1,123	\$1,123	\$1,123	\$1,123	\$573
2 - Union Cemetery	(115,059)	4.51	(25,512)	(25,512)	(25,512)	(25,512)	(13,011)
3 - CC Mosquito	96,628	4.51	21,425	21,425	21,425	21,425	10,928
4 - CCCFPD	7,315,551	4.51	1,622,073	1,622,073	1,622,073	1,622,073	827,259
5 - CCCSD	5,125,222	4.51	1,136,413	1,136,413	1,136,413	1,136,413	579,570
6 - First 5	(217,625)	4.51	(48,254)	(48,254)	(48,254)	(48,254)	(24,609)
7 - County	(13,170,582)	4.51	(2,920,305)	(2,920,305)	(2,920,305)	(2,920,305)	(1,489,362)
8 - CCCERA (the Employer)	383,422	4.51	85,016	85,016	85,016	85,016	43,358
9 - ECCFPD	(4,267,712)	4.51	(946,278)	(946,278)	(946,278)	(946,278)	(482,600)
10 - Housing Authority	(362,079)	4.51	(80,284)	(80,284)	(80,284)	(80,284)	(40,943)
11 - IHSS	42,277	4.51	9,374	9,374	9,374	9,374	4,781
12 - LAFCO	(147)	4.51	(33)	(33)	(33)	(33)	(15)
13 - MOFD	2,566,021	4.51	568,963	568,963	568,963	568,963	290,169
14 - Rodeo SD	(391,501)	4.51	(86,807)	(86,807)	(86,807)	(86,807)	(44,273)
15 - RHFD	229,824	4.51	50,959	50,959	50,959	50,959	25,988
16 - SRVFPD	3,860,697	4.51	856,030	856,030	856,030	856,030	436,577
17 - Court	(1,100,002)	4.51	(243,903)	(243,903)	(243,903)	(243,903)	(124,390)
18 - DDSD (Term)	0	4.51	0	0	0	0	0
19 - DWD (Term)	0	4.51	0	0	0	0	0
20 - Pittsburg (Term)	<u>0</u>	4.51	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total for all Employers	\$0		\$0	\$0	\$0	\$0	\$0

Allocation of Changes in Total Net Pension Liability (continued)

		Recognition	Reporting	Date for Emplo	oyer Under GAS	68 Year Ended	June 30:
	Total Change	Period (Years)	2019	2020	2021	2022	2023
1 - BIMID	\$92,479	4.57	\$20,236	\$20,236	\$20,236	\$20,236	\$11,535
2 - Union Cemetery	40,697	4.57	8,905	8,905	8,905	8,905	5,077
3 - CC Mosquito	(266,924)	4.57	(58,408)	(58,408)	(58,408)	(58,408)	(33,292)
4 - CCCFPD	(33,998,166)	4.57	(7,439,424)	(7,439,424)	(7,439,424)	(7,439,424)	(4,240,470)
5 - CCCSD	(19,636,629)	4.57	(4,296,855)	(4,296,855)	(4,296,855)	(4,296,855)	(2,449,209)
6 - First 5	491,491	4.57	107,547	107,547	107,547	107,547	61,303
7 - County	78,682,848	4.57	17,217,254	17,217,254	17,217,254	17,217,254	9,813,832
8 - CCCERA (the Employer)	78,435	4.57	17,163	17,163	17,163	17,163	9,783
9 - ECCFPD	(8,276,513)	4.57	(1,811,053)	(1,811,053)	(1,811,053)	(1,811,053)	(1,032,301)
10 - Housing Authority	(391,007)	4.57	(85,560)	(85,560)	(85,560)	(85,560)	(48,767)
11 - IHSS	(32,887)	4.57	(7,196)	(7,196)	(7,196)	(7,196)	(4,103)
12 - LAFCO	9,372	4.57	2,051	2,051	2,051	2,051	1,168
13 - MOFD	(7,752,455)	4.57	(1,696,380)	(1,696,380)	(1,696,380)	(1,696,380)	(966,935)
14 - Rodeo SD	138,574	4.57	30,323	30,323	30,323	30,323	17,282
15 - RHFD	(6,347,829)	4.57	(1,389,022)	(1,389,022)	(1,389,022)	(1,389,022)	(791,741)
16 - SRVFPD	(7,477,557)	4.57	(1,636,227)	(1,636,227)	(1,636,227)	(1,636,227)	(932,649)
17 - Court	4,646,071	4.57	1,016,646	1,016,646	1,016,646	1,016,646	579,487
18 - DDSD (Term)	0	4.57	0	0	0	0	0
19 - DWD (Term)	0	4.57	0	0	0	0	0
20 - Pittsburg (Term)	<u>0</u>	4.57	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total for all Employers	\$0		\$0	\$0	\$0	\$0	\$0

Allocation of Changes in Total Net Pension Liability (continued)

