

AGENDA

RETIREMENT BOARD MEETING

REGULAR MEETING February 14, 2018 9:00 a.m. Retirement Board Conference Room The Willows Office Park 1355 Willow Way, Suite 221 Concord, California

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

- 1. Pledge of Allegiance.
- 2. Accept comments from the public.
- 3. Approve minutes from the January 10, 2018 meeting.
- 4. Routine items for February 14, 2018.
 - a. Approve certifications of membership.
 - b. Approve service and disability allowances.
 - c. Accept disability applications and authorize subpoenas as required.
 - d. Approve death benefits.
 - e. Accept Asset Allocation Report.
 - f. Accept Liquidity Report.

CLOSED SESSION

- 5. The Board will go into closed session to consider the Hearing Officer's recommendation regarding the disability application for Sandy Chavez.
- 6. The Board will continue in closed session to consider the Hearing Officer's recommendation regarding the disability application for Leslie Pounds.

OPEN SESSION

- 7. Presentation from Milliman on GASB 45 Actuarial Valuation of Post-Employment Benefits.
- 8. Consider and take possible action to adopt the Actuarial Valuation Report of Post-Employment Benefits.
- 9. Consider and take possible action regarding the funding of CCCERA's OPEB liability.
- 10. Consider and take possible action to issue a Request for Proposal for Master Custodian.

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.

- 11. Consider authorizing the attendance of Board:
 - a. CII Spring 2018 Conference, Council of Institutional Investors, March 12-14, 2018, Washington, DC. (Note: Conflict with meeting)
 - b. Day of Education in Private Equity Conference, National Association of Securities Professionals, March 29, 2018, Los Angeles, CA.
 - c. NCPERS Annual Conference & Exhibition, May 13-16, 2018, New York, NY.

12. Miscellaneous

- a. Staff Report
- b. Outside Professionals' Report
- c. Trustees' comments

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





MINUTES

RETIREMENT BOARD MEETING MINUTES

REGULAR MEETING January 10, 2018 9:00 a.m. Retirement Board Conference Room The Willows Office Park 1355 Willow Way, Suite 221 Concord, California

Present: Candace Andersen, Scott Gordon, Jerry Holcombe, Louie Kroll, Jay Kwon, David MacDonald, John Phillips, William Pigeon, Gabe Rodrigues, Todd Smithey and Rusty Watts

Absent: Jerry Telles

Staff: Gail Strohl, Chief Executive Officer; Christina Dunn, Deputy Chief Executive Officer; Timothy Price, Chief Investment Officer; Karen Levy, General Counsel; Wrally Dutkiewicz, Compliance Officer; Anne Sommers, Administrative/HR Manager; Henry Gudino, Accounting Manager; Tim Hoppe, Retirement Services Manager; and Colin Bishop, Member Services Manager

Outside Professional Support:	Representing:
Harvey Leiderman	Reed Smith LLP

1. Pledge of Allegiance

The Board, staff and audience joined in the Pledge of Allegiance.

2. Accept comments from the public

No member of the public offered comment.

3. Approval of Minutes

It was M/S/C to approve the minutes from the November 8 and November 21, 2017 meetings with the following corrections to the November 21, 2017 minutes: 1) after Item 2, the sentence should read "Pigeon and Smithey were present for subsequent discussion and voting;" 2) Item 5, line 1, should state "2018-2020 Strategic Plan;" and 3) Item 9, second paragraph, second to the last sentence, add "which was favorable" to the end of the sentence. (Yes: Andersen, Gordon, Holcombe, Kroll, MacDonald, Phillips, Pigeon, Smithey and Watts)

4. <u>Routine Items</u>

It was **M/S/C** to approve the routine items of the January 10, 2018 meeting. (Yes: Andersen, Gordon, Holcombe, Kroll, MacDonald, Phillips, Pigeon, Smithey and Watts)

CLOSED SESSION

The Board moved into closed session pursuant to Govt. Code Section 54957.

The Board moved into open session.

- 5. It was M/S/C to accept the Medical Advisor's recommendations and grant the following disability benefits:
 - a. Dan Colbath Service Connected (Yes: Andersen, Gordon, Holcombe, Kroll, MacDonald, Phillips, Rodrigues, Smithey and Watts). Note: Pigeon recused himself from this item and was not present during the deliberation and decision.
 - b. James Colon Service Connected (Yes: Andersen, Gordon, Holcombe, Kroll, MacDonald, Phillips, Pigeon, Smithey and Watts)
 - c. Melissa Cote Service Connected (Yes: Andersen, Gordon, Holcombe, Kroll, MacDonald, Phillips, Pigeon, Smithey and Watts)
 - d. Maurice Howell Service Connected (Yes: Andersen, Gordon, Holcombe, Kroll, MacDonald, Phillips, Rodrigues, Smithey and Watts). Note: Pigeon recused himself from this item and was not present during the deliberation and decision.
 - e. Darin Peterson Service Connected (Yes: Andersen, Gordon, Holcombe, Kroll, MacDonald, Phillips, Pigeon, Smithey and Watts)
 - f. Bernell Snell Non-Service Connected (Yes: Andersen, Gordon, Holcombe, Kroll, MacDonald, Phillips, Pigeon, Smithey and Watts)
 - g. Nubia Zamora Service Connected (Yes: Andersen, Gordon, Holcombe, Kroll, MacDonald, Phillips, Rodrigues, Smithey and Watts)

It was the consensus of the Board to move to Item 7.

