



## **AGENDA**

### **RETIREMENT BOARD MEETING**

REGULAR MEETING

September 28, 2022, 9:00 a.m.

The Board of Retirement will hold its meeting via teleconferencing as permitted by Government Code Section 54953(e). The meeting is accessible telephonically at 669-900-6833, Webinar ID: 898 2382 4289 Passcode: 767317, or via the web at:

<https://us06web.zoom.us/j/89823824289?pwd=MXozTzdsUjU0MEV3bTFLV2pYZFYvZz09>

Passcode: 767317

Persons who wish to address the Board of Retirement during public comment may call in during the meeting by dialing the phone number and passcode above. Access via Zoom is also available at the weblink above. To indicate you wish to speak during public comment, please select \*9 on your phone or “raise your hand” in the Zoom app.

Public comments are limited to any item that is within the subject matter jurisdiction of the Board of Retirement. Comments will be received in real time via telephone or Zoom, subject to a three-minute time limit per speaker.

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 August 24, 2022 meeting.
5. Consider and take possible action to accept the GASB 68 report from Segal Consulting.
6. Review of report on growth sub-portfolio.
7. Presentation from Artisan Partners.

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. Retirement application processing update.
9. Presentation of year-to-date 2022 CCCERA budget vs. actual expenses report.
10. Consider authorizing the attendance of Board:
  - a. Blackstone meeting, October 11, 2022, New York, NY.
11. 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.



## **RETIREMENT BOARD MEETING MINUTES**

REGULAR MEETING  
August 24, 2022  
9:00 a.m.

The Board of Retirement meeting was accessible telephonically at (669) 900-6833, Webinar ID 817 3480 6212 Passcode 574719, as permitted by Government Code Section 54953(e).

### **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, Mike Sloan, Russell Watts and Samson Wong.

Absent: Dennis Chebotarev

Staff: Gail Strohl, Chief Executive Officer; Christina Dunn, Deputy Chief Executive Officer; Karen Levy, General Counsel; Timothy Price, Chief Investment Officer and Tim Hoppe, Retirement Services Manager.

Outside Professional Support: Scott Whalen                      Representing:  
Verus

### **3. Accept comments from the public**

No member of the public offered comment.

### **4. Approve of Minutes**

It was **M/S/C** to approve the minutes from the July 27, 2022 meeting. (Yes: Andersen, Finley, Gordon, Holcombe, Kroll, MacDonald, Phillips, Watts and Wong).

**5. Review of total portfolio performance for period ending June 30, 2022**

- a. Presentation from Verus  
Whalen reviewed CCCERA's investment fund performance for the period ending June 30, 2022.
- b. Presentation from Staff  
Price reviewed CCCERA's sub-portfolio's noting CCCERA's total fund is performing as expected.

**6. Review of portfolio rebalancing report**

Price reviewed the portfolio rebalancing report.

**7. Review of real estate investment performance and pacing recommendation**

Whalen reviewed the real estate investment performance and pacing recommendations report.

Finley was no longer present for subsequent discussion and voting.

**8. Consider and take possible action to authorize the Board to conduct teleconference meetings under Government Code Section 54953 (e) and to make related findings**

Levy presented the open meetings law regarding holding teleconference board meetings during a state-proclaimed state of emergency.

It was **M/S/C** to authorize the Board and its committee(s) to continue to conduct teleconference meetings for the next 30 days under Government Code Section 54953 (e) and make the following findings:

1. The Board has reconsidered the circumstance of the statewide state of emergency proclaimed by the Governor on March 4, 2020 and the countywide local emergency proclaimed by the Governor on March 10, 2020.
2. The following circumstances currently exist:
  - a. The statewide state of emergency and the countywide local emergency continue to directly impact the ability of the Board and its committee(s) to meet safely in person at meeting that are open to the general public because of the COVID-19 pandemic.
  - b. The County Health Officer's recommendations for safely holding public meetings, which recommend virtual meeting and other measures to promote social distancing, are still in effect. (Yes: Andersen, Gordon, Holcombe, Kroll, MacDonald, Phillips, Watts and Wong).

**9. Consider authorizing the attendance of Board:**

- a. It was **M/S/C** to authorize the attendance of 1 Board Member at the SACRS Board of Directors and Committee meetings, September 26-27, 2022, Santa Barbara, CA. (Yes: Andersen, Gordon, Holcombe, Kroll, MacDonald, Phillips, Watts and Wong).

- b. It was **M/S/C** to authorize the attendance of 1 Board Member at the ILPA Institute Private Equity for the Trustee, September 27-28, 2022, San Francisco, CA. (Note: Conflict with Board Meeting) (Yes: Andersen, Gordon, Holcombe, Kroll, MacDonald, Phillips, Watts and Wong).
- c. It was **M/S/C** to authorize the attendance of 1 Board Member at the CRCEA Annual Fall Conference, October 9-12, 2022, Sacramento, CA. (Note: Conflict with Board Meeting) (Yes: Andersen, Gordon, Holcombe, Kroll, MacDonald, Phillips, Watts and Wong).
- d. It was **M/S/C** to authorize the attendance of 2 Board Members at the Invesco Real Estate Global Client Conference, November 15-17, 2022, San Diego, CA. (Yes: Andersen, Gordon, Holcombe, Kroll, MacDonald, Phillips, Watts and Wong).

**16. Miscellaneous**

- a. Staff Report- Strohl reported staff is continuing to look at ways to improve CCCERA's retirement application process and an update will be provided to the Board in September.
- b. Outside Professionals - None
- c. Trustee' comments – Sloan inquired where ILPA Conference is being held.  
MacDonald updated the Board on his involvement with SACRS and the planning of future conferences.

It was **M/S/C** to adjourn the meeting. (Yes: Andersen, Gordon, Holcombe, Kroll, MacDonald, Phillips, Watts and Wong)

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Scott Gordon, Chairman

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Jerry R. Holcombe, Secretary



<i>Meeting Date</i> <b>09/28/2022</b> <i>Agenda Item</i> <b>#5</b>
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## MEMORANDUM

Date: September 28, 2022  
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.

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### 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. The 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, 2021 measurement date for employer reporting as of June 30, 2022.

### Recommendation

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

Meeting Date

09/28/2022

Agenda Item

#5

**CONTRA COSTA COUNTY EMPLOYEES'  
RETIREMENT ASSOCIATION**

**SCHEDULE OF EMPLOYER ALLOCATIONS AND  
SCHEDULE OF PENSION AMOUNTS BY EMPLOYER**

**FOR EMPLOYER REPORTING UNDER  
GOVERNMENTAL ACCOUNTING STANDARDS  
BOARD (GASB) STATEMENT NO. 68  
AS OF JUNE 30, 2022  
USING A MEASUREMENT DATE OF DECEMBER 31, 2021**

**CONTRA COSTA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
SCHEDULE OF EMPLOYER ALLOCATIONS AND  
SCHEDULE OF PENSION AMOUNTS BY EMPLOYER**

**FOR EMPLOYER REPORTING UNDER  
GOVERNMENTAL ACCOUNTING STANDARDS  
BOARD (GASB) STATEMENT NO. 68  
AS OF JUNE 30, 2022  
USING A MEASUREMENT DATE OF DECEMBER 31, 2021**

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## INDEPENDENT AUDITOR'S REPORT

To the Board of Retirement and Audit Committee of  
Contra Costa County Employees' Retirement Association  
Concord, California

### Report on the Schedules

#### Opinion

We have audited the accompanying Schedule of Employer Allocations of Contra Costa County Employees' Retirement Association (CCCERA) for the years ended December 31, 2021 and 2020, and the related notes to the schedule. We have also audited the total for all entities of the columns titled net pension liability, total deferred outflows of resources, total deferred inflows of resources, and total pension expense (specified column totals) included in the accompanying Schedule of Pension Amounts by Employer as of and for the year ended December 31, 2021, and the related notes to the schedule.

In our opinion, the schedules referred to above present fairly, in all material respects, the employer allocations for the years ended December 31, 2021 and 2020, and net pension liability, total deferred outflows of resources, total deferred inflows of resources, and total pension expense for the total of all participating entities for CCCERA as of and for the year ended December 31, 2021, in accordance with accounting principles generally accepted in the United States of America.

#### Basis for Opinion

We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Schedules section of our report. We are required to be independent of CCCERA and to meet our other ethical responsibilities in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

#### Responsibilities of Management for the Schedules

Management is responsible for the preparation and fair presentation of the schedules in accordance with accounting principles generally accepted in the United States of America and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of the schedule that is free from material misstatement, whether due to fraud or error.

In preparing the schedules, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about CCCERA's ability to continue as a going concern within one year after the date that the schedule is available to be issued.

## **Auditor's Responsibilities for the Audit of the Schedules**

Our objectives are to obtain reasonable assurance about whether the schedules are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with auditing standards generally accepted in the United States of America will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the schedules.

In performing an audit in accordance with auditing standards generally accepted in the United States of America, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the schedules, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the schedules.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of CCCERA's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the schedules.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about CCCERA's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

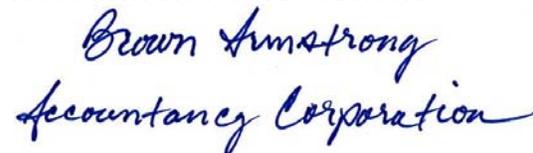
## **Other Matters**

We have audited, in accordance with auditing standards generally accepted in the United States of America, the financial statements of CCCERA as of and for the year ended December 31, 2021, and our report thereon, dated June 15, 2022, expressed an unmodified opinion on those financial statements.

## **Restriction on Use**

Our report is intended solely for the information and use of CCCERA's management, the Board of Retirement and the Audit Committee of CCCERA, and CCCERA participating employers and their auditors and is not intended to be, and should not be, used by anyone other than these specified parties.

BROWN ARMSTRONG  
ACCOUNTANCY CORPORATION

A handwritten signature in blue ink that reads "Brown Armstrong Accountancy Corporation". The signature is written in a cursive, flowing style.

Bakersfield, California  
September 21, 2022

**CONTRA COSTA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
SCHEDULE OF EMPLOYER ALLOCATIONS  
FOR THE YEAR ENDED DECEMBER 31, 2021**

<b>Employer Name</b>	<b>Net Pension Liability/Asset (NPL/A) (1)</b>	<b>Allocation Percentage (2)</b>
Bethel Island Municipal District	\$ (61,909)	0.025%
Byron Brentwood Cemetery	(494,235)	0.203%
Contra Costa Mosquito and Vector Control District	(643,711)	0.265%
Contra Costa County Fire Protection District	22,414,107	-9.226%
Central Contra Costa Sanitary District	(53,543,789)	22.039%
First 5 - Children and Families Commission	(763,759)	0.314%
Contra Costa County	(202,176,380)	83.216%
Contra Costa County Employees' Retirement Association	(1,198,228)	0.493%
East Contra Costa Fire Protection District	(1,933,940)	0.796%
Contra Costa Housing Authority	(1,353,877)	0.557%
In-Home Supportive Services Authority	(180,929)	0.075%
Local Agency Formation Commission	(158,097)	0.065%
Moraga-Orinda Fire District	10,772,836	-4.434%
Rodeo Sanitary District	(1,188,800)	0.489%
Rodeo-Hercules Fire Protection District	3,772,996	-1.553%
San Ramon Valley Fire District	(11,663,302)	4.801%
Superior Court	(6,522,037)	2.685%
Delta Diablo Sanitation District (Terminated Employer) (3)	(565,545)	0.233%
Diablo Water District (Terminated Employer) (3)	738,691	-0.304%
City of Pittsburg (Terminated Employer) (3)	1,796,459	-0.739%
<b>Total for All Employers</b>	<b>\$ (242,953,449)</b>	<b>100.000%</b>

(1) The NPL/A is including pension obligation bonds and Unfunded Actuarial Accrued Liability prepayments for certain employers.

(2) The unrounded percentages excluding terminated employers are actually used in the allocation of NPL/A for active employers.

(3) Beginning with the December 31, 2016 funding valuation, the assets and liabilities associated with three terminated employers have been moved to their own cost group. As such, each pension expense and NPL/A of these three terminated employers have been directly allocated starting with the June 30, 2017 reporting date.

The accompanying notes are an integral part of this schedule.

**CONTRA COSTA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
SCHEDULE OF EMPLOYER ALLOCATIONS  
FOR THE YEAR ENDED DECEMBER 31, 2020**

<u>Employer Name</u>	<u>Net Pension Liability (NPL) (1)</u>	<u>Allocation Percentage (2)</u>
Bethel Island Municipal District	\$ 120,135	0.026%
Byron Brentwood Cemetery	(281,020)	-0.061%
Contra Costa Mosquito and Vector Control District	1,341,891	0.291%
Contra Costa County Fire Protection District	85,582,923	18.547%
Central Contra Costa Sanitary District	48,886,895	10.594%
First 5 - Children and Families Commission	487,008	0.106%
Contra Costa County	255,540,783	55.377%
Contra Costa County Employees' Retirement Association	2,271,787	0.492%
East Contra Costa Fire Protection District	2,070,171	0.449%
Contra Costa Housing Authority	3,458,981	0.750%
In-Home Supportive Services Authority	374,693	0.081%
Local Agency Formation Commission	(21,991)	-0.005%
Moraga-Orinda Fire District	22,360,799	4.846%
Rodeo Sanitary District	(1,054,861)	-0.229%
Rodeo-Hercules Fire Protection District	6,595,503	1.429%
San Ramon Valley Fire District	23,045,406	4.994%
Superior Court	5,268,930	1.142%
Delta Diablo Sanitation District (Terminated Employer) (3)	16,641	0.004%
Diablo Water District (Terminated Employer) (3)	1,371,069	0.297%
City of Pittsburg (Terminated Employer) (3)	4,014,181	0.870%
<b>Total for All Employers</b>	<b>\$ 461,449,924</b>	<b>100.000%</b>

(1) The NPL is including pension obligation bonds and Unfunded Actuarial Accrued Liability prepayments for certain employers.

(2) The unrounded percentages excluding terminated employers are actually used in the allocation of NPL for active employers.

(3) Beginning with the December 31, 2016 funding valuation, the assets and liabilities associated with three terminated employers have been moved to their own cost group. As such, each pension expense and NPL of these three terminated employers have been directly allocated starting with the June 30, 2017 reporting date.

The accompanying notes are an integral part of this schedule.

**CONTRA COSTA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
NOTES TO SCHEDULE OF EMPLOYER ALLOCATIONS  
FOR THE YEARS ENDED DECEMBER 31, 2021 AND 2020**

**NOTE 1 – PLAN DESCRIPTION**

The Contra Costa County Employees' Retirement Association (CCCERA) is governed by the Board of Retirement (Board) under the County Employees Retirement Law of 1937 (CERL); the California Public Employees' Pension Reform Act of 2013 (PEPRA); and the California State Constitution. Members should refer to the CERL and PEPRA for more complete information.

CCCERA is a contributory defined benefit pension plan (the Plan) initially organized under the provisions of the CERL on July 1, 1945. It provides benefits upon retirement, death, or disability of members. Prior to 2010, CCCERA operated as a cost-sharing, multiple employer defined benefit pension plan that covered substantially all of the employees of the County of Contra Costa (the County), 16 other member agencies, and three terminated employers.

In October 2009, the Board depooled CCCERA's assets, actuarial accrued liability (AAL), and normal cost both by tier and employer for determining employer contribution rates. This Board action yielded 12 separate cost groups by employer, with the exception of smaller employers (those with less than 50 active members at that time) who continue to be pooled with the applicable County tier. The December 31, 2009 valuation was the first to incorporate the new "depooled" employer contribution rates, and those rates were effective July 1, 2011.

CCCERA, with its own governing board, is an independent governmental entity, separate and distinct from the County. CCCERA is presented in the County's basic financial statements as a pension trust fund. Costs of administering the Plan are financed through contributions and investment earnings. Effective January 1, 2015, California Senate Bill 673 (SB 673) makes the CCCERA retirement system an independent "district" and the employer for its entire staff, subject to terms and conditions of employment established by the Board.

**NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING AND REPORTING POLICIES**

**Basis of Presentation and Basis of Accounting**

Employers participating in CCCERA are required to report pension information in their financial statements for fiscal periods beginning on or after June 15, 2014, in accordance with Governmental Accounting Standards Board (GASB) Statement No. 68, *Accounting and Financial Reporting for Pensions – an Amendment of GASB Statement No. 27*. The Schedule of Employer Allocations, along with CCCERA's audited financial statements, the GASB Statement No. 67 Actuarial Valuation as of December 31, 2021, and the GASB Statement No. 68 Actuarial Valuation based on a December 31, 2021 Measurement Date for Employer Reporting as of June 30, 2022, prepared by CCCERA's independent actuary, provide the required information for financial reporting related to CCCERA that employers may use in their financial statements.

The accompanying schedule was prepared by CCCERA's independent actuary and was derived from information provided by CCCERA in accordance with accounting principles generally accepted in the United States of America as applicable to governmental organizations.

**Use of Estimates in the Preparation of the Schedules**

The preparation of this schedule in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect certain amounts and disclosures. Actual results could differ from those estimates.

### **NOTE 3 – ACTUARIAL METHODS AND ASSUMPTIONS**

#### **Net Pension Liability/(Asset)**

The collective Plan's Fiduciary Net Position (FNP) as of December 31, 2021, was audited as part of CCCERA's financial statements for the fiscal year ended December 31, 2021. The net pension liability/(asset) (NPL/A) for each cost group is the Total Pension Liability (TPL) minus the Plan's FNP (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 FNP 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 FNP to total CCCERA VVA. Based on this methodology, any non-valuation reserves (such as the Post Retirement Death Benefit) are allocated amongst the cost groups based on each cost group's VVA.

For this report, the reporting dates for the employers are June 30, 2022 and 2021. The FNP and NPL/A were measured as of December 31, 2021 and 2020, respectively, and determined based upon rolling forward the TPL from actuarial valuations as of December 31, 2020 and 2019, respectively. In addition, any significant changes in actuarial assumptions or Plan provisions that occurred between the valuation date and the measurement date have been reflected. The TPL as of December 31, 2021, was measured by (1) valuing the TPL as of December 31, 2020, (before the rollforward) to include the actuarial assumptions that the Board has adopted for use in the pension funding valuation as of December 31, 2021, and (2) using this TPL in rolling forward the results from December 31, 2020, to December 31, 2021. All assumptions are the same as those used in the December 31, 2021 funding valuation and were based on the results of an actuarial experience study for the period January 1, 2018, through December 31, 2022. Consistent with the provisions of GASB Statement No. 68, the assets and liabilities measured as of December 31, 2021 and 2020, are not adjusted or rolled forward to the June 30, 2022 and 2021 reporting dates, respectively.

#### **Allocation of Net Pension Liability/(Asset) to Individual Employers**

The allocation method used to derive each employer's proportionate share of the NPL/A is consistent with GASB Statement No. 68, paragraph 49. The Determination of Proportionate Share is based on the actual January 1, 2021 through December 31, 2021 compensation information provided by CCCERA. In determining the employer's proportionate share, a ratio is calculated using the employees' compensation by employer and cost group.

Paragraph 49 of GASB Statement No. 68 indicates that, to the extent different contribution rates are assessed based on separate relationships that constitute the collective NPL/A, the determination of the employer's proportionate share of the collective NPL/A should be made in a manner that reflects those relationships. The allocation method utilized by CCCERA (as described earlier) to determine the employer's proportionate share reflects these relationships through the cost groups. For cost groups that have one employer, all of the NPL/A for the cost group is allocated to the corresponding employer. For cost groups with multiple employers, NPL/A is allocated based upon a ratio calculated by using the employer's compensation to the total cost group allocation. If an employer is in multiple cost groups, the employer's total allocated NPL/A is the sum of its allocated NPL/A from each cost group. Terminated employers have been directly allocated NPL/A based on results for the specific employer. The corresponding employer allocation percentage or proportionate share shown on the Schedule of Employer Allocations is on the total Plan basis.

### **NOTE 4 – RELATIONSHIP TO THE BASIC FINANCIAL STATEMENTS**

The components of the schedule have been determined based on the FNP for CCCERA as shown in the CCCERA Statement of Changes in Fiduciary Net Position and in accordance with requirements promulgated by GASB Statements No. 67 and No. 68. The NPL/A at December 31, 2021 and 2020, is reported in CCCERA's Required Supplementary Information following the Notes.

**CONTRA COSTA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
SCHEDULE OF PENSION AMOUNTS BY EMPLOYER  
AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2021**

Employer	Deferred Outflows of Resources					Deferred Inflows of Resources					Pension Expense (1)			
	Net Pension Liability	Changes in Proportionate Share of Contributions (3)	Changes of Assumptions or Other Inputs	Net Difference Between Projected and Actual Earnings on Pension Plan Investments	Difference Between Projected and Expected Experience in the Total Pension Liability	Total Deferred Outflows of Resources	Changes in Proportionate Share of Contributions (3)	Changes of Assumptions or Other Inputs	Net Difference Between Projected and Actual Earnings on Pension Plan Investments	Difference Between Expected and Actual Experience in the Total Pension Liability	Total Deferred Inflows of Resources	Proportionate Share of Allocable Plan Pension Expense (1)	Net Amortization of Deferred Amounts from Changes in Proportionate Share of Contributions and Differences Between Employer's Contributions and Proportionate Share of Contributions	Total Pension Expense (1)
Bethel Island Municipal District	\$ (61,909)	\$ 34,807	\$ 43,766	\$ -	\$ 13,076	\$ 91,649	\$ -	\$ 5,376	\$ 198,256	\$ 1,402	\$ 205,034	\$ (1,608)	\$ 44,653	\$ 43,045
Byron Brentwood Cemetery	(494,235)	942,666	349,396	-	104,387	1,396,449	153,092	42,917	1,582,726	11,196	1,789,931	(12,841)	207,575	194,734
Contra Costa Mosquito and Vector Control District	(643,711)	32,353	455,067	-	135,958	623,378	131,032	55,897	2,061,404	14,582	2,262,915	(16,724)	(52,085)	(68,809)
Contra Costa County Fire Protection District	22,414,107	13,450,728	(15,845,512)	-	(4,734,085)	(7,128,869)	114,565,532	(1,946,334)	(71,778,389)	(507,746)	40,333,063	582,346	(32,731,531)	(32,149,185)
Central Contra Costa Sanitary District	(53,543,789)	70,386,428	37,852,446	-	11,308,988	119,547,862	2,449,209	4,649,486	171,467,322	1,212,926	179,778,943	(1,391,134)	19,123,509	17,732,375
First 5 - Children and Families Commission	(763,759)	875,522	539,935	-	161,314	1,576,771	277,642	66,321	2,445,843	17,301	2,807,107	(19,843)	207,897	188,054
Contra Costa County	(202,176,380)	96,362,618	142,927,324	-	42,701,690	281,991,632	27,435,270	17,556,030	647,444,702	4,579,899	697,015,901	(5,252,794)	26,113,752	20,860,958
Contra Costa County Employees' Retirement Association	(1,198,228)	370,566	847,080	-	253,078	1,470,724	-	104,048	3,837,176	27,143	3,968,367	(31,131)	291,540	260,409
East Contra Costa Fire Protection District	(1,933,940)	2,940,787	1,367,187	-	408,468	4,716,442	2,461,179	167,934	6,193,202	43,809	8,866,124	(50,246)	(1,649,568)	(1,699,814)
Contra Costa Housing Authority	(1,353,877)	68,547	957,115	-	285,952	1,311,614	1,088,941	117,564	4,335,623	30,669	5,572,797	(35,175)	(365,218)	(400,393)
In-Home Supportive Services Authority	(180,929)	14,155	127,907	-	38,214	180,276	53,016	15,711	579,403	4,099	652,229	(4,701)	(5,219)	(9,920)
Local Agency Formation Commission	(158,097)	278,668	111,766	-	33,392	423,826	49,124	13,728	506,286	3,581	572,719	(4,108)	62,878	58,770
Moraga-Orinda Fire District	10,772,836	4,896,975	(7,615,789)	-	(2,275,332)	(4,994,146)	36,937,470	(935,461)	(34,498,667)	(244,037)	1,259,305	279,892	(9,434,897)	(9,155,005)
Rodeo Sanitary District	(1,188,800)	2,775,462	840,415	-	251,087	3,866,964	590,136	103,230	3,806,984	26,930	4,527,280	(30,887)	564,261	533,374
Rodeo-Hercules Fire Protection District	3,772,996	758,052	(2,667,296)	-	(796,895)	(2,706,139)	11,719,764	(327,629)	(12,082,550)	(85,470)	(775,885)	98,027	(3,900,602)	(3,802,575)
San Ramon Valley Fire District	(11,663,302)	2,142,791	8,245,298	-	2,463,407	12,851,496	2,455,211	1,012,785	37,350,274	264,208	41,082,478	(303,027)	128,257	(174,770)
Superior Court	(6,522,037)	5,825,954	4,610,713	-	1,377,520	11,814,187	1,790,461	566,342	20,886,012	147,744	23,390,559	(169,452)	1,394,798	1,225,346
Delta Diablo Sanitation District (Terminated Employer) (2)	(565,545)	-	164,699	-	270,742	435,441	-	-	889,318	680,255	1,569,573	(383,687)	-	(383,687)
Diablo Water District (Terminated Employer) (2)	738,691	-	-	-	312,798	312,798	-	8,773	86,436	406,904	502,113	106,512	-	106,512
City of Pittsburg (Terminated Employer) (2)	1,796,459	-	628,625	-	299,970	928,595	-	6,246	3,118,415	-	3,124,661	(387,810)	-	(387,810)
<b>Total for All Employers</b>	<b>\$ (242,953,449)</b>	<b>\$ 202,157,079</b>	<b>\$ 173,940,142</b>	<b>\$ -</b>	<b>\$ 52,613,729</b>	<b>\$ 428,710,950</b>	<b>\$ 202,157,079</b>	<b>\$ 21,282,964</b>	<b>\$ 788,429,776</b>	<b>\$ 6,635,395</b>	<b>\$ 1,018,505,214</b>	<b>\$ (7,028,391)</b>	<b>\$ -</b>	<b>\$ (7,028,391)</b>

(1) Starting with the June 30, 2017 reporting date, the employer contributions now exclude any employer subventions of member contributions and include any member subventions of employer contributions. This change has not been applied on a retroactive basis prior to the June 30, 2017 reporting date.

(2) Beginning with the December 31, 2016 funding valuation, the assets and liabilities associated with three terminated employers have been moved to their own cost group. As such, these three terminated employers have been direct allocated to each their pension expense and net pension liability starting with the June 30, 2017 reporting date.

(3) Calculated in accordance with Paragraphs 54 and 55 of GASB Statement No. 68.

The accompanying notes are an integral part of this schedule.

**CONTRA COSTA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
NOTES TO SCHEDULE OF PENSION AMOUNTS BY EMPLOYER  
AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2021**

**NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING AND REPORTING POLICIES**

**Basis of Presentation and Basis of Accounting**

Employers participating in Contra Costa County Employees' Retirement Association (CCCERA) are required to report pension information in their financial statements for fiscal periods beginning on or after June 15, 2014, in accordance with Governmental Accounting Standards Board (GASB) Statement No. 68, *Accounting and Financial Reporting for Pensions – an Amendment of GASB Statement No. 27*. The Schedule of Pension Amounts by Employer, along with CCCERA's audited financial statements, the GASB Statement No. 67 Actuarial Valuation as of December 31, 2021, and the GASB Statement No. 68 Actuarial Valuation Based on a December 31, 2021 Measurement Date for Employer Reporting as of June 30, 2022, prepared by CCCERA's independent actuary, provide the required information for financial reporting related to CCCERA that employers may use in their financial statements.

The accompanying schedule was allocated by employer based on the Employer Allocation Schedule and was prepared by CCCERA's independent actuary. The information was derived from information provided by CCCERA and the County of Contra Costa in accordance with accounting principles generally accepted in the United States of America as applicable to governmental organizations.

**Use of Estimates in the Preparation of the Schedule**

The preparation of this schedule in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts and disclosures during the reporting period. Actual results could differ from those estimates.

**NOTE 2 – ACTUARIAL ASSUMPTIONS**

**Actuarial Methods and Assumptions Used to Determine Total Pension Liability**

The Net Pension Liability/(Asset) (NPL/A) was measured as of December 31, 2021 and 2020. CCCERA's defined contribution benefit pension plan's (Plan) Fiduciary Net Position (FNP) was valued as of the measurement date while the Total Pension Liability (TPL) was determined based upon rolling forward the TPL from actuarial valuations as of December 31, 2020 and 2019, respectively.

The components of the NPL/A of CCCERA at December 31, 2021 and 2020, were as follows:

Measurement Date for Employer under GASB Statement No. 68	<u>December 31, 2021</u>	<u>December 31, 2020</u>
Total Pension Liability	\$ 11,210,812,304	\$ 10,531,687,786
Plan Fiduciary Net Position	<u>(11,453,765,753)</u>	<u>(10,070,237,862)</u>
Net Pension Liability/(Asset)	<u>\$ (242,953,449)</u>	<u>\$ 461,449,924</u>
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	<u>102.17%</u>	<u>95.62%</u>

**NOTE 2 – ACTUARIAL ASSUMPTIONS** (Continued)

**Actuarial Methods and Assumptions Used to Determine Total Pension Liability** (Continued)

The TPL as of December 31, 2021 that was measured by an actuarial valuation as of December 31, 2020, was re-valued as of December 31, 2020 (before roll forward) using the following actuarial assumptions that the Board has approved for use in the pension funding valuation as of December 31, 2021. This revalued TPL was then rolled forward to December 31, 2021 to determine the final TPL as of December 31, 2021. The updated actuarial assumptions were based on the results of an experience study for the period from January 1, 2018 through December 31, 2020, and were applied to all periods included in the measurement.

In particular, the following actuarial assumptions were applied to all periods included in the December 31, 2021 measurements:

**ACTUARIAL VALUATION ASSUMPTIONS**

Valuation Date:	December 31, 2020
Investment Rate of Return:	6.75%, net of pension plan investment expense, including inflation.
Inflation Rate:	2.50%
Administrative Expenses:	1.15% of payroll allocated to both the employer and member based on the components of the Normal Cost rates for the employer and member.
Projected Salary Increases:	General: 3.50% - 14.00% and Safety: 4.00% - 15.00%
Cost of Living Adjustments (COLA):	2.75% of retirement income for Tiers with 3% or 4% COLA. 2.00% of retirement for Tiers with 2.% COLA.
Other Assumptions:	See analysis of actuarial experience during the period January 1, 2018 through December 31, 2020.

Post-retirement mortality rates for healthy retirement were based on Amount-Weighted Above-Median Mortality Table, projected generationally with the two-dimensional MP-2021 projection scale.

Post-retirement mortality rates for a disabled retirement were based on Amount-Weighted Above-Median Mortality Table, projected generationally with the two-dimensional MP-2021 improvement scale.

Pre-retirement mortality rates were based on Amount-Weighted Above-Median Mortality Tables, projected generationally with the two-dimensional mortality improvement scale MP-2021.

## **NOTE 2 – ACTUARIAL ASSUMPTIONS** (Continued)

### **Actuarial Methods and Assumptions Used to Determine Total Pension Liability** (Continued)

The TPL as of December 31, 2020 that was measured by an actuarial valuation as of December 31, 2019 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 used for the December 31, 2020 funding actuarial valuation. Starting with December 31, 2020, the TPL also included a refinement to the Entry Age actuarial cost method calculation for active reciprocal members and was based on a recommendation made in the December 31, 2018 actuarial audit.

#### **ACTUARIAL VALUATION ASSUMPTIONS**

Valuation Date:	December 31, 2019
Investment Rate of Return:	7.00%, net of pension plan investment expense, including inflation.
Inflation Rate:	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.
Projected Salary Increases:	General: 3.75% - 15.25% and Safety: 4.25% - 16.25%, varying by service, including inflation.
Cost of Living Adjustments (COLA):	2.75% of retirement income for Tiers with 3% or 4% COLA. 2.00% of retirement for Tiers with 2.% COLA.
Other Assumptions:	See analysis of actuarial experience during the period January 1, 2015 through December 31, 2017.

#### **Discount**

The discount rate used to measure the TPL was 6.75% as of December 31, 2021 and 7.00% as of December 31, 2020. 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, 2021 and December 31, 2020.

#### **Long-Term Expected Rate of Return by Asset Class**

The long-term expected rate of return on pension plan investments was determined in 2022 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, 2021 actuarial valuations. This information will be subject to change every three years based on the results of an actuarial experience study.

**NOTE 2 – ACTUARIAL ASSUMPTIONS** (Continued)**Long-Term Expected Rate of Return by Asset Class** (Continued)

<u>Asset Class</u>	<u>Target Allocation</u>	<u>Long-Term Expected Real Rate of Return</u>
Large Cap U.S. Equity	10%	5.40%
Small Cap Equity	3%	6.17%
Developed International Equity	10%	6.13%
Emerging Markets Equity	9%	8.17%
Core Fixed	4%	0.39%
Short-Term Credit	14%	-0.14%
Cash and Equivalents	3%	-0.73%
Private Equity	15%	10.83%
Private Credit	13%	5.93%
Infrastructure	3%	6.30%
Value Add Real Estate	5%	7.20%
Opportunistic Real Estate	5%	8.50%
Risk Parity	3%	3.80%
Hedge Funds	3%	2.40%
<b>Total</b>	<b>100%</b>	

**Amortization of Deferred Outflows and Deferred Inflows of Resources**

There are changes in each employer's proportionate share of the total NPL/A during the measurement period ended December 31, 2021. The net effect of the change on the employer's proportionate share of the collective NPL/A and collective deferred outflows of resources and deferred inflows of resources for the current period (i.e., 2021) is recognized over the average of the expected remaining service lives of all employees that are provided with pensions through CCCERA which is 4.48 years determined as of December 31, 2020 (the beginning of the measurement period ended December 31, 2021). This is described in Paragraph 33a. of GASB Statement No. 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, 2021 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/A 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:

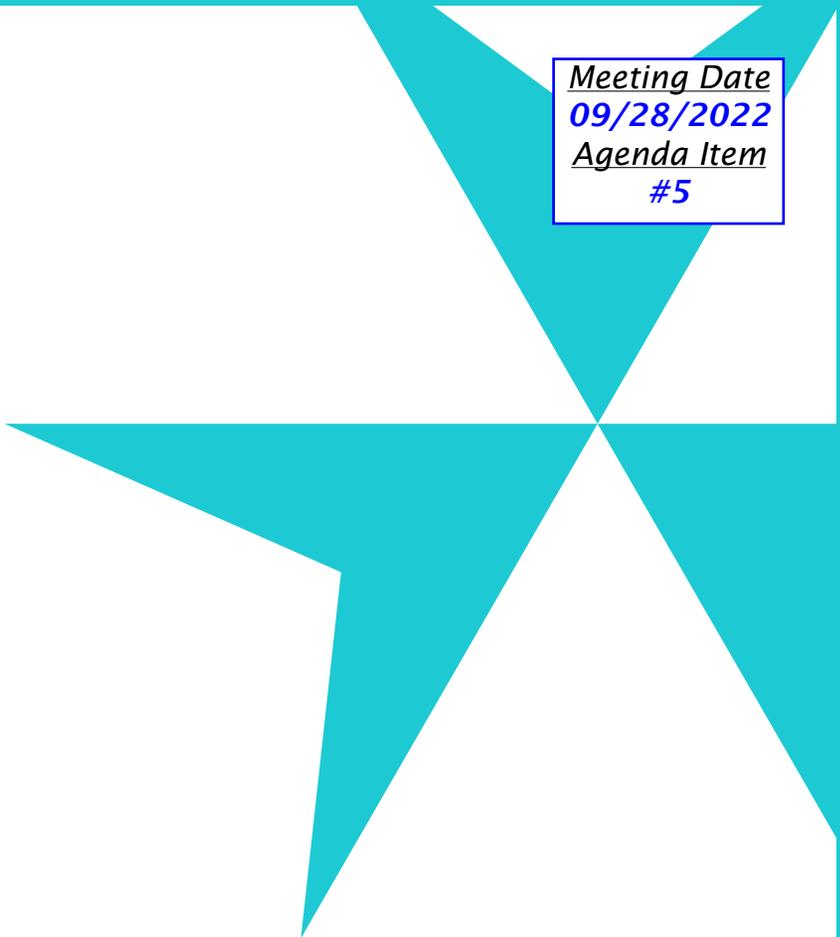
- Calculating each active employees' expected remaining service life as the present value of \$1 per year of future service at zero percent interest.
- Setting the remaining service life to zero for each non-active or retired member.
- Dividing the sum of the above amounts by the total number of active,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

**NOTE 3 – RELATIONSHIP TO THE BASIC FINANCIAL STATEMENTS**

The components of the schedule associated with pension expense and deferred outflows and inflows of resources have been determined based on the net increase in FNP for CCCERA as shown in the CCCERA Statement of Changes in Fiduciary Net Position and in accordance with requirements promulgated by the GASB Statements No. 67 and No. 68. The NPL/A at December 31, 2021, is reported in the Notes to CCCERA's Basic Financial Statements and Required Supplementary Information following the Notes.

**NOTE 4 – ADDITIONAL FINANCIAL AND ACTUARIAL INFORMATION**

Additional financial and actuarial information required for GASB Statement No. 68 disclosures is located in CCCERA's Annual Comprehensive Financial Report for the fiscal year ended December 31, 2021, which can be found on CCCERA's website, and the GASB Statement No. 68 Actuarial Valuation Based on December 31, 2021 Measurement Date for Employer Reporting as of June 30, 2022, which is available upon request from CCCERA.



Meeting Date  
**09/28/2022**  
Agenda Item  
**#5**

# Contra Costa County Employees' Retirement Association (CCCERA)

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

Actuarial Valuation Based on December 31, 2021  
Measurement Date for Employer Reporting  
as of June 30, 2022

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**



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August 24, 2022

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, 2021 measurement date for employer reporting as of June 30, 2022. 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

A handwritten signature in black ink, appearing to read "Paul Angelo", written over a horizontal line.

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

A handwritten signature in black ink, appearing to read "Andy Yeung", written over a horizontal line.

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

EK/jl

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# Section 1: Actuarial Valuation Summary

## 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, 2022. 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, 2021. This valuation is based on:

- The benefit provisions of CCCERA, as administered by the Board of Retirement;
- The characteristics of covered active members<sup>1</sup>, inactive vested members, and retired members and beneficiaries as of December 31, 2020, provided by CCCERA;
- The assets of the Plan as of December 31, 2021, provided by CCCERA;
- Economic assumptions regarding future salary increases and investment earnings adopted by the Board for the December 31, 2021 valuation; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc. adopted by the Board for the December 31, 2021 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.

<sup>1</sup> Similar to the disclosure we provided in our December 31, 2020 valuation report, the annual information for active members and, in particular, the service credit provided for active members was reported through November 30, 2020 instead of December 31, 2020 (we rolled forward the membership data as of December 31, 2020 to prepare the liabilities as of December 31, 2021). Based on prior discussions with CCCERA we understand that the Association is going to change its pension administration system so as to report service through December 31. This change will first be reflected in the valuation following the change in the pension administration system, and Segal will reflect the liability for that additional month of service at the same time.

## Section 1: Actuarial Valuation Summary

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 withdrawn 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 withdrawn employers have been moved to their own Cost Group. Therefore, we have directly allocated to each of these withdrawn employers their Pension Expense and NPL starting with the June 30, 2017 reporting date. In particular, the TPL for each withdrawn employers is obtained directly from internal valuation results for that specific employer. Furthermore, the Plan Fiduciary Net Position for each withdrawn 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, 2022 and June 30, 2021. The NPL was measured as of December 31, 2021 and December 31, 2020, 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, 2020 and December 31, 2019, 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, 2021 and December 31, 2020 are not adjusted or rolled forward to the June 30, 2022 and June 30, 2021 reporting dates, respectively.
2. The December 31, 2021 measurement date results reflect an experience study of the actuarial assumptions based on the experience during the period January 1, 2018 through December 31, 2020. Based on that study and the recommendations provided in our report dated April 5, 2022, the Board adopted updated actuarial assumptions for use in this valuation.
3. The NPL decreased from \$461 million as of December 31, 2020 to a surplus of \$(243) million as of December 31, 2021 primarily as a result of a favorable return on the fair value of assets (about 14.0% or a gain of \$703 million) during calendar year 2021 that

## Section 1: Actuarial Valuation Summary

was greater than the assumed return of 7.00% assumed in the December 31, 2020 valuation. Changes in these values during the last two calendar years ending December 31, 2021 and December 31, 2020 can be found in *Section 2, Schedule of Changes in Net Pension Liability* on page 21.

4. The Pension Expense decreased from \$95 million as of December 31, 2020 to a Pension Income \$(7) million as of December 31, 2021 primarily as a result of a new \$141 million in credit from greater than expected return on market value of assets during FY 2021.
5. The discount rate originally used to determine the TPL and NPL as of December 31, 2021 and December 31, 2020 was 7.00%. However, as the Board adopted new actuarial assumptions (which include a new discount rate of 6.75% along with other new demographic assumptions) for use in the pension funding valuation as of December 31, 2021, we have included the impact of those assumption changes by revaluing the TPL as of December 31, 2020 (before roll forward) using the new actuarial assumption and then using this revalued TPL in rolling forward the results from December 31, 2020 to December 31, 2021. The detailed calculations used in the derivation of the 6.75% discount rate can be found in *Section 3, Appendix A*. Various other information that is required to be disclosed can be found throughout *Section 2*.
6. Results shown in this report exclude any employer contributions made after the measurement date of December 31, 2021. For employers that participate in the prepayment program, it is our understanding that the portion of the prepayment made in July 2021 that was for the period from January 1, 2022 through June 30, 2022 has also been excluded. Employers should consult with their auditors to determine the deferred outflow that should be created for these contributions.
7. 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 if made on or before December 31, 2021.

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 withdrawn 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 25.

## Section 1: Actuarial Valuation Summary

8. In developing the NPL for each employer, we have taken into consideration the actual Plan Fiduciary Net Position and the TPL for the specific Cost Group(s) where the employer belongs. A ratio is then calculated based on the employer's allocated NPL to the NPL for all the CCCERA employers. Because some employers are overfunded (when measured on a market value basis) while others are still underfunded, the ratios are positive for those employers that are overfunded and negative for those employers that are underfunded as provided in *Section 2, Determination of Proportionate Share* on page 38.

As further described on page 40 of the above Section, the practice we have been following in determining the Pension Expense for each employer (excluding withdrawn employers) is to allocate the Pension Expense for the Association as a whole (excluding the Pension Expense for withdrawn employers) in accordance to the ratio calculated on page 38 for the employer. This explains why those employers that are underfunded with negative ratios are assigned negative Service Cost, Interest on the TPL, etc. when those components of the Pension Expense are generally positive values.

9. On March 9, 2022, Local Agency Formation Commissions (LAFCO) approved the annexation of East Contra Costa Fire Protection District (ECCFPD) into Contra Costa Fire Protection District (CCCFPD) effective July 1, 2022. As the annexation effective date is after the employer reporting date of June 30, 2022 for this report, we have continued to show the information for ECCFPD and CCCFPD separately in this report.
10. 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 (ACERA) and Board of Retirement of ACERA. That decision has important implications for CCCERA and its members. In particular, the decision requires pension systems like CCCERA to exclude certain pay items from a legacy member's compensation earnable. It is our understand that the CCCERA Board of Retirement has taken action to return member contributions that were previously made on certain terminal pay and on-call pay items impacting approximately 6,400 members, as well as to reduce the benefit of 7 retirees that had estoppel included in their retirement calculation. We further understand that the December 31, 2021 participant data as well as the assets as of that date, do not reflect the return of member contributions that totaled approximately \$4 million, however the participant data does reflect the reduction of benefit for the 7 members. The December 31, 2021 participant data will be used in rolling forward the liabilities as of December 31, 2022 when we prepare next year's GS 68 report.
11. It is important to note that this actuarial valuation is based on plan assets as of December 31, 2021. Due to the COVID-19 pandemic, market conditions have changed significantly since the onset of the Public Health Emergency. 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. Moreover, this actuarial valuation does not include any possible short-term or long-term impacts on mortality of the covered population that may emerge after December 31, 2021. While it is impossible to determine how the pandemic will affect market conditions and other demographic experience of the plan in future valuations, Segal is available to prepare projections of potential outcomes upon request.

## Section 1: Actuarial Valuation Summary

12. 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.

<b>Summary of Active Participating Employers within CCCERA</b>		
<b>#</b>	<b>Employer Name</b>	<b>Abbreviation</b>
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 (Withdrawn Employer)	18 - DDSD (Withdrawn)
19	Diablo Water District (Withdrawn Employer)	19 - DWD (Withdrawn)
20	City of Pittsburg (Withdrawn Employer)	20 - Pittsburg (Withdrawn)

## Section 1: Actuarial Valuation Summary

### Summary of Key Valuation Results

Reporting Date for Employer under GAS 68 <sup>1</sup>		June 30, 2022	June 30, 2021
Measurement Date for Employer under GAS 68		December 31, 2021	December 31, 2020
<b>Disclosure Elements for</b>	• Service Cost <sup>2</sup>	\$251,752,390	\$238,568,857
<b>Plan Year Ending</b>	• Total Pension Liability	11,210,812,304	10,531,687,786
<b>December 31:</b>	• Plan Fiduciary Net Position	11,453,765,753	10,070,237,862
	• Net Pension Liability	(242,953,449)	461,449,924
	• Pension expense	(7,028,391)	95,461,948
<b>Schedule of Contributions</b>	• Actuarially determined contributions <sup>3</sup>	\$339,702,909	\$336,066,723
<b>for Plan Year Ending</b>	• Actual contributions <sup>3</sup>	339,702,909	336,066,723
<b>December 31:</b>	• Contribution deficiency / (excess)	0	0
<b>Demographic Data for Plan</b>	• Number of retired members and beneficiaries	10,278	10,018
<b>Year Ending December 31:<sup>4</sup></b>	• Number of inactive vested members <sup>5</sup>	3,812	3,591
	• Number of active members	10,005	10,099
<b>Key Assumptions as of</b>	• Investment rate of return	6.75%	7.00%
<b>December 31:</b>	• Inflation rate	2.50%	2.75%
	• Projected salary increases <sup>6</sup>	General: 3.50% to 14.00% Safety: 4.00% to 15.00%	General: 3.75% to 15.25% Safety: 4.25% to 16.25%
	• Cost of living adjustments		
	– Tiers with 3%/4% COLA	2.75%	2.75%
	– Tiers with 2% COLA	2.00%	2.00%

<sup>1</sup> The reporting date and measurement date for the plan are December 31, 2021 and December 31, 2020.

<sup>2</sup> Excludes administrative expense load. The service cost is based on the previous year's valuation, meaning the December 31, 2021 and December 31, 2020 measurement date values are based on the valuations as of December 31, 2020 and December 31, 2019, respectively. Both service costs have been calculated using the assumptions shown in the December 31, 2020 column as there had been no changes in the actuarial assumptions between the December 31, 2019 and December 31, 2020 valuations.

<sup>3</sup> See footnote (1) under *Schedule of Employer Contributions* on page 22.

<sup>4</sup> Data as of December 31, 2020 is used in the measurement of the TPL as of December 31, 2021.

<sup>5</sup> Includes 2,147 inactive non-vested members with member contributions on deposit as of December 31, 2021 and 2,039 as of December 31, 2020.

<sup>6</sup> For December 31, 2021 measurement date, includes inflation at 2.50% plus real across-the-board salary increases of 0.50% plus merit and promotion increases that vary by service. For December 31, 2020 measurement date, includes inflation at 2.75% plus real across-the-board salary increases of 0.50% plus merit and promotion increases that vary by service.

## Section 1: Actuarial Valuation Summary

### 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:

<b>Plan of Benefits</b>	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.
<b>Participant Data</b>	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.
<b>Assets</b>	This valuation is based on the fair value of assets as of the measurement date, as provided by CCCERA.
<b>Actuarial Assumptions</b>	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.
<b>Models</b>	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.

## Section 1: Actuarial Valuation Summary

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

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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.

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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.

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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.

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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.

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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.

# Section 2: GAS 68 Information

## 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, 2021, pension plan membership consisted of the following:

Retired members or beneficiaries currently receiving benefits	10,278
Inactive vested members entitled to but not yet receiving benefits <sup>1</sup>	3,812
Active members	<u>10,005</u>
<b>Total</b>	<b>24,095</b>

**Note:** Data as of December 31, 2021 is not used in the measurement of the TPL as of December 31, 2021.

*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 to be a member of CCCERA. There are separate retirement plans for General and Safety members. Safety membership is extended

<sup>1</sup> Includes 2,147 inactive non-vested members with member contributions on deposit as of December 31, 2021.

## Section 2: GAS 68 Information

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

## Section 2: GAS 68 Information

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 2021 for members with membership dates on or after January 1, 1996 but before January 1, 2013 is \$290,000. For members with membership dates on or after January 1, 2013 the maximum amount of pensionable compensation that can be taken into account for 2021 is equal to \$128,059 for those enrolled in Social Security (\$153,671 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 4-3%, PEPRA General Tier 5-3% (non-disability benefits), Safety Tier A and PEPRA Safety Tier D. The cost-of-

## Section 2: GAS 68 Information

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 4-2%, 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, 2021 for the fiscal year beginning July 1, 2021 (based on the December 31, 2019 valuation) was 35.66% 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, 2021 for the fiscal year beginning July 1, 2021 (based on the December 31, 2019 valuation) was 11.97% of compensation.

## Section 2: GAS 68 Information

### Net Pension Liability

The components of the Net Pension Liability were as follows:

Reporting Date for Employer under GAS 68	June 30, 2022	June 30, 2021
Measurement Date for Employer under GAS 68	December 31, 2021	December 31, 2020
Total Pension Liability	\$11,210,812,304	\$10,531,687,786
Plan Fiduciary Net Position	(11,453,765,753)	(10,070,237,862)
<b>Net Pension Liability</b>	<b>\$(242,953,449)</b>	<b>\$461,449,924</b>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	102.17%	95.62%

The Net Pension Liability (NPL) was measured as of December 31, 2021 and December 31, 2020. 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, 2020 and December 31, 2019, respectively.

*Plan Provisions.* The plan provisions used in the measurement of the NPL as of December 31, 2021 and December 31, 2020 are the same as those used in the CCCERA actuarial valuations as of December 31, 2021 and December 31, 2020, respectively. The TPL and the Plan Fiduciary Net Position include liabilities and assets held for the Post Retirement Death Benefit Reserve.

*Actuarial Assumptions.* The TPL as of December 31, 2021 that was measured by an actuarial valuation as of December 31, 2020, was re-valued as of December 31, 2020 (before roll forward) using the following actuarial assumptions that the Board has approved for use in the pension funding valuation as of December 31, 2021. This revalued TPL was then rolled forward to December 31, 2021 to determine the final TPL as of December 31, 2021. The updated actuarial assumptions were based on the results of an experience study for the period from January 1, 2018 through December 31, 2020, and were applied to all periods included in the measurement.

<b>Inflation:</b>	2.50%
<b>Cost of Living Adjustments:</b>	2.75% of retirement income for Tiers with 3% or 4% COLA. 2.00% of retirement income for Tiers with 2% COLA.
<b>Salary Increases:</b>	General: 3.50% to 14.00% and Safety: 4.00% to 15.00%, varying by service, including inflation.
<b>Investment Rate of Return:</b>	6.75%, net of pension plan investment expense, including inflation.
<b>Administrative Expenses for December 31, 2021 Valuation:</b>	1.15% of payroll allocated to both the employer and member based on the components of the Normal Cost rates for the employer and member.
<b>Other Assumptions:</b>	See analysis of actuarial experience during the period January 1, 2018 through December 31, 2020.

## Section 2: GAS 68 Information

The TPL as of December 31, 2020 that was measured by an actuarial valuation as of December 31, 2019 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 used for the December 31, 2020 funding actuarial valuation. Starting with December 31, 2020, the TPL also included a refinement to the Entry Age actuarial cost method calculation for active reciprocal members and was based on a recommendation made in the December 31, 2018 actuarial audit.

<b>Inflation:</b>	2.75%
<b>Cost of Living Adjustments:</b>	2.75% of retirement income for Tiers with 3% or 4% COLA. 2.00% of retirement income for Tiers with 2% COLA.
<b>Salary Increases:</b>	General: 3.75% to 15.25% and Safety: 4.25% to 16.25%, varying by service, including inflation.
<b>Investment Rate of Return:</b>	7.00%, net of pension plan investment expense, including inflation.
<b>Administrative Expenses for December 31, 2020 Valuation:</b>	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.
<b>Other Assumptions:</b>	See analysis of actuarial experience during the period January 1, 2015 through December 31, 2017.