		Recognition	Reporting Date for Employer Under GAS 68 Year Ended June 30:					
	Total Change	Period (Years)	2018	2019	2020	2021	2022	
1 - BIMID	\$120,624	4.58	\$26,337	\$26,337	\$26,337	\$26,337	\$15,276	
2 - Union Cemetery	9,040	4.58	1,974	1,974	1,974	1,974	1,144	
3 - CC Mosquito	131,272	4.58	28,662	28,662	28,662	28,662	16,624	
4 - CCCFPD	2,640,754	4.58	576,584	576,584	576,584	576,584	334,418	
5 - CCCSD	12,643,130	4.58	2,760,509	2,760,509	2,760,509	2,760,509	1,601,094	
6 - First 5	(19,429)	4.58	(4,242)	(4,242)	(4,242)	(4,242)	(2,461)	
7 - County	(29,465,507)	4.58	(6,433,519)	(6,433,519)	(6,433,519)	(6,433,519)	(3,731,431)	
8 - CCCERA (the Employer)	899,167	4.58	196,325	196,325	196,325	196,325	113,867	
9 - ECCFPD	1,593,925	4.58	348,019	348,019	348,019	348,019	201,849	
10 - Housing Authority	291,703	4.58	63,691	63,691	63,691	63,691	36,939	
11 - IHSS	75,909	4.58	16,574	16,574	16,574	16,574	9,613	
12 - LAFCO	7,779	4.58	1,698	1,698	1,698	1,698	987	
13 - MOFD	3,112,251	4.58	679,531	679,531	679,531	679,531	394,127	
14 - Rodeo SD	110,679	4.58	24,166	24,166	24,166	24,166	14,015	
15 - RHFD	2,384,329	4.58	520,596	520,596	520,596	520,596	301,945	
16 - SRVFPD	7,910,516	4.58	1,727,187	1,727,187	1,727,187	1,727,187	1,001,768	
17 - Court	(2,446,142)	4.58	(534,092)	(534,092)	(534,092)	(534,092)	(309,774)	
18 - DDSD (Term)	0	4.58	0	0	0	0	0	
19 - DWD (Term)	0	4.58	0	0	0	0	0	
20 - Pittsburg (Term)	<u>0</u>	4.58	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	
Total for all Employers	\$0		\$0	\$0	\$0	\$0	\$0	

Allocation of Changes in Total Net Pension Liability (continued)

	-	Recognition	Reporting	Date for Emplo	yer Under GAS	68 Year Ended	June 30:
	Total Change	Period (Years)	2017	2018	2019	2020	2021
1 - BIMID	\$35,083	4.57	\$7,677	\$7,677	\$7,677	\$7,677	\$4,375
2 - Union Cemetery	(10,332)	4.57	(2,261)	(2,261)	(2,261)	(2,261)	(1,288)
3 - CC Mosquito	59,374	4.57	12,992	12,992	12,992	12,992	7,406
4 - CCCFPD	(6,691,460)	4.57	(1,464,214)	(1,464,214)	(1,464,214)	(1,464,214)	(834,604)
5 - CCCSD	1,498,104	4.57	327,813	327,813	327,813	327,813	186,852
6 - First 5	194,082	4.57	42,469	42,469	42,469	42,469	24,206
7 - County	10,141,906	4.57	2,219,235	2,219,235	2,219,235	2,219,235	1,264,966
8 - CCCERA (the Employer)	43,988	4.57	9,625	9,625	9,625	9,625	5,488
9 - ECCFPD	542,014	4.57	118,603	118,603	118,603	118,603	67,602
10 - Housing Authority	118,077	4.57	25,837	25,837	25,837	25,837	14,729
11 - IHSS	111,579	4.57	24,416	24,416	24,416	24,416	13,915
12 - LAFCO	1,784	4.57	390	390	390	390	224
13 - MOFD	(5,669,733)	4.57	(1,240,642)	(1,240,642)	(1,240,642)	(1,240,642)	(707,165)
14 - Rodeo SD	(24,901)	4.57	(5,449)	(5,449)	(5,449)	(5,449)	(3,105)
15 - RHFD	(630,705)	4.57	(138,010)	(138,010)	(138,010)	(138,010)	(78,665)
16 - SRVFPD	(391,910)	4.57	(85,757)	(85,757)	(85,757)	(85,757)	(48,882)
17 - Court	673,050	4.57	147,276	147,276	147,276	147,276	83,946
18 - DDSD (Term)	0	4.57	0	0	0	0	0
19 - DWD (Term)	0	4.57	0	0	0	0	0
20 - Pittsburg (Term)	<u>0</u>	4.57	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total for all Employers	\$0		\$0	\$0	\$0	\$0	\$0

Allocation of Changes in Total Net Pension Liability (continued)