7. <u>Consider and take possible action to authorize the CEO to execute a contract with Brown</u> <u>Armstrong for auditing services</u>

Phillips reported the Audit Committee is recommending that Brown Armstrong be retained as CCCERA's external auditor for the next three year period for the years ending December 31, 2017, 2018, and 2019 and to enter into a three (3) year contract with an option to renew for another three (3) years, subject to the annual review and recommendation of the Audit Committee. He noted the partner assigned to CCCERA would rotate with the new contract.

It was **M/S/C** to authorize the CEO to execute a contract with Brown Armstrong Accountancy Corporation for auditing services, as recommended by the Audit Committee. (Yes: Andersen, Gordon, Holcombe, Kroll, MacDonald, Phillips, Pigeon, Smithey and Watts)

8. <u>Consider and take possible action to amend the Audit Committee Charter as recommended by</u> the Audit Committee

Phillips reported the recommended change to the Audit Committee Charter adds language to Section III, Membership. The proposed language is "At the second regular meeting in July, as the second order of business, or as required to fill vacancies, the Board Chairperson will appoint members of the Audit Committee as provided in the CCCERA Regulations and designate one member to serve as the Committee Chairperson and another member to serve as the Committee Vice-Chairperson."

It was M/S/C to amend the Audit Committee Charter, as recommended by the Audit Committee. (Yes: Andersen, Gordon, Holcombe, Kroll, MacDonald, Phillips, Pigeon, Smithey and Watts)

9. <u>Consider and take possible action to issue a Request for Proposal for Disability Retirement</u> <u>Legal Services</u>

Dunn reported it has been four years since CCCERA has reviewed disability retirement legal service providers and asked for approval to issue a Request for Proposal for Disability Retirement Legal Services.

It was M/S/C to issue a Request for Proposal for Disability Retirement Legal Services. (Yes: Andersen, Gordon, Holcombe, Kroll, MacDonald, Phillips, Pigeon, Smithey and Watts)

10. Presentation of the CCCERA 2018 Compliance Activity Plan

Dutkiewicz gave an update on the status of the 2017 Compliance Department projects and employer audits.

He reviewed the internal control activities and projects planned for 2018. He also reviewed the employer audits planned for 2018 which include the Contra Costa County department of information technology and the Contra Costa County Auditor Controller's Office.

11. Presentation of Contra Costa County Health Services Department Final Audit Report

Dutkiewicz presented the final audit report for the Contra Costa County Health Services Department. He reported that although no material variances were found with what was expected to be reported and what was actually reported, their payroll and reporting process is very complex and could lead to errors.

Dutkiewicz noted that due to the complexity of their manual payroll collection and reporting process and the number of payroll adjustments processed, compliance will continue to follow up with the employer and the department. He also noted that follow-up items included the collection of outstanding enrollment forms from the employer.

12. Presentation of East Contra Costa County Fire Protection District Final Audit Report

Dutkiewicz reported there were a number of follow-up items and noted the District was in concurrence with CCCERA's observations and findings. The follow-up items include formal training to be provided by CCCERA on pensionable compensation and contribution reporting, incorrect base pay corrections, pensionable compensation as related to the pensionability of pay code F62 (standby pay differential), and maintaining a publicly available pay schedule. CCCERA staff will prepare an advisory related to pay code F62 once the review with the District is completed.

13. Consider authorizing the attendance of Board:

- a. No action was taken on this item.
- b. It was M/S/C to authorize the attendance of all appropriate Board members at the CALAPRS General Assembly, March 3-6, 2018, Indian Wells, CA. (Yes: Andersen, Gordon, Holcombe, Kroll, MacDonald, Phillips, Pigeon, Smithey and Watts)
- c. It was M/S/C to authorize the attendance of 3 Board members at the FORUM 2018: Building Resilient Portfolios When Missions Matter, Commonfund, March 11-13, 2018, Orlando, FL. (Yes: Andersen, Gordon, Holcombe, Kroll, MacDonald, Phillips, Pigeon, Smithey and Watts)
- d. No action was taken on this item.

14. <u>Miscellaneous</u>

(a) Staff Report -

<u>Strohl</u> reported the CPI is anticipated to be released on Friday, January 12th and a retiree COLA recommendation should be coming to the Board for consideration at the January 24th meeting. She reported she was recently elected to the CALAPRS Board of Directors.

<u>Price</u> gave an update on the StepStone consulting agreements and noted both the private equity and private credit contracts have been executed. StepStone will be presenting an update to the Board later in the year.

(b) Outside Professionals' Report -

None

(c) Trustees' comments –

None

It was the consensus of the Board to move to Item 6.

CLOSED SESSION

The Board moved into closed session pursuant to Govt. Code Section 54956.9(d)(1).

The Board moved into open session.

6. There was no reportable action.

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

Todd Smithey, Chairman

David MacDonald, Secretary

BOARD OF RETIREMENT

<u>Meeting Date</u> 2/14/18 <u>Agenda Item</u> #4

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Items requiring Board Action