## Section 2: GAS 68 Information

### Determination of Discount Rate and Investment Rates of Return

The long-term expected rate of return on pension plan investments was determined in 2022 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, 2021 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 Equity	10.00%	5.40%
Small Cap Equity	3.00%	6.17%
Developed International Equity	10.00%	6.13%
Emerging Market Equity	9.00%	8.17%
Core Fixed	4.00%	0.39%
Short-Term Credit	14.00%	-0.14%
Cash & Equivalents	3.00%	-0.73%
Private Equity	15.00%	10.83%
Private Credit	13.00%	5.93%
Infrastructure	3.00%	6.30%
Value Add Real Estate	5.00%	7.20%
Opportunistic Real Estate	5.00%	8.50%
Risk Parity	3.00%	3.80%
Hedge Funds	<u>3.00%</u>	<u>2.40%</u>
<b>Total</b>	<b>100.00%</b>	<b>5.60%</b>

## Section 2: GAS 68 Information

*Discount Rate.* The discount rate used to measure the TPL was 6.75% as of December 31, 2021 and 7.00% as of December 31, 2020. 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, 2021 and December 31, 2020.

## Section 2: GAS 68 Information

### Discount Rate Sensitivity

*Sensitivity of the Net Pension Liability to Changes in the Discount Rate.* The following presents the NPL of CCCERA as of December 31, 2021, calculated using the discount rate of 6.75%, as well as what CCCERA's NPL would be if it were calculated using a discount rate that is 1-percentage-point lower (5.75%) or 1-percentage-point higher (7.75%) than the current rate.

Employer	1% Decrease (5.75%)	Current Discount Rate (6.75%)	1% Increase (7.75%)
1 - BIMID	\$312,693	\$(61,909)	\$(368,732)
2 - Union Cemetery	(191,182)	(494,235)	(742,455)
3 - CC Mosquito	3,251,271	(643,711)	(3,833,955)
4 - CCCFPD	179,888,230	22,414,107	(106,567,460)
5 - CCCSD	10,374,707	(53,543,789)	(105,897,202)
6 - First 5	2,497,135	(763,759)	(3,434,644)
7 - County	901,371,716	(202,176,380)	(1,106,054,170)
8 - CCCERA (the employer)	6,052,035	(1,198,228)	(7,136,666)
9 - ECCFPD	7,102,520	(1,933,940)	(9,335,390)
10 - Housing Authority	8,462,222	(1,353,877)	(9,393,901)
11 - IHSS	913,841	(180,929)	(1,077,617)
12 - LAFCO	51,049	(158,097)	(329,401)
13 - MOFD	41,282,926	10,772,836	(14,216,915)
14 - Rodeo SD	(459,856)	(1,188,800)	(1,785,853)
15 - RHFD	10,867,182	3,772,996	(2,037,605)
16 - SRVFPD	62,625,025	(11,663,302)	(72,510,282)
17 - Court	20,294,707	(6,522,037)	(28,486,697)
18 - DDSD (Withdrawn)	1,138,514	(565,545)	(1,961,280)
19 - DWD (Withdrawn)	1,023,608	738,691	505,325
20 - Pittsburg (Withdrawn)	8,037,681	1,796,459	(3,315,508)
<b>Total for all Employers</b>	<b>\$1,264,896,024</b>	<b>\$(242,953,449)</b>	<b>\$(1,477,980,408)</b>

## Section 2: GAS 68 Information

### Schedule of Changes in Net Pension Liability

Reporting Date for Employer under GAS 68	June 30, 2022	June 30, 2021
Measurement Date for Employer under GAS 68	December 31, 2021	December 31, 2020
<b>Total Pension Liability</b>		
• Service Cost	\$251,752,390	\$238,568,857
• Interest	735,971,867	707,426,996
• Change of benefit terms	0	0
• Differences between expected and actual experience	6,602,229	(10,633,575)
• Changes of assumptions or other inputs <sup>1</sup>	223,910,729	(17,638,207)
• Benefit payments, including refunds of member contributions	<u>(539,112,697)</u>	<u>(507,134,756)</u>
<b>Net change in Total Pension Liability</b>	<b>\$679,124,518</b>	<b>\$410,589,315</b>
<b>Total Pension Liability – beginning</b>	<b><u>10,531,687,786</u></b>	<b><u>10,121,098,471</u></b>
<b>Total Pension Liability – ending</b>	<b>\$11,210,812,304</b>	<b>\$10,531,687,786</b>
<b>Plan Fiduciary Net Position</b>		
• Contributions – employer <sup>2</sup>	\$410,759,608	\$336,356,723
• Contributions – member <sup>2</sup>	117,016,915	113,494,191
• Net investment income <sup>3</sup>	1,407,343,614	882,394,059
• Benefit payments, including refunds of member contributions	(539,112,697)	(507,134,756)
• Administrative expense	(11,237,383)	(10,749,625)
• Other expenses	<u>(1,242,166)</u>	<u>(1,135,409)</u>
<b>Net change in Plan Fiduciary Net Position</b>	<b>\$1,383,527,891</b>	<b>\$813,225,183</b>
<b>Plan Fiduciary Net Position – beginning</b>	<b><u>10,070,237,862</u></b>	<b><u>9,257,012,679</u></b>
<b>Plan Fiduciary Net Position – ending</b>	<b>\$11,453,765,753</b>	<b>\$10,070,237,862</b>
<b>Net Pension Liability – ending</b>	<b>\$<u>(242,953,449)</u></b>	<b>\$<u>461,449,924</u></b>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	102.17%	95.62%
Covered payroll <sup>4</sup>	\$976,332,448	\$943,422,017
Net Pension Liability as percentage of covered payroll	(24.88%)	48.91%

<sup>1</sup> For the December 31, 2020 measurement date, this is due to a refinement to the Entry Age actuarial cost method calculation of the TPL for active reciprocal members. For the December 31, 2021 measurement date, this is due to changes of assumptions. See Changed Actuarial Assumptions on page 162.

<sup>2</sup> See footnote (1) under *Schedule of Employer Contributions* on the next page.

<sup>3</sup> Includes Contribution Prepayment Discount.

<sup>4</sup> Covered payroll represents payroll on which contributions to the pension plan are based.

## Section 2: GAS 68 Information

### Schedule of Employer Contributions

Year Ended December 31	Actuarially Determined Contributions <sup>1</sup>	Contributions in Relation to the Actuarially Determined Contributions <sup>1</sup>	Contribution Deficiency / (Excess)	Covered Payroll <sup>2</sup>	Contributions as a Percentage of Covered Payroll
2012	\$212,321,325	\$212,321,325	\$0	\$666,394,146	31.86%
2013	228,017,452	228,017,452 <sup>3</sup>	0	638,635,912	35.70%
2014	288,760,413	288,760,413 <sup>4</sup>	0	671,485,798	43.00%
2015	321,220,270	321,220,270 <sup>5</sup>	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 <sup>6</sup>	0	809,960,088	38.83%
2018	324,863,103	324,863,103 <sup>7</sup>	0	850,929,106	38.18%
2019	326,716,796	326,716,796 <sup>8</sup>	0	892,379,335	36.61%
2020	336,066,723	336,066,723 <sup>9</sup>	0	943,422,017	35.62%
2021	339,702,939	339,702,939 <sup>10</sup>	0	976,332,448	34.79%

See accompanying notes to this schedule on the next page.

<sup>1</sup> 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”.

<sup>2</sup> Covered payroll represents payroll on which contributions to the pension plan are based.

<sup>3</sup> Excludes additional contributions towards UAAL of \$7,000,000.

<sup>4</sup> Excludes additional contributions towards UAAL of \$5,000,000.

<sup>5</sup> Excludes additional contributions towards UAAL of \$2,500,000.

<sup>6</sup> Excludes additional contributions towards UAAL of \$324,000.

<sup>7</sup> Excludes additional contributions towards UAAL of \$254,000.

<sup>8</sup> Excludes additional contributions towards UAAL of \$1,266,000.

<sup>9</sup> Excludes additional contributions towards UAAL of \$290,000.

<sup>10</sup> Excludes additional contributions towards UAAL of \$71,056,669.

## Section 2: GAS 68 Information

### Notes to Schedule:

Methods and assumptions used to establish “actuarially determined contribution” rates:

<b>Valuation Date:</b>	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
<b>Actuarial Cost Method:</b>	Entry Age Actuarial Cost Method
<b>Amortization Method</b>	Level percent of payroll
<b>Remaining Amortization Period:</b>	<p>Remaining balance of December 31, 2007 UAAL is amortized over a fixed (decreasing or closed) period with 3 years remaining as of December 31, 2019 and 4 years remaining as of December 31, 2018.</p> <p>Any changes in UAAL after December 31, 2007 will be separately amortized over a fixed 18-year period effective with that valuation.</p> <p>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.</p>
<b>Asset Valuation Method:</b>	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.

## Section 2: GAS 68 Information

### Actuarial Assumptions used in Developing the Actuarially Determined Contribution Rate for 2021:

Valuation Date:	December 31, 2019 Valuation Date <sup>1</sup>	December 31, 2018 Valuation Date <sup>1</sup>
<b>Investment Rate of Return:</b>	7.00%, net of pension plan investment expenses, including inflation	7.00%, net of pension plan investment expenses, including inflation
<b>Inflation Rate:</b>	2.75%	2.75%
<b>Administrative Expenses:</b>	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.
<b>Real Across-the-Board Salary Increase:</b>	0.50%	0.50%
<b>Projected Salary Increases:<sup>2</sup></b>	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%
<b>Consumer Price Index (CPI) and Cost of Living Adjustments (COLA):</b>	CPI increases of 2.75% per year. Retiree COLA increases of 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.	CPI increases of 2.75% per year. Retiree COLA increases of 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.
<b>Other Assumptions:</b>	Same as those used in the December 31, 2019 funding actuarial valuation	Same as those used in the December 31, 2018 funding actuarial valuation

<sup>1</sup> Actuarially determined contribution rates for the first six months of calendar year 2021 (or the second half of fiscal year 2020-2021) are calculated based on the December 31, 2018 valuation. Actuarially determined contribution rates for the last six months of calendar year 2021 (or the first half of fiscal year 2021-2022) are calculated based on the December 31, 2019 valuation.

<sup>2</sup> 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.

## Section 2: GAS 68 Information

### Determination of Proportionate Share

Actual Compensation by Employer and Cost Group  
January 1, 2021 to December 31, 2021

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	\$326,979	0.045%	\$0	0.000%	\$0	0.000%
2 - Union Cemetery	0	0.000%	0	0.000%	0	0.000%
3 - CC Mosquito	3,399,814	0.464%	0	0.000%	0	0.000%
4 - CCCFPD	0	0.000%	0	0.000%	0	0.000%
5 - CCCSD	0	0.000%	37,667,972	100.000%	0	0.000%
6 - First 5	2,846,338	0.388%	0	0.000%	0	0.000%
7 - County	689,537,987	94.064%	0	0.000%	0	0.000%
8 - CCCERA (the Employer)	6,328,539	0.863%	0	0.000%	0	0.000%
9 - ECCFPD	520,517	0.071%	0	0.000%	0	0.000%
10 - Housing Authority	0	0.000%	0	0.000%	6,247,203	100.000%
11 - IHSS	955,592	0.130%	0	0.000%	0	0.000%
12 - LAFCO	182,558	0.025%	0	0.000%	0	0.000%
13 - MOFD	974,250	0.133%	0	0.000%	0	0.000%
14 - Rodeo SD	0	0.000%	0	0.000%	0	0.000%
15 - RHFD	99,438	0.014%	0	0.000%	0	0.000%
16 - SRVFPD	4,468,957	0.610%	0	0.000%	0	0.000%
17 - Court	23,407,538	3.193%	0	0.000%	0	0.000%
18 - DDSD (Withdrawn)	N/A	N/A	N/A	N/A	N/A	N/A
19 - DWD (Withdrawn)	N/A	N/A	N/A	N/A	N/A	N/A
20 - Pittsburg (Withdrawn)	N/A	N/A	N/A	N/A	N/A	N/A
<b>Total</b>	<b>\$733,048,507</b>	<b>100.000%</b>	<b>\$37,667,972</b>	<b>100.000%</b>	<b>\$6,247,203</b>	<b>100.000%</b>

**Note:** Results may not add due to rounding.

## Section 2: GAS 68 Information

### Determination of Proportionate Share (continued)

Actual Compensation by Employer and Cost Group (continued)  
January 1, 2021 to December 31, 2021

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%	285,814	29.366%	0	0.000%
3 - CC Mosquito	0	0.000%	0	0.000%	0	0.000%
4 - CCCFPD	6,830,224	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%	107,366,842	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%	687,478	70.634%	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 (Withdrawn)	N/A	N/A	N/A	N/A	N/A	N/A
19 - DWD (Withdrawn)	N/A	N/A	N/A	N/A	N/A	N/A
20 - Pittsburg (Withdrawn)	N/A	N/A	N/A	N/A	N/A	N/A
<b>Total</b>	<b>\$6,830,224</b>	<b>100.000%</b>	<b>\$973,292</b>	<b>100.000%</b>	<b>\$107,366,842</b>	<b>100.000%</b>

**Note:** Results may not add due to rounding.

## Section 2: GAS 68 Information

### Determination of Proportionate Share (continued)

Actual Compensation by Employer and Cost Group (continued)  
January 1, 2021 to December 31, 2021

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	45,777,191	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%	8,365,385	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%	23,394,782	100.000%
17 - Court	0	0.000%	0	0.000%	0	0.000%
18 - DDSD (Withdrawn)	N/A	N/A	N/A	N/A	N/A	N/A
19 - DWD (Withdrawn)	N/A	N/A	N/A	N/A	N/A	N/A
20 - Pittsburg (Withdrawn)	N/A	N/A	N/A	N/A	N/A	N/A
<b>Total</b>	<b>\$45,777,191</b>	<b>100.000%</b>	<b>\$8,365,385</b>	<b>100.000%</b>	<b>\$23,394,782</b>	<b>100.000%</b>

**Note:** Results may not add due to rounding.

## Section 2: GAS 68 Information

### Determination of Proportionate Share (continued)

Actual Compensation by Employer and Cost Group (continued)  
January 1, 2021 to December 31, 2021

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%	\$326,979	0.033%
2 - Union Cemetery	0	0.000%	0	0.000%	285,814	0.029%
3 - CC Mosquito	0	0.000%	0	0.000%	3,399,814	0.348%
4 - CCCFPD	0	0.000%	0	0.000%	52,607,416	5.388%
5 - CCCSD	0	0.000%	0	0.000%	37,667,972	3.858%
6 - First 5	0	0.000%	0	0.000%	2,846,338	0.292%
7 - County	0	0.000%	0	0.000%	796,904,829	81.623%
8 - CCCERA (the Employer)	0	0.000%	0	0.000%	6,328,539	0.648%
9 - ECCFPD	0	0.000%	4,073,561	100.000%	4,594,078	0.471%
10 - Housing Authority	0	0.000%	0	0.000%	6,247,203	0.640%
11 - IHSS	0	0.000%	0	0.000%	955,592	0.098%
12 - LAFCO	0	0.000%	0	0.000%	182,558	0.019%
13 - MOFD	0	0.000%	0	0.000%	9,339,635	0.957%
14 - Rodeo SD	0	0.000%	0	0.000%	687,478	0.070%
15 - RHFD	2,587,487	100.000%	0	0.000%	2,686,925	0.275%
16 - SRVFPD	0	0.000%	0	0.000%	27,863,739	2.854%
17 - Court	0	0.000%	0	0.000%	23,407,538	2.397%
18 - DDSD (Withdrawn)	N/A	N/A	N/A	N/A	N/A	N/A
19 - DWD (Withdrawn)	N/A	N/A	N/A	N/A	N/A	N/A
20 - Pittsburg (Withdrawn)	N/A	N/A	N/A	N/A	N/A	N/A
<b>Total</b>	<b>\$2,587,487</b>	<b>100.000%</b>	<b>\$4,073,561</b>	<b>100.000%</b>	<b>\$976,332,448</b>	<b>100.000%</b>

**Note:** Results may not add due to rounding.

## Section 2: GAS 68 Information

### Determination of Proportionate Share (continued)

#### PART ONE - Allocation of December 31, 2021 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	\$(61,909)	0.045%	\$0	0.000%	\$0	0.000%
2 - Union Cemetery	0	0.000%	0	0.000%	0	0.000%
3 - CC Mosquito	(643,711)	0.464%	0	0.000%	0	0.000%
4 - CCCFPD	0	0.000%	0	0.000%	0	0.000%
5 - CCCSD	0	0.000%	(53,543,789)	100.000%	0	0.000%
6 - First 5	(538,917)	0.388%	0	0.000%	0	0.000%
7 - County	(130,555,156)	94.064%	0	0.000%	0	0.000%
8 - CCCERA (the Employer)	(1,198,228)	0.863%	0	0.000%	0	0.000%
9 - ECCFPD	(98,553)	0.071%	0	0.000%	0	0.000%
10 - Housing Authority	0	0.000%	0	0.000%	(1,353,877)	100.000%
11 - IHSS	(180,929)	0.130%	0	0.000%	0	0.000%
12 - LAFCO	(34,565)	0.025%	0	0.000%	0	0.000%
13 - MOFD	(184,462)	0.133%	0	0.000%	0	0.000%
14 - Rodeo SD	0	0.000%	0	0.000%	0	0.000%
15 - RHFD	(18,827)	0.014%	0	0.000%	0	0.000%
16 - SRVFPD	(846,140)	0.610%	0	0.000%	0	0.000%
17 - Court	(4,431,917)	3.193%	0	0.000%	0	0.000%
18 - DDS (Withdrawn)	0	0.000%	0	0.000%	0	0.000%
19 - DWD (Withdrawn)	0	0.000%	0	0.000%	0	0.000%
20 - Pittsburg (Withdrawn)	0	0.000%	0	0.000%	0	0.000%
<b>Total</b>	<b>\$(138,793,314)</b>	<b>100.000%</b>	<b>\$(53,543,789)</b>	<b>100.000%</b>	<b>\$(1,353,877)</b>	<b>100.000%</b>

**Note:** Results may not add due to rounding.

## Section 2: GAS 68 Information

### Determination of Proportionate Share (continued)

#### PART ONE - Allocation of December 31, 2021 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%	(494,235)	29.366%	0	0.000%
3 - CC Mosquito	0	0.000%	0	0.000%	0	0.000%
4 - CCCFPD	7,730,347	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%	(10,050,581)	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%	(1,188,800)	70.634%	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 - DDS (Withdrawn)	0	0.000%	0	0.000%	0	0.000%
19 - DWD (Withdrawn)	0	0.000%	0	0.000%	0	0.000%
20 - Pittsburg (Withdrawn)	0	0.000%	0	0.000%	0	0.000%
<b>Total</b>	<b>\$7,730,347</b>	<b>100.000%</b>	<b>\$(1,683,035)</b>	<b>100.000%</b>	<b>\$(10,050,581)</b>	<b>100.000%</b>

**Note:** Results may not add due to rounding.

## Section 2: GAS 68 Information

### Determination of Proportionate Share (continued)

#### PART ONE - Allocation of December 31, 2021 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	14,683,760	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%	11,055,657	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%	(10,817,162)	100.000%
17 - Court	0	0.000%	0	0.000%	0	0.000%
18 - DDS (Withdrawn)	0	0.000%	0	0.000%	0	0.000%
19 - DWD (Withdrawn)	0	0.000%	0	0.000%	0	0.000%
20 - Pittsburg (Withdrawn)	0	0.000%	0	0.000%	0	0.000%
<b>Total</b>	<b>\$14,683,760</b>	<b>100.000%</b>	<b>\$11,055,657</b>	<b>100.000%</b>	<b>\$(10,817,162)</b>	<b>100.000%</b>

**Note:** Results may not add due to rounding.

## Section 2: GAS 68 Information

### Determination of Proportionate Share (continued)

#### PART ONE - Allocation of December 31, 2021 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	Withdrawn Employers	Withdrawn 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%	(1,835,387)	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	3,791,823	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 (Withdrawn) <sup>1</sup>	0	0.000%	0	0.000%	(565,545)	(28.714%)
19 - DWD (Withdrawn) <sup>1</sup>	0	0.000%	0	0.000%	738,691	37.505%
20 - Pittsburg (Withdrawn) <sup>1</sup>	0	0.000%	0	0.000%	1,796,459	91.209%
<b>Total</b>	<b>\$3,791,823</b>	<b>100.000%</b>	<b>\$(1,835,387)</b>	<b>100.000%</b>	<b>\$1,969,605</b>	<b>100.000%</b>

**Note:** Results may not add due to rounding.

<sup>1</sup> The NPLs for the three withdrawn employers are determined based on the Plan's Fiduciary Net Positions from the December 31, 2021 bookkeeping account letters and the TPLs obtained from internal valuation results (by rolling forward their TPLs from December 31, 2020).

## Section 2: GAS 68 Information

### Determination of Proportionate Share (continued)

#### PART ONE - Allocation of December 31, 2021 Net Pension Liability (NPL)

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

Employer	Total NPL	Total Percentage
1 - BIMID	\$(61,909)	0.035%
2 - Union Cemetery	(494,235)	0.276%
3 - CC Mosquito	(643,711)	0.360%
4 - CCCFPD	22,414,107	(12.532%)
5 - CCCSD	(53,543,789)	29.939%
6 - First 5	(538,917)	0.301%
7 - County	(140,605,737)	78.619%
8 - CCCERA (the Employer)	(1,198,228)	0.670%
9 - ECCFPD	(1,933,940)	1.081%
10 - Housing Authority	(1,353,877)	0.757%
11 - IHSS	(180,929)	0.101%
12 - LAFCO	(34,565)	0.019%
13 - MOFD	10,871,195	(6.079%)
14 - Rodeo SD	(1,188,800)	0.665%
15 - RHFD	3,772,996	(2.110%)
16 - SRVFPD	(11,663,302)	6.521%
17 - Court	(4,431,917)	2.478%
18 - DDS (Withdrawn)	(565,545)	0.316%
19 - DWD (Withdrawn)	738,691	(0.413%)
20 - Pittsburg (Withdrawn)	1,796,459	(1.004%)
<b>Total</b>	<b>\$(178,845,953)</b>	<b>100.000%</b>

**Note:** Results may not add due to rounding.

## Section 2: GAS 68 Information

### Determination of Proportionate Share (continued)

**PART TWO - Allocation of December 31, 2021 Net Pension Liability (NPL)**  
Including 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	\$(61,909)	0.031%	\$0	0.000%	\$0	0.000%
2 - Union Cemetery	0	0.000%	0	0.000%	0	0.000%
3 - CC Mosquito	(643,711)	0.317%	0	0.000%	0	0.000%
4 - CCCFPD	0	0.000%	0	0.000%	0	0.000%
5 - CCCSD	0	0.000%	(53,543,789)	100.000%	0	0.000%
6 - First 5	(763,759)	0.376%	0	0.000%	0	0.000%
7 - County	(192,125,799)	94.690%	0	0.000%	0	0.000%
8 - CCCERA (the Employer)	(1,198,228)	0.591%	0	0.000%	0	0.000%
9 - ECCFPD	(98,553)	0.049%	0	0.000%	0	0.000%
10 - Housing Authority	0	0.000%	0	0.000%	(1,353,877)	100.000%
11 - IHSS	(180,929)	0.089%	0	0.000%	0	0.000%
12 - LAFCO	(158,097)	0.078%	0	0.000%	0	0.000%
13 - MOFD	(282,821)	0.139%	0	0.000%	0	0.000%
14 - Rodeo SD	0	0.000%	0	0.000%	0	0.000%
15 - RHFD	(18,827)	0.009%	0	0.000%	0	0.000%
16 - SRVFPD	(846,140)	0.417%	0	0.000%	0	0.000%
17 - Court	(6,522,037)	3.214%	0	0.000%	0	0.000%
18 - DDS (Withdrawn)	0	0.000%	0	0.000%	0	0.000%
19 - DWD (Withdrawn)	0	0.000%	0	0.000%	0	0.000%
20 - Pittsburg (Withdrawn)	0	0.000%	0	0.000%	0	0.000%
<b>Total</b>	<b>\$(202,900,810)</b>	<b>100.000%</b>	<b>\$(53,543,789)</b>	<b>100.000%</b>	<b>\$(1,353,877)</b>	<b>100.000%</b>

**Note:** Results may not add due to rounding.

## Section 2: GAS 68 Information

### Determination of Proportionate Share (continued)

#### PART TWO - Allocation of December 31, 2021 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%	(494,235)	29.366%	0	0.000%
3 - CC Mosquito	0	0.000%	0	0.000%	0	0.000%
4 - CCCFPD	7,730,347	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%	(10,050,581)	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%	(1,188,800)	70.634%	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 - DDS (Withdrawn)	0	0.000%	0	0.000%	0	0.000%
19 - DWD (Withdrawn)	0	0.000%	0	0.000%	0	0.000%
20 - Pittsburg (Withdrawn)	0	0.000%	0	0.000%	0	0.000%
<b>Total</b>	<b>\$7,730,347</b>	<b>100.000%</b>	<b>\$(1,683,035)</b>	<b>100.000%</b>	<b>\$(10,050,581)</b>	<b>100.000%</b>

**Note:** Results may not add due to rounding.

## Section 2: GAS 68 Information

### Determination of Proportionate Share (continued)

#### PART TWO - Allocation of December 31, 2021 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	14,683,760	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%	11,055,657	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%	(10,817,162)	100.000%
17 - Court	0	0.000%	0	0.000%	0	0.000%
18 - DDS (Withdrawn)	0	0.000%	0	0.000%	0	0.000%
19 - DWD (Withdrawn)	0	0.000%	0	0.000%	0	0.000%
20 - Pittsburg (Withdrawn)	0	0.000%	0	0.000%	0	0.000%
<b>Total</b>	<b>\$14,683,760</b>	<b>100.000%</b>	<b>\$11,055,657</b>	<b>100.000%</b>	<b>\$(10,817,162)</b>	<b>100.000%</b>

**Note:** Results may not add due to rounding.

## Section 2: GAS 68 Information

### Determination of Proportionate Share (continued)

#### PART TWO - Allocation of December 31, 2021 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	Withdrawn Employers	Withdrawn 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%	(1,835,387)	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	3,791,823	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 (Withdrawn) <sup>1</sup>	0	0.000%	0	0.000%	(565,545)	(28.714%)
19 - DWD (Withdrawn) <sup>1</sup>	0	0.000%	0	0.000%	738,691	37.505%
20 - Pittsburg (Withdrawn) <sup>1</sup>	0	0.000%	0	0.000%	1,796,459	91.209%
<b>Total</b>	<b>\$3,791,823</b>	<b>100.000%</b>	<b>\$(1,835,387)</b>	<b>100.000%</b>	<b>\$1,969,605</b>	<b>100.000%</b>

**Note:** Results may not add due to rounding.

<sup>1</sup> The NPLs for the three withdrawn employers are determined based on the Plan's Fiduciary Net Positions from the December 31, 2021 bookkeeping account letters and the TPLs obtained from internal valuation results (by rolling forward their TPLs from December 31, 2020).

## Section 2: GAS 68 Information

### Determination of Proportionate Share (continued)

#### PART TWO - Allocation of December 31, 2021 Net Pension Liability (NPL)

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

Employer	Total NPL	Total Percentage	Total Percentage Excluding Withdrawn Employers <sup>1</sup>
1 - BIMID	\$(61,909)	0.025%	0.025%
2 - Union Cemetery	(494,235)	0.203%	0.202%
3 - CC Mosquito	(643,711)	0.265%	0.263%
4 - CCCFPD	22,414,107	(9.226%)	(9.152%)
5 - CCCSD	(53,543,789)	22.039%	21.861%
6 - First 5	(763,759)	0.314%	0.312%
7 - County	(202,176,380)	83.216%	82.547%
8 - CCCERA (the Employer)	(1,198,228)	0.493%	0.489%
9 - ECCFPD	(1,933,940)	0.796%	0.790%
10 - Housing Authority	(1,353,877)	0.557%	0.553%
11 - IHSS	(180,929)	0.075%	0.074%
12 - LAFCO	(158,097)	0.065%	0.065%
13 - MOFD	10,772,836	(4.434%)	(4.399%)
14 - Rodeo SD	(1,188,800)	0.489%	0.485%
15 - RHFD	3,772,996	(1.553%)	(1.540%)
16 - SRVFPD	(11,663,302)	4.801%	4.762%
17 - Court	(6,522,037)	2.685%	2.663%
18 - DDSD (Withdrawn)	(565,545)	0.233%	N/A
19 - DWD (Withdrawn)	738,691	(0.304%)	N/A
20 - Pittsburg (Withdrawn)	1,796,459	(0.739%)	N/A
<b>Total</b>	<b>\$(242,953,449)</b>	<b>100.000%</b>	<b>100.000%</b>

**Note:** Results may not add due to rounding.

<sup>1</sup> For informational purposes; these percentages show the allocation of the NPL for employers excluding withdrawn employers.

## Section 2: GAS 68 Information

### Determination of Proportionate Share (continued)

#### Notes Regarding Determination of Proportionate Share as of December 31, 2021 Measurement Date

1. Based on actual January 1, 2021 through December 31, 2021 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 withdrawn employers' assets and the Post Retirement Death Benefit reserve) to total CCCERA VVA (excluding the withdrawn 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 withdrawn employers, the TPL is obtained from internal valuation results for each employer. The Plan's Fiduciary Net Position for each withdrawn employer has been set equal to the amount in their respective bookkeeping account. The NPL is then determined separately for each withdrawn 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 withdrawn 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, 2021 allocated to those employers within each Cost Group are as follows:

Cost Group #1: County	\$61,570,643	Cost Group #1: LAFCO	\$123,532
Cost Group #1: Court	\$2,090,120	Cost Group #1: First 5	\$224,842
Cost Group #1: MOFD	\$98,359		

Note that the proceeds from Pension Obligation Bonds for Contra Costa County and the Superior Court as of December 31, 2021 (total of \$63,660,763) were allocated proportionally based on the compensation information.

## Section 2: GAS 68 Information

### Determination of Proportionate Share (continued)

#### Notes Regarding Determination of Proportionate Share as of December 31, 2021 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 withdrawn 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

## Section 2: GAS 68 Information

### Determination of Proportionate Share (continued)

Actual Compensation by Employer and Cost Group  
January 1, 2020 to December 31, 2020

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	\$312,551	0.044%	\$0	0.000%	\$0	0.000%
2 - Union Cemetery	0	0.000%	0	0.000%	0	0.000%
3 - CC Mosquito	3,491,144	0.491%	0	0.000%	0	0.000%
4 - CCCFPD	0	0.000%	0	0.000%	0	0.000%
5 - CCCSD	0	0.000%	37,131,965	100.000%	0	0.000%
6 - First 5	2,398,684	0.338%	0	0.000%	0	0.000%
7 - County	666,318,173	93.805%	0	0.000%	0	0.000%
8 - CCCERA (the Employer)	5,910,418	0.832%	0	0.000%	0	0.000%
9 - ECCFPD	331,406	0.047%	0	0.000%	0	0.000%
10 - Housing Authority	0	0.000%	0	0.000%	5,906,312	100.000%
11 - IHSS	974,825	0.137%	0	0.000%	0	0.000%
12 - LAFCO	184,791	0.026%	0	0.000%	0	0.000%
13 - MOFD	908,694	0.128%	0	0.000%	0	0.000%
14 - Rodeo SD	0	0.000%	0	0.000%	0	0.000%
15 - RHFD	87,882	0.012%	0	0.000%	0	0.000%
16 - SRVFPD	4,221,264	0.594%	0	0.000%	0	0.000%
17 - Court	25,189,849	3.546%	0	0.000%	0	0.000%
18 - DDSD (Withdrawn)	N/A	N/A	N/A	N/A	N/A	N/A
19 - DWD (Withdrawn)	N/A	N/A	N/A	N/A	N/A	N/A
20 - Pittsburg (Withdrawn)	N/A	N/A	N/A	N/A	N/A	N/A
<b>Total</b>	<b>\$710,329,682</b>	<b>100.000%</b>	<b>\$37,131,965</b>	<b>100.000%</b>	<b>\$5,906,312</b>	<b>100.000%</b>

**Note:** Results may not add due to rounding.

## Section 2: GAS 68 Information

### Determination of Proportionate Share (continued)

Actual Compensation by Employer and Cost Group (continued)  
January 1, 2020 to December 31, 2020

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%	196,739	21.036%	0	0.000%
3 - CC Mosquito	0	0.000%	0	0.000%	0	0.000%
4 - CCCFPD	6,699,018	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%	103,171,303	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%	738,498	78.964%	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 (Withdrawn)	N/A	N/A	N/A	N/A	N/A	N/A
19 - DWD (Withdrawn)	N/A	N/A	N/A	N/A	N/A	N/A
20 - Pittsburg (Withdrawn)	N/A	N/A	N/A	N/A	N/A	N/A
<b>Total</b>	<b>\$6,699,018</b>	<b>100.000%</b>	<b>\$935,238</b>	<b>100.000%</b>	<b>\$103,171,303</b>	<b>100.000%</b>

**Note:** Results may not add due to rounding.

## Section 2: GAS 68 Information

### Determination of Proportionate Share (continued)

Actual Compensation by Employer and Cost Group (continued)  
January 1, 2020 to December 31, 2020

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	42,457,519	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%	8,268,638	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%	22,197,256	100.000%
17 - Court	0	0.000%	0	0.000%	0	0.000%
18 - DDSD (Withdrawn)	N/A	N/A	N/A	N/A	N/A	N/A
19 - DWD (Withdrawn)	N/A	N/A	N/A	N/A	N/A	N/A
20 - Pittsburg (Withdrawn)	N/A	N/A	N/A	N/A	N/A	N/A
<b>Total</b>	<b>\$42,457,519</b>	<b>100.000%</b>	<b>\$8,268,638</b>	<b>100.000%</b>	<b>\$22,197,256</b>	<b>100.000%</b>

**Note:** Results may not add due to rounding.

## Section 2: GAS 68 Information

### Determination of Proportionate Share (continued)

Actual Compensation by Employer and Cost Group (continued)  
January 1, 2020 to December 31, 2020

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%	\$312,551	0.033%
2 - Union Cemetery	0	0.000%	0	0.000%	196,739	0.021%
3 - CC Mosquito	0	0.000%	0	0.000%	3,491,144	0.370%
4 - CCCFPD	0	0.000%	0	0.000%	49,156,538	5.210%
5 - CCCSD	0	0.000%	0	0.000%	37,131,965	3.936%
6 - First 5	0	0.000%	0	0.000%	2,398,684	0.254%
7 - County	0	0.000%	0	0.000%	769,489,476	81.565%
8 - CCCERA (the Employer)	0	0.000%	0	0.000%	5,910,418	0.626%
9 - ECCFPD	0	0.000%	3,913,797	100.000%	4,245,203	0.450%
10 - Housing Authority	0	0.000%	0	0.000%	5,906,312	0.626%
11 - IHSS	0	0.000%	0	0.000%	974,825	0.103%
12 - LAFCO	0	0.000%	0	0.000%	184,791	0.020%
13 - MOFD	0	0.000%	0	0.000%	9,177,332	0.973%
14 - Rodeo SD	0	0.000%	0	0.000%	738,498	0.078%
15 - RHFD	2,411,289	100.000%	0	0.000%	2,499,171	0.265%
16 - SRVFPD	0	0.000%	0	0.000%	26,418,520	2.800%
17 - Court	0	0.000%	0	0.000%	25,189,849	2.670%
18 - DDSD (Withdrawn)	N/A	N/A	N/A	N/A	N/A	N/A
19 - DWD (Withdrawn)	N/A	N/A	N/A	N/A	N/A	N/A
20 - Pittsburg (Withdrawn)	N/A	N/A	N/A	N/A	N/A	N/A
<b>Total</b>	<b>\$2,411,289</b>	<b>100.000%</b>	<b>\$3,913,797</b>	<b>100.000%</b>	<b>\$943,422,017</b>	<b>100.000%</b>

**Note:** Results may not add due to rounding.

## Section 2: GAS 68 Information

### Determination of Proportionate Share (continued)

#### PART ONE - Allocation of December 31, 2020 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	\$120,135	0.044%	\$0	0.000%	\$0	0.000%
2 - Union Cemetery	0	0.000%	0	0.000%	0	0.000%
3 - CC Mosquito	1,341,891	0.491%	0	0.000%	0	0.000%
4 - CCCFPD	0	0.000%	0	0.000%	0	0.000%
5 - CCCSD	0	0.000%	48,886,895	100.000%	0	0.000%
6 - First 5	921,982	0.338%	0	0.000%	0	0.000%
7 - County	256,112,634	93.805%	0	0.000%	0	0.000%
8 - CCCERA (the Employer)	2,271,787	0.832%	0	0.000%	0	0.000%
9 - ECCFPD	127,382	0.047%	0	0.000%	0	0.000%
10 - Housing Authority	0	0.000%	0	0.000%	3,458,981	100.000%
11 - IHSS	374,693	0.137%	0	0.000%	0	0.000%
12 - LAFCO	71,028	0.026%	0	0.000%	0	0.000%
13 - MOFD	349,274	0.128%	0	0.000%	0	0.000%
14 - Rodeo SD	0	0.000%	0	0.000%	0	0.000%
15 - RHFD	33,779	0.012%	0	0.000%	0	0.000%
16 - SRVFPD	1,622,527	0.594%	0	0.000%	0	0.000%
17 - Court	9,682,219	3.546%	0	0.000%	0	0.000%
18 - DDSD (Withdrawn)	0	0.000%	0	0.000%	0	0.000%
19 - DWD (Withdrawn)	0	0.000%	0	0.000%	0	0.000%
20 - Pittsburg (Withdrawn)	0	0.000%	0	0.000%	0	0.000%
<b>Total</b>	<b>\$273,029,331</b>	<b>100.000%</b>	<b>\$48,886,895</b>	<b>100.000%</b>	<b>\$3,458,981</b>	<b>100.000%</b>

**Note:** Results may not add due to rounding.

## Section 2: GAS 68 Information

### Determination of Proportionate Share (continued)

#### PART ONE - Allocation of December 31, 2020 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%	(281,020)	21.036%	0	0.000%
3 - CC Mosquito	0	0.000%	0	0.000%	0	0.000%
4 - CCCFPD	8,365,200	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%	116,167,814	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%	(1,054,861)	78.964%	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 - DDS (Withdrawn)	0	0.000%	0	0.000%	0	0.000%
19 - DWD (Withdrawn)	0	0.000%	0	0.000%	0	0.000%
20 - Pittsburg (Withdrawn)	0	0.000%	0	0.000%	0	0.000%
<b>Total</b>	<b>\$8,365,200</b>	<b>100.000%</b>	<b>\$(1,335,881)</b>	<b>100.000%</b>	<b>\$116,167,814</b>	<b>100.000%</b>

**Note:** Results may not add due to rounding.

## Section 2: GAS 68 Information

### Determination of Proportionate Share (continued)

#### PART ONE - Allocation of December 31, 2020 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	77,217,723	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%	22,198,712	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%	21,422,879	100.000%
17 - Court	0	0.000%	0	0.000%	0	0.000%
18 - DDS (Withdrawn)	0	0.000%	0	0.000%	0	0.000%
19 - DWD (Withdrawn)	0	0.000%	0	0.000%	0	0.000%
20 - Pittsburg (Withdrawn)	0	0.000%	0	0.000%	0	0.000%
<b>Total</b>	<b>\$77,217,723</b>	<b>100.000%</b>	<b>\$22,198,712</b>	<b>100.000%</b>	<b>\$21,422,879</b>	<b>100.000%</b>

**Note:** Results may not add due to rounding.

## Section 2: GAS 68 Information

### Determination of Proportionate Share (continued)

#### PART ONE - Allocation of December 31, 2020 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	Withdrawn Employers	Withdrawn 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%	1,942,789	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	6,561,724	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 - DDS (Withdrawn) <sup>1</sup>	0	0.000%	0	0.000%	16,641	0.308%
19 - DWD (Withdrawn) <sup>1</sup>	0	0.000%	0	0.000%	1,371,069	25.381%
20 - Pittsburg (Withdrawn) <sup>1</sup>	0	0.000%	0	0.000%	4,014,181	74.311%
<b>Total</b>	<b>\$6,561,724</b>	<b>100.000%</b>	<b>\$1,942,789</b>	<b>100.000%</b>	<b>\$5,401,891</b>	<b>100.000%</b>

**Note:** Results may not add due to rounding.

<sup>1</sup> The NPLs for the three withdrawn employers are determined based on the Plan's Fiduciary Net Positions from the December 31, 2020 bookkeeping account letters and the TPLs obtained from internal valuation results (by rolling forward their TPLs from December 31, 2019).

## Section 2: GAS 68 Information

### Determination of Proportionate Share (continued)

#### PART ONE - Allocation of December 31, 2020 Net Pension Liability (NPL)

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

Employer	Total NPL	Total Percentage
1 - BIMID	\$120,135	0.021%
2 - Union Cemetery	(281,020)	(0.048%)
3 - CC Mosquito	1,341,891	0.230%
4 - CCCFPD	85,582,923	14.672%
5 - CCCSD	48,886,895	8.381%
6 - First 5	921,982	0.158%
7 - County	372,280,448	63.821%
8 - CCCERA (the Employer)	2,271,787	0.389%
9 - ECCFPD	2,070,171	0.355%
10 - Housing Authority	3,458,981	0.593%
11 - IHSS	374,693	0.064%
12 - LAFCO	71,028	0.012%
13 - MOFD	22,547,986	3.865%
14 - Rodeo SD	(1,054,861)	(0.181%)
15 - RHFD	6,595,503	1.131%
16 - SRVFPD	23,045,406	3.951%
17 - Court	9,682,219	1.660%
18 - DDS (Withdrawn)	16,641	0.003%
19 - DWD (Withdrawn)	1,371,069	0.235%
20 - Pittsburg (Withdrawn)	4,014,181	0.688%
<b>Total</b>	<b>\$583,318,058</b>	<b>100.000%</b>

**Note:** Results may not add due to rounding.

## Section 2: GAS 68 Information

### Determination of Proportionate Share (continued)

**PART TWO - Allocation of December 31, 2020 Net Pension Liability (NPL)**  
Including 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	\$120,135	0.079%	\$0	0.000%	\$0	0.000%
2 - Union Cemetery	0	0.000%	0	0.000%	0	0.000%
3 - CC Mosquito	1,341,891	0.888%	0	0.000%	0	0.000%
4 - CCCFPD	0	0.000%	0	0.000%	0	0.000%
5 - CCCSD	0	0.000%	48,886,895	100.000%	0	0.000%
6 - First 5	487,008	0.322%	0	0.000%	0	0.000%
7 - County	139,372,969	92.203%	0	0.000%	0	0.000%
8 - CCCERA (the Employer)	2,271,787	1.503%	0	0.000%	0	0.000%
9 - ECCFPD	127,382	0.084%	0	0.000%	0	0.000%
10 - Housing Authority	0	0.000%	0	0.000%	3,458,981	100.000%
11 - IHSS	374,693	0.248%	0	0.000%	0	0.000%
12 - LAFCO	(21,991)	(0.015%)	0	0.000%	0	0.000%
13 - MOFD	162,087	0.107%	0	0.000%	0	0.000%
14 - Rodeo SD	0	0.000%	0	0.000%	0	0.000%
15 - RHFD	33,779	0.022%	0	0.000%	0	0.000%
16 - SRVFPD	1,622,527	1.073%	0	0.000%	0	0.000%
17 - Court	5,268,930	3.486%	0	0.000%	0	0.000%
18 - DDSD (Withdrawn)	0	0.000%	0	0.000%	0	0.000%
19 - DWD (Withdrawn)	0	0.000%	0	0.000%	0	0.000%
20 - Pittsburg (Withdrawn)	0	0.000%	0	0.000%	0	0.000%
<b>Total</b>	<b>\$151,161,197</b>	<b>100.000%</b>	<b>\$48,886,895</b>	<b>100.000%</b>	<b>\$3,458,981</b>	<b>100.000%</b>

**Note:** Results may not add due to rounding.

## Section 2: GAS 68 Information

### Determination of Proportionate Share (continued)

#### PART TWO - Allocation of December 31, 2020 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%	(281,020)	21.036%	0	0.000%
3 - CC Mosquito	0	0.000%	0	0.000%	0	0.000%
4 - CCCFPD	8,365,200	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%	116,167,814	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%	(1,054,861)	78.964%	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 - DDS (Withdrawn)	0	0.000%	0	0.000%	0	0.000%
19 - DWD (Withdrawn)	0	0.000%	0	0.000%	0	0.000%
20 - Pittsburg (Withdrawn)	0	0.000%	0	0.000%	0	0.000%
<b>Total</b>	<b>\$8,365,200</b>	<b>100.000%</b>	<b>\$(1,335,881)</b>	<b>100.000%</b>	<b>\$116,167,814</b>	<b>100.000%</b>

**Note:** Results may not add due to rounding.

## Section 2: GAS 68 Information

### Determination of Proportionate Share (continued)

#### PART TWO - Allocation of December 31, 2020 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	77,217,723	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%	22,198,712	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%	21,422,879	100.000%
17 - Court	0	0.000%	0	0.000%	0	0.000%
18 - DDS (Withdrawn)	0	0.000%	0	0.000%	0	0.000%
19 - DWD (Withdrawn)	0	0.000%	0	0.000%	0	0.000%
20 - Pittsburg (Withdrawn)	0	0.000%	0	0.000%	0	0.000%
<b>Total</b>	<b>\$77,217,723</b>	<b>100.000%</b>	<b>\$22,198,712</b>	<b>100.000%</b>	<b>\$21,422,879</b>	<b>100.000%</b>

**Note:** Results may not add due to rounding.

## Section 2: GAS 68 Information

### Determination of Proportionate Share (continued)

#### PART TWO - Allocation of December 31, 2020 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	Withdrawn Employers	Withdrawn 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%	1,942,789	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	6,561,724	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 - DDS (Withdrawn) <sup>1</sup>	0	0.000%	0	0.000%	16,641	0.308%
19 - DWD (Withdrawn) <sup>1</sup>	0	0.000%	0	0.000%	1,371,069	25.381%
20 - Pittsburg (Withdrawn) <sup>1</sup>	0	0.000%	0	0.000%	4,014,181	74.311%
<b>Total</b>	<b>\$6,561,724</b>	<b>100.000%</b>	<b>\$1,942,789</b>	<b>100.000%</b>	<b>\$5,401,891</b>	<b>100.000%</b>

**Note:** Results may not add due to rounding.

<sup>1</sup> The NPLs for the three withdrawn employers are determined based on the Plan's Fiduciary Net Positions from the December 31, 2020 bookkeeping account letters and the TPLs obtained from internal valuation results (by rolling forward their TPLs from December 31, 2019).

## Section 2: GAS 68 Information

### Determination of Proportionate Share (continued)

#### PART TWO - Allocation of December 31, 2020 Net Pension Liability (NPL)

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

Employer	Total NPL	Total Percentage	Total Percentage Excluding Withdrawn Employers <sup>1</sup>
1 - BIMID	\$120,135	0.026%	0.026%
2 - Union Cemetery	(281,020)	(0.061%)	(0.062%)
3 - CC Mosquito	1,341,891	0.291%	0.294%
4 - CCCFPD	85,582,923	18.547%	18.766%
5 - CCCSD	48,886,895	10.594%	10.720%
6 - First 5	487,008	0.106%	0.107%
7 - County	255,540,783	55.377%	56.036%
8 - CCCERA (the Employer)	2,271,787	0.492%	0.498%
9 - ECCFPD	2,070,171	0.449%	0.454%
10 - Housing Authority	3,458,981	0.750%	0.758%
11 - IHSS	374,693	0.081%	0.082%
12 - LAFCO	(21,991)	(0.005%)	(0.005%)
13 - MOFD	22,360,799	4.846%	4.903%
14 - Rodeo SD	(1,054,861)	(0.229%)	(0.231%)
15 - RHFD	6,595,503	1.429%	1.446%
16 - SRVFPD	23,045,406	4.994%	5.053%
17 - Court	5,268,930	1.142%	1.155%
18 - DDSD (Withdrawn)	16,641	0.004%	N/A
19 - DWD (Withdrawn)	1,371,069	0.297%	N/A
20 - Pittsburg (Withdrawn)	4,014,181	0.870%	N/A
<b>Total</b>	<b>\$461,449,924</b>	<b>100.000%</b>	<b>100.000%</b>

**Note:** Results may not add due to rounding.

<sup>1</sup> For informational purposes; these percentages show the allocation of the NPL for employers excluding withdrawn employers.

## Section 2: GAS 68 Information

### Determination of Proportionate Share (continued)

#### Notes Regarding Determination of Proportionate Share as of December 31, 2020 Measurement Date

1. Based on actual January 1, 2020 through December 31, 2020 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 withdrawn employers' assets and the Post Retirement Death Benefit reserve) to total CCCERA VVA (excluding the withdrawn 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 withdrawn employers, the TPL is obtained from internal valuation results for each employer. The Plan's Fiduciary Net Position for each withdrawn employer has been set equal to the amount in their respective bookkeeping account. The NPL is then determined separately for each withdrawn 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 withdrawn 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, 2020 allocated to those employers within each Cost Group are as follows:

Cost Group #1: County	\$116,739,665	Cost Group #1: LAFCO	\$93,019
Cost Group #1: Court	\$4,413,289	Cost Group #1: First 5	\$434,974
Cost Group #1: MOFD	\$187,187		

Note that the proceeds from Pension Obligation Bonds for Contra Costa County and the Superior Court as of December 31, 2020 (total of \$121,152,954) were allocated proportionally based on the compensation information.

## Section 2: GAS 68 Information

### Determination of Proportionate Share (continued)

#### Notes Regarding Determination of Proportionate Share as of December 31, 2020 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 withdrawn 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

## Section 2: GAS 68 Information

### Pension Expense

#### Total for All Employers

Reporting Date for Employer under GAS 68	June 30, 2022	June 30, 2021
Measurement Date for Employer under GAS 68	December 31, 2021	December 31, 2020
• Service cost	\$251,752,390	\$238,568,857
• Interest on the Total Pension Liability	735,971,867	707,426,996
• 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	1,473,713	(2,378,876)
• Expensed portion of current-period changes of assumptions or other inputs	49,980,073	(3,945,908)
• Member contributions <sup>1</sup>	(117,016,915)	(113,494,191)
• Projected earnings on plan investments	(704,157,325)	(645,555,488)
• Expensed portion of current-period differences between projected and actual earnings on plan investments	(140,637,257)	(47,367,714)
• Administrative expense	11,237,383	10,749,625
• Other expenses	1,242,166	1,135,409
• Recognition of beginning of year deferred outflows of resources as pension expense	194,524,729	194,439,090
• Recognition of beginning of year deferred inflows of resources as pension expense	(291,399,215)	(244,115,852)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
<b>Pension Expense</b>	<b>\$(7,028,391)</b>	<b>\$95,461,948</b>

<sup>1</sup> Includes "employer subvention of member contributions" and excludes "member subvention of employer contributions".

## Section 2: GAS 68 Information

### Pension Expense (continued)

#### 1 - BIMID

Reporting Date for Employer under GAS 68	June 30, 2022	June 30, 2021
Measurement Date for Employer under GAS 68	December 31, 2021	December 31, 2020
• Service cost	\$63,635	\$62,845
• Interest on the Total Pension Liability	184,989	185,236
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	1,753	6,266
• Benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	380	(592)
• Expensed portion of current-period changes of assumptions or other inputs	12,576	(1,039)
• Member contributions <sup>1</sup>	(29,578)	(29,897)
• Projected earnings on plan investments	(177,036)	(169,075)
• Expensed portion of current-period differences between projected and actual earnings on plan investments	(35,367)	(12,413)
• Administrative expense	2,840	2,832
• Other expenses	314	299
• Recognition of beginning of year deferred outflows of resources as pension expense	48,796	50,853
• Recognition of beginning of year deferred inflows of resources as pension expense	(73,158)	(63,924)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>42,901</u>	<u>52,071</u>
<b>Pension Expense</b>	<b>\$43,045</b>	<b>\$83,462</b>

<sup>1</sup> Includes "employer subvention of member contributions" and excludes "member subvention of employer contributions".