		Recognition	Reporting Date for Employer Under GAS 68 Year Ended June 30:					
	Total Change	Period (Years)	2016	2017	2018	2019	2020	
1 - BIMID	\$(24,788)	4.52	\$(5,484)	\$(5,484)	\$(5,484)	\$(5,484)	\$(2,852)	
2 - Union Cemetery	96,986	4.52	21,457	21,457	21,457	21,457	11,158	
3 - CC Mosquito	(519,791)	4.52	(114,998)	(114,998)	(114,998)	(114,998)	(59,799)	
4 - CCCFPD	10,720,472	4.52	2,371,786	2,371,786	2,371,786	2,371,786	1,233,328	
5 - CCCSD	(15,863,756)	4.52	(3,509,681)	(3,509,681)	(3,509,681)	(3,509,681)	(1,825,032)	
6 - First 5	387,179	4.52	85,659	85,659	85,659	85,659	44,543	
7 - County	23,188,647	4.52	5,130,230	5,130,230	5,130,230	5,130,230	2,667,727	
8 - CCCERA (the Employer)	(80,571)	4.52	(17,825)	(17,825)	(17,825)	(17,825)	(9,271)	
9 - ECCFPD	(8,485,858)	4.52	(1,877,402)	(1,877,402)	(1,877,402)	(1,877,402)	(976,250)	
10 - Housing Authority	(93,307)	4.52	(20,643)	(20,643)	(20,643)	(20,643)	(10,735)	
11 - IHSS	146	4.52	32	32	32	32	18	
12 - LAFCO	(35,809)	4.52	(7,922)	(7,922)	(7,922)	(7,922)	(4,121)	
13 - MOFD	(1,149,167)	4.52	(254,240)	(254,240)	(254,240)	(254,240)	(132,207)	
14 - Rodeo SD	253,152	4.52	56,007	56,007	56,007	56,007	29,124	
15 - RHFD	(2,668,492)	4.52	(590,374)	(590,374)	(590,374)	(590,374)	(306,996)	
16 - SRVFPD	(8,350,466)	4.52	(1,847,448)	(1,847,448)	(1,847,448)	(1,847,448)	(960,674)	
17 - Court	2,625,423	4.52	580,846	580,846	580,846	580,846	302,039	
18 - DDSD (Term)	0	4.52	0	0	0	0	0	
19 - DWD (Term)	0	4.52	0	0	0	0	0	
20 - Pittsburg (Term)	<u>0</u>	4.52	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	
Total for all Employers	\$0		\$0	\$0	\$0	\$0	\$0	

Actuarial Assumptions and Methods

For December 31, 2019 Measurement Date and Employer Reporting as of June 30, 2020

Rationale for Assumptions

The information and analysis used in selecting each assumption that has a significant effect on this actuarial valuation is shown in the January 1, 2015 through December 31, 2017 Actuarial Experience Study dated April 23, 2019. Unless otherwise noted, all actuarial assumptions and methods shown below apply to all tiers. These assumptions were adopted by the Board.

Economic Assumptions

Net Investment Return:	7.00%, net of investment expenses. Based on the Actuarial Experience Study referenced above, expected investment expenses represent about 0.65% of the Actuarial Value of Assets.
Administration Expenses:	1.14% of payroll allocated to both the employer and the member based on normal cost (before expenses) for the employer and member.This assumption changes each year based on the actual administrative expenses as a percent of actual
	compensation during the calendar year leading up to the valuation date.
Employee Contribution Crediting Rate:	7.00%, compounded semi-annually.

Consumer Price Index:	Increases of 2.75% per year.
	Benefits for General Tier 1, Tier 3 (non-disability), Tier 4 and Tier 5 (non-disability) and Safety Tier A and Tier D are subject to a 3.00% maximum COLA increase due to CPI per year (valued as a 2.75% increase).
	Benefits for General Tier 2, Tier 3 (disability) and Tier 5 (disability) are subject to a 4.00% maximum change per year (valued as a 2.75% increase).
	Benefits for General Tier 4 and Tier 5 members covered under certain memoranda of understanding and Safety Tier C and Tier E are subject to a 2.00% maximum change per year (valued as a 2.00% increase).
	For members that have COLA banks, they are reflected in projected future COLAs.
	The actual COLA granted by CCCERA on April 1, 2019 has been reflected for non-active members in the December 31, 2018 valuation.
Payroll Growth:	Inflation of 2.75% per year plus "across the board" real salary increases of 0.50% per year, used to amortize the Unfunded Actuarial Accrued Liability as a level percentage of payroll.
Increase in Internal Revenue Code Section 401(a)(17) Compensation Limit:	Increase of 2.75% per year from the valuation date.
Increase in Section 7522.10 Compensation Limit:	Increase of 2.75% per year from the valuation date.

Salary Increases:

The annual rate of compensation increase includes:

- Inflation at 2.75%, plus
- "Across the board" salary increases of 0.50% per year, plus
- The following merit and promotion increases:

Years of	Rate	(%)
Service	General	Safety
Less than 1	12.00	13.00
1 – 2	7.00	8.00
2 – 3	5.25	5.75
3 – 4	3.75	4.75
4 – 5	2.75	2.75
5 – 6	2.25	2.00
6 – 7	1.75	1.75
7 – 8	1.50	1.50
8 – 9	1.40	1.40
9 – 10	1.30	1.30
10 – 11	1.20	1.25
11 – 12	1.10	1.20
12 – 13	1.00	1.15
13 – 14	0.90	1.10
14 – 15	0.80	1.05
15 – 16	0.75	1.00
16 – 17	0.70	1.00
17 – 18	0.65	1.00
18 – 19	0.60	1.00
19 – 20	0.55	1.00
20 & Over	0.50	1.00

Demographic Assumptions

Post-Re	etiremen	t Morta	litv i	Kates:

Healthy

- General Members: Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2018.
- **Safety Members:** Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) multiplied by 105% for males and 100% for females, projected generationally with the two-dimensional mortality improvement scale MP-2018.
- All Beneficiaries: Pub-2010 Contingent Survivor Amount-Weighted Above-Median Mortality Table (separate tables for males and females) multiplied by 105% for males and females, projected generationally with the two-dimensional mortality improvement scale MP-2018.