A. Certifications of Membership – see list and classification forms.

B. Service and Disability Retirement Allowances:

		Effective	Option		
<u>Name</u>	<u>Number</u>	Date	Туре	Group	Selected
Alexander, Mark	78727	5/16/17	SCD	Safety D	Unmod
Biggs, Timothy	45934	10/05/17	SR	Safety A	Unmod
Boehme, Elaine	D3406	11/28/17	SR	Tier I	Unmod
Bongco, Emmanuel	63508	10/28/17	SR	Tier II and III	Unmod
Boukis, Lorraine	D9990	11/16/17	SR	Tier I	Unmod
Brown, Darrell	55209	12/01/17	SR	Safety A	Unmod
Castillo Jr., Gilbert	D7160	09/29/17	SR	Safety A	Unmod
Champion, Randall	65175	09/30/17	SR	Safety A	Unmod
Fenyes, Ryan	73444	12/22/15	NSCD	Safety C	Unmod
Ferguson, David	52057	11/01/17	SR	Safety A	Unmod
Hammond, Jeffrey	67664	11/12/17	SR	Safety A	Option 3
Hermanek, Kathleen	55604	11/01/17	SR	Tier II and III	Unmod
Hewitt, Roderick	62596	11/01/17	SR	Tier II and III	Unmod
Hoerber, David	63820	06/02/17	SR	Tier II and III	Unmod
Lasater, Boyd	46577	12/01/17	SR	Tier II and III	Unmod
Lee, Phylllis	38390	11/18/17	SR	Tier II and III	Unmod
McCowan, Dean	50416	10/05/17	SR	Safety A	Unmod
Medlin, Susan	74329	11/01/17	SR	Tier III	Option 2
Moore, Tracie	65537	11/11/17	SR	Tier II and III	Unmod
Perez, Edward	45152	07/15/17	SR	Tier II	Unmod
Pickett, Mary	38787	10/27/17	SR	Tier III	Option 2
Pitcavage, Bryan	49309	12/02/17	SR	Safety A	Unmod
Rivers, Judy	D3406	12/16/17	SR	Tier I	Unmod
Scott, McGregor	44606	12/02/17	SR	Tier II	Unmod
Sippert, Teresita	63182	09/19/17	SR	Tier III	Unmod
Speiker, Theresa	74876	11/06/17	SR	Tier III	Unmod
Suchel, Ivan	61910	11/01/17	SR	Tier II and III	Unmod

KEY :	Group	Option	
	I = Tier I	* = County Advance	NS
	II = Tier II	Selected w/option	SCD = Ser
	III = Tier III		SR =
	S/A = Safety Tier A		NSCD = Non
	S/C = Safety Tier C		

Type

NSP = Non-Specified SCD = Service Connected Disability SR = Service Retirement NSCD = Non-Service Connected Disability

February 14, 2018

CONTRA COSTA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

BOARD OF RETIREMENT

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Sweeney, Kellie	45408	11/01/17	SR	Tier III	Unmod
Tapia, Yolanda	47070	11/30/17	SR	Tier II and III	Unmod
Walton, Janet	22715	10/16/17	SR	Tier I and II	Unmod
Webster, Sheryl	37495	12/01/17	SR	Tier III	Unmod
Woodruff, Sheila	30061	10/14/17	SR	Tier III	Unmod
Yoshimoto, Elsa	67569	11/27/17	SR	Tier III	Unmod

С.

Disability Retirement Applications: The Board's Hearing Officer is hereby authorized to issue subpoenas in the following cases involving disability applications:

Name	<u>Number</u>	Filed	Туре
None			

D.

Deaths: Date of Death Employer as of Date of Death Name Alexander, Mary 12/14/17 Contra Costa County Bennett, Gena 01/24/18 Superior Courts of Contra Costa County Brown, Malinda 01/07/18 Contra Costa County Carash, Marvin 12/11/17 Contra Costa County Causey, James 11/24/17 Contra Costa County Cuff, Lillie 01/18/18 Contra Costa County Fuerst, Margaret 01/15/18 Beneficiary Grant, Florida 08/26/17 Contra Costa County Horstman, Patricia 01/10/18 Contra Costa County Johannes, Mary 12/29/17 Superior Courts of Contra Costa County Kirkman, Richard 12/16/17 Iron House Sanitary District Kontogianis, Gus 01/09/18 Contra Costa County Kripalani, Champa 08/19/17 Contra Costa County Kuchins, Albert 01/06/18 Beneficiary Lunt, Stanley 12/22/17 Contra Costa County McCarthy, Erica 12/01/17 Beneficiary Meadows, Milla-Faye 01/30/18 Contra Costa County Ousborn, Gloria 12/20/17 Contra Costa County

KEY: Group I = Tier I II = Tier III II = Tier III III = Tier IIII S/A = Safety Tier A S/C = Safety Tier C

Option
 * = County Advance
 Selected w/option

Type

NSP = Non-Specified SCD = Service Connected Disability SR = Service Retirement NSCD = Non-Service Connected Disability

CONTRA COSTA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

BOARD OF RETIREMENT

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Pillion, Sylvia	11/22/17	Contra Costa County
Pereira, Elizabeth	12/16/17	Contra Costa County
Poling, Kathleen	12/27/17	Beneficiary
Rainas, Carol	01/14/18	Contra Costa County
Ray, Earl	01/11/18	Contra Costa County
Riordan, Denise	01/24/18	Beneficiary
Schepens, Peter	01/22/18	Contra Costa County
Sosa, Andrea	12/26/17	Contra Costa County
Thompson, Harold	01/14/18	Contra Costa County
Todd, Robin	06/03/17	Beneficiary
Triglia, Begonia	01/05/18	Contra Costa County
Tucker, Lewis	01/12/18	Contra Costa County

KEY:

Group I = Tier I II = Tier II III = Tier III S/A = Safety Tier A S/C = Safety Tier C Option
 * = County Advance
 Selected w/option