## Section 2: GAS 68 Information

### Pension Expense (continued)

#### 2 - Union Cemetery

Reporting Date for Employer under GAS 68	June 30, 2022	June 30, 2021
Measurement Date for Employer under GAS 68	December 31, 2021	December 31, 2020
• Service cost	\$508,015	\$(147,006)
• Interest on the Total Pension Liability	1,476,811	(433,305)
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	269,422	(46,384)
• Benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	3,037	1,384
• Expensed portion of current-period changes of assumptions or other inputs	100,401	2,431
• Member contributions <sup>1</sup>	(236,131)	69,936
• Projected earnings on plan investments	(1,413,326)	395,500
• Expensed portion of current-period differences between projected and actual earnings on plan investments	(282,346)	29,036
• Administrative expense	22,676	(6,624)
• Other expenses	2,507	(700)
• Recognition of beginning of year deferred outflows of resources as pension expense	389,551	(118,956)
• Recognition of beginning of year deferred inflows of resources as pension expense	(584,036)	149,531
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	(61,847)	(15,921)
<b>Pension Expense</b>	<b>\$194,734</b>	<b>\$(121,078)</b>

<sup>1</sup> Includes "employer subvention of member contributions" and excludes "member subvention of employer contributions".

## Section 2: GAS 68 Information

### Pension Expense (continued)

#### 3 - CC Mosquito

Reporting Date for Employer under GAS 68	June 30, 2022	June 30, 2021
Measurement Date for Employer under GAS 68	December 31, 2021	December 31, 2020
• Service cost	\$661,660	\$701,973
• Interest on the Total Pension Liability	1,923,456	2,069,063
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	(19,187)	(12,539)
• Benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	3,955	(6,609)
• Expensed portion of current-period changes of assumptions or other inputs	130,767	(11,611)
• Member contributions <sup>1</sup>	(307,546)	(333,949)
• Projected earnings on plan investments	(1,840,771)	(1,888,543)
• Expensed portion of current-period differences between projected and actual earnings on plan investments	(367,739)	(138,650)
• Administrative expense	29,534	31,630
• Other expenses	3,265	3,341
• Recognition of beginning of year deferred outflows of resources as pension expense	507,366	568,024
• Recognition of beginning of year deferred inflows of resources as pension expense	(760,671)	(714,020)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	(32,898)	(915)
<b>Pension Expense</b>	<b>\$(68,809)</b>	<b>\$267,195</b>

<sup>1</sup> Includes "employer subvention of member contributions" and excludes "member subvention of employer contributions".

## Section 2: GAS 68 Information

### Pension Expense (continued)

#### 4 - CCCFPD

Reporting Date for Employer under GAS 68	June 30, 2022	June 30, 2021
Measurement Date for Employer under GAS 68	December 31, 2021	December 31, 2020
• Service cost	\$(23,039,093)	\$44,770,327
• Interest on the Total Pension Liability	(66,975,005)	131,960,406
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	(31,702,604)	4,454,006
• Benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	(137,719)	(421,536)
• Expensed portion of current-period changes of assumptions or other inputs	(4,553,308)	(740,497)
• Member contributions <sup>1</sup>	10,708,790	(21,298,556)
• Projected earnings on plan investments	64,095,910	(120,447,216)
• Expensed portion of current-period differences between projected and actual earnings on plan investments	12,804,720	(8,842,821)
• Administrative expense	(1,028,388)	2,017,297
• Other expenses	(113,677)	213,073
• Recognition of beginning of year deferred outflows of resources as pension expense	(17,666,565)	36,227,375
• Recognition of beginning of year deferred inflows of resources as pension expense	26,486,681	(45,538,642)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	(1,028,927)	(6,075,371)
<b>Pension Expense</b>	<b>\$(32,149,185)</b>	<b>\$16,277,845</b>

<sup>1</sup> Includes "employer subvention of member contributions" and excludes "member subvention of employer contributions".

## Section 2: GAS 68 Information

### Pension Expense (continued)

5 - CCCSD

Reporting Date for Employer under GAS 68	June 30, 2022	June 30, 2021
Measurement Date for Employer under GAS 68	December 31, 2021	December 31, 2020
• Service cost	\$55,036,781	\$25,573,820
• Interest on the Total Pension Liability	159,992,792	75,378,759
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	17,409,691	3,273,166
• Benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	328,989	(240,791)
• Expensed portion of current-period changes of assumptions or other inputs	10,877,140	(422,989)
• Member contributions <sup>1</sup>	(25,581,622)	(12,166,215)
• Projected earnings on plan investments	(153,115,085)	(68,802,165)
• Expensed portion of current-period differences between projected and actual earnings on plan investments	(30,588,468)	(5,051,219)
• Administrative expense	2,456,658	1,152,326
• Other expenses	271,556	121,712
• Recognition of beginning of year deferred outflows of resources as pension expense	42,202,655	20,693,893
• Recognition of beginning of year deferred inflows of resources as pension expense	(63,272,530)	(26,012,699)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	1,713,818	(213,081)
<b>Pension Expense</b>	<b>\$17,732,375</b>	<b>\$13,284,517</b>

<sup>1</sup> Includes "employer subvention of member contributions" and excludes "member subvention of employer contributions".

## Section 2: GAS 68 Information

### Pension Expense (continued)

6 - First 5

Reporting Date for Employer under GAS 68	June 30, 2022	June 30, 2021
Measurement Date for Employer under GAS 68	December 31, 2021	December 31, 2020
• Service cost	\$785,055	\$254,767
• Interest on the Total Pension Liability	2,282,168	750,918
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	233,971	(82,906)
• Benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	4,693	(2,399)
• Expensed portion of current-period changes of assumptions or other inputs	155,154	(4,214)
• Member contributions <sup>1</sup>	(364,901)	(121,199)
• Projected earnings on plan investments	(2,184,063)	(685,403)
• Expensed portion of current-period differences between projected and actual earnings on plan investments	(436,320)	(50,320)
• Administrative expense	35,042	11,479
• Other expenses	3,874	1,212
• Recognition of beginning of year deferred outflows of resources as pension expense	601,987	206,151
• Recognition of beginning of year deferred inflows of resources as pension expense	(902,532)	(259,137)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	(26,074)	79,257
<b>Pension Expense</b>	<b>\$188,054</b>	<b>\$98,206</b>

<sup>1</sup> Includes "employer subvention of member contributions" and excludes "member subvention of employer contributions".

## Section 2: GAS 68 Information

### Pension Expense (continued)

#### 7 - County

Reporting Date for Employer under GAS 68	June 30, 2022	June 30, 2021
Measurement Date for Employer under GAS 68	December 31, 2021	December 31, 2020
• Service cost	\$207,813,791	\$133,679,061
• Interest on the Total Pension Liability	604,117,938	394,018,621
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	24,870,341	(9,322,107)
• Benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	1,242,234	(1,258,657)
• Expensed portion of current-period changes of assumptions or other inputs	41,071,068	(2,211,040)
• Member contributions <sup>1</sup>	(96,593,832)	(63,595,045)
• Projected earnings on plan investments	(578,148,357)	(359,641,561)
• Expensed portion of current-period differences between projected and actual earnings on plan investments	(115,499,220)	(26,403,647)
• Administrative expense	9,276,111	6,023,416
• Other expenses	1,025,368	636,213
• Recognition of beginning of year deferred outflows of resources as pension expense	159,353,311	108,170,783
• Recognition of beginning of year deferred inflows of resources as pension expense	(238,911,206)	(135,973,153)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>1,243,411</u>	<u>9,128,396</u>
<b>Pension Expense</b>	<b>\$20,860,958</b>	<b>\$53,251,280</b>

<sup>1</sup> Includes "employer subvention of member contributions" and excludes "member subvention of employer contributions".

## Section 2: GAS 68 Information

### Pension Expense (continued)

#### 8 - CCCERA (the employer)

Reporting Date for Employer under GAS 68	June 30, 2022	June 30, 2021
Measurement Date for Employer under GAS 68	December 31, 2021	December 31, 2020
• Service cost	\$1,231,639	\$1,188,422
• Interest on the Total Pension Liability	3,580,394	3,502,871
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	45,481	30,013
• Benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	7,362	(11,190)
• Expensed portion of current-period changes of assumptions or other inputs	243,414	(19,656)
• Member contributions <sup>1</sup>	(572,478)	(565,367)
• Projected earnings on plan investments	(3,426,481)	(3,197,255)
• Expensed portion of current-period differences between projected and actual earnings on plan investments	(684,523)	(234,731)
• Administrative expense	54,976	53,549
• Other expenses	6,077	5,656
• Recognition of beginning of year deferred outflows of resources as pension expense	944,431	961,651
• Recognition of beginning of year deferred inflows of resources as pension expense	(1,415,942)	(1,208,817)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>246,059</u>	<u>303,992</u>
<b>Pension Expense</b>	<b>\$260,409</b>	<b>\$809,138</b>

<sup>1</sup> Includes "employer subvention of member contributions" and excludes "member subvention of employer contributions".

## Section 2: GAS 68 Information

### Pension Expense (continued)

#### 9 - ECCFPD

Reporting Date for Employer under GAS 68	June 30, 2022	June 30, 2021
Measurement Date for Employer under GAS 68	December 31, 2021	December 31, 2020
• Service cost	\$1,987,865	\$1,082,954
• Interest on the Total Pension Liability	5,778,755	3,191,999
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	696,213	209,702
• Benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	11,883	(10,197)
• Expensed portion of current-period changes of assumptions or other inputs	392,870	(17,912)
• Member contributions <sup>1</sup>	(923,979)	(515,192)
• Projected earnings on plan investments	(5,530,341)	(2,913,506)
• Expensed portion of current-period differences between projected and actual earnings on plan investments	(1,104,820)	(213,900)
• Administrative expense	88,732	48,797
• Other expenses	9,808	5,154
• Recognition of beginning of year deferred outflows of resources as pension expense	1,524,311	876,306
• Recognition of beginning of year deferred inflows of resources as pension expense	(2,285,331)	(1,101,537)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	(2,345,780)	(2,341,710)
<b>Pension Expense</b>	<b>\$(1,699,814)</b>	<b>\$(1,699,042)</b>

<sup>1</sup> Includes "employer subvention of member contributions" and excludes "member subvention of employer contributions".

## Section 2: GAS 68 Information

### Pension Expense (continued)

#### 10 - Housing Authority

Reporting Date for Employer under GAS 68	June 30, 2022	June 30, 2021
Measurement Date for Employer under GAS 68	December 31, 2021	December 31, 2020
• Service cost	\$1,391,628	\$1,809,469
• Interest on the Total Pension Liability	4,045,484	5,333,407
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	(264,065)	27,752
• Benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	8,319	(17,037)
• Expensed portion of current-period changes of assumptions or other inputs	275,033	(29,928)
• Member contributions <sup>1</sup>	(646,842)	(860,818)
• Projected earnings on plan investments	(3,871,579)	(4,868,081)
• Expensed portion of current-period differences between projected and actual earnings on plan investments	(773,442)	(357,398)
• Administrative expense	62,118	81,533
• Other expenses	6,866	8,612
• Recognition of beginning of year deferred outflows of resources as pension expense	1,067,112	1,464,192
• Recognition of beginning of year deferred inflows of resources as pension expense	(1,599,872)	(1,840,523)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	(101,153)	(87,424)
<b>Pension Expense</b>	<b>\$(400,393)</b>	<b>\$663,756</b>

<sup>1</sup> Includes "employer subvention of member contributions" and excludes "member subvention of employer contributions".

## Section 2: GAS 68 Information

### Pension Expense (continued)

#### 11 - IHSS

Reporting Date for Employer under GAS 68	June 30, 2022	June 30, 2021
Measurement Date for Employer under GAS 68	December 31, 2021	December 31, 2020
• Service cost	\$185,973	\$196,010
• Interest on the Total Pension Liability	540,629	577,740
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	(6,829)	(10,181)
• Benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	1,112	(1,846)
• Expensed portion of current-period changes of assumptions or other inputs	36,755	(3,242)
• Member contributions <sup>1</sup>	(86,442)	(93,248)
• Projected earnings on plan investments	(517,389)	(527,333)
• Expensed portion of current-period differences between projected and actual earnings on plan investments	(103,361)	(38,715)
• Administrative expense	8,301	8,832
• Other expenses	918	933
• Recognition of beginning of year deferred outflows of resources as pension expense	142,606	158,608
• Recognition of beginning of year deferred inflows of resources as pension expense	(213,803)	(199,374)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>1,610</u>	<u>32,667</u>
<b>Pension Expense</b>	<b>\$(9,920)</b>	<b>\$100,851</b>

<sup>1</sup> Includes "employer subvention of member contributions" and excludes "member subvention of employer contributions".

## Section 2: GAS 68 Information

### Pension Expense (continued)

#### 12 - LAFCO

Reporting Date for Employer under GAS 68	June 30, 2022	June 30, 2021
Measurement Date for Employer under GAS 68	December 31, 2021	December 31, 2020
• Service cost	\$162,506	\$(11,504)
• Interest on the Total Pension Liability	472,405	(33,908)
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	79,742	(19,869)
• Benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	971	108
• Expensed portion of current-period changes of assumptions or other inputs	32,117	190
• Member contributions <sup>1</sup>	(75,534)	5,473
• Projected earnings on plan investments	(452,098)	30,950
• Expensed portion of current-period differences between projected and actual earnings on plan investments	(90,318)	2,272
• Administrative expense	7,254	(518)
• Other expenses	802	(55)
• Recognition of beginning of year deferred outflows of resources as pension expense	124,610	(9,309)
• Recognition of beginning of year deferred inflows of resources as pension expense	(186,823)	11,701
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	(16,864)	3,940
<b>Pension Expense</b>	<b>\$58,770</b>	<b>\$(20,529)</b>

<sup>1</sup> Includes "employer subvention of member contributions" and excludes "member subvention of employer contributions".

## Section 2: GAS 68 Information

### Pension Expense (continued)

13 - MOFD

Reporting Date for Employer under GAS 68	June 30, 2022	June 30, 2021
Measurement Date for Employer under GAS 68	December 31, 2021	December 31, 2020
• Service cost	\$(11,073,221)	\$11,697,429
• Interest on the Total Pension Liability	(32,190,029)	34,478,141
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	(10,336,361)	1,634,754
• Benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	(66,192)	(110,137)
• Expensed portion of current-period changes of assumptions or other inputs	(2,188,445)	(193,474)
• Member contributions <sup>1</sup>	5,146,939	(5,564,810)
• Projected earnings on plan investments	30,806,257	(31,470,016)
• Expensed portion of current-period differences between projected and actual earnings on plan investments	6,154,300	(2,310,420)
• Administrative expense	(494,271)	527,072
• Other expenses	(54,636)	55,671
• Recognition of beginning of year deferred outflows of resources as pension expense	(8,491,037)	9,465,359
• Recognition of beginning of year deferred inflows of resources as pension expense	12,730,227	(11,898,173)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	901,464	(1,155,051)
<b>Pension Expense</b>	<b>\$(9,155,005)</b>	<b>\$5,156,345</b>

<sup>1</sup> Includes "employer subvention of member contributions" and excludes "member subvention of employer contributions".

## Section 2: GAS 68 Information

### Pension Expense (continued)

#### 14 - Rodeo SD

Reporting Date for Employer under GAS 68	June 30, 2022	June 30, 2021
Measurement Date for Employer under GAS 68	December 31, 2021	December 31, 2020
• Service cost	\$1,221,949	\$(551,822)
• Interest on the Total Pension Liability	3,552,222	(1,626,491)
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	792,581	(185,852)
• Benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	7,304	5,196
• Expensed portion of current-period changes of assumptions or other inputs	241,498	9,127
• Member contributions <sup>1</sup>	(567,973)	262,518
• Projected earnings on plan investments	(3,399,521)	1,484,584
• Expensed portion of current-period differences between projected and actual earnings on plan investments	(679,137)	108,993
• Administrative expense	54,544	(24,864)
• Other expenses	6,029	(2,626)
• Recognition of beginning of year deferred outflows of resources as pension expense	937,000	(446,524)
• Recognition of beginning of year deferred inflows of resources as pension expense	(1,404,801)	561,291
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	(228,321)	(35,423)
<b>Pension Expense</b>	<b>\$533,374</b>	<b>\$(441,893)</b>

<sup>1</sup> Includes "employer subvention of member contributions" and excludes "member subvention of employer contributions".

## Section 2: GAS 68 Information

### Pension Expense (continued)

15 – RHFD

Reporting Date for Employer under GAS 68	June 30, 2022	June 30, 2021
Measurement Date for Employer under GAS 68	December 31, 2021	December 31, 2020
• Service cost	\$(3,878,202)	\$3,450,254
• Interest on the Total Pension Liability	(11,273,990)	10,169,614
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	(3,140,236)	275,751
• Benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	(23,182)	(32,486)
• Expensed portion of current-period changes of assumptions or other inputs	(766,464)	(57,067)
• Member contributions <sup>1</sup>	1,802,625	(1,641,387)
• Projected earnings on plan investments	10,789,349	(9,282,342)
• Expensed portion of current-period differences between projected and actual earnings on plan investments	2,155,435	(681,478)
• Administrative expense	(173,110)	155,464
• Other expenses	(19,135)	16,421
• Recognition of beginning of year deferred outflows of resources as pension expense	(2,973,836)	2,791,886
• Recognition of beginning of year deferred inflows of resources as pension expense	4,458,538	(3,509,465)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	(760,367)	(896,132)
<b>Pension Expense</b>	<b>\$(3,802,575)</b>	<b>\$759,033</b>

<sup>1</sup> Includes "employer subvention of member contributions" and excludes "member subvention of employer contributions".

## Section 2: GAS 68 Information

### Pension Expense (continued)

16 - SRVFPD

Reporting Date for Employer under GAS 68	June 30, 2022	June 30, 2021
Measurement Date for Employer under GAS 68	December 31, 2021	December 31, 2020
• Service cost	\$11,988,516	\$12,055,563
• Interest on the Total Pension Liability	34,850,807	35,533,738
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	(437,518)	344,204
• Benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	71,663	(113,509)
• Expensed portion of current-period changes of assumptions or other inputs	2,369,339	(199,398)
• Member contributions <sup>1</sup>	(5,572,377)	(5,735,185)
• Projected earnings on plan investments	(33,352,654)	(32,433,515)
• Expensed portion of current-period differences between projected and actual earnings on plan investments	(6,663,005)	(2,381,157)
• Administrative expense	535,127	543,209
• Other expenses	59,152	57,375
• Recognition of beginning of year deferred outflows of resources as pension expense	9,192,893	9,755,154
• Recognition of beginning of year deferred inflows of resources as pension expense	(13,782,488)	(12,262,452)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>565,775</u>	<u>898,108</u>
<b>Pension Expense</b>	<b>\$(174,770)</b>	<b>\$6,062,135</b>

<sup>1</sup> Includes "employer subvention of member contributions" and excludes "member subvention of employer contributions".

## Section 2: GAS 68 Information

### Pension Expense (continued)

17 - Court

Reporting Date for Employer under GAS 68	June 30, 2022	June 30, 2021
Measurement Date for Employer under GAS 68	December 31, 2021	December 31, 2020
• Service cost	\$6,703,893	\$2,756,295
• Interest on the Total Pension Liability	19,488,328	8,124,169
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	1,507,605	(575,776)
• Benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	40,073	(25,952)
• Expensed portion of current-period changes of assumptions or other inputs	1,324,918	(45,589)
• Member contributions <sup>1</sup>	(3,116,034)	(1,311,250)
• Projected earnings on plan investments	(18,650,571)	(7,415,357)
• Expensed portion of current-period differences between projected and actual earnings on plan investments	(3,725,906)	(544,410)
• Administrative expense	299,239	124,195
• Other expenses	33,078	13,118
• Recognition of beginning of year deferred outflows of resources as pension expense	5,140,601	2,230,346
• Recognition of beginning of year deferred inflows of resources as pension expense	(7,707,071)	(2,803,596)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	(112,807)	322,597
<b>Pension Expense</b>	<b>\$1,225,346</b>	<b>\$848,790</b>

<sup>1</sup> Includes "employer subvention of member contributions" and excludes "member subvention of employer contributions".

## Section 2: GAS 68 Information

### Pension Expense (continued)

18 - DDSD (Withdrawn)

Reporting Date for Employer under GAS 68	June 30, 2022	June 30, 2021
Measurement Date for Employer under GAS 68	December 31, 2021	December 31, 2020
• Service cost	\$0	\$0
• Interest on the Total Pension Liability	832,424	928,868
• 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	61,820	(274,796)
• Expensed portion of current-period changes of assumptions or other inputs	46,501	0
• Member contributions <sup>1</sup>	0	0
• Projected earnings on plan investments	(831,806)	(811,807)
• Expensed portion of current-period differences between projected and actual earnings on plan investments	(156,539)	(52,114)
• Administrative expense	0	0
• Other expenses	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	302,393	330,447
• Recognition of beginning of year deferred inflows of resources as pension expense	(638,480)	(311,569)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
<b>Pension Expense</b>	<b>\$(383,687)</b>	<b>\$(190,971)</b>

<sup>1</sup> Includes "employer subvention of member contributions" and excludes "member subvention of employer contributions".

## Section 2: GAS 68 Information

### Pension Expense (continued)

#### 19 - DWD (Withdrawn)

Reporting Date for Employer under GAS 68	June 30, 2022	June 30, 2021
Measurement Date for Employer under GAS 68	December 31, 2021	December 31, 2020
• Service cost	\$0	\$0
• Interest on the Total Pension Liability	184,738	162,398
• 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	(116,926)	112,687
• Expensed portion of current-period changes of assumptions or other inputs	(1,900)	0
• Member contributions <sup>1</sup>	0	0
• Projected earnings on plan investments	(89,019)	(96,325)
• Expensed portion of current-period differences between projected and actual earnings on plan investments	(14,922)	(4,493)
• Administrative expense	0	0
• Other expenses	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	199,669	100,786
• Recognition of beginning of year deferred inflows of resources as pension expense	(55,128)	(50,635)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
<b>Pension Expense</b>	<b>\$106,512</b>	<b>\$224,418</b>

<sup>1</sup> Includes "employer subvention of member contributions" and excludes "member subvention of employer contributions".

## Section 2: GAS 68 Information

### Pension Expense (continued)

#### 20 - Pittsburg (Withdrawn)

Reporting Date for Employer under GAS 68	June 30, 2022	June 30, 2021
Measurement Date for Employer under GAS 68	December 31, 2021	December 31, 2020
• Service cost	\$0	\$0
• Interest on the Total Pension Liability	3,106,551	3,154,752
• 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	23,937	29,483
• Expensed portion of current-period changes of assumptions or other inputs	180,639	0
• Member contributions <sup>1</sup>	0	0
• Projected earnings on plan investments	(2,848,744)	(2,817,022)
• Expensed portion of current-period differences between projected and actual earnings on plan investments	(546,279)	(190,129)
• Administrative expense	0	0
• Other expenses	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	976,875	962,065
• Recognition of beginning of year deferred inflows of resources as pension expense	(1,280,789)	(1,090,659)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
<b>Pension Expense</b>	<b>\$(387,810)</b>	<b>\$48,490</b>

<sup>1</sup> Includes "employer subvention of member contributions" and excludes "member subvention of employer contributions".

## Section 2: GAS 68 Information

### Deferred Outflows of Resources and Deferred Inflows of Resources

#### Total For All Employers

Reporting Date for Employer under GAS 68	June 30, 2022	June 30, 2021
Measurement Date for Employer under GAS 68	December 31, 2021	December 31, 2020
<b>Deferred Outflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$202,157,079	\$79,472,197
• Changes of assumptions or other inputs	173,940,142	7,920
• Net difference between projected and actual earnings on pension plan investments (if any)	0	0
• Difference between actual and expected experience in the Total Pension Liability	<u>52,613,729</u>	<u>85,444,843</u>
<b>• Total Deferred Outflows of Resources</b>	<b>\$428,710,950</b>	<b>\$164,924,960</b>
<b>Deferred Inflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$202,157,079	\$79,472,197
• Changes of assumptions or other inputs	21,282,964	45,450,263
• Net difference between actual and projected earnings on pension plan investments (if any)	788,429,776	330,654,302
• Difference between expected and actual experience in the Total Pension Liability	<u>6,635,395</u>	<u>12,527,088</u>
<b>• Total Deferred Inflows of Resources</b>	<b>\$1,018,505,214</b>	<b>\$468,103,850</b>
<b>Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:</b>		
<b>Reporting Date for Employer under GAS 68 Year Ended June 30:</b>		
2022	N/A	\$(96,874,486)
2023	\$(85,044,666)	4,138,805
2024	(249,286,319)	(160,102,848)
2025	(139,523,832)	(50,340,361)
2026	(115,939,447)	0
2027	0	0

<sup>1</sup> Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

## Section 2: GAS 68 Information

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

#### 1 – BIMID

Reporting Date for Employer under GAS 68 Measurement Date for Employer under GAS 68	June 30, 2022 December 31, 2021	June 30, 2021 December 31, 2020
<b>Deferred Outflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$34,807	\$71,609
• Changes of assumptions or other inputs	43,766	0
• Net difference between projected and actual earnings on pension plan investments (if any)	0	0
• Difference between actual and expected experience in the Total Pension Liability	<u>13,076</u>	<u>22,239</u>
<b>• Total Deferred Outflows of Resources</b>	<b>\$91,649</b>	<b>\$93,848</b>
<b>Deferred Inflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$0	\$0
• Changes of assumptions or other inputs	5,376	11,967
• Net difference between actual and projected earnings on pension plan investments (if any)	198,256	86,610
• Difference between expected and actual experience in the Total Pension Liability	<u>1,402</u>	<u>3,048</u>
<b>• Total Deferred Inflows of Resources</b>	<b>\$205,034</b>	<b>\$101,625</b>
<b>Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:</b>		
<b>Reporting Date for Employer under GAS 68 Year Ended June 30:</b>		
2022	N/A	\$17,512
2023	\$(704)	19,997
2024	(54,015)	(35,052)
2025	(30,359)	(10,234)
2026	(28,307)	0
2027	0	0

<sup>1</sup> Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

## Section 2: GAS 68 Information

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

#### 2 - Union Cemetery

Reporting Date for Employer under GAS 68 Measurement Date for Employer under GAS 68	June 30, 2022 December 31, 2021	June 30, 2021 December 31, 2020
<b>Deferred Outflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$942,666	\$15,126
• Changes of assumptions or other inputs	349,396	0
• Net difference between projected and actual earnings on pension plan investments (if any)	0	0
• Difference between actual and expected experience in the Total Pension Liability	<u>104,387</u>	<u>(52,020)</u>
<b>• Total Deferred Outflows of Resources</b>	<b>\$1,396,449</b>	<b>\$(36,894)</b>
<b>Deferred Inflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$153,092	\$224,988
• Changes of assumptions or other inputs	42,917	(27,993)
• Net difference between actual and projected earnings on pension plan investments (if any)	1,582,726	(202,599)
• Difference between expected and actual experience in the Total Pension Liability	<u>11,196</u>	<u>(7,129)</u>
<b>• Total Deferred Inflows of Resources</b>	<b>\$1,789,931</b>	<b>\$(12,733)</b>
<b>Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:</b>		
<b>Reporting Date for Employer under GAS 68 Year Ended June 30:</b>		
2022	N/A	\$(2,458)
2023	\$31,917	(69,330)
2024	(289,779)	38,597
2025	(32,246)	9,030
2026	(103,374)	0
2027	0	0

<sup>1</sup> Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

## Section 2: GAS 68 Information

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

#### 3 - CC Mosquito

Reporting Date for Employer under GAS 68 Measurement Date for Employer under GAS 68	June 30, 2022 December 31, 2021	June 30, 2021 December 31, 2020
<b>Deferred Outflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$32,353	\$70,402
• Changes of assumptions or other inputs	455,067	0
• Net difference between projected and actual earnings on pension plan investments (if any)	0	0
• Difference between actual and expected experience in the Total Pension Liability	<u>135,958</u>	<u>248,401</u>
<b>• Total Deferred Outflows of Resources</b>	<b>\$623,378</b>	<b>\$318,803</b>
<b>Deferred Inflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$131,032	\$135,209
• Changes of assumptions or other inputs	55,897	133,666
• Net difference between actual and projected earnings on pension plan investments (if any)	2,061,404	967,423
• Difference between expected and actual experience in the Total Pension Liability	<u>14,582</u>	<u>34,042</u>
<b>• Total Deferred Inflows of Resources</b>	<b>\$2,262,915</b>	<b>\$1,270,340</b>
<b>Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:</b>		
<b>Reporting Date for Employer under GAS 68 Year Ended June 30:</b>		
2022	N/A	\$(316,487)
2023	\$(265,901)	(12,417)
2024	(671,765)	(469,528)
2025	(389,589)	(153,105)
2026	(312,282)	0
2027	0	0

<sup>1</sup> Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

## Section 2: GAS 68 Information

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

#### 4 - CCCFPD

Reporting Date for Employer under GAS 68 Measurement Date for Employer under GAS 68	June 30, 2022 December 31, 2021	June 30, 2021 December 31, 2020
<b>Deferred Outflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$13,450,728	\$19,861,225
• Changes of assumptions or other inputs	(15,845,512)	0
• Net difference between projected and actual earnings on pension plan investments (if any)	0	0
• Difference between actual and expected experience in the Total Pension Liability	<u>(4,734,085)</u>	<u>15,842,498</u>
<b>• Total Deferred Outflows of Resources</b>	<b>\$(7,128,869)</b>	<b>\$35,703,723</b>
<b>Deferred Inflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$114,565,532	\$11,679,894
• Changes of assumptions or other inputs	(1,946,334)	8,524,945
• Net difference between actual and projected earnings on pension plan investments (if any)	(71,778,389)	61,700,172
• Difference between expected and actual experience in the Total Pension Liability	<u>(507,746)</u>	<u>2,171,135</u>
<b>• Total Deferred Inflows of Resources</b>	<b>\$40,333,063</b>	<b>\$84,076,146</b>
<b>Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:</b>		
<b>Reporting Date for Employer under GAS 68 Year Ended June 30:</b>		
2022	N/A	\$(19,115,616)
2023	\$(22,126,197)	2,600,273
2024	(3,754,593)	(24,561,488)
2025	(16,916,920)	(7,295,592)
2026	(4,664,222)	0
2027	0	0

<sup>1</sup> Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

## Section 2: GAS 68 Information

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

#### 5 - CCCSD

Reporting Date for Employer under GAS 68 Measurement Date for Employer under GAS 68	June 30, 2022 December 31, 2021	June 30, 2021 December 31, 2020
<b>Deferred Outflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$70,386,428	\$15,811,376
• Changes of assumptions or other inputs	37,852,446	0
• Net difference between projected and actual earnings on pension plan investments (if any)	0	0
• Difference between actual and expected experience in the Total Pension Liability	<u>11,308,988</u>	<u>9,049,592</u>
<b>• Total Deferred Outflows of Resources</b>	<b>\$119,547,862</b>	<b>\$24,860,968</b>
<b>Deferred Inflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$2,449,209	\$6,746,064
• Changes of assumptions or other inputs	4,649,486	4,869,641
• Net difference between actual and projected earnings on pension plan investments (if any)	171,467,322	35,244,529
• Difference between expected and actual experience in the Total Pension Liability	<u>1,212,926</u>	<u>1,240,201</u>
<b>• Total Deferred Inflows of Resources</b>	<b>\$179,778,943</b>	<b>\$48,100,435</b>
<b>Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:</b>		
<b>Reporting Date for Employer under GAS 68 Year Ended June 30:</b>		
2022	N/A	\$(8,617,706)
2023	\$878,508	2,397,163
2024	(32,884,877)	(13,194,117)
2025	(11,371,838)	(3,824,807)
2026	(16,852,874)	0
2027	0	0

<sup>1</sup> Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

## Section 2: GAS 68 Information

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

6 - First 5

Reporting Date for Employer under GAS 68 Measurement Date for Employer under GAS 68	June 30, 2022 December 31, 2021	June 30, 2021 December 31, 2020
<b>Deferred Outflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$875,522	\$168,850
• Changes of assumptions or other inputs	539,935	0
• Net difference between projected and actual earnings on pension plan investments (if any)	0	0
• Difference between actual and expected experience in the Total Pension Liability	<u>161,314</u>	<u>90,151</u>
<b>• Total Deferred Outflows of Resources</b>	<b>\$1,576,771</b>	<b>\$259,001</b>
<b>Deferred Inflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$277,642	\$411,263
• Changes of assumptions or other inputs	66,321	48,511
• Net difference between actual and projected earnings on pension plan investments (if any)	2,445,843	351,104
• Difference between expected and actual experience in the Total Pension Liability	<u>17,301</u>	<u>12,355</u>
<b>• Total Deferred Inflows of Resources</b>	<b>\$2,807,107</b>	<b>\$823,233</b>
<b>Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:</b>		
<b>Reporting Date for Employer under GAS 68 Year Ended June 30:</b>		
2022	N/A	\$(128,996)
2023	\$(99,653)	(65,506)
2024	(645,912)	(277,335)
2025	(237,485)	(92,395)
2026	(247,286)	0
2027	0	0

<sup>1</sup> Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

## Section 2: GAS 68 Information

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

7 - County

Reporting Date for Employer under GAS 68 Measurement Date for Employer under GAS 68	June 30, 2022 December 31, 2021	June 30, 2021 December 31, 2020
<b>Deferred Outflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$96,362,618	\$27,031,086
• Changes of assumptions or other inputs	142,927,324	0
• Net difference between projected and actual earnings on pension plan investments (if any)	0	0
• Difference between actual and expected experience in the Total Pension Liability	<u>42,701,690</u>	<u>47,303,882</u>
<b>• Total Deferred Outflows of Resources</b>	<b>\$281,991,632</b>	<b>\$74,334,968</b>
<b>Deferred Inflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$27,435,270	\$43,409,113
• Changes of assumptions or other inputs	17,556,030	25,454,511
• Net difference between actual and projected earnings on pension plan investments (if any)	647,444,702	184,229,629
• Difference between expected and actual experience in the Total Pension Liability	<u>4,579,899</u>	<u>6,482,760</u>
<b>• Total Deferred Inflows of Resources</b>	<b>\$697,015,901</b>	<b>\$259,576,013</b>
<b>Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:</b>		
<b>Reporting Date for Employer under GAS 68 Year Ended June 30:</b>		
2022	N/A	\$(52,761,362)
2023	\$(47,380,626)	(145,380)
2024	(190,396,323)	(99,918,505)
2025	(93,996,240)	(32,415,798)
2026	(83,251,080)	0
2027	0	0

<sup>1</sup> Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

## Section 2: GAS 68 Information

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

#### 8 - CCCERA (the Employer)

Reporting Date for Employer under GAS 68 Measurement Date for Employer under GAS 68	June 30, 2022 December 31, 2021	June 30, 2021 December 31, 2020
<b>Deferred Outflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$370,566	\$458,349
• Changes of assumptions or other inputs	847,080	0
• Net difference between projected and actual earnings on pension plan investments (if any)	0	0
• Difference between actual and expected experience in the Total Pension Liability	<u>253,078</u>	<u>420,537</u>
<b>• Total Deferred Outflows of Resources</b>	<b>\$1,470,724</b>	<b>\$878,886</b>
<b>Deferred Inflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$0	\$0
• Changes of assumptions or other inputs	104,048	226,294
• Net difference between actual and projected earnings on pension plan investments (if any)	3,837,176	1,637,823
• Difference between expected and actual experience in the Total Pension Liability	<u>27,143</u>	<u>57,632</u>
<b>• Total Deferred Inflows of Resources</b>	<b>\$3,968,367</b>	<b>\$1,921,749</b>
<b>Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:</b>		
<b>Reporting Date for Employer under GAS 68 Year Ended June 30:</b>		
2022	N/A	\$(234,050)
2023	\$(243,520)	145,110
2024	(1,092,882)	(718,801)
2025	(618,925)	(235,122)
2026	(542,316)	0
2027	0	0

<sup>1</sup> Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

## Section 2: GAS 68 Information

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

#### 9 - ECCFPD

Reporting Date for Employer under GAS 68 Measurement Date for Employer under GAS 68	June 30, 2022 December 31, 2021	June 30, 2021 December 31, 2020
<b>Deferred Outflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$2,940,787	\$929,516
• Changes of assumptions or other inputs	1,367,187	0
• Net difference between projected and actual earnings on pension plan investments (if any)	0	0
• Difference between actual and expected experience in the Total Pension Liability	<u>408,468</u>	<u>383,215</u>
<b>• Total Deferred Outflows of Resources</b>	<b>\$4,716,442</b>	<b>\$1,312,731</b>
<b>Deferred Inflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$2,461,179	\$5,218,510
• Changes of assumptions or other inputs	167,934	206,210
• Net difference between actual and projected earnings on pension plan investments (if any)	6,193,202	1,492,470
• Difference between expected and actual experience in the Total Pension Liability	<u>43,809</u>	<u>52,518</u>
<b>• Total Deferred Inflows of Resources</b>	<b>\$8,866,124</b>	<b>\$6,969,708</b>
<b>Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:</b>		
<b>Reporting Date for Employer under GAS 68 Year Ended June 30:</b>		
2022	N/A	\$(2,783,280)
2023	\$(1,740,558)	(1,750,380)
2024	(1,532,423)	(994,766)
2025	(300,346)	(128,551)
2026	(576,355)	0
2027	0	0

<sup>1</sup> Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

## Section 2: GAS 68 Information

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

#### 10 - Housing Authority

Reporting Date for Employer under GAS 68 Measurement Date for Employer under GAS 68	June 30, 2022 December 31, 2021	June 30, 2021 December 31, 2020
<b>Deferred Outflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$68,547	\$133,238
• Changes of assumptions or other inputs	957,115	0
• Net difference between projected and actual earnings on pension plan investments (if any)	0	0
• Difference between actual and expected experience in the Total Pension Liability	<u>285,952</u>	<u>640,302</u>
<b>• Total Deferred Outflows of Resources</b>	<b>\$1,311,614</b>	<b>\$773,540</b>
<b>Deferred Inflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$1,088,941	\$335,838
• Changes of assumptions or other inputs	117,564	344,550
• Net difference between actual and projected earnings on pension plan investments (if any)	4,335,623	2,493,719
• Difference between expected and actual experience in the Total Pension Liability	<u>30,669</u>	<u>87,750</u>
<b>• Total Deferred Inflows of Resources</b>	<b>\$5,572,797</b>	<b>\$3,261,857</b>
<b>Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:</b>		
<b>Reporting Date for Employer under GAS 68 Year Ended June 30:</b>		
2022	N/A	\$(832,158)
2023	\$(832,931)	(70,394)
2024	(1,646,393)	(1,219,337)
2025	(1,017,674)	(366,428)
2026	(764,185)	0
2027	0	0

<sup>1</sup> Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

## Section 2: GAS 68 Information

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

11 - IHSS

Reporting Date for Employer under GAS 68 Measurement Date for Employer under GAS 68	June 30, 2022 December 31, 2021	June 30, 2021 December 31, 2020
<b>Deferred Outflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$14,155	\$33,142
• Changes of assumptions or other inputs	127,907	0
• Net difference between projected and actual earnings on pension plan investments (if any)	0	0
• Difference between actual and expected experience in the Total Pension Liability	<u>38,214</u>	<u>69,360</u>
<b>• Total Deferred Outflows of Resources</b>	<b>\$180,276</b>	<b>\$102,502</b>
<b>Deferred Inflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$53,016	\$46,629
• Changes of assumptions or other inputs	15,711	37,323
• Net difference between actual and projected earnings on pension plan investments (if any)	579,403	270,131
• Difference between expected and actual experience in the Total Pension Liability	<u>4,099</u>	<u>9,506</u>
<b>• Total Deferred Inflows of Resources</b>	<b>\$652,229</b>	<b>\$363,589</b>
<b>Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:</b>		
<b>Reporting Date for Employer under GAS 68 Year Ended June 30:</b>		
2022	N/A	\$(77,576)
2023	\$(74,224)	(1,562)
2024	(195,197)	(136,055)
2025	(114,070)	(45,894)
2026	(88,462)	0
2027	0	0

<sup>1</sup> Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

## Section 2: GAS 68 Information

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

#### 12 - LAFCO

Reporting Date for Employer under GAS 68 Measurement Date for Employer under GAS 68	June 30, 2022 December 31, 2021	June 30, 2021 December 31, 2020
<b>Deferred Outflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$278,668	\$4,206
• Changes of assumptions or other inputs	111,766	0
• Net difference between projected and actual earnings on pension plan investments (if any)	0	0
• Difference between actual and expected experience in the Total Pension Liability	<u>33,392</u>	<u>(4,071)</u>
<b>• Total Deferred Outflows of Resources</b>	<b>\$423,826</b>	<b>\$135</b>
<b>Deferred Inflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$49,124	\$69,026
• Changes of assumptions or other inputs	13,728	(2,191)
• Net difference between actual and projected earnings on pension plan investments (if any)	506,286	(15,854)
• Difference between expected and actual experience in the Total Pension Liability	<u>3,581</u>	<u>(558)</u>
<b>• Total Deferred Inflows of Resources</b>	<b>\$572,719</b>	<b>\$50,423</b>
<b>Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:</b>		
<b>Reporting Date for Employer under GAS 68 Year Ended June 30:</b>		
2022	N/A	\$(12,217)
2023	\$6,409	(18,930)
2024	(100,021)	(12,216)
2025	(19,121)	(6,925)
2026	(36,160)	0
2027	0	0

<sup>1</sup> Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

## Section 2: GAS 68 Information

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

13 - MOFD

Reporting Date for Employer under GAS 68 Measurement Date for Employer under GAS 68	June 30, 2022 December 31, 2021	June 30, 2021 December 31, 2020
<b>Deferred Outflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$4,896,975	\$7,494,819
• Changes of assumptions or other inputs	(7,615,789)	0
• Net difference between projected and actual earnings on pension plan investments (if any)	0	0
• Difference between actual and expected experience in the Total Pension Liability	<u>(2,275,332)</u>	<u>4,139,271</u>
<b>• Total Deferred Outflows of Resources</b>	<b>\$(4,994,146)</b>	<b>\$11,634,090</b>
<b>Deferred Inflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$36,937,470	\$2,663,315
• Changes of assumptions or other inputs	(935,461)	2,227,367
• Net difference between actual and projected earnings on pension plan investments (if any)	(34,498,667)	16,120,799
• Difference between expected and actual experience in the Total Pension Liability	<u>(244,037)</u>	<u>567,266</u>
<b>• Total Deferred Inflows of Resources</b>	<b>\$1,259,305</b>	<b>\$21,578,747</b>
<b>Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:</b>		
<b>Reporting Date for Employer under GAS 68 Year Ended June 30:</b>		
2022	N/A	\$(3,824,161)
2023	\$(5,379,139)	1,436,571
2024	2,482,823	(5,872,284)
2025	(3,467,758)	(1,684,783)
2026	110,623	0
2027	0	0

<sup>1</sup> Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

## Section 2: GAS 68 Information

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

14 - Rodeo SD

Reporting Date for Employer under GAS 68 Measurement Date for Employer under GAS 68	June 30, 2022 December 31, 2021	June 30, 2021 December 31, 2020
<b>Deferred Outflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$2,775,462	\$61,620
• Changes of assumptions or other inputs	840,415	0
• Net difference between projected and actual earnings on pension plan investments (if any)	0	0
• Difference between actual and expected experience in the Total Pension Liability	<u>251,087</u>	<u>(195,268)</u>
<b>• Total Deferred Outflows of Resources</b>	<b>\$3,866,964</b>	<b>\$(133,648)</b>
<b>Deferred Inflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$590,136	\$862,795
• Changes of assumptions or other inputs	103,230	(105,075)
• Net difference between actual and projected earnings on pension plan investments (if any)	3,806,984	(760,492)
• Difference between expected and actual experience in the Total Pension Liability	<u>26,930</u>	<u>(26,761)</u>
<b>• Total Deferred Inflows of Resources</b>	<b>\$4,527,280</b>	<b>\$(29,533)</b>
<b>Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:</b>		
<b>Reporting Date for Employer under GAS 68 Year Ended June 30:</b>		
2022	N/A	\$(5,392)
2023	\$126,647	(264,802)
2024	(639,743)	137,705
2025	32,054	28,374
2026	(179,274)	0
2027	0	0

<sup>1</sup> Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

## Section 2: GAS 68 Information

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

15 - RHFD

Reporting Date for Employer under GAS 68 Measurement Date for Employer under GAS 68	June 30, 2022 December 31, 2021	June 30, 2021 December 31, 2020
<b>Deferred Outflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$758,052	\$1,386,707
• Changes of assumptions or other inputs	(2,667,296)	0
• Net difference between projected and actual earnings on pension plan investments (if any)	0	0
• Difference between actual and expected experience in the Total Pension Liability	<u>(796,895)</u>	<u>1,220,912</u>
<b>• Total Deferred Outflows of Resources</b>	<b>\$(2,706,139)</b>	<b>\$2,607,619</b>
<b>Deferred Inflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$11,719,764	\$2,180,763
• Changes of assumptions or other inputs	(327,629)	656,980
• Net difference between actual and projected earnings on pension plan investments (if any)	(12,082,550)	4,754,963
• Difference between expected and actual experience in the Total Pension Liability	<u>(85,470)</u>	<u>167,320</u>
<b>• Total Deferred Inflows of Resources</b>	<b>\$(775,885)</b>	<b>\$7,760,026</b>
<b>Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:</b>		
<b>Reporting Date for Employer under GAS 68 Year Ended June 30:</b>		
2022	N/A	\$(2,154,229)
2023	\$(2,302,248)	(406,102)
2024	977,026	(1,998,112)
2025	(874,121)	(593,964)
2026	269,089	0
2027	0	0

<sup>1</sup> Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

## Section 2: GAS 68 Information

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

16 - SRVFPD

Reporting Date for Employer under GAS 68 Measurement Date for Employer under GAS 68	June 30, 2022 December 31, 2021	June 30, 2021 December 31, 2020
<b>Deferred Outflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$2,142,791	\$4,344,793
• Changes of assumptions or other inputs	8,245,298	0
• Net difference between projected and actual earnings on pension plan investments (if any)	0	0
• Difference between actual and expected experience in the Total Pension Liability	<u>2,463,407</u>	<u>4,266,001</u>
<b>• Total Deferred Outflows of Resources</b>	<b>\$12,851,496</b>	<b>\$8,610,794</b>
<b>Deferred Inflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$2,455,211	\$2,568,876
• Changes of assumptions or other inputs	1,012,785	2,295,561
• Net difference between actual and projected earnings on pension plan investments (if any)	37,350,274	16,614,360
• Difference between expected and actual experience in the Total Pension Liability	<u>264,208</u>	<u>584,634</u>
<b>• Total Deferred Inflows of Resources</b>	<b>\$41,082,478</b>	<b>\$22,063,431</b>
<b>Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:</b>		
<b>Reporting Date for Employer under GAS 68 Year Ended June 30:</b>		
2022	N/A	\$(4,304,532)
2023	\$(4,197,899)	473,490
2024	(11,451,501)	(7,255,149)
2025	(6,880,249)	(2,366,446)
2026	(5,701,333)	0
2027	0	0

<sup>1</sup> Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

## Section 2: GAS 68 Information

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

17 - Court

Reporting Date for Employer under GAS 68 Measurement Date for Employer under GAS 68	June 30, 2022 December 31, 2021	June 30, 2021 December 31, 2020
<b>Deferred Outflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$5,825,954	\$1,596,133
• Changes of assumptions or other inputs	4,610,713	0
• Net difference between projected and actual earnings on pension plan investments (if any)	0	0
• Difference between actual and expected experience in the Total Pension Liability	<u>1,377,520</u>	<u>975,347</u>
<b>• Total Deferred Outflows of Resources</b>	<b>\$11,814,187</b>	<b>\$2,571,480</b>
<b>Deferred Inflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$1,790,461	\$2,919,914
• Changes of assumptions or other inputs	566,342	524,840
• Net difference between actual and projected earnings on pension plan investments (if any)	20,886,012	3,798,584
• Difference between expected and actual experience in the Total Pension Liability	<u>147,744</u>	<u>133,666</u>
<b>• Total Deferred Inflows of Resources</b>	<b>\$23,390,559</b>	<b>\$7,377,004</b>
<b>Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:</b>		
<b>Reporting Date for Employer under GAS 68 Year Ended June 30:</b>		
2022	N/A	\$(1,226,318)
2023	\$(984,997)	(193,115)
2024	(5,788,111)	(2,537,441)
2025	(2,456,205)	(848,650)
2026	(2,347,059)	0
2027	0	0

<sup>1</sup> Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

## Section 2: GAS 68 Information

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

18 - DDSD (Withdrawn)

Reporting Date for Employer under GAS 68 Measurement Date for Employer under GAS 68	June 30, 2022 December 31, 2021	June 30, 2021 December 31, 2020
<b>Deferred Outflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$0	\$0
• Changes of assumptions or other inputs	164,699	7,920
• Net difference between projected and actual earnings on pension plan investments (if any)	0	0
• Difference between actual and expected experience in the Total Pension Liability	<u>270,742</u>	<u>131,182</u>
<b>• Total Deferred Outflows of Resources</b>	<b>\$435,441</b>	<b>\$139,102</b>
<b>Deferred Inflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$0	\$0
• Changes of assumptions or other inputs	0	0
• Net difference between actual and projected earnings on pension plan investments (if any)	889,318	402,420
• Difference between expected and actual experience in the Total Pension Liability	<u>680,255</u>	<u>957,703</u>
<b>• Total Deferred Inflows of Resources</b>	<b>\$1,569,573</b>	<b>\$1,360,123</b>
<b>Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:</b>		
<b>Reporting Date for Employer under GAS 68 Year Ended June 30:</b>		
2022	N/A	\$(336,087)
2023	\$(279,460)	(231,242)
2024	(520,646)	(472,428)
2025	(229,482)	(181,264)
2026	(104,544)	0
2027	0	0

<sup>1</sup> Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

## Section 2: GAS 68 Information

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

19 - DWD (Withdrawn)

Reporting Date for Employer under GAS 68 Measurement Date for Employer under GAS 68	June 30, 2022 December 31, 2021	June 30, 2021 December 31, 2020
<b>Deferred Outflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$0	\$0
• Changes of assumptions or other inputs	0	0
• Net difference between projected and actual earnings on pension plan investments (if any)	0	0
• Difference between actual and expected experience in the Total Pension Liability	<u>312,798</u>	<u>479,913</u>
<b>• Total Deferred Outflows of Resources</b>	<b>\$312,798</b>	<b>\$479,913</b>
<b>Deferred Inflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$0	\$0
• Changes of assumptions or other inputs	8,773	5,951
• Net difference between actual and projected earnings on pension plan investments (if any)	86,436	45,530
• Difference between expected and actual experience in the Total Pension Liability	<u>406,904</u>	<u>0</u>
<b>• Total Deferred Inflows of Resources</b>	<b>\$502,113</b>	<b>\$51,481</b>
<b>Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:</b>		
<b>Reporting Date for Employer under GAS 68 Year Ended June 30:</b>		
2022	N/A	\$144,541
2023	\$8,628	142,376
2024	(40,701)	93,047
2025	(85,280)	48,468
2026	(71,962)	0
2027	0	0

<sup>1</sup> Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

## Section 2: GAS 68 Information

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

20 - Pittsburgh (Withdrawn)

Reporting Date for Employer under GAS 68 Measurement Date for Employer under GAS 68	June 30, 2022 December 31, 2021	June 30, 2021 December 31, 2020
<b>Deferred Outflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$0	\$0
• Changes of assumptions or other inputs	628,625	0
• Net difference between projected and actual earnings on pension plan investments (if any)	0	0
• Difference between actual and expected experience in the Total Pension Liability	<u>299,970</u>	<u>413,399</u>
<b>• Total Deferred Outflows of Resources</b>	<b>\$928,595</b>	<b>\$413,399</b>
<b>Deferred Inflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$0	\$0
• Changes of assumptions or other inputs	6,246	17,205
• Net difference between actual and projected earnings on pension plan investments (if any)	3,118,415	1,422,981
• Difference between expected and actual experience in the Total Pension Liability	<u>0</u>	<u>0</u>
<b>• Total Deferred Inflows of Resources</b>	<b>\$3,124,661</b>	<b>\$1,440,186</b>
<b>Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:</b>		
<b>Reporting Date for Employer under GAS 68 Year Ended June 30:</b>		
2022	N/A	\$(303,914)
2023	\$(188,718)	152,985
2024	(1,041,286)	(699,583)
2025	(517,978)	(176,275)
2026	(448,084)	0
2027	0	0

<sup>1</sup> Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

## Section 2: GAS 68 Information

### 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, 2021. 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., 2021) is recognized over the average of the expected remaining service lives of all employees that are provided with pensions through CCCERA which is 4.48 years determined as of December 31, 2020 (the beginning of the measurement period ended December 31, 2021). 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, 2021 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.