Disabled

- General Members: Pub-2010 Non-Safety Disabled Retiree Amount-Weighted Mortality Table (separate tables for males and females) multiplied by 105% for males and 100% for females, projected generationally with the two-dimensional mortality improvement scale MP-2018.
- Safety Members: Pub-2010 Safety Disabled Retiree Amount-Weighted Mortality Table (separate tables for males and females) multiplied by 105% for males and 100% for females, projected generationally with the two-dimensional mortality improvement scale MP-2018.

The Pub-2010 mortality tables and adjustments as shown above reasonably reflect the mortality experience as of the measurement date. These mortality tables were adjusted to future years using the generational projection to reflect future mortality improvement between the measurement date and those years.

60

65

70

Pre-Retirement Mortality Rates:

- General Members: Pub-2010 General Employee Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2018.
- **Safety Members:** Pub-2010 Safety Employee Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2018.

Rate (%)¹

0.23

0.35

0.66

General Safety Male **Female** Male **Female** Age 20 0.04 0.01 0.04 0.02 25 0.02 0.01 0.03 0.02 30 0.03 0.01 0.04 0.02 35 0.04 0.02 0.04 0.03 40 0.06 0.03 0.05 0.04 45 0.09 0.05 0.07 0.06 50 0.13 80.0 0.10 0.08 55 0.19 0.11 0.15 0.11

0.17

0.27

0.44

All pre-retirement deaths are assumed to be non-service connected.

0.28

0.41

0.61

Mortality Rates for Member Contributions:

- **General Members:** Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected 30 years with the two-dimensional mortality improvement scale MP-2018, weighted 30% male and 70% female.
- **Safety Members:** Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) multiplied by 105% for males and 100% for females, projected 30 years with the two-dimensional mortality improvement scale MP-2018, weighted 85% male and 15% female.

0.14

0.20

0.39

¹ Generational projections beyond the base year (2010) are not reflected in the above mortality rates.

Disability Incidence:		Rate (%)		
	Age	General Tier 1 and Tier 4	General Tier 3 and Tier 5	Safety
	20	0.01	0.01	0.02
	25	0.02	0.02	0.16
	30	0.04	0.03	0.32
	35	0.08	0.05	0.46
	40	0.22	0.08	0.56
	45	0.36	0.11	0.90
	50	0.52	0.13	2.54
	55	0.60	0.16	3.80
	60	0.60	0.22	4.30
	65	0.60	0.25	4.50
	70	0.60	0.25	4.50

60% of General Tier 1 and Tier 4 disabilities are assumed to be service connected disabilities. The other 40% are assumed to be non-service connected disabilities.

30% of General Tier 3 and Tier 5 disabilities are assumed to be service connected disabilities. The other 70% are assumed to be non-service connected disabilities.

100% of Safety disabilities are assumed to be service connected disabilities.

Years of		Rate (%)
Service		Safety
Less than	1 14.00	12.50
1 – 2	9.50	10.00
2 – 3	9.25	8.25
3 – 4	6.50	5.75
4 – 5	5.25	5.00
5 – 6	5.00	4.25
6 – 7	4.50	3.50
7 – 8	4.25	3.25
8 – 9	3.75	3.00
9 – 10	3.50	2.50
10 – 11	3.25	2.25
11 – 12	3.00	2.10
12 – 13	2.75	2.00
13 – 14	2.50	1.90
14 – 15	2.50	1.80
15 – 16	2.25	1.70
16 – 17	2.25	1.60
17 – 18	2.00	1.50
18 – 19	2.00	1.25
19 – 20	1.75	1.00
20 & Ove	r 1.25	0.75

The member is assumed to receive the greater of the member's contribution balance or a deferred retirement benefit.

No termination is assumed after a member is first assumed to retire.

Termination:

Retirement Rates (General):				Rate	(%)		
		Tier 1 En	hanced	Tier 3 En	hanced		
	Age	Less than 30 Years of Service	Over 30 Years of Service	Less than 30 Years of Service	Over 30 Years of Service	Tier 1 Non- Enhanced	PEPRA Tier 4 and Tier 5
	50	5.00	9.00	4.00	7.20	3.00	0.00
	51	4.00	7.20	3.00	5.40	3.00	0.00
	52	4.00	7.20	3.00	5.40	3.00	2.00
	53	4.00	7.20	4.00	7.20	3.00	3.00
	54	12.00	21.60	6.00	10.80	3.00	3.00
	55	15.00	27.00	8.00	14.40	10.00	5.00
	56	17.00	30.60	8.00	9.60	10.00	5.00
	57	17.00	30.60	9.00	10.80	10.00	6.00
	58	17.00	30.60	10.00	12.00	10.00	6.00
	59	22.00	26.40	12.00	14.40	10.00	8.00
	60	25.00	30.00	13.00	15.60	25.00	8.00
	61	30.00	36.00	18.00	21.60	15.00	12.00
	62	30.00	36.00	22.00	26.40	40.00	18.00
	63	25.00	30.00	22.00	26.40	35.00	18.00
	64	25.00	30.00	25.00	30.00	30.00	20.00
	65	35.00	35.00	32.00	32.00	40.00	25.00
	66	40.00	40.00	32.00	32.00	35.00	25.00
	67	40.00	40.00	30.00	30.00	35.00	25.00
	68	40.00	40.00	30.00	30.00	35.00	25.00
	69	40.00	40.00	30.00	30.00	35.00	25.00
	70	35.00	35.00	35.00	35.00	40.00	40.00
	71	35.00	35.00	35.00	35.00	40.00	40.00
	72	35.00	35.00	35.00	35.00	40.00	40.00
	73	35.00	35.00	35.00	35.00	50.00	40.00
	74	35.00	35.00	35.00	35.00	50.00	40.00
	75 & Over	100.00	100.00	100.00	100.00	100.00	100.00