 Type

 NSP = Non-Specified

 SCD = Service Connected Disability

 SR = Service Retirement

 NSCD = Non-Service Connected Disability

CERTIFICATION OF MEMBERSHIPS



	Employee		Membership	
Name	Number	Tier	Date	Employer
Amaya Padilla, Norman	86330	P5.2	12/01/17	Contra Costa County
Arias, Mario	65477	S/A	12/01/17	Contra Costa County
Benton, Traci	86359	P5.2	12/01/17	Contra Costa County
Bernstein, Marsha	86324	P5.2	12/01/17	Contra Costa County
Bravo, Julia	86326	P5.2	12/01/17	Contra Costa County
Brenes, Carol	83584	P5.2	12/01/17	Contra Costa County
Burns, Deirdre	86325	P5.2	12/01/17	Contra Costa County
Carrillo, Sarah	56972		12/01/17	Contra Costa County
Casillas, Yesenia	D9990	P4.3	12/01/17	Contra Costa County Housing Authority
Ceja, Omar	86366	P5.2	12/01/17	Contra Costa County
Chand, Anuja	86367	P5.2	12/01/17	Contra Costa County
Clopper, Anjuli	86368	P5.2	12/01/17	Contra Costa County
Cooper, Michael	86369	S/E	12/01/17	Contra Costa County
Dass, Gloria	86265	P5.2	12/01/17	Contra Costa County
Davison, Kathleen	56649	P5.2	12/01/17	Contra Costa County
De La Garza, Nicole	86351	P5.2	12/01/17	Contra Costa County
DeVera, Monica	74961		12/01/17	Contra Costa County
Dunbar, Sonia	D9500	P5.3	12/01/17	Superior Courts of Contra Costa County
Echols, Priscilla	82087	P5.2	12/01/17	Contra Costa County
Ewen, Joshua	86397	P5.2	12/01/17	Contra Costa County
Fernandez, Ruth	86287	P4.3	12/01/17	First Five of Contra Costa
Forsythe, Amber	86371	P5.2	12/01/17	Contra Costa County
Francisco, Piedad	86350	P5.2	12/01/17	Contra Costa County
Gonzales, Nancy	84274	P5.2	12/01/17	Contra Costa County
Hampton, Magic	86318	P5.2	12/01/17	Contra Costa County
Hand, Douglas	80139	P5.2	12/01/17	Contra Costa County
Ibarra, Vi	86331	P5.2	12/01/17	Contra Costa County
Jackson, Cynthia	D7830	P4.3	12/01/17	San Ramon Valley Fire Protection Dist.
Kasukurthi, Jayashree	86384	P5.2	12/01/17	Contra Costa County
Kizer, Kathleen	86256	P5.2	12/01/17	Contra Costa County
Latcham, Franklin	86311	P5.2	12/01/17	Contra Costa County
LemosLima, Mark	86395	P5.2	12/01/17	Contra Costa County
Leon, Rosa	84485	S/E	12/01/17	Contra Costa County
LeRoy, Brenda	86365	P5.2	12/01/17	Contra Costa County
Lewis, Matthew	84367	P5.2	12/01/17	Contra Costa County
Lincoln, Dinesh	86285	P5.2	12/01/17	Contra Costa County

	Key:					
I = Tier I	P4.2 = PEPRA Tier 4 (2% COLA)	S/A = Safety Tier A				
II = Tier II	P4.3 = PEPRA Tier 4 (3% COLA)	S/C = Safety Tier C				
III = Tier III	P5.2 = PEPRA Tier 5 (2% COLA)	S/D = Safety Tier D				
	P5.3 = PEPRA Tier 5 (3% COLA)	S/E = Safety Tier E				

CERTIFICATION OF MEMBERSHIPS

	Employee		Membership	
Name	Number	Tier	Date	Employer
Mack, Jarrett	84665	P5.2	12/01/17	Contra Costa County
Majano Ramos, Andony	86396	S/E	12/01/17	Contra Costa County
Mendoza, Roxana	D4980		12/01/17	CCCERA
Ngo, Lisa	86264	P5.2	12/01/17	Contra Costa County
Nnanna, Ogechi	83210	P5.2	12/01/17	Contra Costa County
Novero, Nicole	86328	P5.2	12/01/17	Contra Costa County
Okeeffe, Fionn	86316	P5.2	12/01/17	Contra Costa County
Olson, Susan	D9500	P5.3	12/01/17	Superior Courts of Contra Costa County
Ormerod, Julie	83260	P4.2	12/01/17	Contra Costa County Fire Protection Dist.
Parham, Alanai	86356	P5.2	12/01/17	Contra Costa County
Pruett, Christina	86303	P5.2	12/01/17	Contra Costa County
Purefoy, Charissa	86327	P5.2	12/01/17	Contra Costa County
Richardson, Cardia	86323	P5.2	12/01/17	Contra Costa County
Rivas, Alvaro	86321	P5.2	12/01/17	Contra Costa County
Rodgers, Kimberly	84632	P5.2	12/01/17	Contra Costa County
Rosa, Christine	D3406	P4.3	12/01/17	Central Contra Costa Sanitary Dist.
Russell, Tamina	86352	P5.2	12/01/17	Contra Costa County
Seastrom, Trisha	86370	P5.2	12/01/17	Contra Costa County
Shepard, Jessica	86354	P5.2	12/01/17	Contra Costa County
Simone, Jason	86426	P5.2	12/01/17	Contra Costa County
Sung, Karl	86254	P5.2	12/01/17	Contra Costa County
Tolliver, Cherlynn	86360	P5.2	12/01/17	Contra Costa County
Trindade, Steven	86385	P5.2	12/01/17	Contra Costa County
Ventura, Katherine	86329	P5.2	12/01/17	Contra Costa County
Walker, Omar	81535	P5.2	12/01/17	Contra Costa County
Wilhelm, Gary	86364	P5.2	12/01/17	Contra Costa County
Wilson, Daphne	D9990	P4.3	12/01/17	Contra Costa County Housing Authority
Yuers, Kimberly	86386	P5.2	12/01/17	Contra Costa County

	Key:					
I = Tier I	P4.2 = PEPRA Tier 4 (2% COLA)	S/A = Safety Tier A				
II = Tier II	P4.3 = PEPRA Tier 4 (3% COLA)	S/C = Safety Tier C				
III = Tier III	P5.2 = PEPRA Tier 5 (2% COLA)	S/D = Safety Tier D				
	P5.3 = PEPRA Tier 5 (3% COLA)	S/E = Safety Tier E				