## Section 2: GAS 68 Information

### 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 <sup>1</sup>	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%
2021	100.000%	461,449,924	943,422,017	48.91%	95.62%
2022	100.000%	(242,953,449)	976,332,448	(24.88%)	102.17%

<sup>1</sup> Covered payroll represents payroll on which contributions to the pension plan are based.

## Section 2: GAS 68 Information

### 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 <sup>1</sup>	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%
2021	0.026%	120,135	312,551	38.44%	95.33%
2022	0.025%	(61,909)	326,979	(18.93%)	102.22%

<sup>1</sup> Covered payroll represents payroll on which contributions to the pension plan are based.

## Section 2: GAS 68 Information

### 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 <sup>1</sup>	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%
2021	(0.061%)	(281,020)	196,739	(142.84%)	119.25%
2022	0.203%	(494,235)	285,814	(172.92%)	121.93%

<sup>1</sup> Covered payroll represents payroll on which contributions to the pension plan are based.

## Section 2: GAS 68 Information

### 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 <sup>1</sup>	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%
2021	0.291%	1,341,891	3,491,144	38.44%	95.33%
2022	0.265%	(643,711)	3,399,814	(18.93%)	102.22%

<sup>1</sup> Covered payroll represents payroll on which contributions to the pension plan are based.

## Section 2: GAS 68 Information

### 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 <sup>1</sup>	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%
2021	18.547%	85,582,923	49,156,538	174.10%	92.35%
2022	(9.226%)	22,414,107	52,607,416	42.61%	98.09%

<sup>1</sup> Covered payroll represents payroll on which contributions to the pension plan are based.

## Section 2: GAS 68 Information

### 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 <sup>1</sup>	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%
2021	10.594%	48,886,895	37,131,965	131.66%	89.10%
2022	22.039%	(53,543,789)	37,667,972	(142.15%)	111.27%

<sup>1</sup> Covered payroll represents payroll on which contributions to the pension plan are based.

## Section 2: GAS 68 Information

### 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 <sup>1</sup>	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%
2021	0.106%	487,008	2,398,684	20.30%	97.53%
2022	0.314%	(763,759)	2,846,338	(26.83%)	103.15%

<sup>1</sup> Covered payroll represents payroll on which contributions to the pension plan are based.

## Section 2: GAS 68 Information

### 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 <sup>1</sup>	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%
2021	55.378%	255,540,783	769,489,476	33.21%	96.67%
2022	83.216%	(202,176,380)	796,904,829	(25.37%)	102.46%

<sup>1</sup> Covered payroll represents payroll on which contributions to the pension plan are based.

## Section 2: GAS 68 Information

### 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 <sup>1</sup>	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%
2021	0.492%	2,271,787	5,910,418	38.44%	95.33%
2022	0.493%	(1,198,228)	6,328,539	(18.93%)	102.22%

<sup>1</sup> Covered payroll represents payroll on which contributions to the pension plan are based.

## Section 2: GAS 68 Information

### 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 <sup>1</sup>	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%
2021	0.449%	2,070,171	4,245,203	48.76%	96.47%
2022	0.796%	(1,933,940)	4,594,078	(42.10%)	102.88%

<sup>1</sup> Covered payroll represents payroll on which contributions to the pension plan are based.

## Section 2: GAS 68 Information

### 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 <sup>1</sup>	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%
2021	0.750%	3,458,981	5,906,312	58.56%	94.98%
2022	0.557%	(1,353,877)	6,247,203	(21.67%)	101.86%

<sup>1</sup> Covered payroll represents payroll on which contributions to the pension plan are based.

## Section 2: GAS 68 Information

### 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 <sup>1</sup>	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%
2021	0.081%	374,693	974,825	38.44%	95.33%
2022	0.075%	(180,929)	955,592	(18.93%)	102.22%

<sup>1</sup> Covered payroll represents payroll on which contributions to the pension plan are based.

## Section 2: GAS 68 Information

### 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 <sup>1</sup>	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%
2021	(0.005%)	(21,991)	184,791	(11.90%)	101.45%
2022	0.065%	(158,097)	182,558	(86.60%)	110.17%

<sup>1</sup> Covered payroll represents payroll on which contributions to the pension plan are based.

## Section 2: GAS 68 Information

### 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 <sup>1</sup>	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%
2021	4.846%	22,360,799	9,177,332	243.65%	89.64%
2022	(4.434%)	10,772,836	9,339,635	115.35%	95.25%

<sup>1</sup> Covered payroll represents payroll on which contributions to the pension plan are based.

## Section 2: GAS 68 Information

### 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 <sup>1</sup>	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%
2021	(0.229%)	(1,054,861)	738,498	(142.84%)	119.25%
2022	0.489%	(1,188,800)	687,478	(172.92%)	121.93%

<sup>1</sup> Covered payroll represents payroll on which contributions to the pension plan are based.

## Section 2: GAS 68 Information

### 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 <sup>1</sup>	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%
2021	1.429%	6,595,503	2,499,171	263.91%	86.60%
2022	(1.553%)	3,772,996	2,686,925	140.42%	92.85%

<sup>1</sup> Covered payroll represents payroll on which contributions to the pension plan are based.

## Section 2: GAS 68 Information

### 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 <sup>1</sup>	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%
2021	4.994%	23,045,406	26,418,520	87.23%	95.54%
2022	4.801%	(11,663,302)	27,863,739	(41.86%)	102.11%

<sup>1</sup> Covered payroll represents payroll on which contributions to the pension plan are based.

## Section 2: GAS 68 Information

### 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 <sup>1</sup>	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%
2021	1.142%	5,268,930	25,189,849	20.92%	97.46%
2022	2.685%	(6,522,037)	23,407,538	(27.86%)	103.27%

<sup>1</sup> Covered payroll represents payroll on which contributions to the pension plan are based.

## Section 2: GAS 68 Information

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

#### 18 - DDSD (Withdrawn)

Reporting Date for Employer Under GAS 68 as of June 30 <sup>1</sup>	Proportion of the Net Pension Liability	Proportionate Share of Net Pension Liability	Covered Payroll <sup>2</sup>	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%
2021	0.004%	16,641	N/A	N/A	99.87%
2022	0.233%	(565,545)	N/A	N/A	104.46%

<sup>1</sup> Prior to the June 30, 2017 reporting date, the Pension Expense, NPL and other results attributed to the three withdrawn 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 withdrawn employers have been moved to their own Cost Group. Therefore, we have directly allocated to each of these withdrawn employers their Pension Expense and NPL starting with the June 30, 2017 reporting date.

<sup>2</sup> Covered payroll represents payroll on which contributions to the pension plan are based.

## Section 2: GAS 68 Information

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

19 - DWD (Withdrawn)

Reporting Date for Employer Under GAS 68 as of June 30 <sup>1</sup>	Proportion of the Net Pension Liability	Proportionate Share of Net Pension Liability	Covered Payroll <sup>2</sup>	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%
2021	0.297%	1,371,069	N/A	N/A	51.25%
2022	(0.304%)	738,691	N/A	N/A	65.13%

<sup>1</sup> Prior to the June 30, 2017 reporting date, the Pension Expense, NPL and other results attributed to the three withdrawn 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 withdrawn employers have been moved to their own Cost Group. Therefore, we have directly allocated to each of these withdrawn employers their Pension Expense and NPL starting with the June 30, 2017 reporting date.

<sup>2</sup> Covered payroll represents payroll on which contributions to the pension plan are based.

## Section 2: GAS 68 Information

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

#### 20 - Pittsburg (Withdrawn)

Reporting Date for Employer Under GAS 68 as of June 30 <sup>1</sup>	Proportion of the Net Pension Liability	Proportionate Share of Net Pension Liability	Covered Payroll <sup>2</sup>	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%
2021	0.870%	4,014,181	N/A	N/A	91.34%
2022	(0.739%)	1,796,459	N/A	N/A	96.13%

<sup>1</sup> Prior to the June 30, 2017 reporting date, the Pension Expense, NPL and other results attributed to the three withdrawn 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 withdrawn employers have been moved to their own Cost Group. Therefore, we have directly allocated to each of these withdrawn employers their Pension Expense and NPL starting with the June 30, 2017 reporting date.

<sup>2</sup> Covered payroll represents payroll on which contributions to the pension plan are based.

## Section 2: GAS 68 Information

### Schedule of Reconciliation of Net Pension Liability

Total for All Employers

Reporting Date for Employer under GAS 68	June 30, 2022	June 30, 2021
Measurement Date for Employer under GAS 68	December 31, 2021	December 31, 2020
• Beginning Net Pension Liability	\$461,449,924	\$864,085,792
• Pension Expense	(7,028,391)	95,461,948
• Employer Contributions <sup>1</sup>	(410,759,608)	(336,356,723)
• New Net Deferred Inflows/Outflows	(383,489,860)	(211,417,855)
• Change in Allocation of Prior Deferred Inflows/Outflows	0	0
• New Net Deferred Flows Due to Change in Proportion <sup>2</sup>	0	0
• Recognition of Prior Deferred Inflows/Outflows	96,874,486	49,676,762
• Recognition of Prior Deferred Flows Due to Change in Proportion <sup>2</sup>	<u>0</u>	<u>0</u>
<b>Ending Net Pension Liability</b>	<b>\$(242,953,449)</b>	<b>\$461,449,924</b>

<sup>1</sup> Includes "member subvention of employer contributions" and excludes "employer subvention of member contributions".

<sup>2</sup> Includes differences between employer contributions and proportionate share of contributions.

## Section 2: GAS 68 Information

### Schedule of Reconciliation of Net Pension Liability (continued)

#### 1 - BIMID

Reporting Date for Employer under GAS 68	June 30, 2022	June 30, 2021
Measurement Date for Employer under GAS 68	December 31, 2021	December 31, 2020
• Beginning Net Pension Liability	\$120,135	\$222,616
• Pension Expense	43,045	83,462
• Employer Contributions <sup>1</sup>	(119,482)	(112,887)
• New Net Deferred Inflows/Outflows	(96,379)	(55,312)
• Change in Allocation of Prior Deferred Inflows/Outflows	3,212	(487)
• New Net Deferred Flows Due to Change in Proportion <sup>2</sup>	6,099	21,743
• Recognition of Prior Deferred Inflows/Outflows	24,362	13,071
• Recognition of Prior Deferred Flows Due to Change in Proportion <sup>2</sup>	<u>(42,901)</u>	<u>(52,071)</u>
<b>Ending Net Pension Liability</b>	<b>\$(61,909)</b>	<b>\$120,135</b>

<sup>1</sup> Includes "member subvention of employer contributions" and excludes "employer subvention of member contributions".

<sup>2</sup> Includes differences between employer contributions and proportionate share of contributions.

## Section 2: GAS 68 Information

### Schedule of Reconciliation of Net Pension Liability (continued)

#### 2 - Union Cemetery

Reporting Date for Employer under GAS 68	June 30, 2022	June 30, 2021
Measurement Date for Employer under GAS 68	December 31, 2021	December 31, 2020
• Beginning Net Pension Liability	\$(281,020)	\$(147,526)
• Pension Expense	194,734	(121,078)
• Employer Contributions <sup>1</sup>	(38,630)	(28,790)
• New Net Deferred Inflows/Outflows	(769,421)	129,385
• Change in Allocation of Prior Deferred Inflows/Outflows	(793,819)	62,596
• New Net Deferred Flows Due to Change in Proportion <sup>2</sup>	937,589	(160,953)
• Recognition of Prior Deferred Inflows/Outflows	194,485	(30,575)
• Recognition of Prior Deferred Flows Due to Change in Proportion <sup>2</sup>	<u>61,847</u>	<u>15,921</u>
<b>Ending Net Pension Liability</b>	<b>\$(494,235)</b>	<b>\$(281,020)</b>

<sup>1</sup> Includes "member subvention of employer contributions" and excludes "employer subvention of member contributions".

<sup>2</sup> Includes differences between employer contributions and proportionate share of contributions.

## Section 2: GAS 68 Information

### Schedule of Reconciliation of Net Pension Liability (continued)

#### 3 - CC Mosquito

Reporting Date for Employer under GAS 68	June 30, 2022	June 30, 2021
Measurement Date for Employer under GAS 68	December 31, 2021	December 31, 2020
• Beginning Net Pension Liability	\$1,341,891	\$2,807,582
• Pension Expense	(68,809)	267,195
• Employer Contributions <sup>1</sup>	(1,228,794)	(1,265,878)
• New Net Deferred Inflows/Outflows	(1,002,124)	(617,825)
• Change in Allocation of Prior Deferred Inflows/Outflows	94,692	47,415
• New Net Deferred Flows Due to Change in Proportion <sup>2</sup>	(66,770)	(43,509)
• Recognition of Prior Deferred Inflows/Outflows	253,305	145,996
• Recognition of Prior Deferred Flows Due to Change in Proportion <sup>2</sup>	<u>32,898</u>	<u>915</u>
<b>Ending Net Pension Liability</b>	<b>\$(643,711)</b>	<b>\$1,341,891</b>

<sup>1</sup> Includes "member subvention of employer contributions" and excludes "employer subvention of member contributions".

<sup>2</sup> Includes differences between employer contributions and proportionate share of contributions.

## Section 2: GAS 68 Information

### Schedule of Reconciliation of Net Pension Liability (continued)

#### 4 - CCCFPD

Reporting Date for Employer under GAS 68	June 30, 2022	June 30, 2021
Measurement Date for Employer under GAS 68	December 31, 2021	December 31, 2020
• Beginning Net Pension Liability	\$85,582,923	\$115,666,974
• Pension Expense	(32,149,185)	16,277,845
• Employer Contributions <sup>1</sup>	(31,930,121)	(30,385,428)
• New Net Deferred Inflows/Outflows	34,894,104	(39,403,538)
• Change in Allocation of Prior Deferred Inflows/Outflows	84,132,637	(7,414,970)
• New Net Deferred Flows Due to Change in Proportion <sup>2</sup>	(110,325,062)	15,455,402
• Recognition of Prior Deferred Inflows/Outflows	(8,820,116)	9,311,267
• Recognition of Prior Deferred Flows Due to Change in Proportion <sup>2</sup>	<u>1,028,927</u>	<u>6,075,371</u>
<b>Ending Net Pension Liability</b>	<b>\$22,414,107</b>	<b>\$85,582,923</b>

<sup>1</sup> Includes "member subvention of employer contributions" and excludes "employer subvention of member contributions".

<sup>2</sup> Includes differences between employer contributions and proportionate share of contributions.

## Section 2: GAS 68 Information

### Schedule of Reconciliation of Net Pension Liability (continued)

5 - CCCSD

Reporting Date for Employer under GAS 68	June 30, 2022	June 30, 2021
Measurement Date for Employer under GAS 68	December 31, 2021	December 31, 2020
• Beginning Net Pension Liability	\$48,886,895	\$64,117,450
• Pension Expense	17,732,375	13,284,517
• Employer Contributions <sup>1</sup>	(83,171,444)	(18,339,277)
• New Net Deferred Inflows/Outflows	(83,356,545)	(22,508,189)
• Change in Allocation of Prior Deferred Inflows/Outflows	(33,576,852)	(4,557,379)
• New Net Deferred Flows Due to Change in Proportion <sup>2</sup>	60,585,725	11,357,886
• Recognition of Prior Deferred Inflows/Outflows	21,069,875	5,318,806
• Recognition of Prior Deferred Flows Due to Change in Proportion <sup>2</sup>	<u>(1,713,818)</u>	<u>213,081</u>
<b>Ending Net Pension Liability</b>	<b>\$(53,543,789)</b>	<b>\$48,886,895</b>

<sup>1</sup> Includes "member subvention of employer contributions" and excludes "employer subvention of member contributions".

<sup>2</sup> Includes differences between employer contributions and proportionate share of contributions.

## Section 2: GAS 68 Information

### Schedule of Reconciliation of Net Pension Liability (continued)

6 - First 5

Reporting Date for Employer under GAS 68	June 30, 2022	June 30, 2021
Measurement Date for Employer under GAS 68	December 31, 2021	December 31, 2020
• Beginning Net Pension Liability	\$487,008	\$1,480,016
• Pension Expense	188,054	98,206
• Employer Contributions <sup>1</sup>	(772,715)	(646,164)
• New Net Deferred Inflows/Outflows	(1,189,014)	(224,225)
• Change in Allocation of Prior Deferred Inflows/Outflows	(617,930)	93,131
• New Net Deferred Flows Due to Change in Proportion <sup>2</sup>	814,219	(287,685)
• Recognition of Prior Deferred Inflows/Outflows	300,545	52,986
• Recognition of Prior Deferred Flows Due to Change in Proportion <sup>2</sup>	<u>26,074</u>	<u>(79,257)</u>
<b>Ending Net Pension Liability</b>	<b>\$(763,759)</b>	<b>\$487,008</b>

<sup>1</sup> Includes "member subvention of employer contributions" and excludes "employer subvention of member contributions".

<sup>2</sup> Includes differences between employer contributions and proportionate share of contributions.

## Section 2: GAS 68 Information

### Schedule of Reconciliation of Net Pension Liability (continued)

#### 7 - County

Reporting Date for Employer under GAS 68	June 30, 2022	June 30, 2021
Measurement Date for Employer under GAS 68	December 31, 2021	December 31, 2020
• Beginning Net Pension Liability	\$255,540,783	\$561,509,768
• Pension Expense	20,860,958	53,251,280
• Employer Contributions <sup>1</sup>	(248,794,898)	(241,343,162)
• New Net Deferred Inflows/Outflows	(314,746,582)	(117,654,440)
• Change in Allocation of Prior Deferred Inflows/Outflows	(79,899,911)	13,451,073
• New Net Deferred Flows Due to Change in Proportion <sup>2</sup>	86,548,786	(32,347,710)
• Recognition of Prior Deferred Inflows/Outflows	79,557,895	27,802,370
• Recognition of Prior Deferred Flows Due to Change in Proportion <sup>2</sup>	<u>(1,243,411)</u>	<u>(9,128,396)</u>
<b>Ending Net Pension Liability</b>	<b>\$(202,176,380)</b>	<b>\$255,540,783</b>

<sup>1</sup> Includes "member subvention of employer contributions" and excludes "employer subvention of member contributions".

<sup>2</sup> Includes differences between employer contributions and proportionate share of contributions.

## Section 2: GAS 68 Information

### Schedule of Reconciliation of Net Pension Liability (continued)

#### 8 - CCCERA (the Employer)

Reporting Date for Employer under GAS 68	June 30, 2022	June 30, 2021
Measurement Date for Employer under GAS 68	December 31, 2021	December 31, 2020
• Beginning Net Pension Liability	\$2,271,787	\$4,526,924
• Pension Expense	260,409	809,138
• Employer Contributions <sup>1</sup>	(2,275,642)	(2,108,651)
• New Net Deferred Inflows/Outflows	(1,865,392)	(1,045,962)
• Change in Allocation of Prior Deferred Inflows/Outflows	26,882	43,018
• New Net Deferred Flows Due to Change in Proportion <sup>2</sup>	158,276	104,146
• Recognition of Prior Deferred Inflows/Outflows	471,511	247,166
• Recognition of Prior Deferred Flows Due to Change in Proportion <sup>2</sup>	<u>(246,059)</u>	<u>(303,992)</u>
<b>Ending Net Pension Liability</b>	<b>\$(1,198,228)</b>	<b>\$2,271,787</b>

<sup>1</sup> Includes "member subvention of employer contributions" and excludes "employer subvention of member contributions".

<sup>2</sup> Includes differences between employer contributions and proportionate share of contributions.

## Section 2: GAS 68 Information

### Schedule of Reconciliation of Net Pension Liability (continued)

#### 9 - ECCFPD

Reporting Date for Employer under GAS 68	June 30, 2022	June 30, 2021
Measurement Date for Employer under GAS 68	December 31, 2021	December 31, 2020
• Beginning Net Pension Liability	\$2,070,171	\$5,817,871
• Pension Expense	(1,699,814)	(1,699,042)
• Employer Contributions <sup>1</sup>	(3,811,591)	(4,708,063)
• New Net Deferred Inflows/Outflows	(3,010,742)	(953,135)
• Change in Allocation of Prior Deferred Inflows/Outflows	(1,011,586)	317,932
• New Net Deferred Flows Due to Change in Proportion <sup>2</sup>	2,422,822	727,667
• Recognition of Prior Deferred Inflows/Outflows	761,020	225,231
• Recognition of Prior Deferred Flows Due to Change in Proportion <sup>2</sup>	<u>2,345,780</u>	<u>2,341,710</u>
<b>Ending Net Pension Liability</b>	<b>\$(1,933,940)</b>	<b>\$2,070,171</b>

<sup>1</sup> Includes "member subvention of employer contributions" and excludes "employer subvention of member contributions".

<sup>2</sup> Includes differences between employer contributions and proportionate share of contributions.

## Section 2: GAS 68 Information

### Schedule of Reconciliation of Net Pension Liability (continued)

#### 10 - Housing Authority

Reporting Date for Employer under GAS 68	June 30, 2022	June 30, 2021
Measurement Date for Employer under GAS 68	December 31, 2021	December 31, 2020
• Beginning Net Pension Liability	\$3,458,981	\$6,324,839
• Pension Expense	(400,393)	663,756
• Employer Contributions <sup>1</sup>	(2,639,599)	(2,469,111)
• New Net Deferred Inflows/Outflows	(2,107,705)	(1,592,562)
• Change in Allocation of Prior Deferred Inflows/Outflows	619,873	(27,995)
• New Net Deferred Flows Due to Change in Proportion <sup>2</sup>	(918,947)	96,299
• Recognition of Prior Deferred Inflows/Outflows	532,760	376,331
• Recognition of Prior Deferred Flows Due to Change in Proportion <sup>2</sup>	<u>101,153</u>	<u>87,424</u>
<b>Ending Net Pension Liability</b>	<b>\$(1,353,877)</b>	<b>\$3,458,981</b>

<sup>1</sup> Includes "member subvention of employer contributions" and excludes "employer subvention of member contributions".

<sup>2</sup> Includes differences between employer contributions and proportionate share of contributions.

## Section 2: GAS 68 Information

### Schedule of Reconciliation of Net Pension Liability (continued)

11 - IHSS

Reporting Date for Employer under GAS 68	June 30, 2022	June 30, 2021
Measurement Date for Employer under GAS 68	December 31, 2021	December 31, 2020
• Beginning Net Pension Liability	\$374,693	\$798,961
• Pension Expense	(9,920)	100,851
• Employer Contributions <sup>1</sup>	(334,836)	(341,085)
• New Net Deferred Inflows/Outflows	(281,669)	(172,514)
• Change in Allocation of Prior Deferred Inflows/Outflows	24,980	15,711
• New Net Deferred Flows Due to Change in Proportion <sup>2</sup>	(23,764)	(35,330)
• Recognition of Prior Deferred Inflows/Outflows	71,197	40,766
• Recognition of Prior Deferred Flows Due to Change in Proportion <sup>2</sup>	<u>(1,610)</u>	<u>(32,667)</u>
<b>Ending Net Pension Liability</b>	<b>\$(180,929)</b>	<b>\$374,693</b>

<sup>1</sup> Includes "member subvention of employer contributions" and excludes "employer subvention of member contributions".

<sup>2</sup> Includes differences between employer contributions and proportionate share of contributions.

## Section 2: GAS 68 Information

### Schedule of Reconciliation of Net Pension Liability (continued)

12 - LAFCO

Reporting Date for Employer under GAS 68	June 30, 2022	June 30, 2021
Measurement Date for Employer under GAS 68	December 31, 2021	December 31, 2020
• Beginning Net Pension Liability	\$(21,991)	\$132,109
• Pension Expense	58,770	(20,529)
• Employer Contributions <sup>1</sup>	(96,271)	(96,972)
• New Net Deferred Inflows/Outflows	(246,124)	10,125
• Change in Allocation of Prior Deferred Inflows/Outflows	(209,058)	28,553
• New Net Deferred Flows Due to Change in Proportion <sup>2</sup>	277,500	(68,945)
• Recognition of Prior Deferred Inflows/Outflows	62,213	(2,392)
• Recognition of Prior Deferred Flows Due to Change in Proportion <sup>2</sup>	<u>16,864</u>	<u>(3,940)</u>
<b>Ending Net Pension Liability</b>	<b>\$(158,097)</b>	<b>\$(21,991)</b>

<sup>1</sup> Includes "member subvention of employer contributions" and excludes "employer subvention of member contributions".

<sup>2</sup> Includes differences between employer contributions and proportionate share of contributions.

## Section 2: GAS 68 Information

### Schedule of Reconciliation of Net Pension Liability (continued)

13 - MOFD

Reporting Date for Employer under GAS 68	June 30, 2022	June 30, 2021
Measurement Date for Employer under GAS 68	December 31, 2021	December 31, 2020
• Beginning Net Pension Liability	\$22,360,799	\$26,734,009
• Pension Expense	(9,155,005)	5,156,345
• Employer Contributions <sup>1</sup>	(6,124,165)	(5,983,245)
• New Net Deferred Inflows/Outflows	16,771,065	(10,295,215)
• Change in Allocation of Prior Deferred Inflows/Outflows	28,031,331	(2,511,557)
• New Net Deferred Flows Due to Change in Proportion <sup>2</sup>	(35,970,535)	5,672,597
• Recognition of Prior Deferred Inflows/Outflows	(4,239,190)	2,432,814
• Recognition of Prior Deferred Flows Due to Change in Proportion <sup>2</sup>	<u>(901,464)</u>	<u>1,155,051</u>
<b>Ending Net Pension Liability</b>	<b>\$10,772,836</b>	<b>\$22,360,799</b>

<sup>1</sup> Includes "member subvention of employer contributions" and excludes "employer subvention of member contributions".

<sup>2</sup> Includes differences between employer contributions and proportionate share of contributions.

## Section 2: GAS 68 Information

### Schedule of Reconciliation of Net Pension Liability (continued)

14 - Rodeo SD

Reporting Date for Employer under GAS 68	June 30, 2022	June 30, 2021
Measurement Date for Employer under GAS 68	December 31, 2021	December 31, 2020
• Beginning Net Pension Liability	\$(1,054,861)	\$(501,019)
• Pension Expense	533,374	(441,893)
• Employer Contributions <sup>1</sup>	(111,112)	(117,021)
• New Net Deferred Inflows/Outflows	(1,850,714)	485,672
• Change in Allocation of Prior Deferred Inflows/Outflows	(2,159,789)	243,652
• New Net Deferred Flows Due to Change in Proportion <sup>2</sup>	2,758,180	(644,908)
• Recognition of Prior Deferred Inflows/Outflows	467,801	(114,767)
• Recognition of Prior Deferred Flows Due to Change in Proportion <sup>2</sup>	<u>228,321</u>	<u>35,423</u>
<b>Ending Net Pension Liability</b>	<b>\$(1,188,800)</b>	<b>\$(1,054,861)</b>

<sup>1</sup> Includes "member subvention of employer contributions" and excludes "employer subvention of member contributions".

<sup>2</sup> Includes differences between employer contributions and proportionate share of contributions.

## Section 2: GAS 68 Information

### Schedule of Reconciliation of Net Pension Liability (continued)

15 - RHFD

Reporting Date for Employer under GAS 68	June 30, 2022	June 30, 2021
Measurement Date for Employer under GAS 68	December 31, 2021	December 31, 2020
• Beginning Net Pension Liability	\$6,595,503	\$9,024,195
• Pension Expense	(3,802,575)	759,033
• Employer Contributions <sup>1</sup>	(2,242,085)	(2,168,347)
• New Net Deferred Inflows/Outflows	5,873,770	(3,036,659)
• Change in Allocation of Prior Deferred Inflows/Outflows	9,000,741	(553,286)
• New Net Deferred Flows Due to Change in Proportion <sup>2</sup>	(10,928,023)	956,856
• Recognition of Prior Deferred Inflows/Outflows	(1,484,702)	717,579
• Recognition of Prior Deferred Flows Due to Change in Proportion <sup>2</sup>	<u>760,367</u>	<u>896,132</u>
<b>Ending Net Pension Liability</b>	<b>\$3,772,996</b>	<b>\$6,595,503</b>

<sup>1</sup> Includes "member subvention of employer contributions" and excludes "employer subvention of member contributions".

<sup>2</sup> Includes differences between employer contributions and proportionate share of contributions.

## Section 2: GAS 68 Information

### Schedule of Reconciliation of Net Pension Liability (continued)

16 - SRVFPD

Reporting Date for Employer under GAS 68	June 30, 2022	June 30, 2021
Measurement Date for Employer under GAS 68	December 31, 2021	December 31, 2020
• Beginning Net Pension Liability	\$23,045,406	\$43,246,471
• Pension Expense	(174,770)	6,062,135
• Employer Contributions <sup>1</sup>	(19,755,593)	(18,452,184)
• New Net Deferred Inflows/Outflows	(18,157,336)	(10,610,417)
• Change in Allocation of Prior Deferred Inflows/Outflows	877,733	(4,177)
• New Net Deferred Flows Due to Change in Proportion <sup>2</sup>	(1,522,562)	1,194,388
• Recognition of Prior Deferred Inflows/Outflows	4,589,595	2,507,298
• Recognition of Prior Deferred Flows Due to Change in Proportion <sup>2</sup>	<u>(565,775)</u>	<u>(898,108)</u>
<b>Ending Net Pension Liability</b>	<b>\$(11,663,302)</b>	<b>\$23,045,406</b>

<sup>1</sup> Includes "member subvention of employer contributions" and excludes "employer subvention of member contributions".

<sup>2</sup> Includes differences between employer contributions and proportionate share of contributions.

## Section 2: GAS 68 Information

### Schedule of Reconciliation of Net Pension Liability (continued)

17 - Court

Reporting Date for Employer under GAS 68	June 30, 2022	June 30, 2021
Measurement Date for Employer under GAS 68	December 31, 2021	December 31, 2020
• Beginning Net Pension Liability	\$5,268,930	\$14,549,842
• Pension Expense	1,225,346	848,790
• Employer Contributions <sup>1</sup>	(6,245,466)	(6,723,294)
• New Net Deferred Inflows/Outflows	(10,153,455)	(2,425,887)
• Change in Allocation of Prior Deferred Inflows/Outflows	(4,543,136)	766,770
• New Net Deferred Flows Due to Change in Proportion <sup>2</sup>	5,246,467	(1,997,944)
• Recognition of Prior Deferred Inflows/Outflows	2,566,470	573,250
• Recognition of Prior Deferred Flows Due to Change in Proportion <sup>2</sup>	<u>112,807</u>	<u>(322,597)</u>
<b>Ending Net Pension Liability</b>	<b>\$(6,522,037)</b>	<b>\$5,268,930</b>

<sup>1</sup> Includes "member subvention of employer contributions" and excludes "employer subvention of member contributions".

<sup>2</sup> Includes differences between employer contributions and proportionate share of contributions.

## Section 2: GAS 68 Information

### Schedule of Reconciliation of Net Pension Liability (continued)

18 - DDSD (Withdrawn)

Reporting Date for Employer under GAS 68	June 30, 2022	June 30, 2021
Measurement Date for Employer under GAS 68	December 31, 2021	December 31, 2020
• Beginning Net Pension Liability	\$16,641	\$1,673,872
• Pension Expense	(383,687)	(190,971)
• Employer Contributions <sup>1</sup>	(285,388)	(285,388)
• New Net Deferred Inflows/Outflows	(249,198)	(1,161,994)
• Change in Allocation of Prior Deferred Inflows/Outflows	0	0
• New Net Deferred Flows Due to Change in Proportion <sup>2</sup>	0	0
• Recognition of Prior Deferred Inflows/Outflows	336,087	(18,878)
• Recognition of Prior Deferred Flows Due to Change in Proportion <sup>2</sup>	<u>0</u>	<u>0</u>
<b>Ending Net Pension Liability</b>	<b>\$(565,545)</b>	<b>\$16,641</b>

<sup>1</sup> Includes "member subvention of employer contributions" and excludes "employer subvention of member contributions".

<sup>2</sup> Includes differences between employer contributions and proportionate share of contributions.

## Section 2: GAS 68 Information

### Schedule of Reconciliation of Net Pension Liability (continued)

19 - DWD (Withdrawn)

Reporting Date for Employer under GAS 68	June 30, 2022	June 30, 2021
Measurement Date for Employer under GAS 68	December 31, 2021	December 31, 2020
• Beginning Net Pension Liability	\$1,371,069	\$944,895
• Pension Expense	106,512	224,418
• Employer Contributions <sup>1</sup>	(121,143)	(121,143)
• New Net Deferred Inflows/Outflows	(473,206)	373,050
• Change in Allocation of Prior Deferred Inflows/Outflows	0	0
• New Net Deferred Flows Due to Change in Proportion <sup>2</sup>	0	0
• Recognition of Prior Deferred Inflows/Outflows	(144,541)	(50,151)
• Recognition of Prior Deferred Flows Due to Change in Proportion <sup>2</sup>	<u>0</u>	<u>0</u>
<b>Ending Net Pension Liability</b>	<b>\$738,691</b>	<b>\$1,371,069</b>

<sup>1</sup> Includes "member subvention of employer contributions" and excludes "employer subvention of member contributions".

<sup>2</sup> Includes differences between employer contributions and proportionate share of contributions.

## Section 2: GAS 68 Information

### Schedule of Reconciliation of Net Pension Liability (continued)

20 - Pittsburg (Withdrawn)

Reporting Date for Employer under GAS 68	June 30, 2022	June 30, 2021
Measurement Date for Employer under GAS 68	December 31, 2021	December 31, 2020
• Beginning Net Pension Liability	\$4,014,181	\$5,155,943
• Pension Expense	(387,810)	48,490
• Employer Contributions <sup>1</sup>	(660,633)	(660,633)
• New Net Deferred Inflows/Outflows	(1,473,193)	(658,213)
• Change in Allocation of Prior Deferred Inflows/Outflows	0	0
• New Net Deferred Flows Due to Change in Proportion <sup>2</sup>	0	0
• Recognition of Prior Deferred Inflows/Outflows	303,914	128,594
• Recognition of Prior Deferred Flows Due to Change in Proportion <sup>2</sup>	<u>0</u>	<u>0</u>
<b>Ending Net Pension Liability</b>	<b>\$1,796,459</b>	<b>\$4,014,181</b>

<sup>1</sup> Includes "member subvention of employer contributions" and excludes "employer subvention of member contributions".

<sup>2</sup> Includes differences between employer contributions and proportionate share of contributions.

## Section 2: GAS 68 Information

### 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 June 30	Differences Between Expected and Actual Experience	Recognition Period (Years)	Reporting Date for Employer Under GAS 68 Year Ended June 30:					
			2021	2022	2023	2024	2025	2026
2017	\$(19,957,982) <sup>1</sup>	4.57	\$(2,489,290)	\$0	\$0	\$0	\$0	\$0
2018	(29,192,221) <sup>1</sup>	4.58	(6,373,848)	(3,696,829)	0	0	0	0
2019	52,852,841 <sup>1</sup>	4.57	11,565,173	11,565,173	6,592,149	0	0	0
2020	119,868,899 <sup>1</sup>	4.51	26,578,469	26,578,469	26,578,469	13,555,023	0	0
2021	(10,633,575)	4.47	(2,378,876)	(2,378,876)	(2,378,876)	(2,378,876)	(1,118,071)	0
2022	6,602,229	4.48	<u>N/A</u>	<u>1,473,713</u>	<u>1,473,713</u>	<u>1,473,713</u>	<u>1,473,713</u>	<u>707,377</u>
<b>Net Increase/(Decrease) in Pension Expense</b>			<b>\$26,901,628</b>	<b>\$33,541,650</b>	<b>\$32,265,455</b>	<b>\$12,649,860</b>	<b>\$355,642</b>	<b>\$707,377</b>

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, 2020 (the beginning of the measurement period ending December 31, 2021) is 4.48 years.

<sup>1</sup> The amortization amounts prior to June 30, 2021 have been omitted from this Schedule. Those amounts can be found in prior years' GAS 68 reports.

## Section 2: GAS 68 Information

### 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 June 30	Assumption Changes or Other Inputs	Recognition Period (Years)	Reporting Date for Employer Under GAS 68 Year Ended June 30:					
			2021	2022	2023	2024	2025	2026
2017	\$0 <sup>1</sup>	4.57	\$0	\$0	\$0	\$0	\$0	\$0
2018	0 <sup>1</sup>	4.58	0	0	0	0	0	0
2019	(92,418,915) <sup>1</sup>	4.57	(20,222,957)	(20,222,957)	(11,527,087)	0	0	0
2020	0 <sup>1</sup>	4.51	0	0	0	0	0	0
2021	(17,638,207)	4.47	(3,945,908)	(3,945,908)	(3,945,908)	(3,945,908)	(1,854,575)	0
2022	223,910,729	4.48	N/A	49,980,073	49,980,073	49,980,073	49,980,073	23,990,437
<b>Net Increase/(Decrease) in Pension Expense</b>			<b>\$(24,168,865)</b>	<b>\$25,811,208</b>	<b>\$34,507,078</b>	<b>\$46,034,165</b>	<b>\$48,125,498</b>	<b>\$23,990,437</b>

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, 2020 (the beginning of the measurement period ending December 31, 2021) is 4.48 years.

<sup>1</sup> The amortization amounts prior to June 30, 2021 have been omitted from this Schedule. Those amounts can be found in prior years' GAS 68 reports.

## Section 2: GAS 68 Information

### 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 Earnings	Recognition Period (Years)	Reporting Date for Employer Under GAS 68 Year Ended June 30:					
			2021	2022	2023	2024	2025	2026
2017	\$(6,642,338) <sup>1</sup>	5.00	\$(1,328,466)	\$0	\$0	\$0	\$0	\$0
2018	(467,968,086) <sup>1</sup>	5.00	(93,593,617)	(93,593,618)	0	0	0	0
2019	780,765,743 <sup>1</sup>	5.00	156,153,149	156,153,149	156,153,147	0	0	0
2020	(599,826,873) <sup>1</sup>	5.00	(119,965,375)	(119,965,375)	(119,965,375)	(119,965,373)	0	0
2021	(236,838,571)	5.00	(47,367,714)	(47,367,714)	(47,367,714)	(47,367,714)	(47,367,715)	0
2022	(703,186,289)	5.00	N/A	(140,637,257)	(140,637,257)	(140,637,257)	(140,637,257)	(140,637,261)
<b>Net Increase/(Decrease) in Pension Expense</b>			<b>\$(106,102,023)</b>	<b>\$(245,410,815)</b>	<b>\$(151,817,199)</b>	<b>\$(307,970,344)</b>	<b>\$(188,004,972)</b>	<b>\$(140,637,261)</b>

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

<sup>1</sup> The amortization amounts prior to June 30, 2021 have been omitted from this Schedule. Those amounts can be found in prior years' GAS 68 reports.

## Section 2: GAS 68 Information

### 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)	Reporting Date for Employer Under GAS 68 Year Ended June 30:					
		2021	2022	2023	2024	2025	2026
2017	\$(26,600,320) <sup>1</sup>	\$(3,817,756)	\$0	\$0	\$0	\$0	\$0
2018	(497,160,307) <sup>1</sup>	(99,967,465)	(97,290,447)	0	0	0	0
2019	741,199,669 <sup>1</sup>	147,495,365	147,495,365	151,218,209	0	0	0
2020	(479,957,974) <sup>1</sup>	(93,386,906)	(93,386,906)	(93,386,906)	(106,410,350)	0	0
2021	(265,110,353)	(53,692,498)	(53,692,498)	(53,692,498)	(53,692,498)	(50,340,361)	0
2022	(472,673,331)	<u>N/A</u>	<u>(89,183,471)</u>	<u>(89,183,471)</u>	<u>(89,183,471)</u>	<u>(89,183,471)</u>	<u>(115,939,447)</u>
<b>Net Increase/(Decrease) in Pension Expense</b>	<b>\$(103,369,260)</b>	<b>\$(186,057,957)</b>	<b>\$(85,044,666)</b>	<b>\$(249,286,319)</b>	<b>\$(139,523,832)</b>	<b>\$(115,939,447)</b>	

<sup>1</sup> The amortization amounts prior to June 30, 2021 have been omitted from this Schedule. Those amounts can be found in prior years' GAS 68 reports.

## Section 2: GAS 68 Information

### 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, 2021. 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, 2021 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.

## Section 2: GAS 68 Information

### Allocation of Changes in Total Net Pension Liability (continued)

Increase / (Decrease) in Pension Expense Arising from the Recognition of the Effects of the Change in Proportion and Change in Employer Contributions for the Year Ended December 31, 2021

	Total Change	Recognition Period (Years)	Reporting Date for Employer Under GAS 68 Year Ended June 30:				
			2022	2023	2024	2025	2026
1 - BIMID	\$7,852	4.48	\$1,753	\$1,753	\$1,753	\$1,753	\$840
2 - Union Cemetery	1,207,011	4.48	269,422	269,422	269,422	269,422	129,323
3 - CC Mosquito	(85,957)	4.48	(19,187)	(19,187)	(19,187)	(19,187)	(9,209)
4 - CCCFPD	(142,027,666)	4.48	(31,702,604)	(31,702,604)	(31,702,604)	(31,702,604)	(15,217,250)
5 - CCCSD	77,995,416	4.48	17,409,691	17,409,691	17,409,691	17,409,691	8,356,652
6 - First 5	1,048,190	4.48	233,971	233,971	233,971	233,971	112,306
7 - County	111,419,127	4.48	24,870,341	24,870,341	24,870,341	24,870,341	11,937,763
8 - CCCERA (the Employer)	203,757	4.48	45,481	45,481	45,481	45,481	21,833
9 - ECCFPD	3,119,035	4.48	696,213	696,213	696,213	696,213	334,183
10 - Housing Authority	(1,183,012)	4.48	(264,065)	(264,065)	(264,065)	(264,065)	(126,752)
11 - IHSS	(30,593)	4.48	(6,829)	(6,829)	(6,829)	(6,829)	(3,277)
12 - LAFCO	357,242	4.48	79,742	79,742	79,742	79,742	38,274
13 - MOFD	(46,306,896)	4.48	(10,336,361)	(10,336,361)	(10,336,361)	(10,336,361)	(4,961,452)
14 - Rodeo SD	3,550,761	4.48	792,581	792,581	792,581	792,581	380,437
15 - RHFD	(14,068,259)	4.48	(3,140,236)	(3,140,236)	(3,140,236)	(3,140,236)	(1,507,315)
16 - SRVFPD	(1,960,080)	4.48	(437,518)	(437,518)	(437,518)	(437,518)	(210,008)
17 - Court	6,754,072	4.48	1,507,605	1,507,605	1,507,605	1,507,605	723,652
18 - DDS (Withdrawn)	0	4.48	0	0	0	0	0
19 - DWD (Withdrawn)	0	4.48	0	0	0	0	0
20 - Pittsburg (Withdrawn)	0	4.48	0	0	0	0	0
<b>Total for all Employers</b>	<b>\$0</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

## Section 2: GAS 68 Information

### Allocation of Changes in Total Net Pension Liability (continued)

Increase / (Decrease) in Pension Expense Arising from the Recognition of the Effects of the Change in Proportion and Change in Employer Contributions for the Year Ended December 31, 2020

	Total Change	Recognition Period (Years)	Reporting Date for Employer Under GAS 68 Year Ended June 30:				
			2021	2022	2023	2024	2025
1 - BIMID	\$28,009	4.47	\$6,266	\$6,266	\$6,266	\$6,266	\$2,945
2 - Union Cemetery	(207,337)	4.47	(46,384)	(46,384)	(46,384)	(46,384)	(21,801)
3 - CC Mosquito	(56,048)	4.47	(12,539)	(12,539)	(12,539)	(12,539)	(5,892)
4 - CCCFPD	19,909,408	4.47	4,454,006	4,454,006	4,454,006	4,454,006	2,093,384
5 - CCCSD	14,631,052	4.47	3,273,166	3,273,166	3,273,166	3,273,166	1,538,388
6 - First 5	(370,591)	4.47	(82,906)	(82,906)	(82,906)	(82,906)	(38,967)
7 - County	(41,669,817)	4.47	(9,322,107)	(9,322,107)	(9,322,107)	(9,322,107)	(4,381,389)
8 - CCCERA (the Employer)	134,159	4.47	30,013	30,013	30,013	30,013	14,107
9 - ECCFPD	937,369	4.47	209,702	209,702	209,702	209,702	98,561
10 - Housing Authority	124,051	4.47	27,752	27,752	27,752	27,752	13,043
11 - IHSS	(45,511)	4.47	(10,181)	(10,181)	(10,181)	(10,181)	(4,787)
12 - LAFCO	(88,814)	4.47	(19,869)	(19,869)	(19,869)	(19,869)	(9,338)
13 - MOFD	7,307,351	4.47	1,634,754	1,634,754	1,634,754	1,634,754	768,335
14 - Rodeo SD	(830,760)	4.47	(185,852)	(185,852)	(185,852)	(185,852)	(87,352)
15 - RHFD	1,232,607	4.47	275,751	275,751	275,751	275,751	129,603
16 - SRVFPD	1,538,592	4.47	344,204	344,204	344,204	344,204	161,776
17 - Court	(2,573,720)	4.47	(575,776)	(575,776)	(575,776)	(575,776)	(270,616)
18 - DDS (Withdrawn)	0	4.47	0	0	0	0	0
19 - DWD (Withdrawn)	0	4.47	0	0	0	0	0
20 - Pittsburg (Withdrawn)	0	4.47	0	0	0	0	0
<b>Total for all Employers</b>	<b>\$0</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

## Section 2: GAS 68 Information

### Allocation of Changes in Total Net Pension Liability (continued)

Increase / (Decrease) in Pension Expense Arising from the Recognition of the Effects of the Change in Proportion and Change in Employer Contributions for the Year Ended December 31, 2019

	Total Change	Recognition Period (Years)	Reporting Date for Employer Under GAS 68 Year Ended June 30:				
			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 - DDS (Withdrawn)	0	4.51	0	0	0	0	0
19 - DWD (Withdrawn)	0	4.51	0	0	0	0	0
20 - Pittsburg (Withdrawn)	0	4.51	0	0	0	0	0
<b>Total for all Employers</b>	<b>\$0</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

## Section 2: GAS 68 Information

### Allocation of Changes in Total Net Pension Liability (continued)

Increase / (Decrease) in Pension Expense Arising from the Recognition of the Effects of the Change in Proportion and Change in Employer Contributions for the Year Ended December 31, 2018

	Total Change	Recognition Period (Years)	Reporting Date for Employer Under GAS 68 Year Ended June 30:				
			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 (Withdrawn)	0	4.57	0	0	0	0	0
19 - DWD (Withdrawn)	0	4.57	0	0	0	0	0
20 - Pittsburg (Withdrawn)	0	4.57	0	0	0	0	0
<b>Total for all Employers</b>	<b>\$0</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

## Section 2: GAS 68 Information

### Allocation of Changes in Total Net Pension Liability (continued)

Increase / (Decrease) in Pension Expense Arising from the Recognition of the Effects of the Change in Proportion and Change in Employer Contributions for the Year Ended December 31, 2017

	Total Change	Recognition Period (Years)	Reporting Date for Employer Under GAS 68 Year Ended June 30:				
			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 - DDS (Withdrawn)	0	4.58	0	0	0	0	0
19 - DWD (Withdrawn)	0	4.58	0	0	0	0	0
20 - Pittsburg (Withdrawn)	0	4.58	0	0	0	0	0
<b>Total for all Employers</b>	<b>\$0</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

# Section 3: Actuarial Assumptions and Methods and Appendices

## Actuarial Assumptions and Methods

For December 31, 2021 Measurement Date and Employer Reporting as of June 30, 2022

### 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, 2018 through December 31, 2020 Actuarial Experience Study report dated April 5, 2022. Unless otherwise noted, all actuarial assumptions and methods shown below apply to all tiers. These assumptions were adopted by the Board.

### Economic Assumptions

<b>Net Investment Return:</b>	6.75%, net of investment expenses. Based on the Actuarial Experience Study referenced above, expected investment expenses represent about 0.60% of the Actuarial Value of Assets.
<b>Administration Expenses:</b>	1.15% 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.
<b>Employee Contribution Crediting Rate:</b>	6.75%, compounded semi-annually.
<b>Consumer Price Index (CPI):</b>	Increases of 2.50% per year.

## Section 3: Actuarial Assumptions and Methods and Appendices

<b>Cost of Living Adjustment (COLA):</b>	<p>Increases of 2.75% per year.</p> <p>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).</p> <p>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).</p> <p>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).</p> <p>For members that have COLA banks, they are reflected in projected future COLAs.</p> <p>The actual COLA granted by CCCERA on April 1, 2021 has been reflected for non-active members in the December 31, 2020 valuation.</p>
<b>Payroll Growth:</b>	<p>Inflation of 2.50% 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.</p>
<b>Increase in Internal Revenue Code Section 401(a)(17) Compensation Limit:</b>	<p>Increase of 2.50% per year from the valuation date.</p>
<b>Increase in Section 7522.10 Compensation Limit:</b>	<p>Increase of 2.50% per year from the valuation date.</p>

## Section 3: Actuarial Assumptions and Methods and Appendices

### Salary Increases:

The annual rate of compensation increase includes:

- Inflation at 2.50%, plus
- “Across the board” salary increases of 0.50% per year, plus
- The following merit and promotion increases:

Years of Service	Rate (%)	
	General	Safety
Less than 1	11.00	12.00
1 – 2	6.50	8.50
2 – 3	4.75	5.50
3 – 4	3.50	5.00
4 – 5	2.50	4.00
5 – 6	2.00	3.00
6 – 7	1.75	2.25
7 – 8	1.65	1.75
8 – 9	1.45	1.50
9 – 10	1.35	1.45
10 – 11	1.30	1.40
11 – 12	1.10	1.35
12 – 13	1.00	1.30
13 – 14	0.90	1.25
14 – 15	0.80	1.25
15 – 16	0.75	1.25
16 – 17	0.70	1.25
17 – 18	0.65	1.25
18 – 19	0.60	1.25
19 – 20	0.55	1.25
20 & Over	0.50	1.00

## Section 3: Actuarial Assumptions and Methods and Appendices

### Demographic Assumptions

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#### Post-Retirement Mortality Rates:

##### *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-2021.
- **Safety Members:** Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) increased by 5% for males and decreased by 5% for females, projected generationally with the two-dimensional mortality improvement scale MP-2021.

##### *Disabled*

- **General Members:** Pub-2010 Non-Safety Disabled Retiree Amount-Weighted Mortality Table (separate tables for males and females) increased by 5% for males and unadjusted for females, projected generationally with the two-dimensional mortality improvement scale MP-2021.
- **Safety Members:** Pub-2010 Safety Disabled Retiree Amount-Weighted Mortality Table (separate tables for males and females) increased by 5% for males and unadjusted for females, projected generationally with the two-dimensional mortality improvement scale MP-2021.

##### *Beneficiary*

- **Beneficiaries not currently in Pay Status:** 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-2021.
- **Beneficiaries in Pay Status:** Pub-2010 Contingent Survivor Amount-Weighted Above-Median Mortality Table (separate tables for males and females) increased by 5% for males and females, projected generationally with the two-dimensional mortality improvement scale MP-2021.

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.

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## Section 3: Actuarial Assumptions and Methods and Appendices

### 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-2021.
- **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-2021.

Age	Rate (%)			
	General		Safety	
	Male	Female	Male	Female
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	0.08	0.10	0.08
55	0.19	0.11	0.15	0.11
60	0.28	0.17	0.23	0.14
65	0.41	0.27	0.35	0.20
70	0.61	0.44	0.66	0.39

Note that generational projections beyond the base year (2010) are not reflected in the above mortality rates. All pre-retirement deaths are assumed to be non-service connected.

### 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-2021, 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) increased by 5% for males and decreased by 5% for females, projected 30 years with the two-dimensional mortality improvement scale MP-2021, weighted 85% male and 15% female.