Unknown Data for Members: Same as those exhibited by members with similar known characteristics. If not specified, members are	Retirement Rates (Safety):				Rat	e (%)		
Retirement Age and Benefit for Deferred Vested Members: Sarely with National Processing Service Sarely Service Sarely Service Sarely Service Sarely Service Sarely Service Sarely With National Processing Service Sarely Without Reciprocity: 50 4.000 0.000				Tier A Er	nhanced			
46 3.00 3.75 1.00 0.00			Age	30 Years of	Years of		and PEPRA Tier D and	
47			45	7.00	8.75	2.00	0.00	
A8								
49								
Solidation Sol								
Safety with Reciprocity: 50 10.00 31.25 18.00 4.00 4.00								
Signature Sign								
Safety with Reciprocity: Safety with Reciprocity: Safety with Reciprocity: Safety with Reciprocity: Safety without R								
Safety with Reciprocity: 53 Safety without Reciprocity: 53 Safety without Reciprocity: 50 Safety without Re								
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Comparison of the process of the p								
61 25.00 37.50 25.00 20.00 62 25.00 37.50 25.00 20.00 63 30.00 45.00 30.00 20.00 64 40.00 60.00 35.00 25.00 65 & Over 100.00 100.00 100.00 100.00 Retirement Age and Benefit for Deferred Vested Members: 59 Safety with Reciprocity: 53 Safety without Reciprocity: 50 40% of future General and 70% of future Safety deferred vested members are assumed to continue to work a reciprocal employer. For reciprocals, 3.75% and 4.25% compensation increases are assumed per annum for General and Safety, respectively. Future Benefit Accruals: 1.0 year of service per year for full-time employees. Continuation of current partial service accrual for part-time employees.								
Retirement Age and Benefit for Deferred Vested Members: General: 59 Safety without Reciprocity: 50 40% of future General and 70% of future Safety deferred vested members are assumed to continue to work a reciprocal employer. For reciprocals, 3.75% and 4.25% compensation increases are assumed per annum for General and Safety, respectively.								
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Retirement Age and Benefit for Deferred Vested Members: Safety with Reciprocity: 53 Safety without Reciprocity: 50 40% of future General and 70% of future Safety deferred vested members are assumed to continue to work a reciprocal employer. For reciprocals, 3.75% and 4.25% compensation increases are assumed per annum for General and Safety, respectively. Future Benefit Accruals: 1.0 year of service per year for full-time employees. Continuation of current partial service accrual for part-time employees. Unknown Data for Members: Same as those exhibited by members with similar known characteristics. If not specified, members are								
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employees. Unknown Data for Members: Same as those exhibited by members with similar known characteristics. If not specified, members are			3.75% and 4.2	5% compensatio	n increases ar	e assumed per	annum for Gene	eral and Safety,
	Future Benefit Accruals:	1.0 year of service per year for full-time employees. Continuation of current partial service accrual for part-time employees.						
assumed to be male.	Unknown Data for Members:	Same as those ea		embers with simi	lar known char	acteristics. If no	ot specified, men	nbers are

Definition of Active Members:	All active members of CCCERA as of the valuation date.			
Form of Payment:	All active and inactive members are assumed to elect the unmodified option at retirement. There is no explicit assumption for children's benefit.			
Percent Married:	For all active and inactive members, 65% of male members and 50% of female members are assumed to be married at pre-retirement death or retirement.			
Age and Gender of Spouse:	For all active and inactive members, male members are assumed to have a female spouse who is 3 years younger than the member and female members are assumed to have a male spouse who is 2 years older than the member.			
Offsets by Other Plans of the Employer for Disability Benefits:	The Plan requires members who retire because of disability from General Tier 3 and General PEPRA Tier 5 to offset the Plan's disability benefits with other Plans of the employer. We have not assumed any offsets in this valuation.			
Leave Cashout Assumptions:	The following assumptions for leave cashouts as a percentage of final average pay are used:			
	General Tiers 1, 2 and 3 Safety Tiers A and C			
	Cost Group 1 1.00%			
	Cost Group 2 0.50% for Tier 2			
	0.75% for Tier 3			
	Cost Group 3 4.75%			
	Cost Group 4 0.50%			
	Cost Group 5 1.25%			
	Cost Group 6 0.25%			
	Cost Group 7 0.75%			
	Cost Group 8 0.50%			
	Cost Group 9 0.00%			
	Cost Group 10 0.50%			
	Cost Group 11 2.50%			
	Cost Group 12 2.00%			
	Terminated Employers 0.00%			
	General PEPRA Tiers 4 and 5 Safety PEPRA Tiers D and E			
	None			