TIER CHANGES

	Employee	Old	New	Effective		
Name	Number	Tier	Tier	Date	Employer	Reason for Change
Arata, Brandon	84647	P5.2	S/E	12/01/17	Contra Costa County	Promotion into Safety Class
Childs, Dwight	84754	P5.2	S/E	12/01/17	Contra Costa County	Promotion into Safety Class
Cortes, Isaac	84756	P5.2	S/E	12/01/17	Contra Costa County	Promotion into Safety Class
Gilbert, Paul	84648	P5.2	S/E	12/01/17	Contra Costa County	Promotion into Safety Class
Lazar, Max	84649	P5.2	S/E	12/01/17	Contra Costa County	Promotion into Safety Class
Lema, Bradley	84645	P5.2	S/E	12/01/17	Contra Costa County	Promotion into Safety Class
O'Donnell, Andrew	82684	P5.2		12/01/15	Contra Costa County	Reciprocity
Paredes, Anthony	81659	P5.2	S/E	12/01/17	Contra Costa County	Promotion into Safety Class
Ridgers, Matthew	78964	P5.2	S/E	12/01/17	Contra Costa County	Promotion into Safety Class
Rocha, Jesse	D3406	P4.3	I	06/01/15	Central Contra Costa Sanitary Dist.	Reciprocity
Slauson, Ryan	84646	P5.2	S/E	12/01/17	Contra Costa County	Promotion into Safety Class
Souza, Ryan	84758	P5.2	S/E	12/01/17	Contra Costa County	Promotion into Safety Class
Torres, Alex	84750	P5.2	S/E	12/01/17	Contra Costa County	Promotion into Safety Class

Key:					
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II = Tier II	P4.3 = PEPRA Tier 4 (3% COLA)	S/C = Safety Tier C			
III = Tier III	P5.2 = PEPRA Tier 5 (2% COLA)	S/D = Safety Tier D			
	P5.3 = PEPRA Tier 5 (3% COLA)	S/E = Safety Tier E			

Contra Costa County Employees' Retirement Association Asset Allocation as of December 31, 2017



	Market	Percentage	Phase 2b Target	Phase 2b	Long Term	Long Term
Liquidity	Value	of Total Fund	Percentage	Over/(Under)	Target	Over/(Under)
Insight	837,519,570	9.9%	12.6%	-2.7%		
Sit	489,041,194	5.8%	6.2%	-0.4%		
Dimensional Fund Advisors	408,202,187	4.8%	6.2%	-1.4%		
Total Liquidity	1,734,762,951	20.5%	25.0%	-4.5%	27.0%	-6.5%
			inge			
		16%	- 28%			
Growth						
Domestic Equity						
Boston Partners	404,800,288	4.8%	4.5%	0.3%		
Jackson Square	401,340,082	4.7%	4.5%	0.2%		
BlackRock Index Fund	119,996,103	1.4%	1.3%	0.1%		
Emerald Advisors	288,874,678	3.4%	3.0%	0.4%		
Ceredex	265,221,052	3.1%	3.0%	0.1%		
Total Domestic Equity	1,480,232,202	17.5%	16.3%	1.2%	6.0%	11.5%
Global & International Equity						
Pyrford (BMO)	462,487,249	5.5%	5.2%	0.3%	6.0%	-0.5%
William Blair	495,236,391	5.9%	5.2%	0.7%	6.0%	-0.3%
First Eagle	367,319,441	4.3%	4.3%	0.0%	0.0 %	-0.1%
Artisan Global Opportunities	380,816,392	4.5%	4.3%	0.2%		
PIMCO/RAE Emerging Markets	370,514,509	4.4%	4.3%	0.2%	5.0%	-0.6%
TT Emerging Markets	358,984,501	4.2%	4.2%	0.2%	5.0%	-0.8%
Total Global & International Equity	2,435,358,483	28.8%	27.4%	1,4%	22.0%	6.8%
Total Global & International Equity	2,455,550,405	20.070	27,470	1,4 /0	22.0%	0.0%
Private Equity	843,549,000	10.0%	9.6%	0.4%	12.0%	-2.0%
Private Credit	147,579,000	1.7%	2.4%	-0.7%	12.0%	-10.3%
Real Estate - Value Add	158,441,000	1.9%	4.0%	-2.1%	4.0%	-2.1%
Real Estate - Opportunistic & Distressed	448,370,000	5.3%	4.0%	1.3%	4.0%	1.3%
Real Estate - REIT (Adelante)	68,201,810	0.8%	1.0%	-0.2%	1.0%	-0.2%
High Yield (Allianz)	358,938,580	4.2%	4.3%	-0.1%	1.070	-0.270
Total Other Growth Assets	2,025,079,391	23.9%	25.3%	-1.4%	33.0%	-9.1%
		20.070	23.570	1.470		5.170
Total Growth Assets	5,940,670,076	70.2%	69.0%	1.2%	61.0%	9.2%
		Ra	inge			
		60 %	- 80%			
Risk Diversifying						_
AFL-CIO	327,131,114	3.9%	3.5%	0.4%	3.0%	0.9%
Diversifying Strategies (Wellington)	189,869,327	2.2%	2.5%	-0.3%	9.0%	-6.8%
Total Risk Diversifying	517,000,441	6.1%	6.0%	0.1%	12.0%	- 5.9 %
			nge			
	l	0%	- 10%			
Cash and Overlay				0.53		
Overlay (Parametric)	38,887,711	0.5%	0.0%	0.5%		
Cash	228,772,333	2.7%	0.0%	2.7%	0.0%	2.7%
Total Cash and Overlay	267,660,044	3.2%	0.0%	3.2%	0.0%	3.2%
Total Fund	8,460,093,512	100%	100%	0%	100%	09/
	0,400,035,512	100%	100%	0%	100%	0%