## Section 3: Actuarial Assumptions and Methods and Appendices

### Disability Incidence:

Age	Rate (%)		
	General Tier 1 and Tier 4	General Tier 3 and Tier 5	Safety
20	0.01	0.01	0.06
25	0.02	0.02	0.16
30	0.04	0.03	0.32
35	0.08	0.05	0.46
40	0.22	0.07	0.56
45	0.36	0.09	0.96
50	0.52	0.12	2.88
55	0.60	0.16	4.00
60	0.60	0.18	4.30
65	0.60	0.18	4.50
70	0.60	0.18	4.50

65% of General Tier 1 and Tier 4 disabilities are assumed to be service connected disabilities. The other 35% are assumed to be non-service connected disabilities.

25% of General Tier 3 and Tier 5 disabilities are assumed to be service connected disabilities. The other 75% are assumed to be non-service connected disabilities.

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

## Section 3: Actuarial Assumptions and Methods and Appendices

### Termination:

Years of Service	Rate (%)	
	General	Safety
Less than 1	14.00	11.00
1 – 2	9.50	9.00
2 – 3	9.00	7.00
3 – 4	6.25	5.00
4 – 5	6.25	4.00
5 – 6	5.00	3.50
6 – 7	4.50	3.00
7 – 8	4.00	2.50
8 – 9	3.75	2.50
9 – 10	3.75	2.00
10 – 11	3.50	2.00
11 – 12	3.25	2.00
12 – 13	2.75	2.00
13 – 14	2.50	1.80
14 – 15	2.50	1.60
15 – 16	2.25	1.50
16 – 17	2.25	1.40
17 – 18	2.00	1.30
18 – 19	2.00	1.20
19 – 20	1.50	1.00
20 & Over	1.50	0.50

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.

## Section 3: Actuarial Assumptions and Methods and Appendices

### Retirement Rates (General):

Age	Rate (%)					
	Tier 1 Enhanced		Tier 3 Enhanced		Tier 1 Non-Enhanced	PEPRA Tier 4 and Tier 5
	Less than 30 Years of Service	Over 30 Years of Service	Less than 30 Years of Service	Over 30 Years of Service		
49	0.00	0.00	0.00	25.00	0.00	0.00
50	4.00	10.00	4.00	10.00	3.00	0.00
51	4.00	10.00	3.00	5.00	3.00	0.00
52	4.00	10.00	3.00	5.00	3.00	2.00
53	4.00	10.00	4.00	5.00	3.00	3.00
54	10.00	16.00	6.00	11.00	3.00	3.00
55	15.00	24.00	8.00	15.00	10.00	4.00
56	15.00	24.00	8.00	10.00	10.00	5.00
57	15.00	24.00	8.00	10.00	10.00	6.00
58	15.00	22.00	9.00	15.00	10.00	6.00
59	18.00	22.00	10.00	15.00	10.00	8.00
60	20.00	20.00	12.00	15.00	25.00	8.00
61	20.00	20.00	16.00	20.00	15.00	12.00
62	25.00	30.00	20.00	25.00	40.00	15.00
63	25.00	30.00	20.00	25.00	35.00	17.00
64	25.00	30.00	25.00	28.00	30.00	20.00
65	35.00	35.00	30.00	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	40.00	40.00	35.00	35.00	40.00	35.00
71	35.00	35.00	35.00	35.00	40.00	35.00
72	35.00	35.00	35.00	35.00	40.00	35.00
73	35.00	35.00	35.00	35.00	50.00	35.00
74	35.00	35.00	35.00	35.00	50.00	35.00
75 & Over	100.00	100.00	100.00	100.00	100.00	100.00

## Section 3: Actuarial Assumptions and Methods and Appendices

### Retirement Rates (Safety):

Age	Rate (%)			
	Tier A Enhanced		Tier C Enhanced	Tier A Non-Enhanced and PEPR Tier D and Tier E
	Less than 30 Years of Service	Over 30 Years of Service		
45	7.00	7.00	2.00	0.00
46	5.00	5.00	1.00	0.00
47	7.00	7.00	4.00	0.00
48	10.00	30.00	4.00	0.00
49	22.00	30.00	12.00	0.00
50	22.00	30.00	20.00	5.00
51	22.00	22.00	18.00	4.00
52	16.00	20.00	15.00	4.00
53	16.00	22.00	15.00	5.00
54	16.00	24.00	18.00	6.00
55	16.00	30.00	18.00	15.00
56	18.00	30.00	15.00	15.00
57	18.00	30.00	15.00	15.00
58	20.00	35.00	25.00	15.00
59	20.00	35.00	25.00	20.00
60	20.00	35.00	25.00	20.00
61	20.00	35.00	25.00	20.00
62	20.00	35.00	25.00	20.00
63	25.00	35.00	30.00	20.00
64	35.00	35.00	35.00	25.00
65 & Over	100.00	100.00	100.00	100.00

### Retirement Age and Benefit for Deferred Vested Members:

For current and future deferred vested members, retirement age assumptions are as follows:

- General: 60
- Safety with Reciprocity: 53
- Safety without Reciprocity: 51

40% of future General and 70% of future Safety deferred vested members are assumed to continue to work for a reciprocal employer. For reciprocals, 3.50% and 4.00% 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 assumed to be male.

## Section 3: Actuarial Assumptions and Methods and Appendices

<b>Definition of Active Members:</b>	All active members of CCCERA as of the valuation date.																												
<b>Form of Payment:</b>	All active and inactive members are assumed to elect the unmodified option at retirement. There is no explicit assumption for children's benefit.																												
<b>Percent Married:</b>	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.																												
<b>Age and Gender of Spouse:</b>	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.																												
<b>Offsets by Other Plans of the Employer for Disability Benefits:</b>	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.																												
<b>Leave Cashout Assumptions:</b>	<p>The following assumptions for leave cashouts as a percentage of final average pay are used:</p> <p><i>General Tiers 1, 2 and 3 &amp; Safety Tiers A and C</i></p> <table border="0"> <tr> <td>Cost Group 1</td> <td>1.00%</td> </tr> <tr> <td>Cost Group 2</td> <td>0.50% for Tier 2 0.75% for Tier 3</td> </tr> <tr> <td>Cost Group 3</td> <td>5.25%</td> </tr> <tr> <td>Cost Group 4</td> <td>1.00%</td> </tr> <tr> <td>Cost Group 5</td> <td>1.00%</td> </tr> <tr> <td>Cost Group 6</td> <td>0.00%</td> </tr> <tr> <td>Cost Group 7</td> <td>0.50%</td> </tr> <tr> <td>Cost Group 8</td> <td>0.25%</td> </tr> <tr> <td>Cost Group 9</td> <td>0.00%</td> </tr> <tr> <td>Cost Group 10</td> <td>0.25%</td> </tr> <tr> <td>Cost Group 11</td> <td>3.00%</td> </tr> <tr> <td>Cost Group 12</td> <td>1.75%</td> </tr> <tr> <td>Cost Group 13</td> <td>0.25%</td> </tr> <tr> <td>Withdrawn Employers</td> <td>0.00%</td> </tr> </table> <p><i>General PEPRA Tiers 4 and 5 &amp; Safety PEPRA Tiers D and E</i></p> <p>None</p>	Cost Group 1	1.00%	Cost Group 2	0.50% for Tier 2 0.75% for Tier 3	Cost Group 3	5.25%	Cost Group 4	1.00%	Cost Group 5	1.00%	Cost Group 6	0.00%	Cost Group 7	0.50%	Cost Group 8	0.25%	Cost Group 9	0.00%	Cost Group 10	0.25%	Cost Group 11	3.00%	Cost Group 12	1.75%	Cost Group 13	0.25%	Withdrawn Employers	0.00%
Cost Group 1	1.00%																												
Cost Group 2	0.50% for Tier 2 0.75% for Tier 3																												
Cost Group 3	5.25%																												
Cost Group 4	1.00%																												
Cost Group 5	1.00%																												
Cost Group 6	0.00%																												
Cost Group 7	0.50%																												
Cost Group 8	0.25%																												
Cost Group 9	0.00%																												
Cost Group 10	0.25%																												
Cost Group 11	3.00%																												
Cost Group 12	1.75%																												
Cost Group 13	0.25%																												
Withdrawn Employers	0.00%																												

## Section 3: Actuarial Assumptions and Methods and Appendices

<b>Service From Accumulated Sick Leave Conversion:</b>	<p>The following assumptions for additional service converted from accumulated sick leave as a percentage of service at retirement are used:</p> <p><i>Service Retirements:</i></p> <p>General: 1.00%</p> <p>Safety: 1.70%</p> <p><i>Disability Retirements:</i></p> <p>General: 0.06%</p> <p>Safety: 1.00%</p> <p>Pursuant to Section 31641.01, the cost of this benefit for the non-PEPRA tiers will be charged only to employers and will not affect member contribution rates.</p>
<b>Actuarial Cost Method:</b>	<p>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.</p>
<b>Expected Remaining Service Lives:</b>	<p>The average of the expected remaining service lives of all employees is determined by:</p> <ul style="list-style-type: none"> <li>Calculating each active employee's expected remaining service life as the present value of \$1 per year of future service at zero percent interest.</li> <li>Setting the remaining service life to zero for each non-active or retired member.</li> </ul> <p>Dividing the sum of the above amounts by the total number of active, non-active and retired members.</p>

### Changed Actuarial Assumptions

The following assumptions have been changed since the prior valuation. Previously these assumptions were as follows:

<i>Net Investment Return:</i>	7.00%; net of investment expenses.
<i>Administrative Expenses:</i>	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.
<i>Employee Contribution Crediting Rate:</i>	7.00%, compounded semi-annually.
<i>Payroll Growth:</i>	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.
<i>Increase in Internal Revenue Code Section 401(a)(17) Compensation Limit:</i>	Increase of 2.75% per year from the valuation date.

## Section 3: Actuarial Assumptions and Methods and Appendices

### Changed Actuarial Assumptions (continued)

The following assumptions have been changed since the prior valuation. Previously these assumptions were as follows:

*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” real salary increases of 0.50% per year, plus
- The following merit and promotion increases:

Years of Service	Rate (%)	
	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

## Section 3: Actuarial Assumptions and Methods and Appendices

### Changed Actuarial Assumptions (continued)

The following assumptions have been changed since the prior valuation. Previously these assumptions were as follows:

*Post-Retirement Mortality Rates:*

*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.

## Section 3: Actuarial Assumptions and Methods and Appendices

### Changed Actuarial Assumptions (continued)

The following assumptions have been changed since the prior valuation. Previously these assumptions were as follows:

*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.

Age	Rate (%)			
	General		Safety	
	Male	Female	Male	Female
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	0.08	0.10	0.08
55	0.19	0.11	0.15	0.11
60	0.28	0.17	0.23	0.14
65	0.41	0.27	0.35	0.20
70	0.61	0.44	0.66	0.39

Note that generational projections beyond the base year (2010) are not reflected in the above mortality rates. All pre-retirement deaths are assumed to be non-service connected.

*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.

## Section 3: Actuarial Assumptions and Methods and Appendices

### Changed Actuarial Assumptions (continued)

The following assumptions have been changed since the prior valuation. Previously these assumptions were as follows:

*Disability Incidence:*

Age	Rate (%)		
	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.

## Section 3: Actuarial Assumptions and Methods and Appendices

### Changed Actuarial Assumptions (continued)

The following assumptions have been changed since the prior valuation. Previously these assumptions were as follows:

*Termination:*

Years of Service	Rate (%)	
	General	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 & Over	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.

## Section 3: Actuarial Assumptions and Methods and Appendices

### Changed Actuarial Assumptions (continued)

The following assumptions have been changed since the prior valuation. Previously these assumptions were as follows:

*Retirement Rates (General):*

Age	Rate (%)					
	Tier 1 Enhanced		Tier 3 Enhanced		Tier 1 Non-Enhanced	PEPRA Tier 4 and Tier 5
	Less than 30 Years of Service	Over 30 Years of Service	Less than 30 Years of Service	Over 30 Years of Service		
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

## Section 3: Actuarial Assumptions and Methods and Appendices

### Changed Actuarial Assumptions (continued)

The following assumptions have been changed since the prior valuation. Previously these assumptions were as follows:

*Retirement Rates (Safety):*

Age	Rate (%)			
	Tier A Enhanced		Tier C Enhanced	Tier A Non-Enhanced and PEPRA Tier D and Tier E
	Less than 30 Years of Service	Over 30 Years of Service		
45	7.00	8.75	2.00	0.00
46	3.00	3.75	1.00	0.00
47	10.00	12.50	4.00	0.00
48	10.00	12.50	4.00	0.00
49	25.00	31.25	12.00	0.00
50	25.00	31.25	18.00	5.00
51	25.00	31.25	18.00	4.00
52	18.00	22.50	15.00	4.00
53	18.00	22.50	15.00	5.00
54	18.00	22.50	15.00	6.00
55	20.00	30.00	18.00	10.00
56	20.00	30.00	15.00	10.00
57	22.00	33.00	15.00	18.00
58	22.00	33.00	25.00	18.00
59	22.00	33.00	25.00	18.00
60	25.00	37.50	25.00	18.00
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:*

General:	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 for a reciprocal employer. For reciprocals, 3.75% and 4.25% compensation increases are assumed per annum for General and Safety, respectively.

## Section 3: Actuarial Assumptions and Methods and Appendices

### Changed Actuarial Assumptions (continued)

The following assumptions have been changed since the prior valuation. Previously these assumptions were as follows:

*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%
Cost Group 13	0.50%
Withdrawn Employers	0.00%

*General PEPPRA Tiers 4 and 5 Safety PEPPRA Tiers D and E*

None

## Section 3: Actuarial Assumptions and Methods and Appendices

### Changed Actuarial Assumptions (continued)

The following assumptions have been changed since the prior valuation. Previously these assumptions were as follows:

*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%

Pursuant to Section 31641.01, the cost of this benefit for the non-PEPRA tiers will be charged only to employers and will not affect member contribution rates.

## Section 3: Actuarial Assumptions and Methods and Appendices

### Appendix A: Projection of Plan Fiduciary Net Position for Use in the Calculation of Discount Rate as of December 31, 2021 (\$ 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)
2021	\$10,070	\$528	\$540	\$11	\$1,407	\$11,454
2022	11,454	429	580	10	768	12,061
2023	12,061	323	610	10	804	12,568
2024	12,568	291	640	9	836	13,046
2025	13,046	264	670	9	867	13,497
2026	13,497	233	700	8	895	13,917
2027	13,917	205	730	8	922	14,305
2028	14,305	175	759	8	946	14,659
2029	14,659	165	789	7	969	14,997
2030	14,997	155	818	7	990	15,318
2061	18,959	2	1,058	0 *	1,245	19,147
2062	19,147	1	1,033	0 *	1,258	19,373
2063	19,373	1	1,005	0 *	1,274	19,643
2064	19,643	1	976	0 *	1,293	19,960
2065	19,960	0 *	946	0 *	1,316	20,331
2096	91,730	0	29	0	6,191	97,891
2097	97,891	0	23	0	6,607	104,475
2098	104,475	0	18	0	7,051	111,509
2099	111,509	0	14	0	7,526	119,021
2100	119,021	0	11	0	8,034	127,044
2137	1,333,790	0	0 *	0	90,031	1,423,821
2138	1,423,821					
2138	Discounted Value: 729 **					

\* Less than \$1 million, when rounded.

\*\* \$1,423,821 million when discounted with interest at the rate of 6.75% per annum has a value of \$729 million as of December 31, 2021. We note that \$729 million is the "theoretical" discounted residual fair value in 2138 assuming that all the UAAL payments for the charge and credit amortization bases identified in the December 31, 2020 and subsequent valuations will be made. In practice, the Association will be expected to become fully funded before those bases are fully amortized and the UAAL payments will be set equal to \$0 to avoid the overfunding in some future valuations.

## Section 3: Actuarial Assumptions and Methods and Appendices

### Appendix A: Projection of Plan Fiduciary Net Position for Use in the Calculation of Discount Rate as of December 31, 2021 (continued)

#### Notes to Appendix:

1. Amounts may not total exactly due to rounding.
2. Amounts shown in the year beginning January 1, 2021 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, 2020); 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, 2020. The projected benefit payments reflect the cost of living increase assumptions adopted for use in the December 31, 2021 valuation report and include projected benefits associated with the Post Retirement Death Benefit Reserve.
7. Column (d): Projected administrative expenses are assumed to be 1.15% of closed group projected payroll and are assumed to occur halfway through the year, on average.
8. Column (e): Projected investment earnings are based on the assumed investment rate of return of 6.75% 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 6.75% per annum was applied to all periods of projected benefit payments to determine the Total Pension Liability as of December 31, 2021 shown earlier in this report, pursuant to paragraph 44 of GASB Statement No. 67.
10. This projection 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 Plan Fiduciary Net Position and the discounting of benefits is part of the model.

## Section 3: Actuarial Assumptions and Methods and Appendices

### 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.

<b>Active Employees</b>	Individuals employed at the end of the reporting or measurement period, as applicable.
<b>Actual Contributions</b>	Cash contributions recognized as additions to a Pension Plan Fiduciary Net Position.
<b>Actuarial Present Value of Projected Benefit Payments</b>	Projected benefit payments discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment.
<b>Actuarial Valuation</b>	The determination, as of a point in time (the actuarial valuation date), of the service cost, Total Pension 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.
<b>Actuarial Valuation Date</b>	The date as of which an actuarial valuation is performed.
<b>Actuarially Determined Contribution</b>	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.
<b>Ad Hoc Cost-of-Living Adjustments (Ad Hoc COLAs)</b>	Cost-of-living adjustments that require a decision to grant by the authority responsible for making such decisions.
<b>Automatic Cost-of-Living Adjustments (Automatic COLAs)</b>	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).
<b>Closed Period</b>	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.
<b>Collective Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions</b>	Deferred outflows of resources and deferred inflows of resources related to pensions arising from certain changes in the collective Net Pension Liability.
<b>Collective Net Pension Liability</b>	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.
<b>Collective Pension Expense</b>	Pension expense arising from certain changes in the collective Net Pension Liability.
<b>Contributions</b>	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.

## Section 3: Actuarial Assumptions and Methods and Appendices

<b>Cost-of-Living Adjustments</b>	Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.
<b>Cost-Sharing Employer</b>	An employer whose employees are provided with pensions through a cost-sharing multiple-employer defined benefit pension plan.
<b>Cost-Sharing Multiple-Employer Defined Benefit Pension Plan (Cost-Sharing Pension Plan)</b>	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.
<b>Covered Payroll</b>	Payroll on which contributions to the pension plan are based.
<b>Defined Benefit Pension Plans</b>	Pension plans that are used to provide defined benefit pensions.
<b>Defined Benefit Pensions</b>	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.)
<b>Defined Contribution Pension Plans</b>	Pension plans that are used to provide defined contribution pensions.
<b>Defined Contribution Pensions</b>	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.
<b>Discount Rate</b>	<p>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:</p> <ol style="list-style-type: none"> <li>1. 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.</li> <li>2. The actuarial present value of projected benefit payments not included in (1), calculated using the municipal bond rate.</li> </ol>
<b>Entry Age Actuarial Cost Method</b>	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> .

## Section 3: Actuarial Assumptions and Methods and Appendices

<b>Inactive Employees</b>	Terminated individuals that have accumulated benefits but are not yet receiving them, and retirees or their beneficiaries currently receiving benefits.
<b>Measurement Period</b>	The period between the prior and the current measurement dates.
<b>Multiple-Employer Defined Benefit Pension Plan</b>	A defined benefit pension plan that is used to provide pensions to the employees of more than one employer.
<b>Net Pension Liability</b>	The liability of employers and non-employer contributing entities to employees for benefits provided through a defined benefit pension plan.
<b>Pension Plans</b>	Arrangements through which pensions are determined, assets dedicated for pensions are accumulated and managed, and benefits are paid as they come due.
<b>Pensions</b>	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.
<b>Plan Members</b>	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).
<b>Postemployment</b>	The period after employment.
<b>Postemployment Benefit Changes</b>	Adjustments to the pension of an inactive employee.
<b>Projected Benefit Payments</b>	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.
<b>Public Employee Retirement System</b>	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.
<b>Real Rate of Return</b>	The rate of return on an investment after adjustment to eliminate inflation.
<b>Service Costs</b>	The portions of the actuarial present value of projected benefit payments that are attributed to valuation years.
<b>Termination Benefits</b>	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.
<b>Total Pension Liability</b>	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.

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Meeting Date  
**09/28/2022**  
Agenda Item  
**#6**



Contra Costa County Employees'  
Retirement Association

**Timothy Price, CFA**

Chief Investment Officer

**Mitchell Taylor, CFA**

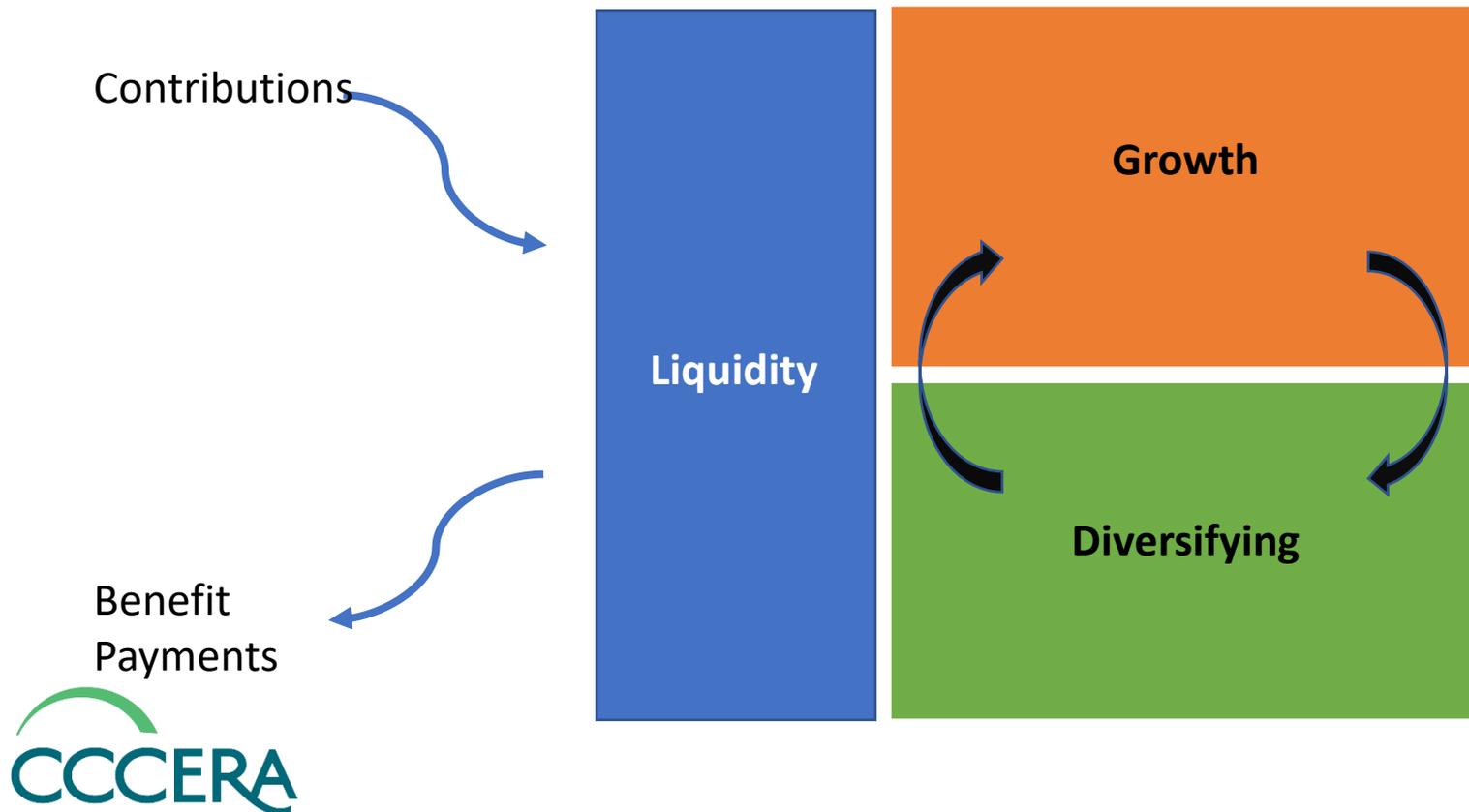
Investment Officer

# Growth Public Markets Sub-Portfolio Review

September 28, 2022

# Role of Growth in CCCERA Portfolio

- Expected to be the dominant engine to fund future benefit payments.
- Provide truly long-term capital appreciation.



# Agenda

- Performance, risk/return vs benchmarks and forecasts over different periods
- Granular performance: public vs private and asset classes
- Relative performance over 2021 vs 2022
- Current macro environment and return drivers vs the past
- Potential return outcomes including recession, inflation, stagflation , soft landing and consensus forecasts
- Portfolio positioning vs potential outcomes

# CCCERA Growth Asset Allocation

Asset Class	Allocation as of 7/31/22	Current Target Allocation	Delta
Domestic Equity	14.9%	16.0%	-1.1%
International Equity	8.2%	8.0%	0.2%
Global Equity	9.1%	9.0%	0.1%
Emerging Markets Equity	6.1%	7.0%	-0.9%
Private Equity	13.3%	13.0%	0.3%
Private Credit	8.4%	8.0%	0.4%
Real Estate	7.5%	10.0%	-2.5%
Risk Parity	4.1%	3.0%	1.1%
High Yield	1.6%	1.5%	0.1%

Source: CCCERA Investment Office



# Global Markets: 2021 and 2022 Returns

Index	7/31/2020	7/31/2021	7/31/2022	Yr/Yr 21/20	Yr/Yr 22/21	Yr/Yr 22/20
MSCI World (global developed)	2,305	3,069	2,746	33.2%	-10.5%	19.1%
S&P 500	3,271	4,395	4,130	34.4%	-6.0%	26.3%
<b>S&amp;P Value</b>	5,675	7,700	7,698	<b>35.7%</b>	<b>0.0%</b>	<b>35.6%</b>
<b>S&amp;P Growth</b>	5,775	7,919	7,196	<b>37.1%</b>	<b>-9.1%</b>	<b>24.6%</b>
<b>NASDAQ</b>	10,745	14,673	12,391	<b>36.6%</b>	<b>-15.6%</b>	<b>15.3%</b>
Euro Stoxx	3,174	4,089	3,708	28.8%	-9.3%	16.8%
Japan Nikkei	21,710	27,284	27,802	25.7%	1.9%	28.1%
Hang Seng (China, Hong Kong)	24,595	25,961	20,157	5.6%	-22.4%	-18.0%
CSI 300 (China, Shanghai)	4,695	4,811	4,170	2.5%	-13.3%	-11.2%
Emerging Markets	1,079	1,278	994	18.4%	-22.2%	-7.9%
Risk Parity 10% Volatility	3,449	3,945	3,533	14.4%	-10.4%	2.4%
Real Estate (NCREIF)	3,869	4,154	5,045	7.4%	<b>21.5%</b>	<b>30.4%</b>
<b>Commodities</b>	340	541	693	<b>59.2%</b>	<b>28.0%</b>	<b>103.8%</b>
<b>US Treasuries</b>	2,606	2,527	2,308	<b>-3.0%</b>	<b>-8.7%</b>	<b>-11.4%</b>

Source: Bloomberg



# CCCERA Growth: Public and Private

CCCERA Growth returns by Asset Class, ended 7/31/2022				
Asset Class	1 Year	3 Years	5 Years	10 Years
Growth	-4.3%	8.6%	8.1%	9.3%
Domestic Equity	-10.6%	9.5%	9.9%	12.4%
International Equity	-17.2%	5.4%	4.5%	6.6%
Global Equity	-14.4%	7.7%	7.8%	9.7%
Emerging Markets	-23.3%	0.4%	1.0%	--
<b>Private Equity</b>	<b>24.7%</b>	<b>23.8%</b>	<b>18.0%</b>	<b>14.6%</b>
<b>Private Credit</b>	<b>10.2%</b>	<b>8.5%</b>	<b>7.8%</b>	<b>10.0%</b>
<b>Real Estate</b>	<b>11.9%</b>	<b>5.4%</b>	<b>6.9%</b>	<b>9.2%</b>
Risk Parity	-13.1%	2.7%	--	--
High Yield	-7.6%	1.5%	2.3%	4.1%

Source: Northern Trust. Data unavailable for some periods given inception dates.



# CCCERA Growth: Rolling Returns

## 1-Year and 5-Year, CCCERA vs MSCI ACWI

CCCERA Growth Sub-Portfolio and MSCI ACWI					
Period ended July 31	2018	2019	2020	2021	2022
<b>One-year returns</b>					
<b>CCCERA</b>					
Return	10.1%	4.5%	4.2%	28.7%	-4.3%
Standard Deviation	5.7%	9.9%	12.3%	7.6%	10.1%
Sharpe	1.53	0.22	0.23	3.75	-0.46
<b>MSCI ACWI</b>					
Return	11.0%	2.9%	7.2%	33.2%	-10.5%
Standard Deviation	8.3%	16.4%	21.2%	13.8%	16.8%
Sharpe	1.15	0.04	0.28	2.41	-0.64
<b>Five-year Rolling Returns</b>					
<b>CCCERA</b>					
Return	9.4%	7.8%	7.0%	11.8%	8.1%
Standard Deviation	5.6%	6.7%	8.5%	8.7%	9.8%
Sharpe	1.61	1.03	0.69	1.23	0.72
<b>MSCI ACWI</b>					
Return	9.0%	6.5%	7.4%	13.8%	7.9%
Standard Deviation	10.0%	11.7%	14.5%	14.3%	16.3%
Sharpe	0.86	0.48	0.43	0.88	0.42



# Actual Returns vs Forecast

7.6% vs 8.8%

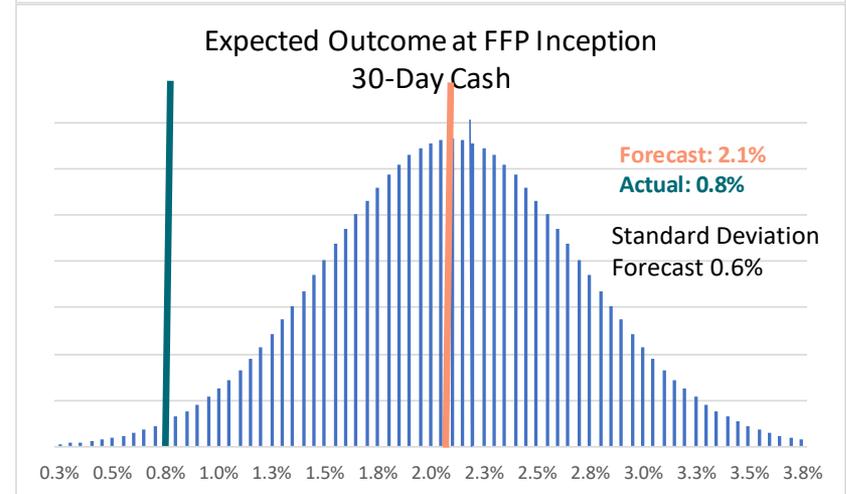
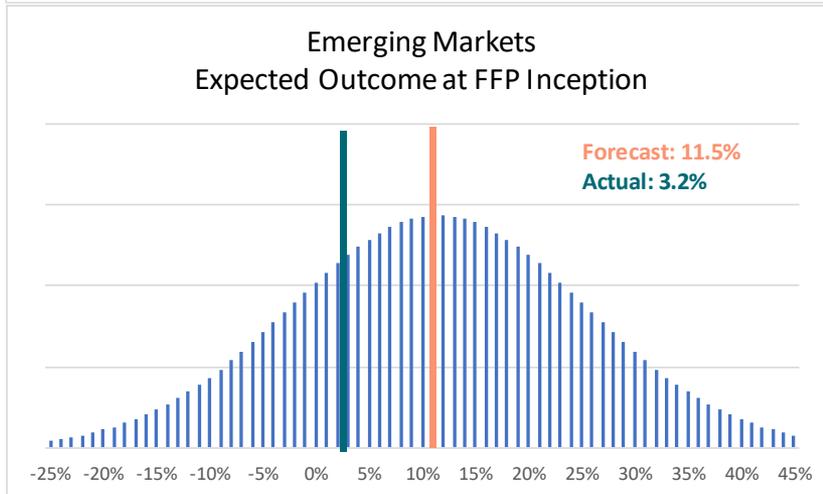
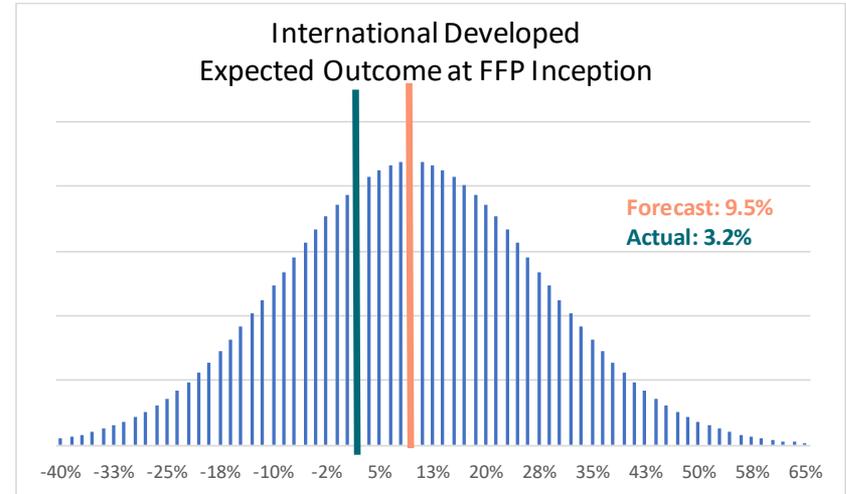
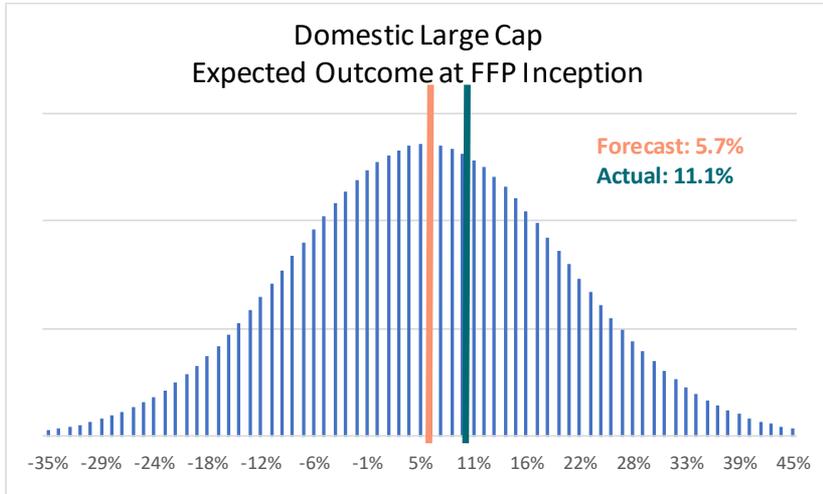
CCCERA 10-Year Results vs. Verus 2012 10-year Forecast									
Actual Returns, SD, and Sharpe, 7 years ended June 2022				2015 10-Year Forecast			Delta		
Asset Class	Returns	Standard Deviation	Sharpe Ratio	Returns	Standard Deviation	Sharpe Ratio	Returns	Standard Deviation	Sharpe Ratio
<b>Growth</b>	<b>7.6%</b>	<b>8.8%</b>	<b>0.77</b>	<b>8.8%</b>	<b>15.0%</b>	<b>0.51</b>	<b>-1.2%</b>	<b>-6.2%</b>	<b>0.26</b>
MSCI ACWI	7.0%	14.9%	0.41	7.4%	16.5%	0.32	-0.4%	-1.6%	0.09
<b>Domestic Equity</b>	<b>8.5%</b>	<b>16.5%</b>	<b>0.46</b>	<b>5.7%</b>	<b>14.7%</b>	<b>0.25</b>	<b>2.8%</b>	<b>1.8%</b>	<b>0.21</b>
<b>International Equity</b>	<b>4.0%</b>	<b>13.6%</b>	<b>0.23</b>	<b>9.5%</b>	<b>18.2%</b>	<b>0.41</b>	<b>-5.5%</b>	<b>-4.6%</b>	<b>-0.18</b>
Global Equity	7.3%	13.4%	0.48	7.4%	16.5%	0.32	-0.1%	-3.1%	0.16
<b>Emerging Markets</b>	<b>2.2%</b>	<b>18.7%</b>	<b>0.06</b>	<b>11.5%</b>	<b>23.7%</b>	<b>0.40</b>	<b>-9.3%</b>	<b>-5.0%</b>	<b>-0.34</b>
Private Equity	15.1%	8.2%	1.74	7.7%	23.7%	0.24	7.4%	-15.5%	1.50
Private Credit	7.9%	4.5%	1.57	7.8%	10.5%	0.55	0.1%	-6.0%	1.02
Real Estate	7.0%	4.6%	1.34	5.1%	13.2%	0.23	1.9%	-8.6%	1.11
Risk Parity	4.4%	10.1%	0.35	7.1%	10.0%	0.50	-2.7%	0.1%	-0.15
High Yield	2.4%	7.2%	0.22	5.2%	10.5%	0.30	-2.8%	-3.3%	-0.08

Source: Northern Trust and Verus.



# Growth Returns: Actual vs 2015 Forecast

10-year forecast vs 7-year actuals



# What has Changed Year over Year?

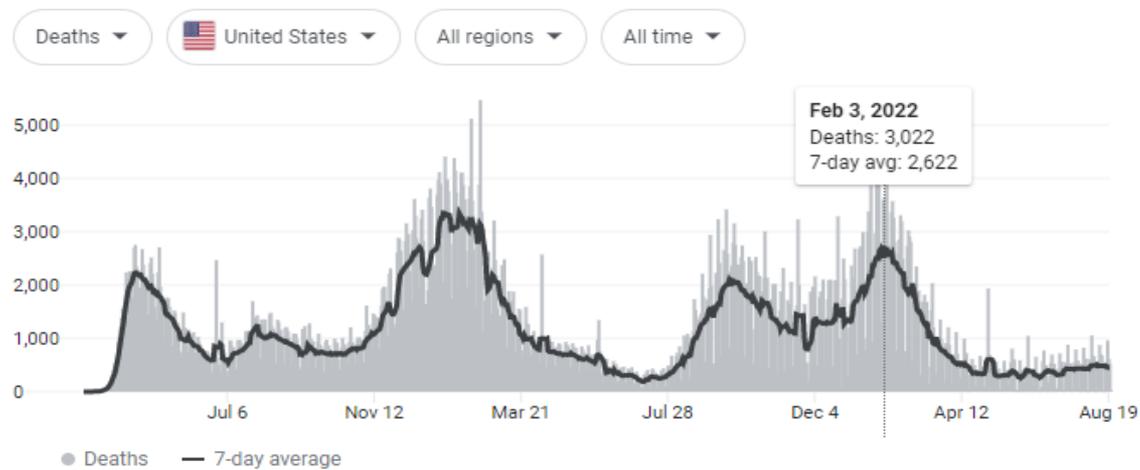
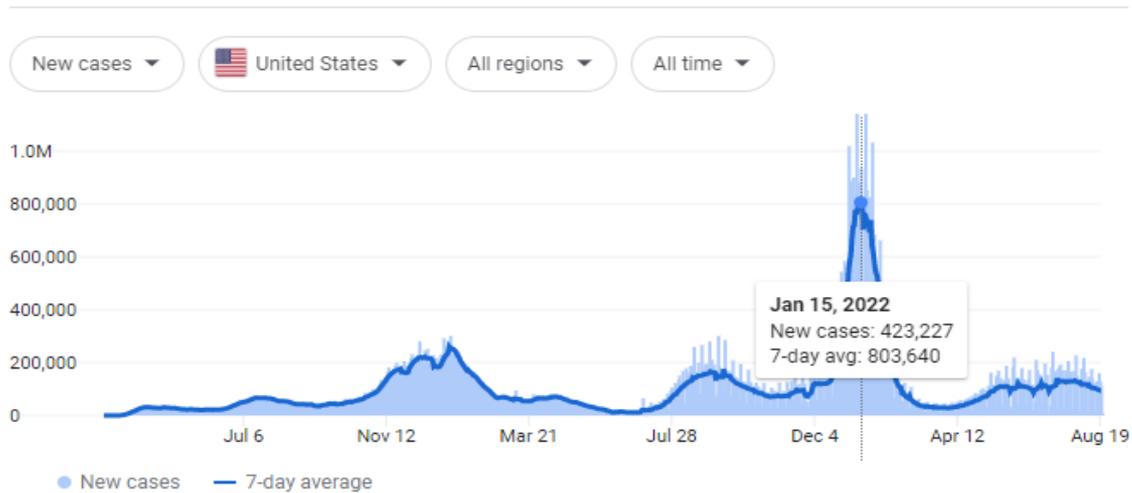
Uncertain paths: inflation, rates and economic growth

Index	7/31/2021	7/31/2022	Year/Year
<b>Valuations</b>			
MSCI World (global developed)	3,069.3	2,746.4	-10.5%
S&P 500	4,395	4,130	<b>-6.0%</b>
S&P 500 P/E	26.4	20.2	-6.2
S&P 500 Earnings	167	205	<b>23.0%</b>
<b>Inflation</b>			
CPI Headline	5.40	8.50	3.10
PCE Core Y/Y	3.60	4.79	1.19
10-Year Breakeven (traded Inflation)	2.40	2.55	0.15
5-Year 5-Year Forward Breakeven	2.27	2.40	0.12
U of Michigan 1 YR Inflation Expectations	4.70	5.20	0.50
U of Michigan 5-10 YR Inflation Expectations	2.80	2.90	0.10
<b>Rates</b>			
10-Year UST	1.22	2.65	1.17
1-Year UST	0.07	2.94	2.87
10-Year TIPS (Real Rate)	-1.18	0.10	1.28
<b>Recession Indicators</b>			
Yield Curve Inversion (10s minus 2s)	1.04	-0.24	-1.27
Conference Board Leading Economic Indicators	8.90	0.00	-8.90
US Unemployment	5.40	3.50	-1.90
US Consumer Sentiment	81.20	51.50	-29.70
US Personal Disposable Income	18,226	18,604	2.1%