Service From Accumulated Sick Leave Conversion:	The following assumptions for additional service converted from accumulated sick leave as a percentage of service at retirement are used:				
	Service Retirements				
	General:	1.10%			
	Safety:	1.80%			
	Disability Retirements				
	General:	0.06%			
	Safety:	1.20%			
		341.01, the cost of this benefit for the non-PEPRA tiers will be charged only to affect member contribution rates.			
Actuarial Cost Method:	Entry Age Actuarial Cost Method. Entry Age is calculated as age on the valuation date minus years of service. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are based on costs allocated as a level percentage of compensation.				
Expected Remaining Service Lives:	The average of the expected remaining service lives of all employees is determined by:				
	 Calculating each active employee's expected remaining service life as the present value of \$1 per year of future service at zero percent interest. 				
	Setting the remaining service life to zero for each non-active or retired member.				
	Dividing the sum of the above amounts by the total number of active, non-active and retired members.				
Changes in Actuarial Assumptions:	The following assumption was changed. Previously, this assumption was as follows:				
Administration Expenses:	1.10% of payroll allocated to both the employer and the member based on normal cost (before expenses) for the employer and member.				
		es each year based on the actual administrative expenses as a percent of actual e calendar year leading up to the valuation date.			

Segal valuation results are based on proprietary actuarial modeling software. The actuarial valuation models generate a comprehensive set of liability and cost calculations that are presented to meet regulatory, legislative and client requirements. Our Actuarial Technology and Systems unit, comprised of both actuaries and programmers, is responsible for the initial development and maintenance of these models. The models have a modular structure that allows for a high degree of accuracy, flexibility and user control. The client team programs the assumptions and the plan provisions, validates the models, and reviews test lives and results, under the supervision of the responsible actuary.

The projection of Plan Fiduciary Net Position in Appendix A is based on a model developed by our Actuarial Technology and Systems unit, comprised of both actuaries and programmers. The model allows the client team, under the supervision of the responsible actuary, control over the entry of future expected contribution income, benefit payments and administrative expenses. The projection of fiduciary net position and the discounting of benefits is part of the model.

Appendix A: Projection of Plan Fiduciary Net Position for Use in the Calculation of Discount Rate as of December 31, 2019 (\$ in millions)

Year Beginning January 1,	Projected Beginning Plan Fiduciary Net Position (a)	Projected Total Contributions (b)	Projected Benefit Payments (c)	Projected Administrative Expenses (d)	Projected Investment Earnings (e)	Projected Ending Plan Fiduciary Net Position (f) = (a) + (b) - (c) - (d) + (e)
2019	\$8,150	\$436	\$487	\$10	\$1,168	\$9,257
2020	9,257	401	525	9	643	9,768
2021	9,768	397	553	9	678	10,282
2022	10,282	389	583	8	713	10,793
2023	10,793	301	613	8	745	11,218
2024	11,218	287	643	8	773	11,627
2025	11,627	280	673	7	800	12,027
2026	12,027	275	702	7	827	12,420
2027	12,420	251	731	7	853	12,785
2028	12,785	197	759	6	875	13,092
2059	11,355	2	1,019	0 *	760	11,097
2060	11,097	1	997	0 *	743	10,844
2061	10,844	1	973	0 *	726	10,598
2062	10,598	1	947	0 *	709	10,361
2063	10,361	0 *	920	0 *	694	10,134
2094	20,650	0	43	0	1,444	22,051
2095	22,051	0	34	0	1,542	23,560
2096	23,560	0	27	0	1,648	25,181
2097	25,181	0	21	0	1,762	26,923
2098	26,923	0	16	0	1,884	28,791
2137	376,016	0	0 *	0	26,321	402,337
2138 2138	402,337 Discounted Value: 137 **					

Less than \$1 million, when rounded.

^{\$402,337} million when discounted with interest at the rate of 7.00% per annum has a value of \$137 million as of December 31, 2019.

Appendix A: Projection of Plan Fiduciary Net Position for Use in the Calculation of Discount Rate as of December 31, 2019 (continued)

Notes:

- Amounts may not total exactly due to rounding.
- 2. Amounts shown in the year beginning January 1, 2019 row are actual amounts, based on the unaudited financial statements provided by CCCERA.
- 3. Various years have been omitted from this table.
- 4. Column (a): Except for the 'discounted value' shown for 2138, none of the projected beginning Plan Fiduciary Net Position amounts shown have been adjusted for the time value of money.
- 5. Column (b): Projected total contributions include member and employer normal cost rates applied to closed group projected payroll (based on covered active members as of December 31, 2018); plus employer contributions to the Unfunded Actuarial Accrued Liability; Contributions are assumed to occur halfway through the year, on average.
- 6. Column (c): Projected benefit payments have been determined in accordance with paragraph 39 of GASB Statement No. 67, and are based on the closed group of active, inactive vested, retired members, and beneficiaries as of December 31, 2018. The projected benefit payments reflect the cost of living increase assumptions adopted for use in the December 31, 2019 valuation report and include projected benefits associated with the Post Retirement Death Benefit Reserve.
- 7. Column (d): Projected administrative expenses are assumed to be 1.14% of closed group projected payroll and are assumed to occur halfway through the year, on average.
- Column (e): Projected investment earnings are based on the assumed investment rate of return of 7.00% per annum.
- 9. As illustrated in this Appendix, the Plan Fiduciary Net Position was projected to be available to make all projected future benefit payments for current Plan members. In other words, there is no projected 'cross-over date' when projected benefits are not covered by projected assets. Therefore, the long-term expected rate of return on Plan investments of 7.00% per annum wwas applied to all periods of projected benefit payments to determine the Total Pension Liability as of December 31, 2019 shown earlier in this report, pursuant to paragraph 44 of GASB Statement No. 67.