*Phase 2b targets and ranges reflect Phase 2b asset allocation targets accepted by the Board on July 12, 2017 (BOR Resolution 2017-6)

Private Market Investments As of December 31, 2017

Jate Termination Exension by GP/IP Termination Commitment Value Tetal Asset Commitment (1/14) (20/12) (3/12)	REAL ESTATE - Value Add	Inception	Target	# of	Discretion	New Target	Funding	Market	% of	Outstanding	
67/30/13 05/30/13 06/30/13 02/30/13 02/30/13 02/30/13 02/30/13 02/30/13 02/30/14		Date	Termination	Extension	by GP/LP	Termination	Commitment	Value	Total Asset	Commitment	
1007/13 06(07/13) 06(07/13) 06(07/13) 05(00000 13.43,000 0.26% 13/17/13 07/37/13 07/37/13 07/37/13 07/37/13 07/37/13 07/37/13 07/37/13 07/37/13 07/37/13 0.0000 17.48/000 0.26% 0.05% 01/37/12 09/37/13 09/37/14 07/37/13 07/37/13 07/37/13 07/37/13 0.07% 0.05% <td< td=""><td>nvesco IREF II</td><td>05/30/07</td><td>12/31/15</td><td>in full liq.</td><td></td><td></td><td>85,000,000</td><td>444,000</td><td></td><td></td></td<>	nvesco IREF II	05/30/07	12/31/15	in full liq.			85,000,000	444,000			
12/01/14 12/01/14 12/01/14 12/01/14 12/01/16 00/26% 10/31/15 09/30/24 0/31/15 09/30/24 55000000 24/65.000 026% 10/31/15 09/30/24 0/31/19 0/31/19 0/31/19 0/31/19 0/31/19 10/31/15 09/30/24 0/31/19 0/31/19 0/31/19 0/31/19 0/31/19 0/31/19 Outstanding commitments Target F 50000000 24/64.000 0.26% 0/35 Orisition 0/31/13 0/31/13 0/31/14 10/16 10/16 10/16 11 10/31/13 0/31/13 0/31/13 0/31/13 0/31/14 <td< td=""><td>invesco IREF II</td><td>08/01/13</td><td>08/01/20</td><td></td><td></td><td></td><td>35,000,000</td><td>13,282,000</td><td>0.16%</td><td></td></td<>	invesco IREF II	08/01/13	08/01/20				35,000,000	13,282,000	0.16%		
(6/14/13) (6/3/1/1	Invesco IREF IV	12/01/14	12/01/21				35,000,000	19,294,000	0.23%	3,190,000	
1031/15 00/30/14 0.030/4 2460.000 0.296 01/31/15 00/31/15 00/31/16 00/31/16 00/31/16 00/31/16 01/31/15 00/31/16 00/31/16 00/31/16 00/31/16 00/31/16 Outstanding Commitments Target # 550,000,000 35,010,000 0.436 Outstanding Commitments Target # 0 107,010 107,010 17,010 0 00/30/18 00/30/18 00/30/18 00/30/18 00/30/18 00/30/18 0 00/30/11 00/30/12 00/30/12 00/30/10 00/30/18 00/30/18 0 00/30/11 00/30/12 00/30/12 00/30/16 00/33/18 00/30/18 0 00/30/11 00/30/12 00/30/10 10/30/12 00/30/18 00/33/18 0 00/30/11 00/30/12 00/30/10 10/30/18 00/30/18 00/33/18 0 00/30/11 00/30/12 00/30/18 00/30/18 00/33/18 00/33/18 <tr< td=""><td>Long Wharf FREG IV</td><td>08/14/13</td><td>09/30/21</td><td></td><td></td><td></td><td>25,000,000</td><td>17,187,000</td><td>0.20%</td><td></td></tr<>	Long Wharf FREG IV	08/14/13	09/30/21				25,000,000	17,187,000	0.20%		
(1/31/12) (1/31/12) <t< td=""><td>Long Wharf FREG V</td><td>10/31/16</td><td>09/30/24</td><td></td><td></td><td></td><td>50,000,000</td><td>24,602,000</td><td>0.29%</td><td>23,987,000</td></t<>	Long Wharf FREG V	10/31/16	09/30/24				50,000,000	24,602,000	0.29%	23,987,000	
1073/15 09/30/24 1073/15 075/00.000 4/5/5/00 0.5/5/5 0000 Custanding Commitments Termination 75/00.000 158/341,00 0.5/5 0.01 Custanding Commitments 365/00000 158/341,00 0.5/5 0.01 Custanding Termination Emmittation Commitment 357/300 0.33% 0.01 12/31/07 05/30/14 Infullin, by GP/14 Termination Commitment Value Com 12/31/12 02/31/13 02/31/13 02/32/23 07/30/00 033% 0.01 01/31/15 02/32/13 02/32/23 02/32/23 07/30/00 033% 0.01 01/31/16 07/31/13 07/30/00 031/32/00 0.33% 0.01 01/31/16 07/31/13 07/32/23 07/30/00 0.33% 0.01 01/31/16 07/31/13 07/31/13 07/30/00 0.31/34/00 0.35% 0.00 01/31/16 10/31/25 01/31/16	LaSalle Income & Growth Fund VI	01/31/12	01/31/19				75,000,000	36,016,000	0.43%	3,946,000	