Source: Bloomberg



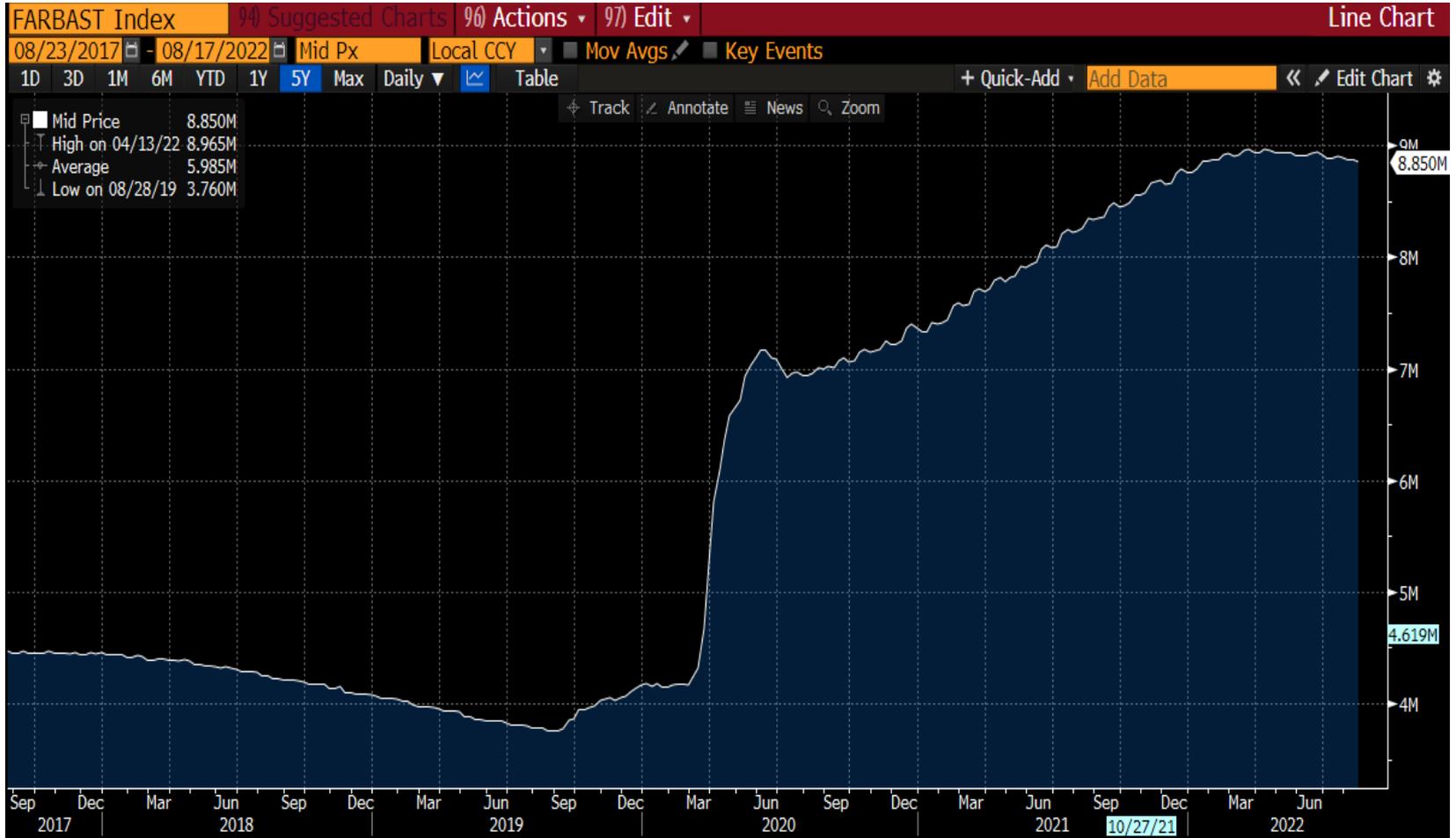
# COVID



Source: New York Times

# Fiscal Policy

## Federal Reserve Balance Sheet Contracts



Source: Bloomberg



# Monetary Policy Tightens

## Rates: US 10-Year Treasury backs up

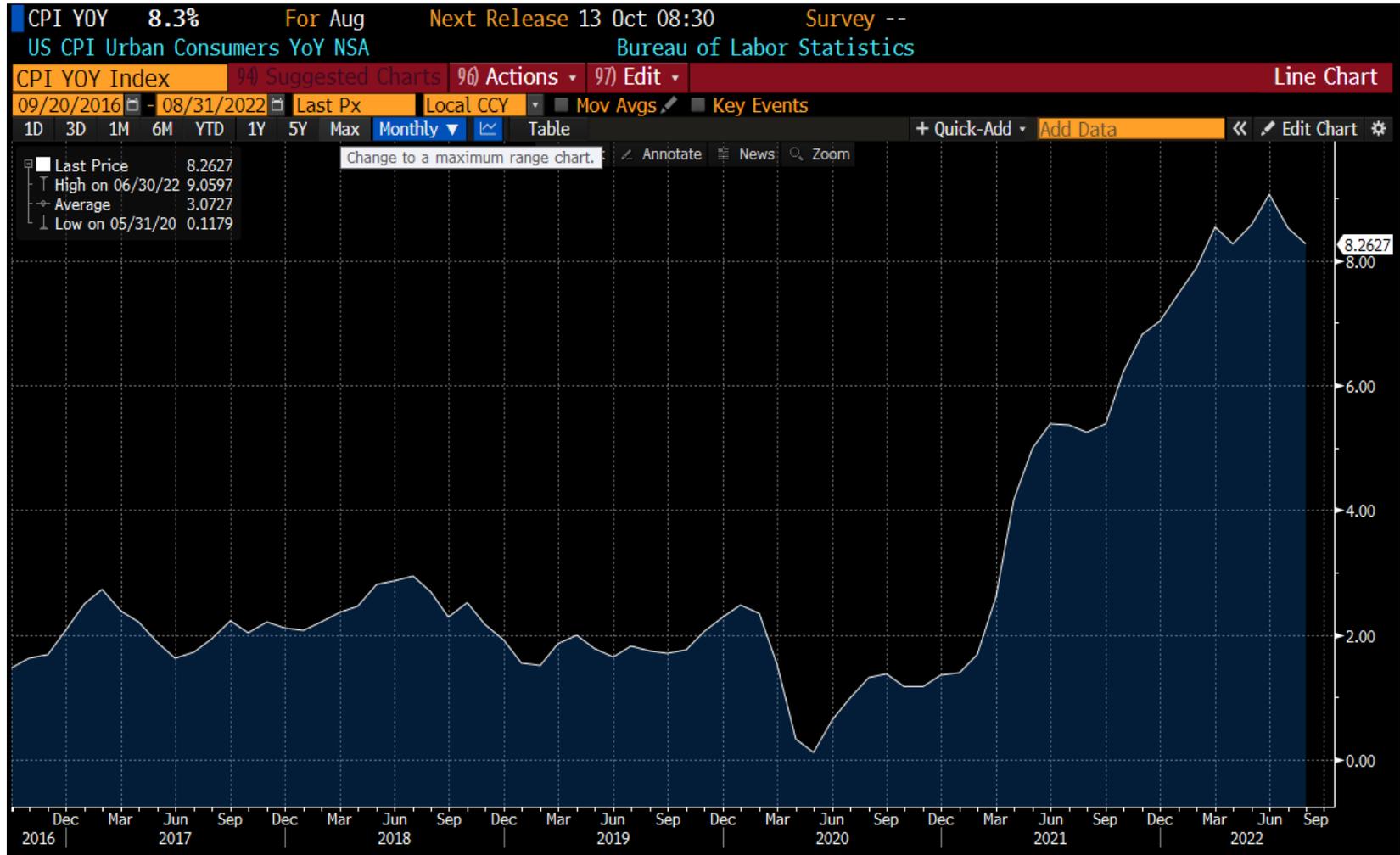


Source: Bloomberg

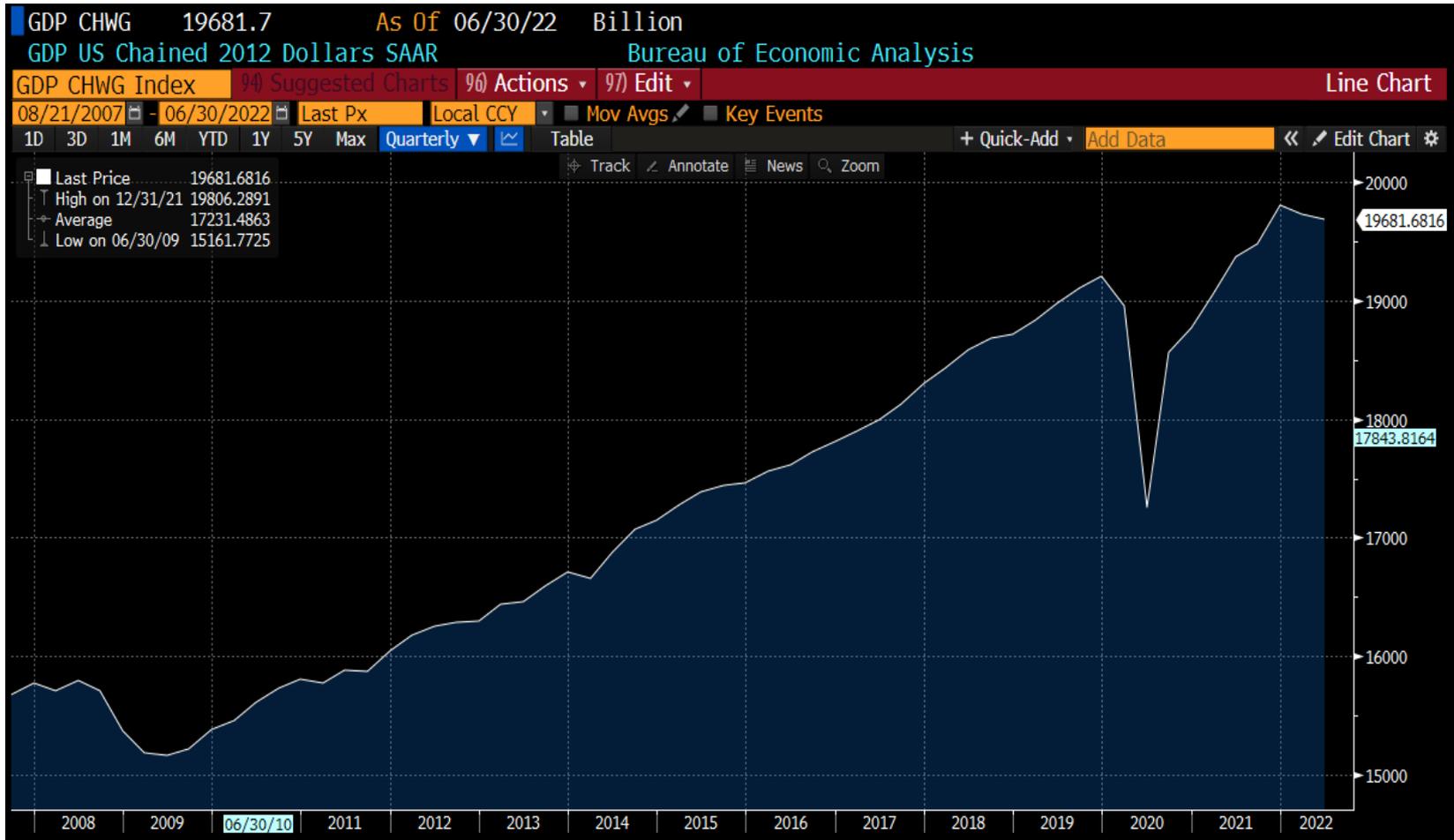


# Inflation

## Headline CPI



# GDP: Growth Slows

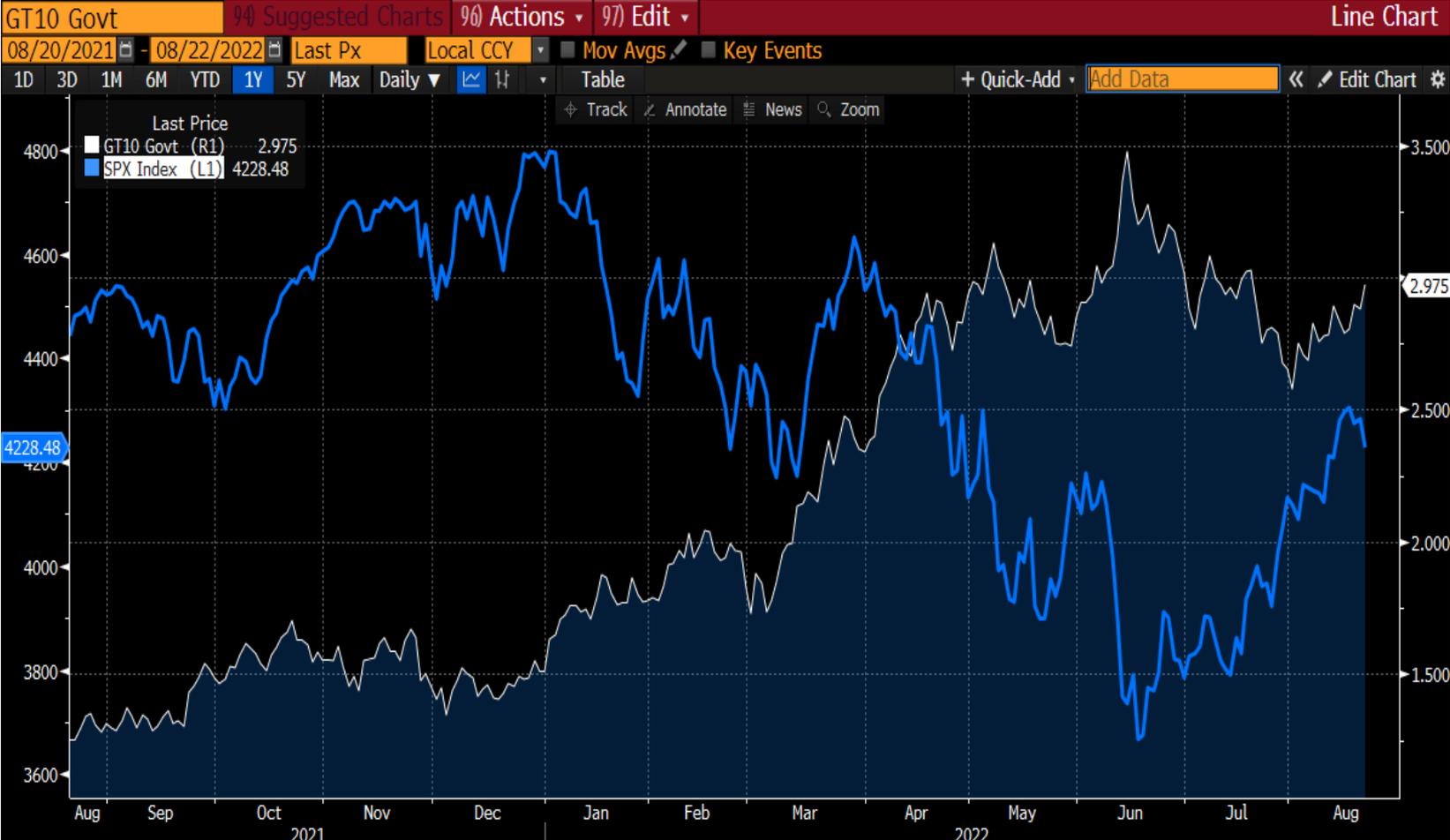


Source: Bloomberg



# Valuations: S&P troughs as 10-year peaks

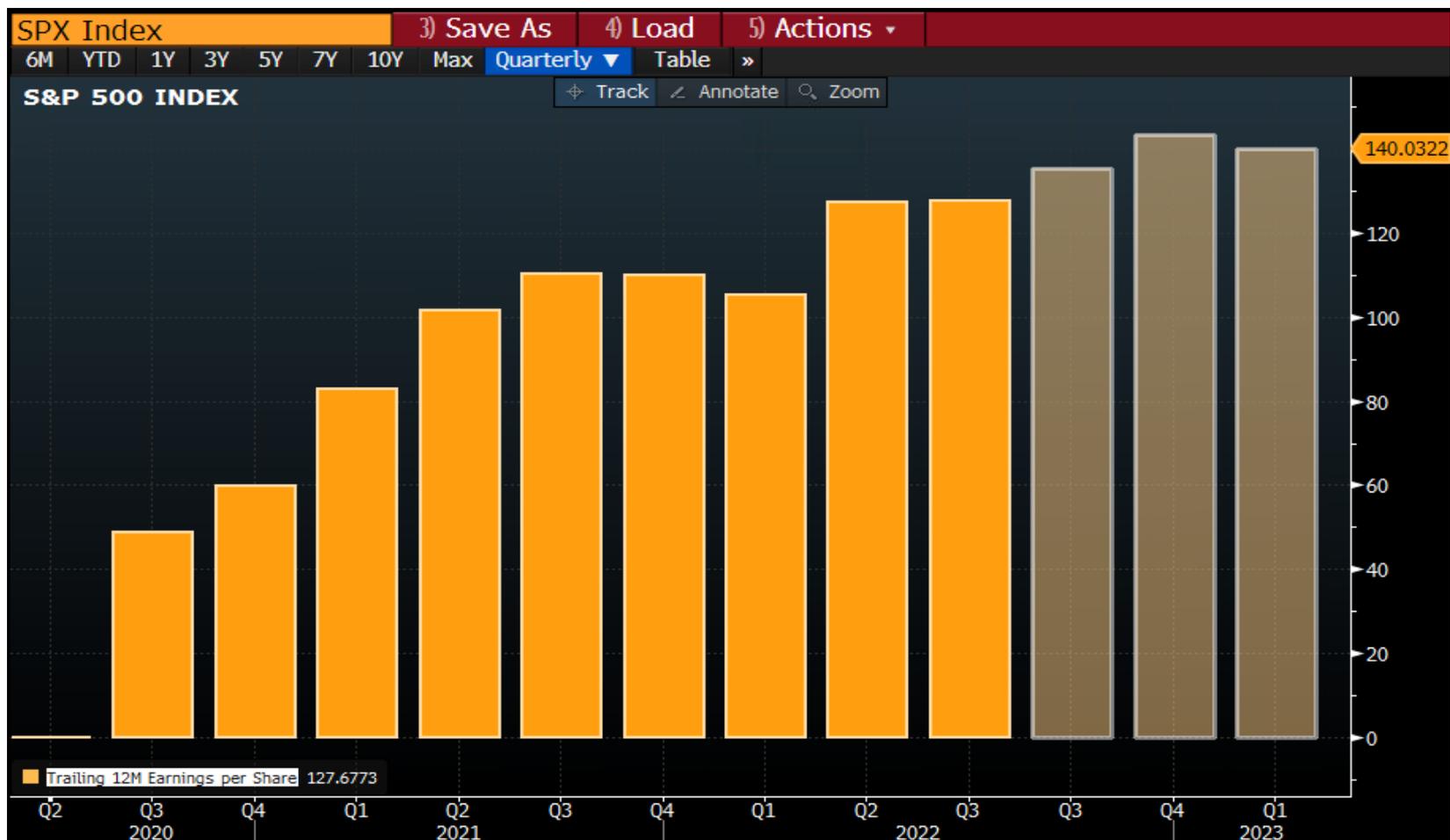
## S&P 500: P/E Contracts, 26.4 to 20.2 (low 18.5)



Source: Bloomberg



# Strong Earnings: S&P EPS up 23% LTM 6-30-2022

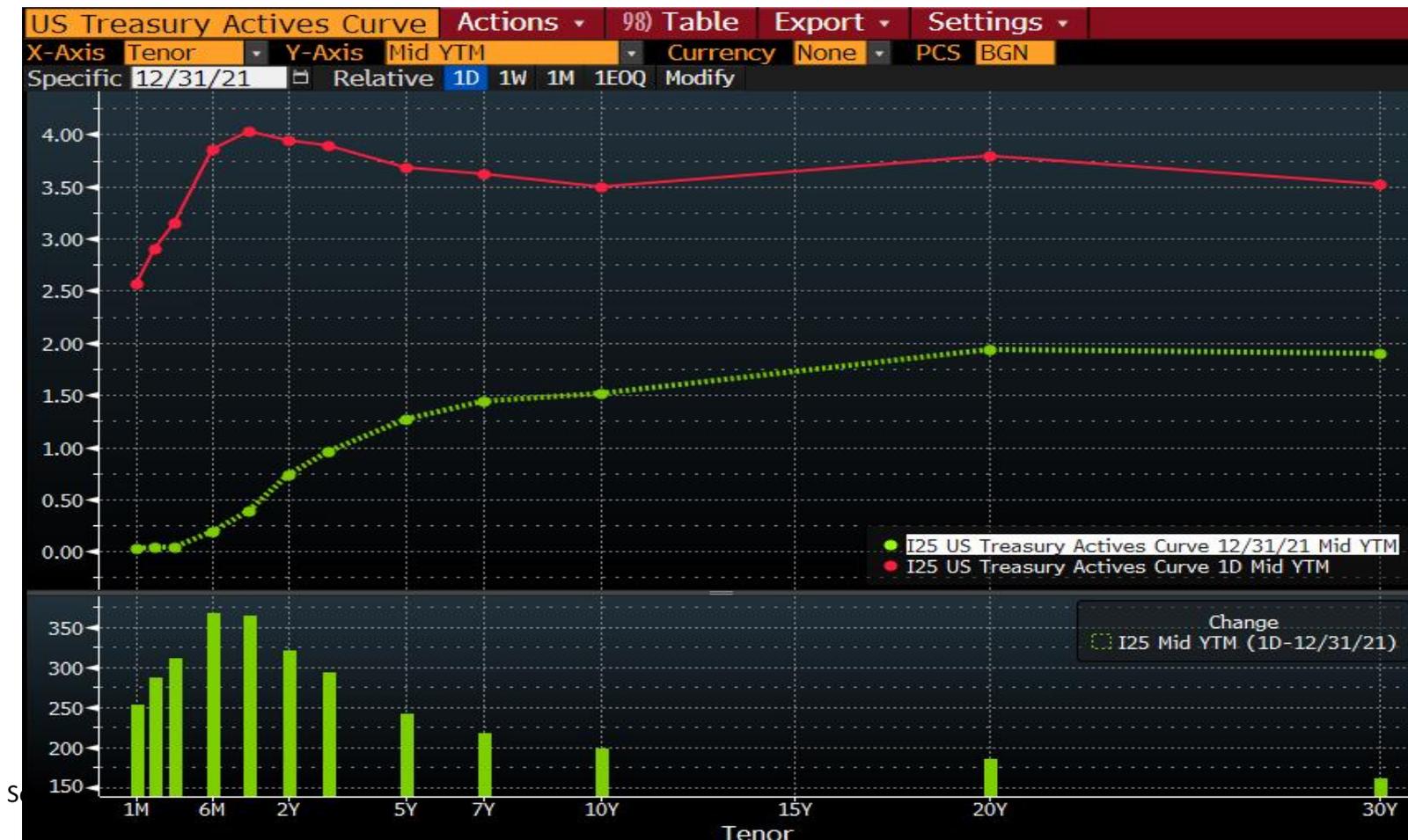


Source: Bloomberg



# US Treasury Curve Inverts

10s less 2s: Sept 19, 2022, 3.49% less 4.02%, or -0.53%



Source: Bloomberg



# Inflation: Easing or Persistent?

- **Supply Chain Secular Change – Deglobalization, rise in populism and protectionism. Cost-push persistent.**
- **Manufacturing.** Manufacturers seek out alternatives to China as the low-cost manufacturing and turn to more reliable but more expensive sources
- **Energy. Cost-push persistent.** Europe moving away from low-cost Russian oil and gas and achieves energy security but at higher costs. The legacy of ESG is a decade of insufficient oil field investment. Insignificant investment in other commodities such as copper.
- **Wages. Demand-pull persistent.** Inflation expectations deanchor, workers demand higher wages and US immigration policy remains in limbo. Tighter immigration policy has cost the US two million workers over the last five years.

# Inflation: Easing or Persistent?

- **Technology**
  - Technology replaces more expensive labor, increases productivity.
- **Fiscal and Monetary Accommodation.** Demand-pull inflation eases
  - US legislators decelerating stimulus, Fed reversing accommodation with higher rates and B/S reduction. US Personal Disposable Income grew close to 8% in the pandemic, over the LTM PDI grew 2.1% closer to pre-pandemic levels of 2.5% in 2019.
- **Supply Chain Disruption.** Cost-push inflation eases
  - COVID induced supply chains in China have improved from COVID lockdown disruptions
  - If Ukraine conflict resolves, grain and energy prices normalize.
- **Labor.** Demand-pull inflation eases
  - As monetary and fiscal policy accommodation reverses, the economy cools, workers return to work and wage inflation decelerates.

# Recession Probability Increases from 10% to 50% per Bloomberg composite



Source: Bloomberg



# Recession Risk

Street recession probability increasing: 10% June 2021 to 50%

## Two Quarters Negative GDP. 1Q2022 -1.6%, 2Q2022 -0.9%

- One measure of recession is two consecutive quarterly contractions in GDP, but that is a rule of thumb; not definitional per the National Bureau of Economic Research (NBER). NBER defines a recession as “a significant decline in economic activity that is spread across the economy and that lasts more than a few months.”
- NBER’s criteria, listed below, provides a mixed picture evenly divided between positive and negative signals.
  - Real personal income (neutral)
  - NFP (positive)
  - Personal consumption (positive),
  - Manufacturing (negative)
  - Household Employment (negative)
  - Industrial Production (neutral)

# Recession Risk

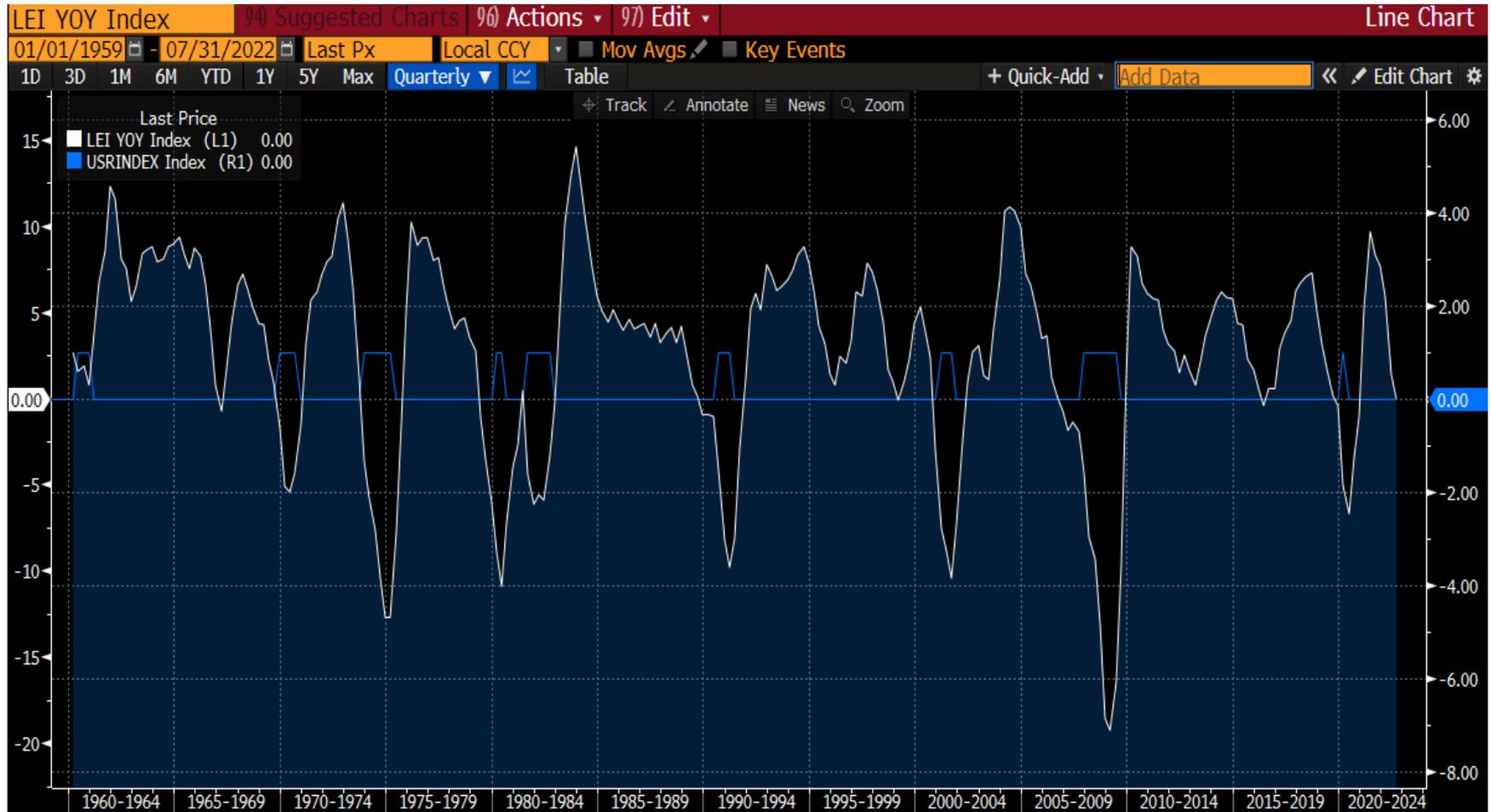
- **Leading Economic Indicators.** “The US LEI declined for a fifth consecutive month in July, suggesting recession risks are rising in the near term. Consumer pessimism and equity market volatility as well as slowing labor markets, housing construction, and manufacturing new orders suggest that economic weakness will intensify...” The Conference Board projects flat GDPS in 3Q2022, and the US could tip into a short but mild recession by the end of the year or early 2023.”

Conference Board August 18, 2022

- **Yield Curve.** San Francisco Fed research indicates the delay between rate curve inversion and recession has ranged from 6 to 24 months. The most reliable indicator is the 1-year, 10-year spread. At July 2022 month-end the 1-year was 2.93% versus the 10-year at 2.65% for a negative 28 basis point term spread.
- **Sahm Rule.** The Sahm Rule identifies the start of a recession when the three-month moving average of the national unemployment rate rises by 0.50%, or more, relative to its low during the previous 12 months. With unemployment at a 3.6%, it seems unlikely the Fed can tame inflation and keep unemployment below 4.0%.

# Growth Risk

Leading Economic Indicators, white line, close to negative  
Recessions indicated by blue line



# Inflation and Growth Risk

- **Benign Inflation over the last 30 years relative to history.** From 1991-2020, inflation averaged 2.5% with a standard deviation of 1.4%; from 1947-1990, inflation averaged 3.3% with a standard deviation of 4.8%.
- Per Goldman Sachs. Inflation and Growth regimes are defined as the intersection of two indicators:
  - Inflation rising defined as year-over-year changes in the CPI greater than 3.0% and change greater than 1 standard deviation (both conditions met), else falling. Mean inflation over the last 100 years is 3.3.
  - Growth defined as changes in Leading Economic Indicators, which have trended down.
- **Impact on returns varies by asset and position in the inflation/growth matrix.** The inflation/growth matrix captures four regimes: high growth/high inflation, high growth/low inflation, low growth/low inflation and low growth/high inflation.

# Economic Forecast - Soft Landing

- **Consensus.** Data below are the contributor composite and contributors are global banks.
- **US GDP.** GDP contracts to 1.1% in 2023, well below trend currently pegged at 1.8%
- **Inflation.** Inflation declines 2.3% in 2024, closer the 2.0% target and current market expectations at 2.4% (5-year, 5-year forward breakeven).
- **Unemployment Rate.** Unemployment up 0.5% to 4.1%.
- **US 10-Year.** The 10-year US treasury settles at 3.0% in 2024, about 0.4% below market consensus of 3.4% (traded futures).

	Economic Data				Forecast		
	2018	2019	2020	2021	2022	2023	2024
GDP	2.9%	2.3%	-3.4%	5.7%	1.7%	1.1%	1.8%
CPI, headline	2.5%	1.8%	1.2%	4.7%	8.1%	3.7%	2.5%
PCE, core	2.0%	1.7%	1.4%	3.3%	4.8%	3.2%	2.3%
Unemployment	3.9%	3.7%	8.1%	5.4%	3.6%	4.0%	4.1%
US 10-Year	2.7%	1.9%	0.9%	1.5%	3.1%	2.9%	3.0%

# 2022/2023 Equity Drivers

- **Valuation.** P/E contraction on uncertain path of rates, inflation and growth. Equity valuation is based on a discount rate that is a function of the risk-free rate and the equity risk premium.
  - **Inflation.** Increases discount rate as uncertainty increases the equity risk premium.
  - **Rates.** Increases the discount rate.
  - **Recession.** Reduces earnings and uncertainty increases the equity risk premium.
- **Strong Earnings Growth and Margins.** FH2022 sales growth, earnings and margins have been resilient but margins and Firms' pricing power appear to have peaked. Earnings eroded by Inflation.
- **Strong Balance Sheets.** S&P has delevered from net debt at 1.8x cash flow in 2020 to an estimated 1.1x by year-end, lowering the risk of default.
- **Style Matters.** Low rates, low growth favors growth stocks; high rates, high Quality and Value. Multi-asset Trend/Momentum strategies perform well.

# S&P Forecast

- **Recession and P/E Multiples.** Recessions reduce earnings and the P/E ratios that value EPS. Median EPS contraction post-war is 13%, S&P EPS drops to \$197 and P/E contracts, on average, to 14-16 for an average SPX value of 2,962.
- **Expected Value.** 50/50 chance of recession provides a weighted average of ~3,700.

S&P 500 Valuation						
	LTM 6-30-2022	2022	2023 (1)	2023 (2)	2023 Recession (3)	
EPS	\$205	\$227	\$244	\$234	\$197	
P/E	Current	Forward				
22	4,510	4,994	5,368	5,148	4,345	
21	4,305	4,767	5,124	4,914	4,147	
20	<b>4,100</b>	4,540	4,880	4,680	3,950	
19	3,895	<b>4,313</b>	4,636	4,446	3,752	
18	3,690	4,086	4,392	4,212	3,555	
17	3,485	3,859	4,148	3,978	3,357	
16	3,280	3,632	3,904	3,744	<b>3,160</b>	
15	3,075	3,405	3,660	3,510	<b>2,962</b>	
14	2,870	3,178	3,416	3,276	<b>2,765</b>	

(1) Consensus

(2) Goldman Sachs

(3) Median 13% peak-to-trough EPS decline during 12 recessions since 1948



# Growth/Inflation Matrix

Inflation is a risk to asset valuations and not all inflationary cycles are equal. Asset returns are inflation and economic growth dependent: The Four Regimes

- Over the long term most risk assets outpace inflation providing positive real rates of return in low and high inflation in the sample period. from 1927-2020. Over the short-term both bonds and equities underperform
- The US economy moved from pre-COVID (low growth/low inflation) to post stimulus COVID (high growth/high inflation) and now appear to be headed to low growth/high inflation.

**Four Regimes**

<b>High Inflation</b>	<b>Stagflation</b> low growth, high inflation	<b>Demand Rebound/Successful Reflation</b> high growth, high inflation
<b>Low Inflation</b>	<b>Secular Stagnation/Unsuccessful Reflation</b> Low growth, low inflation	<b>Goldilocks</b> high growth, low inflation
	<b>Low Growth</b>	<b>High Growth</b>

# Growth/Inflation Asset Return Matrix

Inflation is a risk to asset valuations and not all inflationary cycles are equal. Asset returns are inflation and economic growth dependent: The Four Regimes

Risk Assets fall into three broad classes, namely those negatively impacted by inflation (treasury bonds), those positively impacted (TIPS, gold, real estate and commodities) and those that keep pace (equities and high yield).

Growth/Inflation Matrix: The Four Regimes				
	Low G/High I	Low G/Low I	High G/High I	High G/Low I
	Stagflation	Secular Stagnation	Demand Rebound	Goldilocks
<b>Global Equity</b>	Negative	Positive	Positive	Positive
<b>EM Equity</b>	Negative	Neutral	Positive	Positive
<b>Real Estate</b>	Neutral	Neutral	Positive	Positive
<b>TIPS</b>	Positive	Negative	Positive	Negative
<b>Gold</b>	Positive	Negative	Neutral	Negative
<b>Commodities</b>	Neutral	Negative	Positive	Neutral
<b>Private Credit</b>	Neutral	Positive	Positive	Positive
<b>Treasury Bonds</b>	Negative	Positive	Negative	Positive
<b>Investment grade</b>	Negative	Positive	Neutral	Neutral
<b>High Yield</b>	Negative	Neutral	Positive	Positive

# 2021 Outlook Revisited. Tailwinds

- **US fiscal and monetary stimulus is unprecedented.** Fed accommodation and massive liquidity creates strong bid for financial assets.
- **Inflation-adjusted GDP.** GDP growth is robust and appears to have returned to its pre-COVID glidepath.
- **Low global rates remain a growth stock tailwind.** Current low inflation, low-rate environment benefits long duration, growth equities.
- **Patient, data dependent Fed.** Fed is committed to average inflation targeting, or AIT. Transitory inflation is the consensus view, supports a paced rate lift-off and is constructive for growth stocks.

# 2021 Outlook Revisited. Headwinds

- **High valuations pressure future returns.** No room for multiple expansion, returns are solely growth- and earnings-dependent.
- **Low global rates remain a challenge.** Low-to-negative bond yields remain a global issue.
- **Inflation uncertainty.** Fed pivoted from a proactive approach to average inflation targeting, or AIT. As a result, current elevated inflation levels may feed into expectations and persistent inflation.
- **US fiscal and monetary stimulus is unprecedented.** It is easy to offer the punch bowl, harder to take it away, creating potential for market volatility, policy missteps and social disruption.
- **Geopolitical risk persists.** Trade tensions, COVID and adverse climate events create additional downside risks.

# Outlook 2022- Tailwinds

- **Fed inflation focus.** Fed has pivoted to an inflation focus and it appears that Fed actions have mostly kept inflation expectations well-anchored. “Restoring price stability will likely require restrictive policy for some time. “ Powell 8-26-2022.
- **Strong Balance Sheets.** Consumer and enterprise balance sheets remain strong.
- **Unemployment Rate.** Unemployment back to pre-pandemic low of 3.6%. The US economy may be able to slow the pace of job openings in a Fed engineered “soft landing” without meaningfully increasing unemployment. Last year’s scramble to post job openings was due to the fastest growing economy in decades, the generous unemployment benefits ever and the ongoing pandemic that made many workers reluctant to go back to work.

# Outlook 2022 – Headwinds

Rates, inflation and GDP slowdown are global issues

- **Rates.** 76 central banks have raised rates year-to-date. The ECB raised rates by 50bps in July for the first time in 11 years and another 75bps in September.
- **Inflation.** UK inflation is 10.1%, the Eurozone in aggregate is at 7.8%, LatAm in aggregate is at 18.8%, while Asia Pacific in aggregate is at 4.4%. China is the outlier at 2.2%.
- **Recession.** Largest economies in or likely headed to recession. Global GDP was 6.1% in 2021. Consensus for 2022 and 2023 is 2.9% and 2.7%, respectively.
- **Geopolitical risk persists.** Ukraine/Russia conflict pressures energy and food prices. COVID zero policy in China pressures global supply chains.
- **Valuations.** Despite the above S&P P/E still above the long-term average of ~17.0

# Investment Manager Discussion

- Investment manager discussion
  - Jim Hamel, Lead PM of Global Growth at Artisan Partners
- Agenda
  - Overview of team, strategy, and role at CCCERA.
  - Q&A from Trustees.

# Appendix

# Industry Scorecard: 2021

**Reflation/Cyclical Rotation.** Gold Index from first to last, commodities including steel outperform

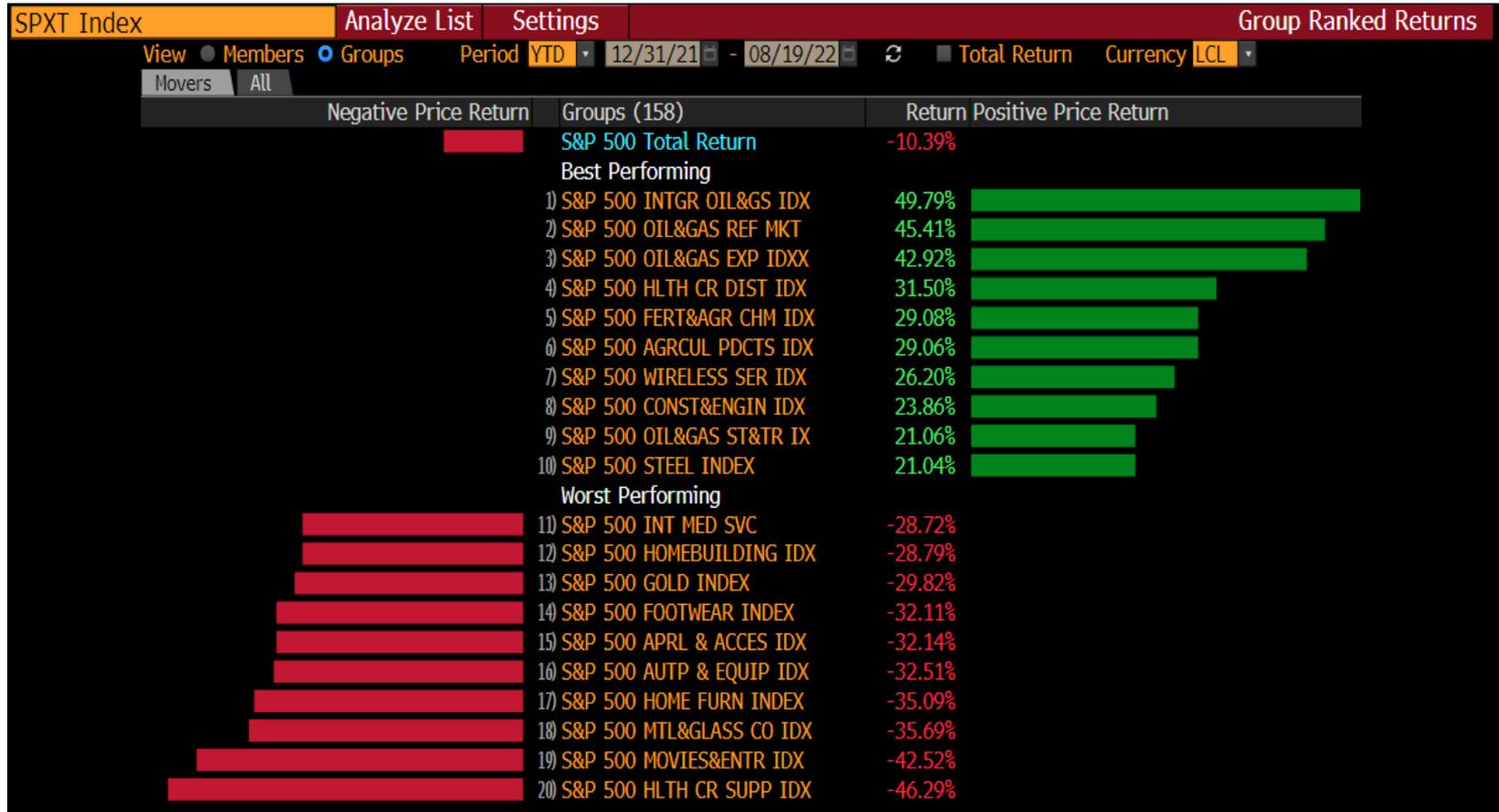


Source: Bloomberg



# Industry Scorecard: 2022

Reflation/Cyclical Rotation. Commodity-based sectors outperform



Source: Bloomberg



# Stagflation – 1970s & Today

- **Inflation.** Over the 10-year period ended 12-31-1981, inflation averaged 8.9% with two peaks: one in November of 1974 at 12.4% and another in March of 1980 at 14.7%. **Over the last 16 months, headline CPI averaged 6.3%.**
- **Rates.** Over the same period, the US 10-year began the decade at 3.3%, averaged 8.7% and peaked at 15.8% in late 1981. **Over the last 16 months, the 10-year treasury averaged 2.0%.**
- **GDP.** Over the same period growth averaged 3.2% and the US experienced three recessions. **Over the last 16 months, the US GDP averaged 4.7%.**
- **Equities.** The S&P peaked at 120 in January of 1973 and did not exceed that level until October of 1981 ending 1981 at 122. **Over the last 16 months, the S&P declined 15.5%.**

# 1970s: S&P 500 and Recessions



# Stagflation – 1970s vs Today

- **Differences: Today and the 70s.**
  - **Central banks.** Central banks were more focused on output and employment. Today globally, central banks have explicit inflation targets.
  - **Technology.** Technology replaces more expensive labor, increases productivity.
  - **Globalization.** The rise of China and other EM manufacturers restrain wage growth and unionized labor is a smaller percentage of the workforce.
  - **Energy independence.** The US is a net oil exporter, and the US economy is less fossil fuel dependent.
  - **Demographics. Inflation fueled by non-working population.** Lower birth rate, fewer young people, somewhat offset by increasing aging population.

Meeting Date  
**09/28/2022**  
Agenda Item  
**#7**

Q2 2022

## Artisan Global Opportunities Trust

The Artisan Global Opportunities Trust is a trust for the collective investment of assets of participating tax qualified pension and profit sharing plans and related trusts, and governmental plans, as more fully described in the Declaration of Trust for the Artisan Global Opportunities Trust. The Artisan Global Opportunities Trust is managed by SEI Trust Company based on the investment advice of Artisan Partners Limited Partnership. As a bank collective trust, Artisan Global Opportunities Trust is exempt from registration as an investment company.

For Institutional Investors Only — Intended for use only with CCCERA.



ARTISAN PARTNERS

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- I. Firm Overview
- II. Investment Team, Philosophy and Process
- III. Portfolio Statistics

## Appendix

Performance

Biographies

Notes and Disclosures

### Client Service Team

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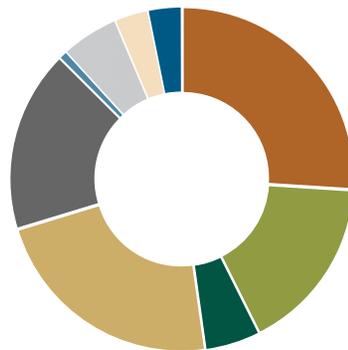
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## About Artisan Partners

- Founded in 1994; solely focused on providing high value-added investment strategies to sophisticated investors
- Autonomous investment teams oversee a range of investment strategies across multiple asset classes
- Primary offices in Atlanta, Boston, Chicago, Denver, Dublin, Hong Kong, London, Milwaukee, New York, San Francisco, Singapore, Sydney and Wilmington, with 533 associates
- Approximately \$130.5 billion under management as of 30 June 2022

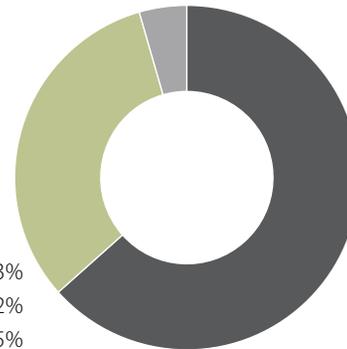
### AUM by Investment Team

■ Growth	26%
■ Global Equity	17%
■ U.S. Value	5%
■ International Value	23%
■ Global Value	17%
■ Sustainable Emerging Markets	1%
■ Credit	5%
■ Developing World	3%
■ Antero Peak Group	3%
■ EMSights Capital Group	<1%



### AUM by Client Type

■ Institutional	63%
■ Intermediary	32%
■ Retail	5%



#### Growth Team

Global Opportunities  
Global Discovery  
U.S. Mid-Cap Growth  
U.S. Small-Cap Growth

#### Global Equity Team

Global Equity  
Non-U.S. Growth  
Non-U.S. Small-Mid Growth  
China Post-Venture

#### U.S. Value Team

Value Equity  
U.S. Mid-Cap Value  
Value Income

#### International Value Team

International Value  
International Explorer

#### Global Value Team

Global Value  
Select Equity

#### Sustainable Emerging Markets Team

Sustainable Emerging Markets

#### Credit Team

High Income  
Credit Opportunities  
Floating Rate

#### Developing World Team

Developing World

#### Antero Peak Group

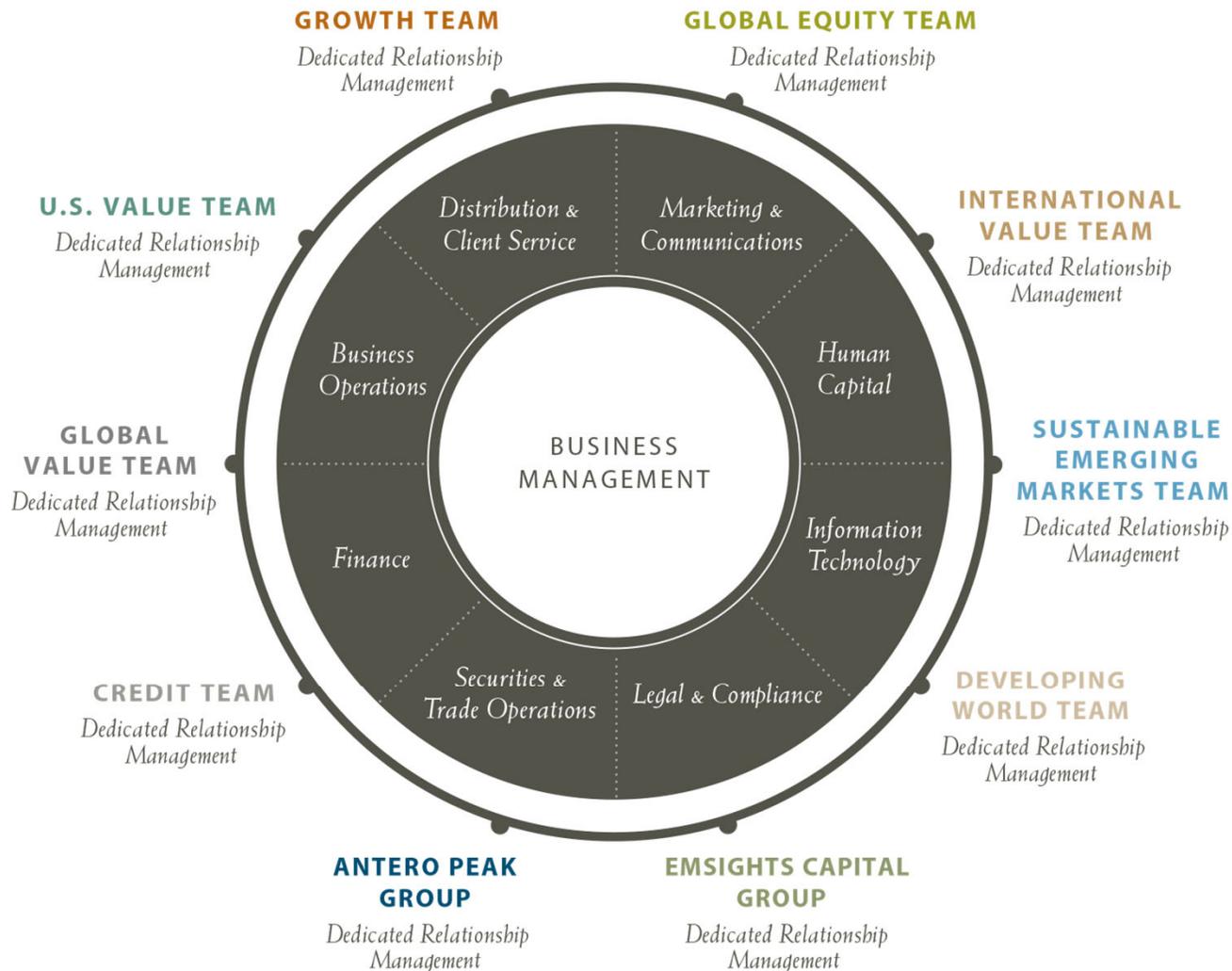
Antero Peak  
Antero Peak Hedge

#### EMSights Capital Group

Global Unconstrained  
Emerging Markets Debt Opportunities  
Emerging Markets Local Opportunities

As of 30 Jun 2022.

# Talent-Driven Business Model



Our investment teams focus on generating results for our clients in a distraction-free environment

## Representative Clients

Artisan Partners has over 600 institutional investors as clients and fund shareholders. While the firm does not release its entire client list, selected representative clients and fund shareholders are listed below.

### Corporate

International Paper  
Marshfield Clinic  
The New York Times Company  
Ontario Power Generation Inc.  
Pfizer, Inc.

### Public

Kansas City Police Employees' Retirement System  
NSW Treasury Corporation (TCorp)  
Public Employees' Retirement System of Mississippi  
State Board of Administration of Florida  
State Retirement and Pension System of Maryland  
Teachers' Retirement System of Louisiana

### Superannuation

Aware Super  
REST Industry Super  
Telstra Superannuation Scheme

### Endowment/Foundation/Family Office

ALPS Advisory (HK) Limited  
Indiana University Foundation  
Texas A&M Foundation

### Taft-Hartley

Greater Pennsylvania Regional Carpenters Pension Plan  
Laborers' District Council and Contractors' Pension Fund of Ohio  
New York State Nurses Association  
Screen Actors Guild–Producers Pension Plan

### Financial Intermediaries/Other

Bank of America/Merrill Lynch  
Copia Investment Partners  
Korea Investment & Securities  
Perpetual Investment Management Ltd  
Woori Global Asset Management

The Representative Client list contains a sampling of advisory clients and shareholders in one or more funds sponsored by Artisan Partners, including strategies other than what is being presented herein, that have allowed us to identify their relationship to Artisan. This listing does not constitute a testimonial and it is not known whether the institutions listed approve or disapprove of Artisan Partners, its products or services.

## Investment Performance (USD)

Strategy (Inception)	Status	Average Annual Total Returns					Value Added	
		1 Yr	3 Yr	5 Yr	7 Yr	10 Yr	Inception	Since Inception (bps)
<b>(%) as of 30 Jun 2022</b>								
<b>Growth Team</b>								
Global Opportunities—Gross (1 Feb 2007)	Open	-25.91	7.50	9.41	10.13	12.38	10.14	491
Global Opportunities—Net		-26.54	6.62	8.50	9.21	11.43	9.23	
MSCI All Country World Index		-15.75	6.20	7.00	6.98	8.75	5.24	
Global Discovery—Gross (1 Sep 2017)	Open	-26.72	8.73	---	---	---	12.19	563
Global Discovery—Net		-27.43	7.69	---	---	---	11.11	
MSCI All Country World Index		-15.75	6.20	---	---	---	6.56	
U.S. Mid-Cap Growth—Gross (1 Apr 1997)	Open	-32.10	6.86	10.98	9.66	12.48	14.33	545
U.S. Mid-Cap Growth—Net		-32.75	5.88	9.96	8.65	11.45	13.27	
Russell Midcap® Growth Index		-29.57	4.25	8.88	8.34	11.50	8.89	
U.S. Small-Cap Growth—Gross (1 Apr 1995)	Open	-40.13	1.48	9.51	8.75	11.88	10.17	305
U.S. Small-Cap Growth—Net		-40.75	0.47	8.43	7.67	10.77	9.10	
Russell 2000® Growth Index		-33.43	1.40	4.80	4.96	9.29	7.13	
<b>Global Equity Team</b>								
Global Equity—Gross (1 Apr 2010)	Open	-28.66	2.65	8.50	7.24	11.00	10.54	286
Global Equity—Net		-29.31	1.73	7.50	6.23	9.95	9.47	
MSCI All Country World Index		-15.75	6.20	7.00	6.98	8.75	7.68	
Non-U.S. Growth—Gross (1 Jan 1996)	Open	-21.62	-0.38	3.41	2.77	6.30	8.96	466
Non-U.S. Growth—Net		-22.35	-1.29	2.47	1.84	5.34	7.95	
MSCI EAFE Index		-17.77	1.07	2.20	2.69	5.39	4.29	
Non-U.S. Small-Mid Growth—Gross (1 Jan 2019)	Closed <sup>1</sup>	-28.35	4.83	---	---	---	10.75	603
Non-U.S. Small-Mid Growth—Net		-29.08	3.77	---	---	---	9.63	
MSCI All Country World ex USA SMID Index		-22.41	1.43	---	---	---	4.72	
China Post-Venture—Gross (1 Apr 2021)	Open	-34.13	---	---	---	---	-21.02	117
China Post-Venture—Net		-35.48	---	---	---	---	-22.62	
MSCI China SMID Cap Index		-30.67	---	---	---	---	-22.20	

Source: Artisan Partners/MSCI/Russell. Past performance does not guarantee and is not a reliable indicator of future results. Gross- and net-of-fees performance shown for the Composite. Current performance may be lower or higher than performance shown. Returns less than one year are not annualized. Value added is the difference between the portfolio and the index performance since inception. <sup>1</sup>Closed to most new investors.

## Investment Performance (USD)

Strategy (Inception)	Status	Average Annual Total Returns					Value Added	
		1 Yr	3 Yr	5 Yr	7 Yr	10 Yr	Inception	Since Inception (bps)
(% as of 30 Jun 2022)								
<b>U.S. Value Team</b>								
Value Equity—Gross (1 Jul 2005)	Open	-10.32	9.76	8.41	9.25	10.51	8.45	114
Value Equity—Net		-10.94	9.02	7.67	8.51	9.76	7.63	
Russell 1000® Value Index		-6.82	6.86	7.16	7.68	10.49	7.31	
U.S. Mid-Cap Value—Gross (1 Apr 1999)	Open	-9.22	7.10	6.65	7.12	9.61	11.91	269
U.S. Mid-Cap Value—Net		-10.07	6.10	5.65	6.13	8.60	10.86	
Russell Midcap® Value Index		-10.00	6.70	6.27	7.15	10.61	9.22	
Value Income—Gross (1 Mar 2022)	Open	---	---	---	---	---	-10.42	256
Value Income—Net		---	---	---	---	---	-10.64	
S&P 500® Index		---	---	---	---	---	-12.99	
<b>International Value Team</b>								
International Value—Gross (1 Jul 2002)	Closed <sup>1</sup>	-11.19	7.21	5.79	6.31	9.63	11.01	574
International Value—Net		-12.02	6.22	4.82	5.33	8.62	9.98	
MSCI EAFE Index		-17.77	1.07	2.20	2.69	5.39	5.27	
International Explorer—Gross (1 Nov 2020)	Open	-12.93	---	---	---	---	16.94	1,337
International Explorer—Net		-15.35	---	---	---	---	13.55	
MSCI All Country World ex USA Small Cap Index		-22.45	---	---	---	---	3.58	
<b>Global Value Team</b>								
Global Value—Gross (1 Jul 2007)	Open	-14.10	4.86	5.37	6.67	9.82	7.68	289
Global Value—Net		-14.92	3.87	4.38	5.66	8.77	6.65	
MSCI All Country World Index		-15.75	6.20	7.00	6.98	8.75	4.79	
Select Equity—Gross (1 Mar 2020)	Open	-16.93	---	---	---	---	7.42	-556
Select Equity—Net		-17.56	---	---	---	---	6.62	
S&P 500® Index		-10.62	---	---	---	---	12.98	
<b>Sustainable Emerging Markets Team</b>								
Sustainable Emerging Markets—Gross (1 Jul 2006)	Open	-31.75	-0.52	2.40	4.73	4.16	4.61	34
Sustainable Emerging Markets—Net		-32.41	-1.50	1.39	3.69	3.11	3.53	
MSCI Emerging Markets Index		-25.28	0.57	2.18	2.78	3.06	4.27	

Source: Artisan Partners/MSCI/Russell/S&P. Past performance does not guarantee and is not a reliable indicator of future results. Gross- and net-of-fees performance shown for the Composite. Current performance may be lower or higher than performance shown. The Artisan Value Income Composite's return may vary greatly over short periods due to the limited operating period since inception. Returns less than one year are not annualized. Value added is the difference between the gross portfolio and the index performance since inception. <sup>1</sup>Closed to most new investors.

## Investment Performance (USD)

(% as of 30 Jun 2022)	Strategy (Inception)	Status	Average Annual Total Returns					Value Added	
			1 Yr	3 Yr	5 Yr	7 Yr	10 Yr	Inception	Since Inception (bps)
<b>Credit Team</b>	<b>High Income—Gross</b> (1 Apr 2014)	Open	-8.82	3.84	4.75	6.04	---	6.00	289
	<b>High Income—Net</b>		-9.43	3.14	4.03	5.31	---	5.27	
	ICE BofA US High Yield Master II Index		-12.66	-0.04	1.95	3.39	---	3.12	
	<b>Credit Opportunities—Gross</b> (1 Jul 2017)	Open	2.26	15.80	---	---	---	12.44	
	<b>Credit Opportunities—Net</b>		0.19	11.74	---	---	---	9.02	
	<b>Floating Rate—Gross</b> (1 Jan 2022)	Open	---	---	---	---	---	-4.49	-4
	<b>Floating Rate—Net</b>		---	---	---	---	---	-4.82	
	Credit Suisse Leveraged Loan Index		---	---	---	---	---	-4.45	
<b>Developing World Team</b>	<b>Developing World—Gross</b> (1 Jul 2015)	Open	-48.02	3.76	7.01	8.01	---	8.01	522
	<b>Developing World—Net</b>		-48.59	2.68	5.90	6.89	---	6.89	
	MSCI Emerging Markets Index		-25.28	0.57	2.18	2.78	---	2.78	
<b>Antero Peak Group</b>	<b>Antero Peak—Gross</b> (1 May 2017)	Open	-12.69	11.34	18.24	---	---	18.53	718
	<b>Antero Peak—Net</b>		-13.57	10.24	17.08	---	---	17.36	
	S&P 500® Index		-10.62	10.59	11.30	---	---	11.35	
	<b>Antero Peak Hedge—Rep. Performance—Gross</b> (1 Nov 2017) <sup>1</sup>	Open	-10.83	9.07	---	---	---	12.59	202
	<b>Antero Peak Hedge—Rep. Performance—Net</b>		-11.45	8.18	---	---	---	10.70	
	S&P 500® Index		-10.62	10.59	---	---	---	10.57	
<b>EMsights Capital Group</b>	<b>Global Unconstrained—Gross</b> (1 Apr 2022)	Open	---	---	---	---	---	-0.46	-56
	<b>Global Unconstrained—Net</b>	Open	---	---	---	---	---	-0.69	
	ICE BofA 3-month Treasury Bill Index		---	---	---	---	---	0.10	
	<b>Emerging Markets Debt Opportunities—Gross</b> (1 May 2022)	Open	---	---	---	---	---	-2.34	150
	<b>Emerging Markets Debt Opportunities—Net</b>	Open	---	---	---	---	---	-2.46	
	J.P. Morgan EMB Hard Currency/Local Currency 50-50 Index		---	---	---	---	---	-3.84	

Source: Artisan Partners/MSCI/ICE BofA/S&P/Credit Suisse/J.P. Morgan. Past performance does not guarantee and is not a reliable indicator of future results. Performance represents each strategy's gross- and net-of-fees Composite returns. Current performance may be lower or higher than performance shown. The Artisan Floating Rate, Artisan Global Unconstrained and Artisan Emerging Markets Debt Opportunities Composites' returns may vary greatly over short periods due to the limited operating period since inception. Returns less than one year are not annualized. Value added is the difference between the gross portfolio and the index performance since inception. Unlike the Index, Artisan High Income Strategy may hold loans and other security types. At times, this causes material differences in relative performance. Unlike the index, Artisan Credit Opportunities Strategy can hold loans, derivative securities and take both long and short positions, which leads to material differences in relative performance. <sup>1</sup>Antero Peak Hedge—Representative Performance illustrates the returns that an unrestricted investor would have experienced in an account managed by Artisan Partners, assuming no inflows or outflows, since the Strategy's inception. Representative Performance has been presented gross and net of investment advisory and performance-based fees and other expenses applicable to the account (for example, custody and accounting costs). Representative Performance varies from returns of Antero Peak Hedge Composite due to the Composite containing a portion of its assets restricted from investment in IPOs, which made a material contribution to an unrestricted investor's returns. The Antero Peak Strategy's investments in initial public offerings (IPOs) also made a material contribution to performance. IPO investments may contribute significantly to a small portfolio's return, an effect that will generally decrease as assets grow. IPO investments may be unavailable in the future.