Appendix B: Definition of Terms

Definitions of certain terms as they are used in Statement 68. The terms may have different meanings in other contexts.

Active Employees	Individuals employed at the end of the reporting or measurement period, as applicable.			
Actual Contributions	Cash contributions recognized as additions to a Pension Plan Fiduciary Net Position.			
Actuarial Present Value of Projected Benefit Payments	Projected benefit payments discounted to reflect the expected effects of the time value (present value of money and the probabilities of payment.			
Actuarial Valuation	The determination, as of a point in time (the actuarial valuation date), of the service cost, Total Pensio Liability, and related actuarial present value of projected benefit payments for pensions performed in conformity with Actuarial Standards of Practice unless otherwise specified by the GAS.			
Actuarial Valuation Date	The date as of which an actuarial valuation is performed.			
Actuarially Determined Contribution	A target or recommended contribution to a defined benefit pension plan for the reporting period, determined in conformity with Actuarial Standards of Practice based on the most recent measurement available when the contribution for the reporting period was adopted.			
Ad Hoc Cost-of-Living Adjustments (Ad Hoc COLAs)	Cost-of-living adjustments that require a decision to grant by the authority responsible for making suddecisions.			
Automatic Cost-of-Living Adjustments (Automatic COLAs)	Cost-of-living adjustments that occur without a requirement for a decision to grant by a responsible authority, including those for which the amounts are determined by reference to a specified experience factor (such as the earnings experience of the pension plan) or to another variable (such as an increase in the consumer price index).			
Closed Period	A specific number of years that is counted from one date and declines to zero with the passage of time. For example, if the recognition period initially is five years on a closed basis, four years remain after the first year, three years after the second year, and so forth.			
Collective Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions	Deferred outflows of resources and deferred inflows of resources related to pensions arising from certain changes in the collective Net Pension Liability.			
Collective Net Pension Liability	The Net Pension Liability for benefits provided through (1) a cost-sharing pension plan or (2) a single-employer or agent pension plan in circumstances in which there is a special funding situation.			
Collective Pension Expense	Pension expense arising from certain changes in the collective Net Pension Liability.			
Contributions	Additions to a Pension Plan Fiduciary Net Position for amounts from employers, non-employer contributing entities (for example, state government contributions to a local government pension plan), or employees. Contributions can result from cash receipts by the pension plan or from recognition by the pension plan of a receivable from one of these sources.			

Cost-of-Living Adjustments	Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.			
Cost-Sharing Employer	An employer whose employees are provided with pensions through a cost-sharing multiple-employer defined benefit pension plan.			
Cost-Sharing Multiple-Employer Defined Benefit Pension Plan (Cost- Sharing Pension Plan)	A multiple-employer defined benefit pension plan in which the pension obligations to the employees of more than one employer are pooled and pension plan assets can be used to pay the benefits of the employees of any employer that provides pensions through the pension plan.			
Covered Payroll	The payroll of members that are provided with pensions through the pension plan.			
Defined Benefit Pension Plans	Pension plans that are used to provide defined benefit pensions.			
Defined Benefit Pensions	Pensions for which the income or other benefits that the employee will receive at or after separation from employment are defined by the benefit terms. The pensions may be stated as a specified dollar amount or as an amount that is calculated based on one or more factors such as age, years of service, and compensation. (A pension that does not meet the criteria of a defined contribution pension is classified as a defined benefit pension for purposes of Statement 68.)			
Defined Contribution Pension Plans	Pension plans that are used to provide defined contribution pensions.			
Defined Contribution Pensions	Pensions having terms that (1) provide an individual account for each employee; (2) define the contributions that an employer is required to make (or the credits that it is required to provide) to an active employee's account for periods in which that employee renders service; and (3) provide that the pensions an employee will receive will depend only on the contributions (or credits) to the employee's account, actual earnings on investments of those contributions (or credits), and the effects of forfeitures of contributions (or credits) made for other employees, as well as pension plan administrative costs, that are allocated to the employee's account.			
Discount Rate	 The single rate of return that, when applied to all projected benefit payments, results in an actuarial present value of projected benefit payments equal to the total of the following: The actuarial present value of benefit payments projected to be made in future periods in which (a) the amount of the pension Plan Fiduciary Net Position is projected (under the requirements of Statement 67) to be greater than the benefit payments that are projected to be made in that period and (b) pension plan assets up to that point are expected to be invested using a strategy to achieve the long-term expected rate of return, calculated using the long-term expected rate of return on pension plan investments. The actuarial present value of projected benefit payments not included in (1), calculated using the municipal bond rate. 			
Entry Age Actuarial Cost Method	A method under which the actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit age(s). The portion of this actuarial present value allocated to a valuation year is called the <i>normal cost</i> . The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future normal costs is called the <i>actuarial accrued liability</i> .			