Ses, 500, 000 ISR, 41, 100 ISR, 41, 100 <th <="" colspa="2" td=""><td>LaSalle Income & Growth Fund VII</td><td>10/31/16</td><td>09/30/24</td><td></td><td></td><td></td><td>75,000,000</td><td>47,616,000</td><td>0.56%</td><td>27,449,000</td></th>	<td>LaSalle Income & Growth Fund VII</td> <td>10/31/16</td> <td>09/30/24</td> <td></td> <td></td> <td></td> <td>75,000,000</td> <td>47,616,000</td> <td>0.56%</td> <td>27,449,000</td>	LaSalle Income & Growth Fund VII	10/31/16	09/30/24				75,000,000	47,616,000	0.56%	27,449,000
Interprior Target Interprior # of Interprior Description Reservation (13/31/13) Particiption Signation Signation Signation Outsing (13/13/13) Commitment Yalue Total 217/013/00 Oitsing Outsing Outsing Commitment Yalue Total 217/013/00 Oitsing Outsing Outsing Commitment Yalue Com Oitsing Com Oitsing Com Oitsing Soft Outsing Com Oitsing Com Oitsing Soft Oitsing Com Oitsing Soft Oitsing							505,000,000	158,441,000	1.87%	58,572,000	
Total 217,013,000 Treption Target # of Discretion Pyrof/L Transfer Name Transfer Col 10,30/15 66/30/15 75,000/00 75/30/10 073/35 60/01 073/35 60/01 073/35 66/30/15 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Outstanding Co	ommitments			1		58,572,000			
Inception Target Funding Market Soft Outs Date Termination by off by off Termination by off Outs 06/30/05 66/30/14 in fulling, by off Termination by off Outs 12/31/07 06/30/05 66/30/14 in fulling, by off 28,157,000 0.33% Commitment Com 0 00/30/11 02/30/12 by off 100,000,000 86,709,000 1.02% Com 0 00/30/11 07/30/12 00/30/12 by off 100,000,000 84,391,000 0.33% Com 0 0/3/31/15 00/30/12 10/10/12 80,000,000 84,391,000 0.23% I 0 0/3/31/15 00/31/12 00/30/12 55,000,000 0.23% I I 0 0/3/31/13 0/3/31/25 00/30/00 61,35,000 0.23% I I 0 0/3/31/14 11/10/02 10/31/12 0/3/31/12 2/3/3/000<		Total					1	217,013,000	_		
Inception Target # of Discretion New Target Fundination Value Y of Out Date Termination Extension by GP/LP Termination Value Total Asset Com 07/31/13 12/31/12 06/30/14 in full liq, Termination Value Total Asset Com 07/31/13 12/31/22 05/30/12 10/30/00 05/31/13 12/31/23 02/33/8 Com 03/36 01 02/31/13 12/31/25 02/30/12 10/00/00 31/34,000 0.38% Com 01 02/31/13 02/30/12 02/30/00 31/34,000 0.38% Com 01 07/30/11 02/30/12 02/30/00 565,000 0.37% D 01/31/13 12/31/13 02/30/12 565,000 0.37% D D 01/31/11 12/31/13 02/30/12 56,000 0.3% D D 11/10/13 11/10/12 11/10/12 11/10/12 26/30/10 02							1				
Date Termination Date Termination Value Trail Aget Com Capial Partners, LP, IV 03/30/35 6/30/14 infullio, infulio, infulio, <td>EAL ESTATE -Opportunistic & Distressed</td> <td>Inception</td> <td>Target</td> <td># of</td> <td>Discretion</td> <td>New Target</td> <td>Funding</td> <td>Market</td> <td>% of</td> <td>Outstanding</td>	EAL ESTATE -Opportunistic & Distressed	Inception	Target	# of	Discretion	New Target	Funding	Market	% of	Outstanding	
Capital Fartnes, LP, U 05/30/s1 06/30/s1 06/30/s1 06/30/s1 06/30/s1 03/31		Date	Termination	Extension	by GP/LP	Termination	Commitment	Value	Total Asset	Commitment	
Capital Partners, L. N. 12/31/07 08/30/18 12/31/07 08/30/18 12/31/07 03/36 12/33 00 0000 31/74000 0.33% 12/33 00 03/36 0.33% 12/34/00 0.23% 12/34/00 0.23% 12/34/00 0.23% 0.00% 0.03% 13/34/00 0.23% 12/34/00 0.23% 0.00% 0.03% 13/34/00 0.23% 0.03% 13/34/00 0.23% 0.00% 0.23% 0.00% 0.23% 0.00% 0.23% 0.00% 0.23% 0.00	OL Real Estate Capital Partners, L.P. III	06/30/05	06/30/14	in full lig.			75,000,000	28,167,000	0.33%		
Capital Partnes, L, V 0/31/13 12/31/22 12/31/22 12/31/22 12/31/22 12/31/20 0.38% 13/34 0.38% 13/34 0.38% 13/34 0.38% 13/34 0.38% 13/34 0.38% 13/34 0.38% 13/34 0.39% 0.39% 0.39% 0.39% 0.39% 0.39% 0.39% 0.39% 0.39% 0.39% 0.39% 0.39% 0.39% 0.37% 0.37% 0.07% 13/34 0.07% 0.37% 0.07% 0.37% 0.07% 0.37% 0.07% 0.37% 0.07%	0L Real Estate Capital Partners, L.P. IV	12/31/07	09/30/18				100,000,000	86,709,000	1.02%		