# Artisan Partners Growth Team

Team approach leverages high degrees of experience and knowledge within a disciplined investment process

## Leadership

<p><b>James D. Hamel, CFA</b> Portfolio Manager Lead Portfolio Manager— Global Opportunities 25 Years Investment Experience</p>	<p><b>Matthew H. Kamm, CFA</b> Portfolio Manager Lead Portfolio Manager— U.S. Mid-Cap Growth 22 Years Investment Experience</p>	<p><b>Craig A. Cepukenas, CFA</b> Portfolio Manager Lead Portfolio Manager— U.S. Small-Cap Growth 33 Years Investment Experience</p>	<p><b>Jason L. White, CFA</b> Portfolio Manager Lead Portfolio Manager— Global Discovery 22 Years Investment Experience</p>	<p><b>Jay C. Warner, CFA</b> Portfolio Manager Financials 20 Years Investment Experience</p>	<p><b>Pratik S. Patel</b> Chief Operating Officer Talent Generalist 21 Years</p>
---	---	--	---	--	--

## Portfolio leadership has been working together for 19 years

## Analysts

<p><b>Aashish S. Rao</b> Associate Portfolio Manager Technology 14 Years</p>	<p><b>Cindy Mu, CFA</b> Associate Portfolio Manager Consumer 16 Years</p>	<p><b>Michael A. Schneider, CFA</b> Associate Portfolio Manager Industrials and Energy 24 Years</p>	<p><b>Martin Jochmann</b> Associate Portfolio Manager Health Care 21 Years</p>	<p><b>Roderick M. Brower</b> Head of ESG Internet, Media and Consumer 23 Years</p>
<p><b>Alexander Braid, CFA</b> Financials 17 Years</p>	<p><b>Ryan Tochiara</b> Health Care 15 Years</p>	<p><b>Robin Johnson</b> ESG 16 Years</p>		

## Research Associates

<p><b>Matt Lemenager, CFA</b> Technology 9 Years</p>	<p><b>Bolu Ajayi</b> Generalist 5 Years</p>
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## Traders

<p><b>Jay B. Peters</b> 30 Years</p>	<p><b>Bryan P. Schultz</b> 20 Years</p>
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## Client Service Team

<p><b>Chip Ridley, CFA</b> Managing Director Business Leader</p>	<p><b>Ting Rattanaphasouk, CFA</b> Account Coordinator</p>
<p><b>Floyd Dukes, CFA</b> Portfolio Specialist</p>	<p><b>Lisa Sturm</b> Account Coordinator</p>

## Coordinators

<p><b>Cristal Lieungh</b> 27 Years</p>	<p><b>Heather Dow</b> 22 Years</p>	<p><b>Kelly Kaminski</b> &lt;1 Year</p>
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## Investment Philosophy—Overview

We seek to compound assets through a disciplined, repeatable process that exposes portfolios to growth while avoiding permanent capital impairment

We believe stocks follow profits, and following profit cycles can lead to significant asset growth

Broad Knowledge

Find growth wherever growth occurs across the global economy

Security Selection

Be right more often than we're wrong

Capital Allocation

Be right in a bigger way than when we're wrong

## Investment Process—Security Selection

Three key elements to the security selection process

Franchise Companies

- Dominant market share
- Low-cost producer
- Proprietary asset
- Defensible brand name

Attractive Valuations

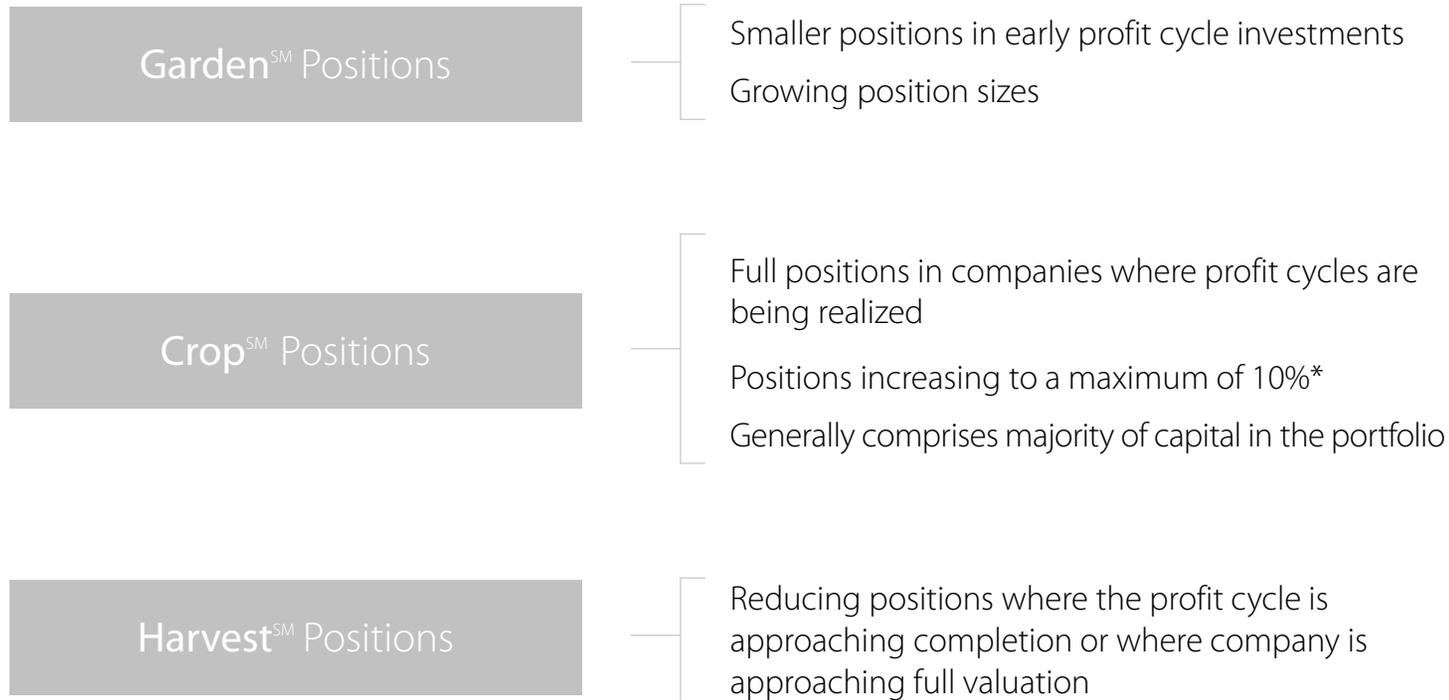
- Purchase stocks at a discount to private market value; sell stocks as they approach full valuation

Accelerating Profit Cycles

- Invest in an emerging profit cycle

## Investment Process—Capital Allocation

Portfolio holdings develop through three stages

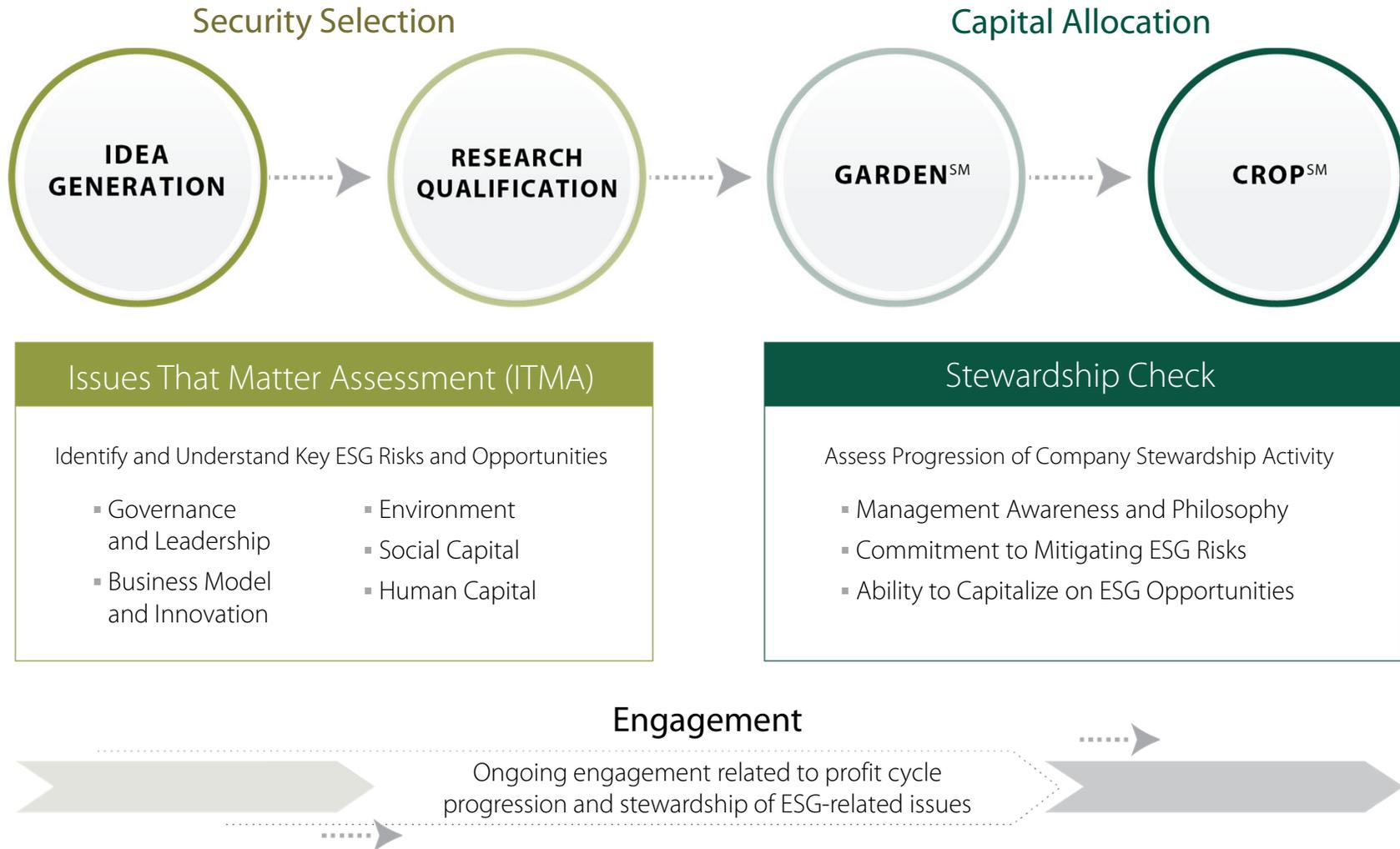


We build position size according to our conviction in order to maximize exposure to companies undergoing profit acceleration

\*Limitations apply at the time of purchase. With respect to 75% of total assets, the portfolio limits individual position sizes to 5%; as to the other 25%, the portfolio may invest up to 10% in a single issuer.

# Investment Process—ESG Integration Framework

Assessing ESG Risks and Opportunities Through a Stewardship Lens



This material represents a simplified presentation of a complex process and is subject to change. ESG assessments represent one of many pieces of research available and the degree to which it impacts holdings may vary based on manager discretion.

## Portfolio Construction

High degree of flexibility constrained by investment discipline designed to produce value-added results

### Global Opportunity Set

- Find growth where it exists globally
- Maximum 35% in any country other than the US\*
- Maximum 25% in any industry\*

### Focused Portfolio

- Usually 30-50 holdings
- Maximum position size up to 10%\*

### Flexible Market Capitalization

- Mid/Large cap emphasis

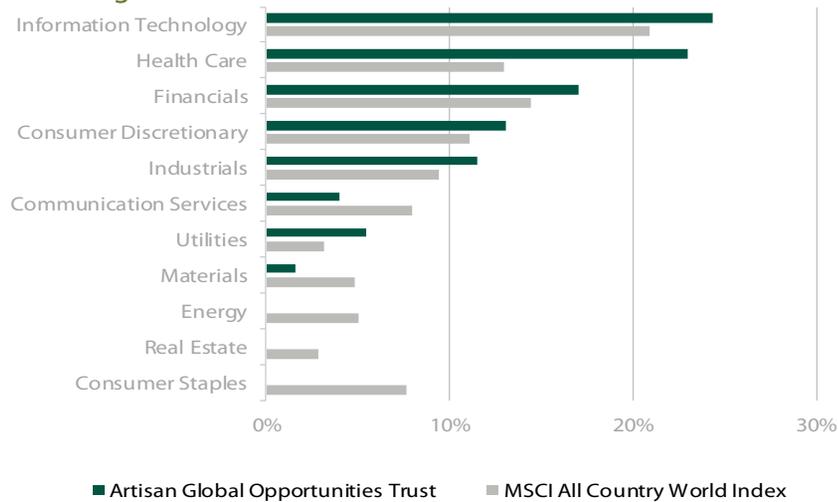
### Cash Positions

- Typically less than 15% cash

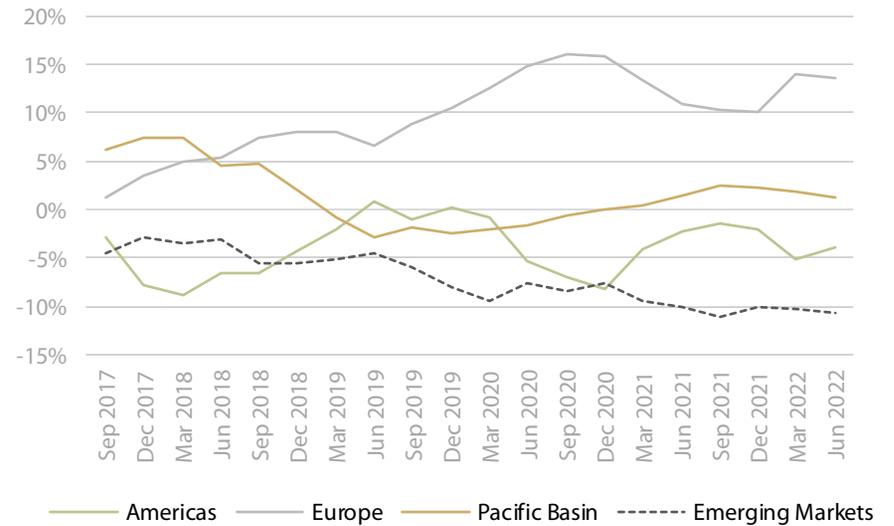
\*Limitations apply at the time of purchase. With respect to 75% of total assets, the portfolio limits individual position sizes to 5%; as to the other 25%, the portfolio may invest up to 10% in a single issuer.

# Current Positioning

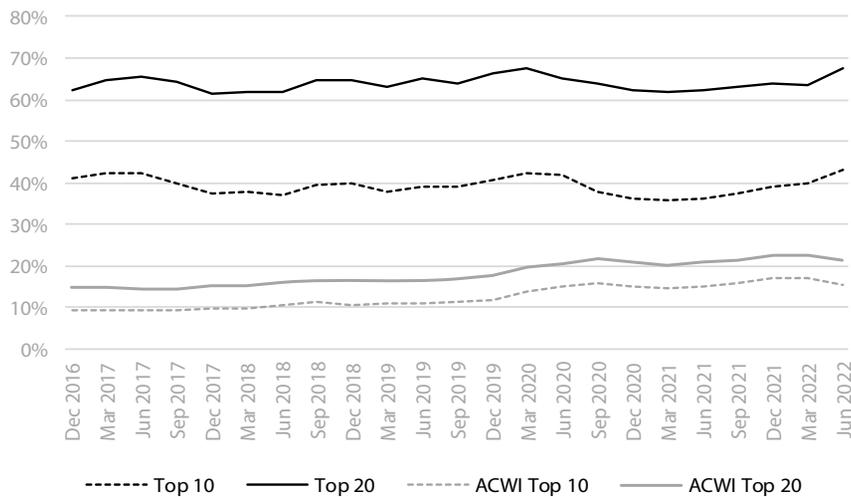
## Sector Weights



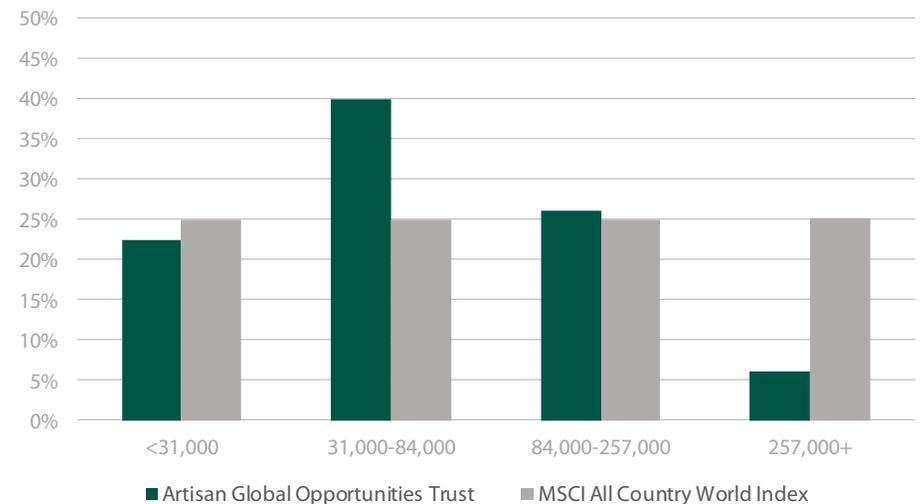
## Relative Region Weights (by Risk Country) vs. MSCI ACWI



## Concentration in Top 10 / 20 Largest Holdings



## Relative Market Cap Breakdown (in Millions) vs. MSCI ACWI



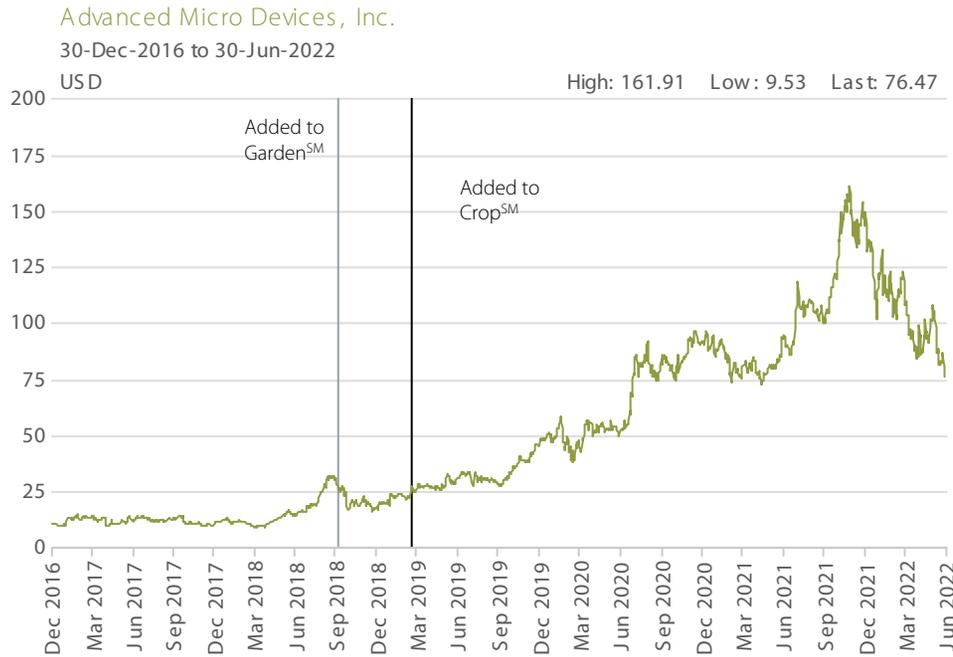
Source: FactSet/GICS/MSCI. As of 30 Jun 2022. All weights shown as a percentage of portfolio equities, except the Top 10 / 20, which are shown as a percentage of the total portfolio (including cash). Cash represented 5.6% of the total portfolio.

## Where We Are Finding Potential Growth

	Global Opportunities	Global Discovery	Mid Cap Growth	Small Cap Growth
<p><b>Health Care Innovation</b> New drugs, devices, diagnostics and delivery models that make health care more effective and efficient</p>	<p>Novo Nordisk AstraZeneca Lonza Group Danaher</p>	<p>Argenx Gerresheimer Ascendis Pharma</p>	<p>Argenx Catalent Ascendis Pharma BioNTech</p>	<p>Halozyme Ascendis Pharma Veracyte</p>
<p><b>Industrial Process Innovation</b> Precision technologies and systems that increase quality, synchronize information streams and speed throughput to lower production costs</p>	<p>Hexagon Keyence CNH Industrial</p>	<p>Teledyne Technologies Novanta</p>	<p>Fortive Teledyne Trimble</p>	<p>Novanta Valmont Ingersoll Rand</p>
<p><b>Internal Change</b> New management teams, new products, strategic acquisitions and other changes that can unlock growth and margin opportunities</p>	<p>Charles Schwab London Stock Exchange</p>	<p>Burlington Puma Metso Outotec</p>	<p>Burlington Chipotle Ingersoll Rand Nasdaq</p>	<p>Novanta Valmont</p>
<p><b>Transforming How We Work</b> The development and use of modern software tools to facilitate a more collaborative, efficient, mobile and secure work environment</p>	<p>Atlassian Veeva Systems Techtronic</p>	<p>Zscaler Obic Veeva Systems Techtronic</p>	<p>Zscaler Atlassian Veeva Systems HubSpot</p>	<p>Blackline Guidewire Software Workiva</p>
<p><b>Digital Payments</b> Differentiated technology solutions are transforming digital payments, enabling the processing of secure transactions in increasingly complex and global settings</p>	<p>Fidelity National NU Holdings</p>	<p>Global Payments</p>	<p>Global Payments Bill.com Global-e Online</p>	<p>Q2 Holdings BigCommerce Olo</p>
<p><b>The Rise of ESG</b> Beyond power generation and transportation methods, environmental, social and governance considerations are broadly impacting how companies think about and measure environmental footprints and benchmark social outcomes</p>	<p>Vestas Wind Systems NextEra Energy Aptiv Tesla</p>	<p>Vestas Wind Systems Valmont Morningstar Workiva</p>	<p>MSCI Aptiv Generac</p>	<p>Lattice Semiconductor Yeti Wolfspeed Morningstar Valmont</p>

Source: Artisan Partners. As of 30 Jun 2022. For illustrative purposes only. The investment themes and security examples listed are not representative of the entire portfolios and are subject to change without notice. Refer to Notes and Disclosures for security weights in each strategy.

## Stock Example—Advanced Micro Devices



As of 30 Jun 2022

% Portfolio	5.2%
Market Capitalization	\$124bn
FY22 EPS Est.	\$4.31
FY23 EPS Est.	\$4.79
Long-Term EPS Growth Est.	33%
Blended PMV <sup>1</sup>	\$151

### Franchise Elements

- A leading provider of processors for PCs and servers, graphics processors, and processors for several game consoles.

### Investment Thesis

- Solid product execution in data center (EPYC) and client PCs (Ryzen) combined with an expanding customer set of cloud, enterprise and PC vendors has driven AMD's market share to ~20% today (vs <5% in data center and <10% in client PCs in 2018). We see a path to >30% over the next 2-3 years.
- The company's second-generation data center graphics processors when deployed in parallel with EPYC computer processors are beginning to show significant performance gains and adoption in cloud and high-performance computing applications—a market dominated by Nvidia in recent years.
- The company's mix shift towards newer margin accretive products combined with leverage from topline growth have driven gross and operating margins meaningfully higher. We see strong potential for further upside over the next couple of years.
- AMD has made substantial market share gains in recent years, particularly in data centers, given its superior pricing and performance over Intel, deepening relationship with TSMC and Intel's product and manufacturing execution struggles. We believe further market share can be captured from Intel given our belief AMD's superior pricing and performance advantages will persist at least over the near-term.

Source: Artisan Partners/FactSet. As of 30 Jun 2022. Past performance does not guarantee and is not a reliable indicator of future results. Purchases after the initial purchase date in the portfolio may continue for an extended period of time, and the difference between the price at the initial purchase date and the current price may not be an accurate indication of the gain or loss in the portfolio. <sup>1</sup>The blended PMV is a blend of the team's current and forward year PMV estimates.

## Stock Example—NextEra Energy

NextEra Energy, Inc.

31-Dec-2018 to 30-Jun-2022

USD

High: 93.36 Low: 42.35 Last: 77.46



As of 30 Jun 2022

% Portfolio	5.2%
Market Capitalization	\$152bn
FY21 EPS Est.	\$2.84
FY22 EPS Est.	\$3.07
Long-Term EPS Growth Est.	9.0%
Blended PMV <sup>1</sup>	\$84

### Franchise Elements

- In addition to operating a top-tier regulated utility business in Florida, NextEra is one of the largest developers, producers and distributors of renewable power across the US.

### Investment Thesis

- We are in the very early innings of the global power grid transitioning to alternative energy sources and expect the industry to ramp very quickly in the coming years.
- While already more economical today than nuclear, coal and natural gas, producing wind and solar power should get cheaper with declining equipment, financing and development costs and more efficiencies in the power-generation process.
- The addressable market for renewables is expected to grow in the coming years. Battery electric vehicles reaching price parity with internal combustion engine vehicles is an important catalyst which will place increased demand on the power grid.
- As the third-largest investor in US infrastructure and the expectation to expand its renewable power generation capacity by 50% over the next 5 years, NextEra is well-positioned to be one of the leading providers of sustainable power for the US utilities sector as it transitions toward a more environmentally friendly and sustainable power-generation fleet over the coming decades.

Source: Artisan Partners/FactSet. As of 30 Jun 2022. Past performance does not guarantee and is not a reliable indicator of future results. Purchases after the initial purchase date in the portfolio may continue for an extended period of time, and the difference between the price at the initial purchase date and the current price may not be an accurate indication of the gain or loss in the portfolio. <sup>1</sup>The blended PMV is a blend of the team's current and forward year PMV estimates.

## Portfolio Statistics

	Trust	MSCI All Country World Index
Weighted Avg. Market Cap (Billions)	\$160.4	\$312.7
Median Market Cap (Billions)	\$47.6	\$10.8
Number of Companies	43	2,894
Weighted Avg. LT EPS Growth Rate (3-5 Yr)	18.8%	14.1%
Weighted Avg. P/E Ratio (FY1) <sup>1</sup>	17.8X	14.2X
Weighted Avg. P/E Ratio (FY2) <sup>1</sup>	15.7X	13.4X
Active Share	91.4%	—
Weighted Avg. LT Debt/Capital	27.6%	38.4%
Annual Turnover <sup>2</sup>	40.1%	—

Source: FactSet/MSCI. As of 30 Jun 2022. Number of companies in the portfolio is aggregated at the issuer level and may include multiple securities of the same issuer; index number of companies is shown at the security level. <sup>1</sup>Harmonic; excluding negative earners. <sup>2</sup>For the calendar year ended 31 Dec 2021.

## Sector Weights

(% of portfolio securities)	Trust			MSCI All Country World Index
	30 Jun 2021	31 Mar 2022	30 Jun 2022	30 Jun 2022
Communication Services	8.2	5.0	4.0	7.9
Consumer Discretionary	11.2	14.3	13.1	11.1
Consumer Staples	0.0	0.0	0.0	7.6
Energy	0.0	0.0	0.0	5.0
Financials	9.8	17.1	17.0	14.5
Health Care	24.0	19.3	23.0	13.0
Industrials	14.7	12.1	11.5	9.4
Information Technology	23.2	26.0	24.4	20.9
Materials	4.2	1.9	1.6	4.8
Real Estate	0.0	0.0	0.0	2.8
Utilities	4.7	4.4	5.5	3.2

Source: GICS/MSCI. Cash represented 3.7% of the total portfolio at 30 Jun 2021, 5.6% at 31 Mar 2022 and 5.6% at 30 Jun 2022.

## Region/Country Weights

(%) as of 30 Jun 2022	Trust	MSCI All Country World Index
<b>EUROPE</b>	<b>29.3</b>	<b>15.7</b>
Denmark	4.6	0.7
Germany	1.2	1.9
Italy	2.4	0.6
Netherlands	1.6	1.0
Spain	1.4	0.6
Sweden	4.6	0.8
Switzerland	8.6	2.6
United Kingdom	5.0	3.9
<b>PACIFIC BASIN</b>	<b>9.9</b>	<b>8.6</b>
Hong Kong	6.9	0.8
Japan	3.0	5.4
<b>EMERGING MARKETS</b>	<b>0.9</b>	<b>11.7</b>
Brazil	0.9	0.6
<b>MIDDLE EAST</b>	<b>0.0</b>	<b>0.2</b>
<b>AMERICAS</b>	<b>59.9</b>	<b>63.8</b>
United States	59.9	60.6

Source: MSCI. Percentages shown are of the portfolio securities. Cash represented 5.6% of the total portfolio at 30 Jun 2022. Countries held in the index but not in the portfolio are not listed.

## Top Holdings

### Top 5 Non-US Holdings

		% of total portfolio
<b>Techtronic Industries Co Ltd</b> (Industrials)	The global leader in power tools with well-established and fast-growing brands, including Milwaukee, Ryobi and Hart.	4.4
<b>UBS Group AG</b> (Financials)	A Swiss multinational bank and financial services company that is the largest wealth manager in the world.	4.2
<b>Lonza Group AG</b> (Health Care)	One of the largest manufacturers and producers of active pharmaceutical ingredients for biologic and small molecule drugs as well as cell and gene therapies for the pharmaceutical and biotech industries.	3.2
<b>AstraZeneca PLC</b> (Health Care)	A pharmaceuticals firm with leading immuno-oncology R&D capabilities and a solid pipeline.	2.7
<b>Telefonaktiebolaget LM Ericsson</b> (Information Technology)	The second-largest vendor of wireless infrastructure equipment in the world.	2.4

### Top 5 US Holdings

<b>Veeva Systems Inc</b> (Health Care)	A leading provider of cloud-based SaaS solutions for the pharmaceutical and life sciences industries.	5.2
<b>Advanced Micro Devices Inc</b> (Information Technology)	A leading provider of microprocessors for PCs and servers, graphics processors, and processors for several game consoles.	5.2
<b>NextEra Energy Inc</b> (Utilities)	An electric power and energy infrastructure company.	5.2
<b>Alphabet Inc</b> (Communication Services)	The parent company of the world's largest Internet company and leader in search advertising, Google.	3.8
<b>Boston Scientific Corp</b> (Health Care)	A worldwide developer, manufacturer and marketer of minimally invasive medical devices.	3.7

Source: Artisan Partners/FactSet/GICS/MSCI. As of 30 Jun 2022. Securities of the same issuer are aggregated to determine the weight in the portfolio. Companies categorized as US or non-US based on MSCI country classifications.

## Portfolio Holdings—By Sector (% of total portfolio)

### Communication Services

3.8 Alphabet Inc

### Consumer Discretionary

1.9 lululemon athletica inc  
 1.8 Chipotle Mexican Grill Inc  
 1.7 Airbnb Inc  
 1.6 Lowe's Cos Inc  
 1.5 Burlington Stores Inc  
 1.4 Aptiv PLC  
 1.2 Volkswagen AG  
 0.7 Tesla Inc  
 0.7 Cie Financiere Richemont SA

### Financials

4.2 UBS Group AG  
 2.6 The Charles Schwab Corp  
 2.2 The Progressive Corp  
 2.1 AIA Group Ltd  
 2.0 London Stock Exchange Group PLC  
 1.3 Banco Bilbao Vizcaya Argentaria SA  
 0.8 NU Holdings Ltd  
 0.8 S&P Global Inc

### Health Care

5.2 Veeva Systems Inc  
 3.7 Boston Scientific Corp  
 3.2 Lonza Group AG  
 2.7 AstraZeneca PLC  
 2.5 Danaher Corp  
 1.8 Novo Nordisk A/S  
 1.3 Genmab A/S  
 1.3 Hoya Corp

### Industrials

4.4 Techtronic Industries Co Ltd  
 2.2 CNH Industrial NV  
 2.1 Ingersoll Rand Inc  
 1.2 Vestas Wind Systems A/S  
 0.9 Generac Holdings Inc

### Information Technology

5.2 Advanced Micro Devices Inc  
 3.0 Atlassian Corp PLC  
 2.9 Fidelity National Information Services Inc  
 2.4 Telefonaktiebolaget LM Ericsson  
 2.2 ON Semiconductor Corp  
 1.9 Hexagon AB  
 1.7 Arista Networks Inc  
 1.6 Microsoft Corp  
 1.6 Keyence Corp  
 0.5 HubSpot Inc

### Materials

1.5 Koninklijke DSM NV

### Utilities

5.2 NextEra Energy Inc

Source: GICS. As of 30 Jun 2022. Cash represented 5.6% of the total portfolio at 30 Jun 2022. Securities of the same issuer are aggregated to determine the weight in the portfolio.

## Portfolio Holdings—By Country (% of total portfolio)

### Brazil

0.8 NU Holdings Ltd

### Denmark

1.8 Novo Nordisk A/S

1.3 Genmab A/S

1.2 Vestas Wind Systems A/S

### Germany

1.2 Volkswagen AG

### Hong Kong

4.4 Techtronic Industries Co Ltd

2.1 AIA Group Ltd

### Italy

2.2 CNH Industrial NV

### Japan

1.6 Keyence Corp

1.3 Hoya Corp

### Netherlands

1.5 Koninklijke DSM NV

### Spain

1.3 Banco Bilbao Vizcaya Argentaria SA

### Sweden

2.4 Telefonaktiebolaget LM Ericsson

1.9 Hexagon AB

### Switzerland

4.2 UBS Group AG

3.2 Lonza Group AG

0.7 Cie Financiere Richemont SA

### United Kingdom

2.7 AstraZeneca PLC

2.0 London Stock Exchange Group PLC

### United States

5.2 Veeva Systems Inc

### United States (continued)

5.2 Advanced Micro Devices Inc

5.2 NextEra Energy Inc

3.8 Alphabet Inc

3.7 Boston Scientific Corp

3.0 Atlassian Corp PLC

2.9 Fidelity National Information Services Inc

2.6 The Charles Schwab Corp

2.5 Danaher Corp

2.2 The Progressive Corp

2.2 ON Semiconductor Corp

2.1 Ingersoll Rand Inc

1.9 lululemon athletica inc

1.8 Chipotle Mexican Grill Inc

1.7 Arista Networks Inc

1.7 Airbnb Inc

1.6 Microsoft Corp

### United States (continued)

1.6 Lowe's Cos Inc

1.5 Burlington Stores Inc

1.4 Aptiv PLC

0.9 Generac Holdings Inc

0.8 S&P Global Inc

0.7 Tesla Inc

0.5 HubSpot Inc

Source: MSCI. As of 30 Jun 2022. Cash represented 5.6% of the total portfolio at 30 Jun 2022. Securities of the same issuer are aggregated to determine the weight in the portfolio.

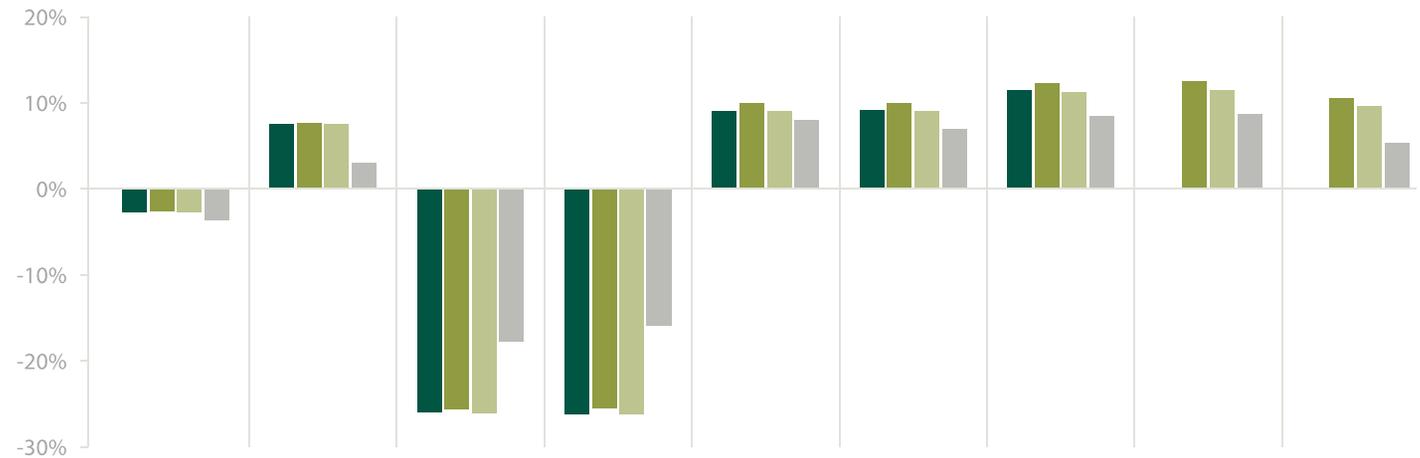
## Investment Results—Average Annual Total Returns

(%) as of 31 Aug 2022	MTD	QTD	YTD	1 Yr	3 Yr	5 Yr	Account Inception
Artisan Global Opportunities Trust (Tier 3): Net	-2.70	7.18	-25.98	-26.18	11.31	10.43	13.03
MSCI All Country World Index	-3.68	3.04	-17.75	-15.88	8.03	6.97	8.48

As of 31 Aug 2022	Ending Market Value	Number of Shares	Share Price
Contra Costa County Employees Retirement Association	\$491,778,142.85	15,701,728.699	\$31.32

Source: SEI/Artisan Partners/MSCI. Account inception: 6 Dec 2012. Past performance does not guarantee and is not a reliable indicator of future results. Returns less than one year are not annualized. The principal value and investment return of the Trust will fluctuate, so that you may have a gain or loss when you sell your units. Current performance may be lower or higher than performance shown. Trust returns were calculated net of total Trust fees and expenses (0.75% annually) which are incurred by each participating Tier 3 plan in the Trust.

## Investment Results—Average Annual Total Returns



(%) as of 31 Aug 2022

	MTD	QTD	YTD	1 Yr	3 Yr	5 Yr	Trust Inception	10 Yr	Inception
■ Artisan Global Opportunities Trust (Tier 3)	-2.70	7.55	-26.01	-26.17	9.14	9.19	11.46	—	—
■ Artisan Global Opportunities Composite: Gross	-2.59	7.73	-25.62	-25.50	9.98	10.00	12.26	12.51	10.56
■ Artisan Global Opportunities Composite: Net	-2.66	7.58	-26.05	-26.14	9.08	9.09	11.31	11.56	9.64
■ MSCI All Country World Index	-3.68	3.04	-17.75	-15.88	8.03	6.97	8.48	8.70	5.38

Source: SEI/Artisan Partners/MSCI. Past performance does not guarantee and is not a reliable indicator of future results. Net-of-fees performance shown for the Trust. The principal value and investment return of the Trust will fluctuate, so you may have a gain or loss when you sell your units. Current performance may be lower or higher than that shown. Trust returns were calculated net of total Trust fees and expenses (0.75% annually) which are incurred by each participating Tier 3 plan in the Trust. The Composite includes all accounts managed by Artisan Partners in the investment strategy, including the Collective Investment Trust. Composite performance is presented for informational purposes only and represents gross and net of investment management fees performance. Composite performance varies from Trust performance based on individual account restrictions and applicable fees and does not represent past or present Trust returns. Net-of-fees Composite returns were calculated using the highest fee applicable to portfolios within the Composite and does not reflect fees and expenses associated with the Trust. Returns less than one year are not annualized. Trust inception: 6 Dec 2012. Composite inception: 1 Feb 2007.

## Buys/Sells—Q2 2022

New Positions	Sector	Description and Investment Thesis
<b>Generac Holdings Inc</b>	Industrials	Generac is a provider of residential backup generators in the US with a dominant market position. We believe the company is in the early stages of a period of elevated growth as climate change leads to increased frequency and severity of natural disasters—hurricanes, floods and wildfires. Regarding the latter, California represents a very large opportunity as the state has historically lagged in generator penetration. Wildfires and utility grid shutdowns appear to be the new normal, and Generac is in the process of expanding its distribution network in the state. In addition, we believe the company's acquisitions and investments in the area of solar battery backup systems represent a compelling longer-term profit-cycle driver as its scale, distribution network and differentiated go-to-market strategy will help it gain a foothold in this industry. While these long-term trends are compelling, we have recently become concerned mounting inflationary pressures on the US consumer could be a headwind for the company's home standby product, which is a core part of our profit cycle thesis and costs several thousand dollars. Thus, we are being patient while these cyclical factors play out..
Sold Positions	Sector	Reason(s) for Sale
<b>Fortive Corp</b>	Industrials	Sold in favor of other companies in our pipeline with more compelling secular growth trends and valuations.
<b>Netflix Inc</b>	Communication Services	Exited as the path to net user growth is unclear and could require changes to the company's business model—cutting down on password sharing, offering a lower-priced ad-supported tier. These are levers either the company has never had to pull or historically denied the need for.
<b>Shopify Inc</b>	Information Technology	Sold amid the profit cycle experiencing a setback from the company entering an investment cycle to build out its fulfillment capabilities and mounting inflationary pressures on the US consumer's purchasing power.

Source: Artisan Partners/FactSet/GICS. As of 30 Jun 2022. Refer to Portfolio Holdings for security weights.

## Attribution — Q2 2022

Economic Sector	Portfolio		MSCI All Country World		Attribution Analysis			Total Effect
	% Average Weight	% Return	% Average Weight	% Return	Allocation Effect	Selection Effect	Currency Effect	
Communication Services	3.86	-30.33	7.93	-18.16	0.11	-0.62	0.03	-0.49
Consumer Discretionary	14.20	-26.63	11.14	-20.24	-0.16	-1.05	0.14	-1.07
Consumer Staples	--	--	7.33	-6.24	-0.67	--	0.04	-0.64
Energy	--	--	4.95	-5.23	-0.46	--	0.02	-0.44
Financials	16.21	-15.11	14.58	-15.85	0.00	0.01	0.08	0.09
Health Care	19.07	-12.98	12.34	-7.26	0.55	-0.79	-0.14	-0.38
Industrials	11.62	-28.87	9.40	-16.25	0.01	-1.67	0.15	-1.51
Information Technology	23.94	-26.72	21.39	-21.64	-0.17	-0.99	-0.19	-1.35
Materials	1.58	-19.11	5.08	-19.84	0.08	0.01	0.04	0.13
Real Estate	--	--	2.79	-13.99	-0.04	--	-0.01	-0.05
Utilities	4.47	-8.06	3.06	-7.15	0.11	-0.07	0.09	0.12
Cash	5.05	-0.03	--	--	0.73	--	0.10	0.83
<b>Total</b>	<b>100.00</b>	<b>-20.41</b>	<b>100.00</b>	<b>-15.66</b>	<b>0.09</b>	<b>-5.18</b>	<b>0.34</b>	<b>-4.75</b>

Source: FactSet/GICS/MSCI. As of 30 Jun 2022. Past performance does not guarantee and is not a reliable indicator of future results. Refer to Notes and Disclosures for attribution information.

## Attribution — 1 Yr

Economic Sector	Portfolio		MSCI All Country World		Attribution Analysis			Total Effect
	% Average Weight	% Return	% Average Weight	% Return	Allocation Effect	Selection Effect	Currency Effect	
Communication Services	5.71	-46.42	8.63	-29.81	0.46	-1.08	0.08	-0.54
Consumer Discretionary	12.59	-40.21	12.02	-28.92	-0.18	-2.04	0.20	-2.02
Consumer Staples	--	--	6.95	-4.67	-0.74	--	0.04	-0.70
Energy	--	--	3.93	21.34	-1.25	--	0.05	-1.20
Financials	12.51	-10.62	14.41	-11.95	-0.15	0.23	0.07	0.14
Health Care	20.40	-17.40	11.78	-4.43	0.61	-1.88	-0.21	-1.48
Industrials	14.07	-34.06	9.56	-18.70	-0.06	-2.20	0.25	-2.01
Information Technology	23.68	-32.05	22.38	-20.40	-0.14	-2.53	-0.43	-3.10
Materials	2.41	-29.70	4.87	-16.13	-0.04	-0.18	-0.08	-0.31
Real Estate	--	--	2.70	-13.66	-0.03	--	-0.02	-0.05
Utilities	4.05	1.27	2.78	3.23	0.19	-0.07	0.11	0.24
Cash	4.59	-0.19	--	--	0.73	--	0.15	0.88
<b>Total</b>	<b>100.00</b>	<b>-25.90</b>	<b>100.00</b>	<b>-15.75</b>	<b>-0.60</b>	<b>-9.76</b>	<b>0.21</b>	<b>-10.15</b>

Source: FactSet/GICS/MSCI. As of 30 Jun 2022. Past performance does not guarantee and is not a reliable indicator of future results. Refer to Notes and Disclosures for attribution information.

# Contribution to Return and Attribution—Q2 2022

## Contribution to Return

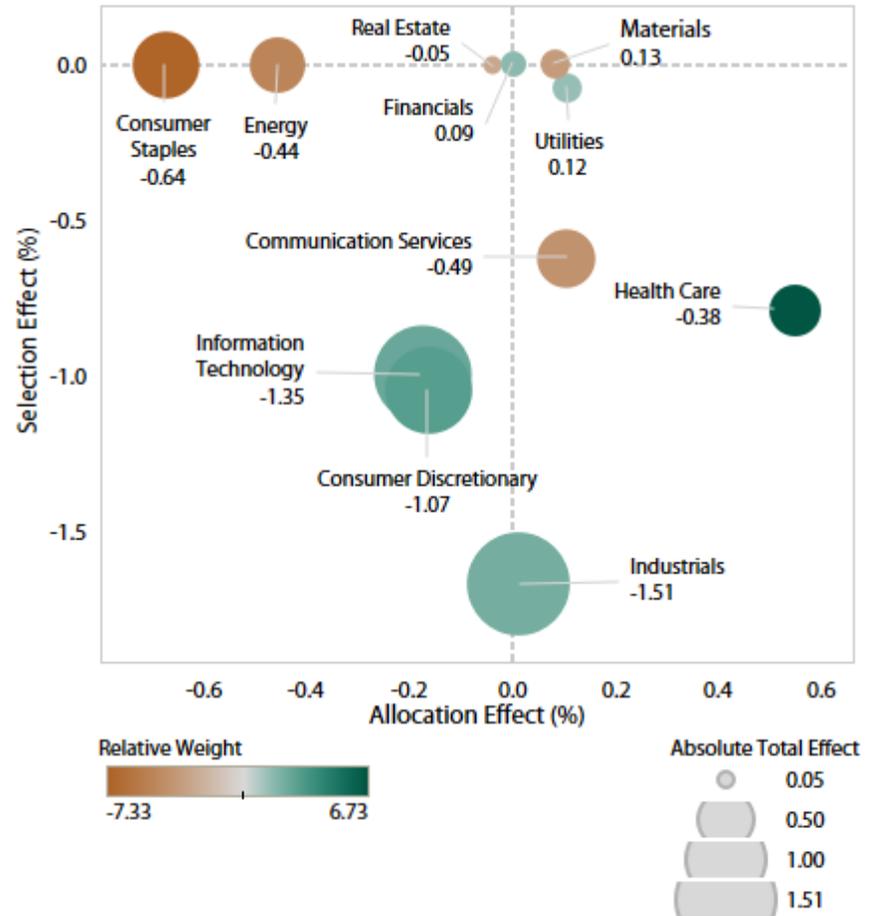
Top

AIA Group	Financials
Progressive	Financials
Veeva Systems	Health Care
AstraZeneca	Health Care
Fortive (sold)	Industrials

Bottom

Techtronic Industries	Industrials
Advanced Micro Devices	Information Technology
Airbnb	Consumer Discretionary
Atlassian	Information Technology
Lonza Group	Health Care

## Attribution



Source: Artisan Partners/FactSet/GICS/MSCI. As of 30 Jun 2022. Past performance does not guarantee and is not a reliable indicator of future results. These securities made the greatest contribution to, or detracted most from, performance during the period. This is not a complete listing of portfolio activity. Upon request, Artisan will provide: (i) the calculation methodology and/or (ii) a list showing the contribution of each holding to overall performance during the measurement period. Securities of the same issuer are aggregated to determine the weight in the portfolio. Refer to Portfolio Holdings for security weights. The holdings mentioned above comprised the following average weights in the portfolio during the time period indicated: AIA Group Ltd 1.8%, The Progressive Corp 1.8%, Veeva Systems Inc 4.1%, AstraZeneca PLC 2.5%, Fortive Corp <0.1%, Lonza Group AG 3.0%, Atlassian Corp PLC 2.5%, Airbnb Inc 2.0%, Advanced Micro Devices Inc 5.6%, Techtronic Industries Co Ltd 4.9%. Refer to Notes and Disclosures for attribution information. Color illustrated in the graph indicates Relative Weight which is the portfolio sector average weight vs. MSCI All Country World Index sector average weight. Circle size represents the absolute total effect. Impact of cash in the portfolio is not depicted in the graph.