Inactive Employees	Terminated individuals that have accumulated benefits but are not yet receiving them, and retirees or their beneficiaries currently receiving benefits.			
Measurement Period	The period between the prior and the current measurement dates.			
Multiple-Employer Defined Benefit Pension Plan	A defined benefit pension plan that is used to provide pensions to the employees of more than one employer.			
Net Pension Liability	The liability of employers and non-employer contributing entities to employees for benefits provided through a defined benefit pension plan.			
Pension Plans	Arrangements through which pensions are determined, assets dedicated for pensions are accumulated and managed, and benefits are paid as they come due.			
Pensions	Retirement income and, if provided through a pension plan, postemployment benefits other than retirement income (such as death benefits, life insurance, and disability benefits). Pensions do not include postemployment healthcare benefits and termination benefits.			
Plan Members	Individuals that are covered under the terms of a pension plan. Plan members generally include (1) employees in active service (active plan members) and (2) terminated employees who have accumulated benefits but are not yet receiving them and retirees or their beneficiaries currently receiving benefits (inactive plan members).			
Postemployment	The period after employment.			
Postemployment Benefit Changes	Adjustments to the pension of an inactive employee.			
Projected Benefit Payments	All benefits estimated to be payable through the pension plan to current active and inactive employees as a result of their past service and their expected future service.			
Public Employee Retirement System	A special-purpose government that administers one or more pension plans; also may administer other types of employee benefit plans, including postemployment healthcare plans and deferred compensation plans.			
Real Rate of Return	The rate of return on an investment after adjustment to eliminate inflation.			
Service Costs	The portions of the actuarial present value of projected benefit payments that are attributed to valuat years.			
Termination Benefits	Inducements offered by employers to active employees to hasten the termination of services, or payments made in consequence of the early termination of services. Termination benefits include early-retirement incentives, severance benefits, and other termination-related benefits.			
Total Pension Liability	The portion of the actuarial present value of projected benefit payments that is attributed to past periods of employee service in conformity with the requirements of Statement 68.			

5656055v3/05337.015



Meeting Date
10/28/20
Agenda Item
#7

MEMORANDUM

Date: October 28, 2020

To: CCCERA Board of Retirement

From: Christina Dunn, Deputy Chief Executive Officer

Subject: Consider and take possible action to authorize the CEO to execute an agreement

with the Housing Authority of Contra Costa County for contribution and reporting

deadlines.

Background

Employer and member contributions into CCCERA are mandatory. The Retirement Board Regulations set the due dates for retirement contribution payments as well as required payroll and demographic reports. These regulations apply to all participating employers, including Contra Costa County and special districts. Section IV.2. of the Regulations states:

- Each employer shall report to the Association in a manner and frequency as determined by the Board sufficient for the Board to credit contributions and service to each member's record.
- Unless otherwise specified, reports shall be due no later than the tenth of each month for the previous month's payroll and shall be accompanied by member and employer contributions. If the tenth of the month falls on a weekend or holiday, the due date shall be the last working day before the tenth. Reports, which are unreadable or incorrect, shall not be accepted and shall be returned to the employer.
- Reports and contributions received after the due date shall be considered late and subject
 to a late reporting penalty equal to: the prime rate in effect on the due date computed on
 a daily, non-compounding basis and applied to the contributions due.

CCCERA has received a request from the Housing Authority of Contra Costa County to provide an additional ten days to the due date schedule to submit the contribution and demographic reports. In the enclosed letter, the Housing Authority of Contra Costa County has set forth the reasons why it needs the additional ten days in order to submit the required reports. This adjustment in due date is not currently memorialized in a written agreement. In order to

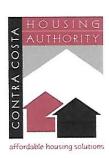
CCCERA Board of Retirement October 28, 2020 Page 2

provide for clear contribution payment and reporting due dates, a written agreement is recommended.

Recommendation

Consider and take possible action to authorize the CEO to execute an agreement with the Housing Authority of Contra Costa County for contribution and reporting deadlines which provides an additional ten days to the report submission deadline outlined in the Board of Retirement Regulations.

HOUSING AUTHORITY OF THE COUNTY OF CONTRA COSTA



John Hunter

Director of Finance

3133 Estudillo Street Martinez, California 94553 Phone (925) 957-8014 Fax (925) 372-3678

October 9, 2020

Contra Costa Employees' Retirement Association Board 1200 Concord Ave. Suite 300 Concord, CA 94520

Dear CCCERA Board Members:

The Housing Authority would like to request 10 additional days for reporting the I29 and I30. The extended reporting period to the 20th of the month would allow the Authority to produce I29 and I30 files that have been properly reviewed and completed and prevent late submissions. The funding date of the 10th of the month would still remain intact.

The Housing Authority is one of the few Employers that are on a bi-weekly payroll. This means that when the last pay date falls on the last day of the month, or when the Authority has 3 pay dates in a month, it causes the Authority to have as few as 4 working days to verify and reconcile the payroll reporting and often causes late submissions in preparing and completing the I29 and I30 reports due to CCCERA.

It should be noted that the Housing Authority has a system in place that allows for the proper tracking of the total funding due CCCERA and has funded within the 10 day requirement mandated by the Board. This request is only to allow for the 10 day extension to the submission of I29 and I30.

Thank you in advance for your consideration in this matter. You may contact me at (925) 957-8014 if you have any questions.

John Hunter

spectfully

Director of Finance

Housing Authority of the County Contra Costa