# Contribution to Return and Attribution—1 Yr

## Contribution to Return

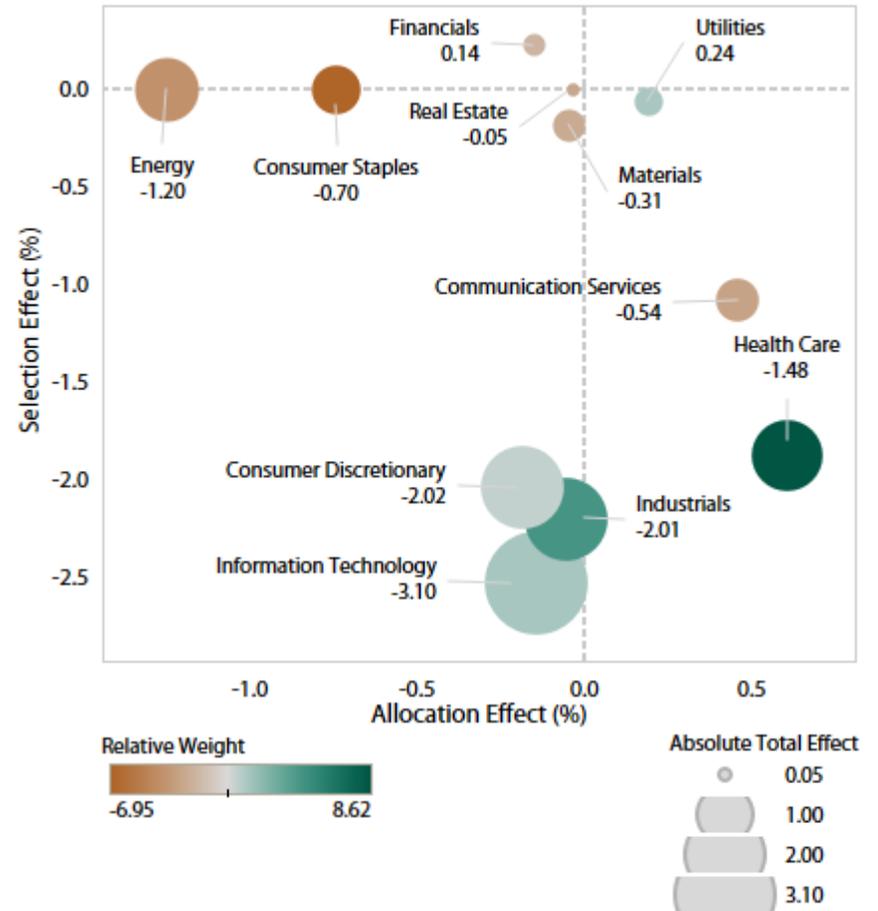
### Top

AstraZeneca	Health Care
NextEra Energy	Utilities
Dexcom (sold)	Health Care
Progressive	Financials
Novo Nordisk	Health Care

### Bottom

Techtronic Industries	Industrials
Shopify (sold)	Information Technology
Advanced Micro Devices	Information Technology
Airbnb	Consumer Discretionary
Aptiv	Consumer Discretionary

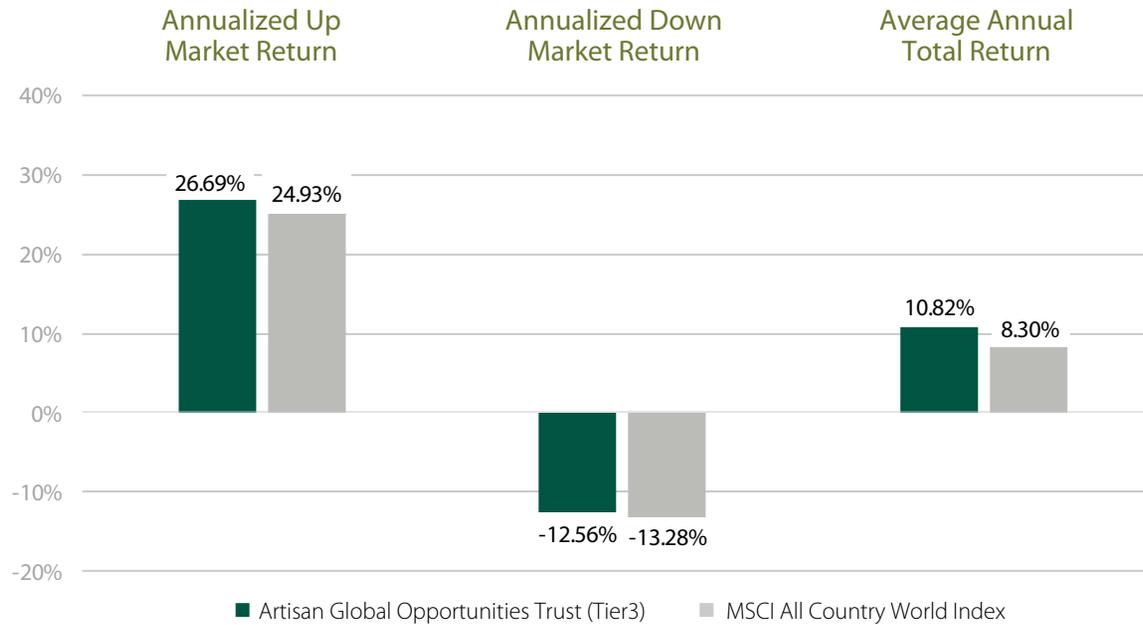
## Attribution



Source: Artisan Partners/FactSet/GICS/MSCI. As of 30 Jun 2022. Past performance does not guarantee and is not a reliable indicator of future results. These securities made the greatest contribution to, or detracted most from, performance during the period. This is not a complete listing of portfolio activity. Upon request, Artisan will provide: (i) the calculation methodology and/or (ii) a list showing the contribution of each holding to overall performance during the measurement period. Securities of the same issuer are aggregated to determine the weight in the portfolio. Refer to Portfolio Holdings for security weights. The holdings mentioned above comprised the following average weights in the portfolio during the one-year time period: AstraZeneca PLC 2.2%, NextEra Energy Inc 3.6%, Dexcom Inc 0.9%, The Progressive Corp 0.6%, Novo Nordisk A/S 0.4%, Aptiv PLC 2.5%, Airbnb Inc 1.3%, Advanced Micro Devices Inc 5.2%, Shopify Inc 1.7%, Techtronic Industries Co Ltd 5.3%. Refer to Notes and Disclosures for attribution information. Color illustrated in the graph indicates Relative Weight which is the portfolio sector average weight vs. MSCI All Country World Index sector average weight. Circle size represents the absolute total effect. Impact of cash in the portfolio is not depicted in the graph.

## Relative Performance

Artisan Global Opportunities Trust Relative to MSCI All Country World Index  
Performance in Up/Down Markets Since Inception Through 30 June 2022



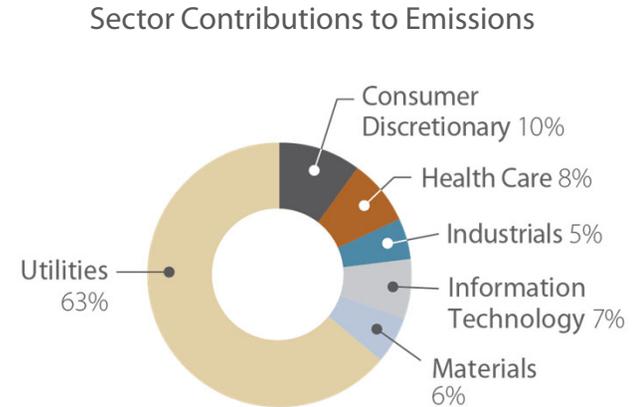
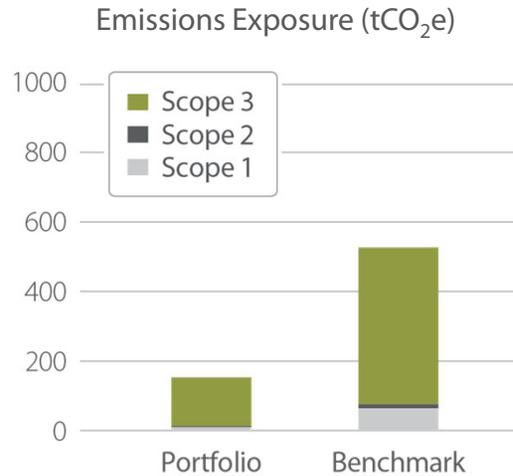
Source: SEI/Artisan Partners/FactSet/MSCI. Past performance does not guarantee and is not a reliable indicator of future results. Net-of-fees performance shown. The principal value and investment return of the Trust will fluctuate, so that you may have a gain or loss when you sell your units. Current performance may be lower or higher than performance shown. The Up/Down Market Analysis compares the performance of the Artisan Global Opportunities Trust ("Trust") to the MSCI All Country World Index ("Index") in periods when the Index return was up (greater than 0%) in isolation from periods when the Index return was down (less than 0%) and vice versa since inception (6 Dec 2012) through 30 Jun 2022. Annualized Up Market Return is calculated by taking the monthly performance of the Trust and the Index, for each month in which the Index was up (whether or not the performance of the Trust was greater than 0%), and geometrically linking the returns to compute a cumulative total return earned during periods when the Index was up (the "up period cumulative return"). This calculation effectively assumes a return of 0% in each month in which the performance of the Index was negative. Annualized Up Market Return is equivalent to the annual rate of return that, if earned in each year included in this calculation would produce the up period cumulative return over the same timeframe. Annualized Down Market Return is calculated in the same way for periods in which the Index was down, and also effectively assumes a return of 0% in each month in which the performance of the index was positive. The Average Annual Total Return shown is equivalent to the annual rate of return that, if earned by the Trust in each year, would produce the cumulative total return achieved by the Trust.

# Select ESG Metrics—Carbon Footprint and Stewardship Overview

## GLOBAL OPPORTUNITIES

**78%**  
of holdings  
report emissions

**67%**  
of holdings  
set targets



### 2021 GROWTH TEAM PROXY VOTING RECORD

#### All Management Proposal

Board Related<sup>1</sup>

Compensation-Related<sup>2</sup>

#### Shareholder Proposals

	Supported Management	Opposed Management
All Management Proposal	96%	4%
Board Related <sup>1</sup>	95%	5%
Compensation-Related <sup>2</sup>	94%	6%
Shareholder Proposals	67%	33%

- Conducted 60 ESG-specific engagements in 2021 with a focus on modern slavery, DEI and climate change.
- Voted at 164 proxy meetings across 4 portfolios.
- Opposed management on 1 or more resolutions at 40 proxy meetings.

Sources: ISS Climate Impact Assessment reports. Data as of 31 Dec 2021. ISS proxy voting totals for Artisan Global Opportunities portfolio as of 31 Dec 2021. Benchmark for Global Opportunities portfolio is the MSCI AC World Index. Emissions exposures are based on each \$1 million invested and each benchmark assumes the same dollar investment (or AUM) as each portfolio. Company level emissions exposures are then determined by calculating an ownership ratio (dollar value of investment over the market cap) and multiplied by the company level emissions. If a portfolio owns 1% of company x, the portfolio owns 1% of company x's emissions. Scope 1 covers direct emissions from company owned or controlled sources. Scope 2 covers indirect emissions from the generation of purchased energy from a utility company, including electricity, steam, heating and cooling consumed by the reporting company. Scope 3 includes all other indirect emissions that occur in a company's value chain. <sup>1</sup>Board-Related includes all items categorized by ISS as Director Election, Committee Election and Board-Related. <sup>2</sup>Compensation-Related includes all items categorized by ISS as Compensation.

## Investment Results—Total Returns (%)

### Tier 3

	Trust	MSCI All Country World Index
<b>Year 2022</b>		
Q2	-20.65	-15.66
Q1	-13.30	-5.36
<b>Year 2021</b>	<b>14.19</b>	<b>18.54</b>
Q4	4.60	6.68
Q3	2.04	-1.05
Q2	8.93	7.39
Q1	-1.78	4.57
<b>Year 2020</b>	<b>40.52</b>	<b>16.25</b>
Q4	10.56	14.68
Q3	14.16	8.13
Q2	27.75	19.22
Q1	-12.85	-21.37
<b>Year 2019</b>	<b>36.05</b>	<b>26.60</b>
Q4	9.51	8.95
Q3	0.46	-0.03
Q2	6.15	3.61
Q1	16.50	12.18
<b>Year 2018</b>	<b>-8.62</b>	<b>-9.41</b>
Q4	-15.36	-12.75
Q3	3.52	4.28
Q2	1.24	0.53
Q1	3.02	-0.96

	Trust	MSCI All Country World Index
<b>Year 2017</b>	<b>31.80</b>	<b>23.97</b>
Q4	4.48	5.73
Q3	5.40	5.18
Q2	8.38	4.27
Q1	10.43	6.91
<b>Year 2016</b>	<b>4.89</b>	<b>7.86</b>
Q4	-5.63	1.19
Q3	10.78	5.30
Q2	0.98	0.99
Q1	-0.65	0.24
<b>Year 2015</b>	<b>8.40</b>	<b>-2.36</b>
Q4	7.64	5.03
Q3	-8.47	-9.45
Q2	4.70	0.35
Q1	5.08	2.31
<b>Year 2014</b>	<b>3.13</b>	<b>4.16</b>
Q4	-0.63	0.41
Q3	-0.77	-2.31
Q2	4.51	5.04
Q1	0.07	1.08
<b>Year 2013</b>	<b>25.16</b>	<b>22.80</b>
Q4	5.94	7.31
Q3	10.39	7.90
Q2	0.77	-0.42
Q1	6.20	6.50

	Trust	MSCI All Country World Index
<b>Year 2012*</b>	<b>0.73</b>	<b>1.81</b>

Source: SEI/MSCI. \*Represents partial year performance from inception of portfolio through calendar year end. Past performance does not guarantee and is not a reliable indicator of future results. Net-of-fees performance shown. The principal value and investment return of the Trust will fluctuate, so you may have a gain or loss when you sell your units. Current performance may be lower or higher than that shown. Returns less than one year are not annualized. Trust inception: 6 Dec 2012.

## Growth Investment Team Turnover

### Additions

Year	Name	Role	Start
2017	Stan Buncher	Analyst <sup>1</sup>	May 2017
	Alexander Braid	Analyst <sup>1</sup>	Jun 2017
2018	Ryan Tochihara	Analyst	May 2018
2019	Yian Yu	Research Associate	Jun 2019
2020	Matt Lemenager	Research Associate	Oct 2020
2021	Bolu Ajayi	Research Associate	Apr 2021

### Departures

Year	Name	Role	Start	Departure
2017	Vickram Mohan	Research Associate	May 2015	May 2017
	Richard E. Herbst	Research Associate	Jun 2014	Sep 2017
2018	Andrew C. Stephens	Managing Director	Mar 1997 <sup>2</sup>	Mar 2018
2020	Yian Yu	Research Associate	Jun 2019	Mar 2020
2022	Fischer Van Handel	Analyst	Jun 2016	Jun 2022
2022	Stan Buncher	Analyst <sup>1</sup>	May 2017	Jul 2022

Source: Artisan Partners. Begins Jul 2017 and includes portfolio managers, analysts and research associates. <sup>1</sup>Stan Buncher began as a research associate and was named as an analyst in Apr 2019. Alexander Braid began as a research associate and was named as an analyst in Apr 2020. <sup>2</sup>Andrew Stephens, Managing Director for the Artisan Partners Growth Team, retired in March 2018. Mr. Stephens announced his intent to retire in March 2017.

## Biographies — Artisan Partners Growth Team

**James D. Hamel, CFA**, is a managing director of Artisan Partners and a portfolio manager on the Growth team. In this role, he is the lead portfolio manager for the Artisan Global Opportunities Strategy and a portfolio manager for the Artisan U.S. Mid-Cap Growth, U.S. Small-Cap Growth and Global Discovery Strategies. Prior to joining Artisan Partners in May 1997, Mr. Hamel was a financial associate, cost analyst and operations manager of Kimberly-Clark Corporation from March 1990 through May 1997. He began his career at Carlson, Posten & Associates. Mr. Hamel holds a bachelor's degree in finance from the University of Minnesota-Minneapolis where he was a three-time Academic All-American.

**Craigh A. Cepukenas, CFA**, is a managing director of Artisan Partners and a portfolio manager on the Growth team. In this role, he is the lead portfolio manager for the Artisan U.S. Small-Cap Growth Strategy and a portfolio manager for the Artisan Global Opportunities, U.S. Mid-Cap Growth and Global Discovery Strategies. Prior to joining Artisan Partners in November 1995 as an analyst, Mr. Cepukenas was an equity research associate at Stein Roe & Farnham, where he began his career in 1989. Mr. Cepukenas holds a bachelor's degree in economics from the University of Wisconsin-Madison and a master's degree in business administration from The University of Chicago Booth School of Business.

**Matthew H. Kamm, CFA**, is a managing director of Artisan Partners and a portfolio manager on the Growth team. In this role, he is the lead portfolio manager for the Artisan U.S. Mid-Cap Growth Strategy and a portfolio manager for the Artisan Global Opportunities, U.S. Small-Cap Growth and Global Discovery Strategies. Prior to joining Artisan Partners in May 2003, Mr. Kamm was an associate equity research analyst at Banc of America Securities. Earlier in his career, he was a senior operations analyst for NYU Medical Center. Mr. Kamm holds a bachelor's degree in public policy from Duke University and a master's degree in business administration, with a specialty in finance and operations management, from New York University.

**Jason L. White, CFA**, is a managing director of Artisan Partners and a portfolio manager on the Growth team. In this role, he is the lead portfolio manager for the Artisan Global Discovery Strategy and a portfolio manager for the Artisan Global Opportunities, U.S. Mid-Cap Growth and U.S. Small-Cap Growth Strategies. Prior to joining Artisan Partners in June 2000, Mr. White was a Lieutenant in the U.S. Navy, serving aboard the USS Lake Erie as the ship's fire control officer. Mr. White holds a bachelor's degree in history from the United States Naval Academy, where he graduated with distinction.

**Jay C. Warner, CFA**, is a portfolio manager on the Artisan Partners Growth Team. In this role, he supports the lead portfolio managers of the Artisan U.S. Mid-Cap Growth, U.S. Small-Cap Growth, Global Opportunities and Global Discovery Strategies. Mr. Warner also conducts fundamental research, primarily focusing on financial companies. Prior to joining Artisan Partners in May 2003, Mr. Warner attended the Graduate School of Business at the University of Wisconsin-Madison and graduated from the Applied Security Analysis Program. From 1997 through 2001, Mr. Warner was a senior accountant specializing in auditing, reviewing and compiling financial statements. Mr. Warner holds a bachelor's degree in accounting and a master's degree in finance, investment and banking from the University of Wisconsin-Madison. Mr. Warner is a licensed Certified Public Accountant.

**Pratik S. Patel** is a managing director of Artisan Partners and the chief operating officer of the Growth team. In this role, he is responsible for the continuous improvement of the research process, facilitating effective communication across the team, and the sourcing, onboarding and early development of investment talent. Mr. Patel also conducts fundamental research as a generalist. He joined Artisan Partners in August 2008 as an analyst after serving as an MBA intern in Summer 2007. Earlier in his career, Mr. Patel was a sales associate for Backstop Solutions Group, a cloud-based software company, and a financial analyst for Goldman Sachs. Mr. Patel holds a bachelor's degree in economics from Northwestern University and a master's degree in business administration from The University of Chicago Booth School of Business.

**Aashish S. Rao** is an associate portfolio manager on the Artisan Partners Growth Team. In this role, he conducts fundamental research, primarily focusing on technology companies. Prior to joining Artisan Partners in June 2014, Mr. Rao was a vice president in equity research, covering technology and semiconductors at Bank of America Merrill Lynch. Earlier in his career, Mr. Rao held positions at Credit Suisse and the Intel Corporation. Mr. Rao holds a bachelor's degree in electrical and electronics engineering from Birla Institute of Technology and Science in India, a master's degree in electrical engineering from the University of Minnesota-Twin Cities and a master's degree in business administration from Duke University Fuqua School of Business.

## Biographies — Artisan Partners Growth Team

**Michael A. Schneider, CFA**, is an associate portfolio manager on the Artisan Partners Growth Team. In this role, he conducts fundamental research, primarily focusing on companies within the industrials and energy sectors. Prior to joining Artisan Partners in March 2010, Mr. Schneider was managing director and senior equity analyst at Robert W. Baird & Co., Inc. Earlier in his career, he was a mergers and acquisitions attorney at Godfrey & Kahn S.C. Mr. Schneider holds a bachelor's degree in finance from the University of Wisconsin-Madison, and a master's degree in business administration and a Juris Doctor (magna cum laude) from the University of Minnesota.

**Martin Jochmann** is an associate portfolio manager on the Artisan Partners Growth Team. In this role, he conducts fundamental research, primarily focusing on health care companies. Prior to joining Artisan Partners in July 2006, Mr. Jochmann was a partner and equity analyst for Monitor Group, where he co-founded a small-cap hedge fund. He also conducted analysis for a Monitor Group buyout fund, venture capital fund and business valuation operation. Mr. Jochmann holds a bachelor's degree in mechanical engineering from Mauá Engineering School in São Paulo, Brazil, and a master's degree in business administration from Harvard Business School.

**Cindy Mu, CFA**, is an associate portfolio manager on the Artisan Partners Growth Team. In this role, she conducts fundamental research, primarily focusing on consumer companies. Prior to joining Artisan Partners in July 2013, Ms. Mu was an associate director of the public fixed income group at Sun Life Financial. Ms. Mu holds a bachelor's degree in scientific computing from Sun Yat-Sen University, a master's degree in mathematical finance from Boston University and a master's degree in business administration from The University of Chicago Booth School of Business.

**Roderick M. Brower** is the head of ESG and an analyst on the Artisan Partners Growth Team. In this role, he leads the integration of ESG into the team's investment process and conducts fundamental research, primarily focusing on Internet, media and consumer companies. Prior to joining Artisan Partners in September 2006, Mr. Brower was a vice president and principal at PRIMECAP Management. Earlier in his career, Mr. Brower was in institutional research sales in the equity division at Goldman Sachs. Mr. Brower holds a bachelor's degree in economics from the University of California-Irvine and a master's degree in business administration from Harvard Business School.

**Ryan Tochiara** is an analyst on the Artisan Partners Growth Team. In this role, he conducts fundamental research, primarily focusing on health care companies. Prior to joining Artisan Partners in May 2018, Mr. Tochiara was a vice president in equity research at J.P. Morgan where he focused on small/mid biotechnology companies. Before that, he was an analyst on a long/short equity hedge fund at Veda Healthcare Partners. Earlier in his career, Mr. Tochiara was co-founder and partner of First Choice Dialysis, LLC. Mr. Tochiara holds a bachelor's degree in biology from Colgate University and a master's degree in biochemistry and molecular biology from Georgetown University.

**Alexander Braid, CFA**, is an analyst on the Artisan Partners Growth Team. In this role, he conducts fundamental research, primarily focusing on financial companies. Prior to joining Artisan Partners in June 2017, he was a vice president of the foreign exchange joint venture division and chief operating officer of advanced markets for Macquarie Bank, where he also served as a foreign exchange trader earlier in his career. Mr. Braid holds a bachelor's degree in economics from the University of Sydney and a master's degree in business administration from the SC Johnson School of Management at Cornell University.

**Robin Johnson** is an ESG analyst on the Artisan Partners Growth Team. In this role, she helps lead the integration of ESG into the team's investment process. Prior to joining Artisan Partners in January 2006, Ms. Johnson worked as an urban planning consultant. Ms. Johnson holds a bachelor's degree in geography from the University of Wisconsin-Madison.

**Matt Lemenager, CFA**, is a research associate on the Artisan Partners Growth Team. Prior to joining Artisan Partners in October 2020, he was a senior associate in equity research at Robert W. Baird & Co. Mr. Lemenager holds a bachelor's degree in finance from the College of Business at the University of Illinois at Urbana-Champaign and a master's degree in business administration from The University of Chicago Booth School of Business.

**Bolu Ajayi** is a research associate on the Artisan Partners Growth Team. Prior to joining Artisan Partners in April 2021, he was a global equity analyst at Thornburg Investment Management. Earlier in his career, Mr. Ajayi served as an equity summer research analyst at Wellington Management Company and as an analyst with both Entergy Services Inc. and Accenture. Mr. Ajayi holds a bachelor's degree in electrical engineering from Texas A&M University and a master's degree in business administration from The University of Chicago Booth School of Business.

## Biographies — Artisan Partners Growth Team

**Jay B. Peters** is the lead trader for the Artisan Partners Growth Team. Prior to joining Artisan Partners in March 2001, Mr. Peters was the equity trader at JLF Asset Management in New York. He began his career at Chicago Mercantile Exchange working for SMW Trading Co. in 1992. Mr. Peters holds a bachelor's degree in finance from the University of Wisconsin-Madison.

**Bryan P. Schultz** is an assistant trader for the Artisan Partners Growth Team. Prior to joining the team in June 2013, Mr. Schultz was an associate on Artisan Partners' settlements team. Previously, he was a business operations specialist at US Bancorp Fund Services and held trading roles at Midtown Capital Group and Crabel Capital Management. Mr. Schultz holds a bachelor's degree in finance from the University of Wisconsin-Whitewater.

**Heather Dow** is a coordinator on the Artisan Partners Growth Team with responsibility for the day-to-day coordination of the research process, systems and information flow among the members of the investment team. Prior to joining Artisan Partners in April 2000, Ms. Dow worked on the technical support desk at Safeway. Ms. Dow holds a bachelor's degree in business administration from the University of Wisconsin-Stevens Point.

**Cristal Lieungh** is a coordinator on the Artisan Partners Growth Team with responsibility for the day-to-day coordination of the research process, systems and information flow among the members of the investment team. Prior to joining Artisan Partners in July 2013 as an executive assistant, Ms. Lieungh worked in administration at various firms. She began her career in the investment management industry at Strong Capital Management in 1995.

**Kelly Kaminski** is a coordinator on the Artisan Partners Growth Team with responsibility for coordination of research travel. Prior to joining Artisan Partners in December 2021, Ms. Kaminski worked in various sales and project management roles in the group and corporate travel industry. Ms. Kaminski holds a bachelor's degree in Spanish and communication studies from the University of Wisconsin-La Crosse.

## Biographies — Client Service Team

**Chip Ridley, CFA**, is a managing director of Artisan Partners and the business leader for the firm's Growth team. Prior to joining Artisan Partners in June 2006, Mr. Ridley was a director of business development and consultant relations for Grantham Mayo Van Otterloo & Co. LLC, where he managed the institutional marketing efforts for western North America and served as product manager for the Emerging Markets strategy. Before that, he was a corporate vice president and principal at Montgomery Asset Management. Mr. Ridley also spent nine years as an aviator in the United States Navy, where he flew and instructed in various types of fighter aircraft. Mr. Ridley holds a bachelor's degree in economics and history from Duke University and a master's degree in business administration from Mississippi State University.

**Floyd M. Dukes, CFA**, is a director on the institutional client services team at Artisan Partners with responsibility for institutional marketing and client service of the strategies managed by the firm's Growth team. Prior to joining Artisan Partners in January 2001, Mr. Dukes was a senior portfolio analyst and consultant with William Mercer Investment Consulting. Mr. Dukes holds a bachelor's degree in political science from Georgia State University.

**J. Cameron Griffin, CFA**, is a director on the institutional client services team at Artisan Partners with responsibility for institutional marketing and client service of the strategies managed by the firm's Growth team. Previously, Mr. Griffin was a member of the intermediary services group at Artisan Partners with responsibility for managing relationships with financial advisors and other third-party providers that offer Artisan Funds. Prior to joining Artisan Partners in December 2010, Mr. Griffin was a sales analyst at Lender Processing Services, Inc. Mr. Griffin holds a bachelor's degree in economics from Davidson College.

**Ting Rattanaphasouk, CFA**, is an associate director on the institutional client services team at Artisan Partners with responsibility for client support for the strategies managed by the firm's Growth team. Prior to joining Artisan Partners in June 2010, Ms. Rattanaphasouk worked in institutional equity sales for BMO Capital Markets. Earlier in her career, she worked in marketing for Morgan Stanley. Ms. Rattanaphasouk holds a bachelor's degree in human development from Cornell University.

**Lisa M. Sturm** is an associate director on the institutional client services team at Artisan Partners with responsibility for client support for the strategies managed by the firm's Growth team. Prior to joining Artisan Partners in July 2007, Ms. Sturm was a product specialist at Robert W. Baird & Co., Inc. She began her career at Strong Capital Management in 2000. Ms. Sturm holds a bachelor's degree in marketing and information technology from Marquette University.

## Notes and Disclosures

**This section of this presentation contains information important to a complete understanding of the material presented. Please review it carefully.**

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SEI Trust Company: The collective investment trust is a trust for the collective investment of assets of participating tax qualified pension and profit sharing plans and related trusts, and governmental plans, as more fully described in the Declaration of Trust. The Trust is managed by SEI Trust Company based on the investment advice of Artisan Partners Limited Partnership. As a bank collective trust, the Trust is exempt from registration as an investment company.

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Assets Under Management (AUM) refers to the assets of pooled vehicles and accounts to which Artisan Partners provides investment services. Artisan Partners' AUM as reported here includes assets for which Artisan Partners does not have investment discretion, including certain assets for which we earn only investment-related service fees. Non-discretionary assets are reported on a one-month lag. Artisan's definition of AUM is not based on any definition of Assets Under Management contained in the ADV or in any of Artisan's fund management agreements.

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## Notes and Disclosures

**Attribution:** Performance attribution quantifies the relationship between a portfolio's relative returns and the active management decisions differentiating the portfolio from the benchmark. Attribution excludes account fees and expenses and does not represent an investor's total return. Allocation Effect examines the relative return attributable to group (e.g., asset class, sector, region) allocations. Selection Effect examines the relative return attributable to security selections. For international portfolios, Currency Effect examines the relative return attributable to currency exposures. **Attribution is not exact, but should be considered an approximation of the relative contribution the factors considered.**

**Portfolio Holdings:** For the purpose of determining the portfolio's holdings, securities of the same issuer are aggregated to determine the weight in the portfolio. For an index, the largest holdings are calculated at the security level and do not aggregate securities held by an issuer. Holdings information is not intended to represent or predict portfolio investment performance or as a recommendation of any individual security. A complete list of the securities held by portfolio, other than cash and cash equivalents unless otherwise noted, as of the date indicated is included. Securities named in this material, but not listed within the portfolio holdings page were not held as of the date reported. Portfolio holdings are subject to change without notice.

**Where We Are Finding Growth:** The holdings mentioned comprised the following weights as of 30 Jun 2022: Artisan Global Opportunities Trust: Novo Nordisk A/S 1.8%, AstraZeneca PLC 2.7%, Lonza Group AG 3.2%, Danaher Corp 2.5%, Hexagon AB 1.9%, Keyence Corp 1.6%, CNH Industrial NV 2.2%, The Charles Schwab Corp 2.6%, London Stock Exchange Group PLC 2.0%, Atlassian Corp PLC 3.0%, Veeva Systems Inc 5.2%, Techtronic Industries Co Ltd 4.4%, Fidelity National Information Services Inc 2.9%, NU Holdings Ltd 0.8%, Vestas Wind Systems A/S 1.2%, NextEra Energy Inc 5.2%, Aptiv PLC 1.4%, Tesla Inc 0.7%; Artisan Mid Cap Growth Trust: Argenx SE 3.4%, Catalent Inc 4.5%, Ascendis Pharma A/S 2.8%, BioNTech SE 1.0%, Fortive Corp 1.3%, Teledyne Technologies Inc 1.8%, Trimble Inc 1.2%, Burlington Stores Inc 1.6%, Chipotle Mexican Grill Inc 2.5%, Ingersoll Rand Inc 2.5%, Nasdaq Inc 2.4%, Zscaler Inc 2.0%, Atlassian Corp PLC 3.5%, Veeva Systems Inc 4.8%, HubSpot Inc 3.6%, Global Payments Inc 3.6%, Bill.com Holdings Inc 0.8%, Global-e Online Ltd 0.7%, MSCI Inc 2.0%, Aptiv PLC 1.3%, Generac Holdings Inc 1.7%; Artisan Small Cap Growth Trust: Halozyme Therapeutics Inc 8.7%, Ascendis Pharma A/S 3.8%, Veracyte Inc 2.5%, Novanta Inc 3.4%, Valmont Industries Inc 3.9%, Ingersoll Rand Inc 3.2%, Blackline Inc 3.8%, Guidewire Software Inc 2.3%, Workiva Inc 2.0%, Q2 Holdings Inc 2.2%, BigCommerce Holdings Inc 0.9%, Olo Inc 0.7%, Lattice Semiconductor Corp 5.3%, YETI Holdings Inc 0.5%, Wolfspeed Inc 1.2%, Morningstar Inc 1.9%; Artisan Global Discovery Trust: Argenx SE 2.5%, Gerresheimer AG 1.2%, Ascendis Pharma A/S 2.7%, Teledyne Technologies Inc 2.2%, Novanta Inc 1.1%, Burlington Stores Inc 1.5%, Puma SE 1.9%, Metso Outotec Oyj 1.4%, Zscaler Inc 1.0%, Obic Co Ltd 1.9%, Veeva Systems Inc 5.7%, Techtronic Industries Co Ltd 3.5%, Global Payments Inc 2.3%, Vestas Wind Systems A/S 1.2%, Valmont Industries Inc 3.1%, Morningstar Inc 1.8%, Workiva Inc 0.9%. This material is not intended as a recommendation of any investment theme or security example listed and there is no guarantee that an investment in any security example or investment theme will result in profit.

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*Meeting Date*  
**09/28/2022**  
*Agenda Item*  
**#8**

# RETIREMENT APPLICATION PROCESS

**Tim Hoppe**, Retirement Services Manager

Retirement Board  
September 28, 2022

# RETIREMENT PREPARATION

RECOMMENDED STEPS, TOOLS & INFORMATION TO PREPARE FOR RETIREMENT	TIMING
1. Informational Session	Throughout career (available on CCCERA website)
2. Pre-Retirement Workshop	Targeted to members within 5 years of retirement
3. Retirement Estimate	Requested by member 6 months to 1 year prior to retirement date
4. Counseling Appointments and Inquiries (by phone and email)	60-90 days prior to retirement date or upon request
5. Online Benefit Calculator	Throughout career (available on CCCERA website)
6. Annual Benefit Statements	Sent annually to active and vested deferred members, and members that have established reciprocity

# RETIREMENT APPLICATION & CALCULATION PROCESS

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- Member submits retirement application and all required documents
  - Copies of documents; social security card, birth certificate or passport, marriage certificate, court orders from previous marriages, social security estimate or benefit
  - Additional service credit purchases
  - Simultaneous retirement application with reciprocal systems
- Employer submits final active payroll
  - County provides file 30 days following the payment date for the County and five employers
  - For example, **July** earnings are paid on the **August 10** file that is provided to CCCERA on **September 10**

# RETIREMENT CALCULATION PROCESS

FINAL STEPS TO RETIREMENT PAYMENT	AVERAGE TIMING
1. Retirement Calculation	8 weeks after final active payroll is processed and paid - Date of Retirement July 31 - Last Paycheck August 10 - CCCERA Receives Payroll File September 10 (5-10 days to post in Pension Administration System) - Calculation Completed October 5 (8 weeks from August 10)
2. Retirement Payment Choice Election provided	1 week after final Retirement Calculation - Option Election Form Provided October 12
3. First pension payment	1 week after Retirement Payment Choice Election submitted to CCCERA - On Payroll October 18 Off-Cycle

# STEP 1: RETIREMENT CALCULATION ON CURRENT SYSTEM

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- The retirement calculation process begins once the final active paycheck is processed by the employer and is available to CCCERA.
- The information is received through employer records and employer information requests.
- The member's career retirement records are audited. This includes an audit of all service time and contributions.
- The highest 12 or 36 months of salary, depending on member's tier(s), for the final average salary portion of the retirement calculation is determined.

# STEP 1: RETIREMENT CALCULATION (continued)

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- The retirement counselor calculates the unmodified retirement benefit
- A supervisor reviews the calculation for accuracy
- The final calculation is verified in the pension administration system
- Payment Option Choices are created and verified back to the pension administration system

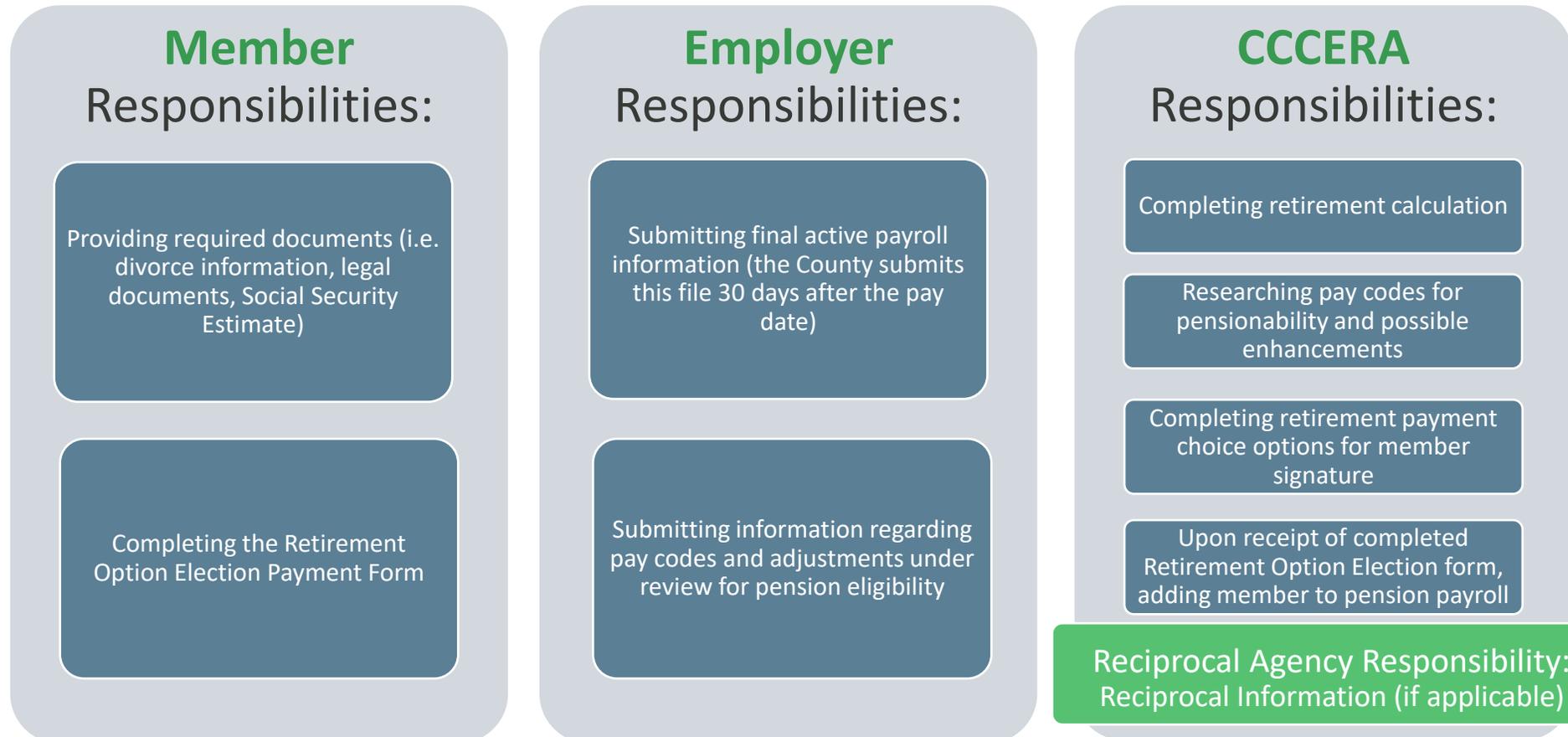
# STEPS 2 & 3: RETIREMENT PAYMENT CHOICE & FIRST PENSION PAYMENT

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- Member is provided with payment option election form
- Member selects payment option and returns form to CCCERA
- When CCCERA receives the completed form, the member is placed on the next available off-cycle payroll process
- Initial pension payment runs are completed 2 to 3 times per month

# WHAT CAN AFFECT THE TIMING OF THE FIRST PENSION PAYMENT?

- When processing retirement applications there are up to four parties that complete tasks:



# WHAT CAN CAUSE A DELAY IN ISSUING THE FIRST PENSION PAYMENT?

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## Member Responsibility

- Required documentation not on file
  - For example, birth certificates, marriage licenses, social security cards, divorce/QDRO documentation, Social Security estimate (Tier 2)
- The member may retire during a divorce and the retirement calculation is delayed until the divorce is finalized
- Member payment of required contributions that were not made (most cases are the first contribution following membership starting)
- Member delays in submitting the signed choice of retirement allowance form to CCCERA

# WHAT CAN CAUSE A DELAY IN ISSUING THE FIRST PENSION PAYMENT?

## Employer Responsibility

- Final paycheck from employer is delayed (employer not aware of retirement)

Example of employer with a monthly payroll:

Last Day of Employment	Retirement Date	Final paycheck paid*	County File Provided to CCCERA*
March 5	March 6	April 10	May 10
March 15	March 16	April 10	May 10
March 30	March 31	April 10	May 10

\*If employer has been notified of retirement, if not add 30 days

- Payroll data that contains pay codes which require additional research – the employer may need to complete research in order to provide the needed information to CCCERA

# WHAT CAN CAUSE A DELAY IN ISSUING THE FIRST PENSION PAYMENT?

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## CCCERA Responsibility

- An increase in retirements can slow down the processing of retirement applications
- Payroll data that contains pay codes or amounts which require clarification – communication with the employer and the member regarding the pay codes or amounts
- Retirement calculations are validated by reviewing all contributions, service credit and compensation. Any discrepancies are researched and corrected in the pension administration system
- Reciprocal Agency may be slow in providing information
- Staffing challenges related to staff retirements, leaves of absences, COVID, open positions, etc.

# STEPS THAT CCCERA CURRENTLY TAKES TO SHORTEN THE TIMELINE

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- Encourage members to provide necessary documentation prior to retirement: workshops, newsletters, member handbook, website, in-person counseling appointments, lobby signage, estimate communication
- Reviewing completeness of application information submitted upon receipt and notifying the applicant immediately of missing documents and/or information required to calculate their benefit
- During the retirement process providing written and verbal communication on outstanding items needed including required documents and completion of the choice of retirement allowance form
- Attaining payroll information from the source prior to receiving and posting the County's payroll file to the pension administration system
- Requesting responses to payroll questions/discrepancies when identified, prior to receiving the payroll file

# RECENT WORKFLOW CHANGES

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- 3 new Retirement Counselors joined the team
- 3 Retirement Counselors were assigned to only process retirement applications (final calculations)
- 1 Retirement Counselor assigned to retirement application intake (verifies application completeness, including required documents and eligibility to retire, and provides related communication to the applicant)
- 3 Retirement Counselors focused on supporting active members inquiries and requests (i.e., estimates, purchases)
- 2 temps and 1 new Counselor in training
- 1 Technician supporting Pre-Retirement Workshops
- 2 open counselor positions remain to be filled

# Next Steps

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- Assessing staffing and resource needs for 2023
- Work group formed to explore options to improve retirement application processing
- Consultant assisting in reengineering the retirement application process

# 2022 RETIREMENT APPLICATION PROCESSING

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- Through September 30, **446** retirement applications have been processed and are receiving a monthly benefit. This compares to **342** for the same period in 2021 and **258** in 2020.
- Due to the increased number of retirement applications received during the first quarter of the year, retirement application processing was taking up to 16 weeks to complete in some situations.
- Currently, retirement application processing is averaging 8 to 10 weeks following the last active pay date.

# QUESTIONS?

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## MEMORANDUM

Date: September 28, 2022  
To: CCCERA Board of Retirement  
From: Henry Gudino, Accounting Manager  
Subject: Review of 2022 CCCERA budget versus actual expenses 3<sup>rd</sup> quarter report

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### ***Background***

Enclosed please find a 3rd quarter budget versus actuals expense update report for the 2022 fiscal year from January 1 through September 30, 2022. The 2022 budget is presented as a total annual amount in order to compare with actual expenses through the 3rd quarter year-end. The remaining budget dollars and percentages of budget remaining allows the reader to compare and monitor how much is left for the remaining fiscal year. The update is divided into four sections including: Total CCCERA departments combining Administrative and Non-Administrative expenses (p.1), followed with separate sections for Administrative and Non-Administrative expenses (p.2-3), and concluding with a Capital Budget update (p.4).

Administrative departmental expenses include Executive, Compliance, Human Resources, Administrative, Accounting, Information Technology, Retirement Services, and Member Services. Non-Administrative expenses include Investments and Legal, along with any other departmental legal fees, and Disaster Recovery program costs.

The Capital Budget describes annual and accumulated costs for assets that are depreciated annually over their useful life beginning at purchase date or when the asset is completed. The Pension Administration System project is an asset-in-development to be depreciated at completion over 10 years. Other office assets such as furniture, IT hardware equipment, and leasehold improvements, are assets being depreciated in the operating budget.

For the 3rd quarter status ended September 30, 2022, total CCCERA expenses amounted to \$12,077,779 of which \$8,766,031, or 73%, was Administrative and \$3,311,748 or 27%, was Non-Administrative. Administrative expenses when compared to the 2022 approved Administrative budget of \$13,128,300 results in a remaining budget of \$4,362,269 or 33% remaining at the 3rd quarter 75% mid-year point.

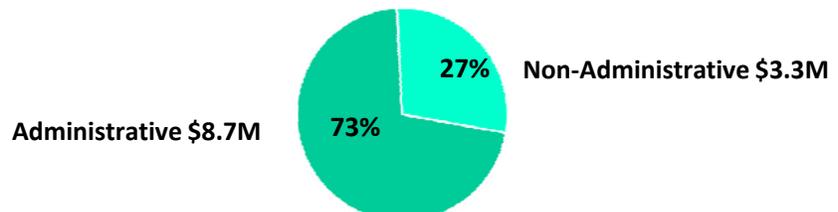
Section 31580.2 of the California Government Code sets a statutory limit for administrative expenses to be capped at 0.21% of the most current Actuarial Accrued Liability (AAL). Last measured as of December 31, 2021, the AAL is \$11.3 billion which results in a statutory limit of approximately \$23.7 million. The 2022 Administrative expenses are trending at \$11.7 million for December 2022 year-end which is 0.104% of the AAL and well under the limit amount.

***Recommendation***

This memo is for informational purposes only, and no action is required.

**CCCERA Combined Administrative and Non-Administrative  
FY2022 Budget vs Actual Expenses - 3rd Quarter**

	2022 Budget	2022 Q3 Actuals	\$ (over) under	% (over) under
<b>Personnel Services:</b>				
Salaries and Wages	\$ 8,111,600	\$ 5,233,062	\$ 2,878,538	35%
Employee Benefits and Retirement	5,291,100	3,470,538	1,820,562	34%
<b>Total Personnel Services</b>	<b>13,402,700</b>	<b>8,703,600</b>	<b>4,699,100</b>	<b>35%</b>
<b>Operational Expenses:</b>				
Professional Services				
Investment Consulting	954,000	726,083	227,917	24%
Actuarial Services	298,700	108,555	190,145	64%
Outside Legal Counsel Services	432,000	201,064	230,936	53%
Audit Services	56,000	64,456	(8,456)	(15%)
Actuary - Benefit Statements	75,000	-	75,000	100%
Disability Hearing/ Medical Reviews	160,000	14,579	145,421	91%
Other Professional Services	61,100	33,551	27,549	45%
<b>Total Professional Services</b>	<b>2,036,800</b>	<b>1,148,288</b>	<b>888,512</b>	<b>44%</b>
Office Expenses:				
Office Lease	577,000	464,539	112,461	19%
Telephone & Internet Services	116,300	69,533	46,767	40%
Equipment Lease & Maintenance	22,500	13,611	8,889	40%
Furniture & Equipment	7,000	378	6,622	95%
Office Supplies & Maintenance	127,900	44,884	83,016	65%
Printing & Postage	141,600	145,759	(4,159)	(3%)
Training & Education	139,400	55,567	83,833	60%
Travel & Transportation	190,000	52,201	137,799	73%
Insurance	361,800	243,406	118,394	33%
<b>Total Office Expenses</b>	<b>1,683,500</b>	<b>1,089,878</b>	<b>593,622</b>	<b>35%</b>
Information Technology Systems:				
Support Service & Software Contracts	763,100	506,383	256,717	34%
Hardware & Equipment Maintenance	48,300	14,367	33,933	70%
Project Consulting	433,000	410,930	22,070	5%
<b>Total IT Systems</b>	<b>1,244,400</b>	<b>931,680</b>	<b>312,720</b>	<b>25%</b>
Assets Depreciation	305,200	204,333	100,867	33%
<b>Total CCCERA Expenses</b>	<b>\$ 18,672,600</b>	<b>\$ 12,077,779</b>	<b>\$ 6,594,821</b>	<b>35%</b>



**CCCERA Administrative  
FY2022 Budget vs Actual Expenses - 3rd Quarter**

	2022 Budget	2022 Q3 Actuals	\$ (over) under	% (over) under
<b>Personnel Services:</b>				
Salaries and Wages	\$ 5,906,100	\$ 3,944,618	\$ 1,961,482	33%
Employee Benefits and Retirement	4,250,200	2,792,577	1,457,623	34%
<b>Total Personnel Services</b>	<b>10,156,300</b>	<b>6,737,195</b>	<b>3,419,105</b>	<b>34%</b>
<b>Operational Expenses:</b>				
Professional Services				
Audit Services	56,000	64,456	(8,456)	(15%)
Actuary - Benefit Statements	75,000	-	75,000	100%
Disability Hearing/ Medical Reviews	160,000	14,579	145,421	91%
Other Professional Services	60,100	33,344	26,756	45%
<b>Total Professional Services</b>	<b>351,100</b>	<b>112,379</b>	<b>238,721</b>	<b>68%</b>
Office Expenses:				
Office Lease	502,000	402,102	99,898	20%
Telephone & Internet Services	102,000	58,955	43,045	42%
Equipment Lease & Maintenance	22,500	13,611	8,889	40%
Furniture & Equipment	7,000	378	6,622	95%
Office Supplies & Maintenance	116,000	42,613	73,387	63%
Printing & Postage	140,400	145,699	(5,299)	(4%)
Training & Education	125,900	48,659	77,241	61%
Travel & Transportation	90,000	25,654	64,346	71%
Insurance	361,800	243,406	118,394	33%
<b>Total Office Expenses</b>	<b>1,467,600</b>	<b>981,077</b>	<b>486,523</b>	<b>33%</b>
Information Technology Systems:				
Support Service & Software Contracts	439,400	349,705	89,695	20%
Hardware & Equipment Maintenance	36,400	14,367	22,033	61%
Project Consulting	428,000	410,930	17,070	4%
<b>Total IT Systems</b>	<b>903,800</b>	<b>775,002</b>	<b>128,798</b>	<b>14%</b>
Assets Depreciation	249,500	160,378	89,122	36%
<b>Total Administrative Expenses</b>	<b>\$ 13,128,300</b>	<b>\$ 8,766,031</b>	<b>\$ 4,362,269</b>	<b>33%</b>

**CCCERA Non-Administrative  
FY2022 Budget vs Actual Expenses - 3rd Quarter**

	2022 Budget	2022 Q3 Actuals	\$ (over) under	% (over) under
<b><u>Personnel Services:</u></b>				
Salaries and Wages	\$ 2,205,500	\$ 1,288,444	\$ 917,056	42%
Employee Benefits and Retirement	1,040,900	677,961	362,939	35%
Total Personnel Services	3,246,400	1,966,405	1,279,995	39%
<b><u>Operational Expenses:</u></b>				
Professional Services				
Investment Consulting	954,000	726,083	227,917	24%
Actuarial Services	298,700	108,555	190,145	64%
General & Fiduciary Legal Counsel	280,000	136,196	143,804	51%
Investment Legal Counsel	110,000	53,427	56,573	51%
Disability Legal Services	42,000	11,441	30,559	73%
Other Professional Services	1,000	207	793	79%
Total Professional Services	1,685,700	1,035,909	649,791	39%
Office Expenses:				
Office Lease	75,000	62,437	12,563	17%
Telephone & Internet Services	14,300	10,578	3,722	26%
Office Supplies & Maintenance	11,900	2,271	9,629	81%
Printing & Postage	1,200	60	1,140	95%
Training & Education	13,500	6,908	6,592	49%
Travel & Transportation	100,000	26,547	73,453	73%
Total Office Expenses	215,900	108,801	107,099	50%
Information Technology Systems:				
Support Service & Software Contracts	323,700	156,678	167,022	52%
Hardware & Equipment Maintenance	11,900	-	11,900	100%
Project Consulting	5,000	-	5,000	100%
Total IT Systems	340,600	156,678	183,922	54%
Assets Depreciation	55,700	43,955	11,745	21%
<b>Total Non-Administrative Expenses</b>	<b>\$ 5,544,300</b>	<b>\$ 3,311,748</b>	<b>\$ 2,232,552</b>	<b>40%</b>

**CCCERA**  
**2022 Capital Budget Update 3rd Quarter**

	Contract	Costs Incurred To Date	Remaining Contract	Percent Remaining
<b><u>Pension Administration System (PAS)</u></b>				
Data Conditioning Project - ICON	\$ 2,115,000	\$ 820,351	\$ 1,294,649	61%
Pension Administration System - Sagitec	12,597,660	1,884,861	10,712,799	85%
<b>Total Project Costs</b>	<b>\$ 14,712,660</b>	<b>\$ 2,705,212</b>	<b>\$ 12,007,448</b>	<b>82%</b>

\*PAS costs accumulate while in-progress. Depreciation begins at Project completion over 10-year useful life.

	Original Asset Cost	Depreciation 3rd Qtr
<b><u>Other Capital Assets &amp; Depreciation</u></b>		
Leasehold Improvements	\$ 139,938	\$ 10,495
Office Furniture/ Workstations	537,822	80,673
Communication & Network Equipment	107,918	16,188
Audio Visual Equipment	184,270	27,640
Security Equipment	101,947	15,292
IT Hardware & Software	485,305	54,045
<b>Total Assets &amp; Depreciation</b>	<b>\$ 1,557,199</b>	<b>\$ 204,333</b>