tate Oportunities Fund V ate Oportunities Fund V (232/15) 02/38/13 03/3020 0738/13 (232/31) 07/30/13 07/30/13 06/31/25 (232/31) 07/31/13 11/10/20 0558/ tressed Real Estate Op. Fund (232/11) 11/10/13 11/10/20 0558/ tressed Real Estate Op. Fund (232/11) 11/10/13 11/10/20 0558/ tressed Real Estate Op. Fund (232/11) 11/10/21 11/10/20 0558/ tressed Real Estate Op. Fund (232/11) 11/10/21 11/10/20 0558/ tressed Real Estate Op. 1Co-Inv (11/10/13 11/10/20 0558/ tressed Real Estate Op. 1000000 12/146 00000 0258/ Realty Fund VI (232/11) 11/10/21 11/10/20 0258/ Realty Fund VI (232/11) 11/10/21 11/10/21 07/32/000 0258/ Realty Fund VI Oportunity Fund	이니 Real Estate Capital Partners, L.P. V	07/31/13	12/31/22				75,000,000	31,734,000	0.38%	36,086,000	
tate Oportunities fund VI 05/30/13 02/38/13 02/38/13 02/38/15 02/38/15 02/38/15 02/38/15 02/38/15 02/38/15 02/38/15 02/38/15 02/38/15 02/38/15 02/38/15 02/38/15 02/38/12 02/3	Jaktree Real Estate Opportunities Fund V	02/01/11	02/01/21				50,000,000	9,347,000	0.11%		
tere Oportunities fund VI 02/28/15 02/28/15 0730/22 0730/22 0730/22 0730/22 586,500 05% 75,000000 58,65,000 05% 75,000000 05% 75,000000 05% 75,000000 05% 75,000000 05% 75,000000 05% 75,000000 05% 75,000000 05% 75,000000 05% 75,000000 05% 75,000000 05% 75,000000 05% 75,000000 05% 75,0000000 05% 75,0000000 05% 75,0000000 05% 75,0000000 05% 75,0000000 05% 75,0000000 05% 75,0000000 05% 75,0000000 05% 75,0000000 05% 75,000000 05% 75,0000000 05% 75,0000000 05% 75,0000000 05% 75,0000000 05% 75,0000000 05% 75,0000000 05% 75,0000000 05% 75,0000000 05% 75,0000000 05% 75,000000 05% 75,0000000 05% 75,0000000 05% 75,0000000 05% 75,0000000 05% 75,0000000 05% 75,00000000 05% 75,0000000 05% 75,00000000 05% 75,00000000 05% 75,00000000 05% 75,0000000 05% 75,0000000 05% 75,00000000 05% 75,0000000 05% 75,00000000 05% 75,00000000 05% 75,00000000 05% 75,00000000 05% 75,00000000 05% 75,000000000000000 05% 75,000000000000000000000000000000000000	Jaktree Real Estate Opportunities Fund VI	09/30/13	09/30/20				80,000,000	61,351,000	0.73%	5,682,000	
ressed Real Estate Opp. Fund 11 07/30/12 07/30/12 07/30/12 07/30/12 07/30/12 07/30/12 07/30/12 07/30/12 07/30/12 07/30/12 07/30/12 07/30/12 07/30/12 07/30/12 07/46/00 0.58% ressed Real Estate Opp. 11/10/13 11/10/23 11/10/20 11/10/13 11/10/20 0.14% 20,000,000 11/146/00 0.21% 20,000,000 11/146/00 0.21% 20,000,000 11/146/00 0.21% 20,000,000 11/146/00 0.24% 20,000,000 11/146/00 0.24% 20,000,000 0.17/46/00 0.24% 20,000,000 0.17/46/00 0.24% 20,000,000 0.17/46/00 0.24% 20,000,000 0.17/46/00 0.24% 20,000,000 0.11/10/20 0.24% 20,000,000 0.11/10/20 0.24% 20,000,000 0.11/10/20 0.24% 20,000,000 0.11/10/20 0.24% 20,000,000 0.11/10/20 0.24% 20,000,000 0.04% 20,000,000 0.24% 20,000,000 0.04% 20,000,000 0.04% 20,000 0.04% 20,000 0.04% 20,000,000 0.04% 20,000,000 0.04% 20,000,000 0.04% 20,000 0.02% 20,000,000 0.04% 20,000 0.04% 20,000 0.04% 20,000 0.04% 20,000 0.04% 20,000,000 0.04% 20,000 0.04% 20,000 0.04% 20,000,000 0.04% 20,000,000 0.04% 20,000 0.04% 20,000,000 0.04% 20,000,000 0.04% 20,000,000 0.04% 20,000,000 0.04% 20,000,000 0.04% 20,000 0.04% 20,000,000 0.04% 20,000 0.04% 20,000 0.04% 20,000 0.04% 20,000,000 0.04% 20,000,000 0.04% 20,000,000 0.04% 20,000,000 0.04% 20,000,000 0.04% 20,000,000 0.04% 20,000,000 0.04% 20,00	Jaktree Real Estate Opportunities Fund Vil	02/28/15	02/28/23				65,000,000	5,865,000	0.07%	55,250,000	
ressed Real Estate Opp. Fund II 08/31/15 08/31/15 08/31/15 08/31/15 08/31/15 0.031/15 0.031/15 0.031/15 0.031/15 0.031/15 0.031/15 0.031/15 0.031/15 0.031/15 0.031/15 0.031/15 0.031/15 0.031/15 0.011/16 0.031/15 0.011/16 0.031/15 0.011/16	iguler Guff Distressed Real Estate Opp. Fund	07/30/11	07/30/22				75,000,000	48,910,000	0.58%	11,993,000	
ressed Real Estate Op. II Co-Inv 01/31/16 10/31/25 10/31/25 0.21% 0.21% tate Fund II 11/10/13 11/10/20 11/10/20 0.21% 0.27% Realty Fund VII 12/31/11 12/31/13 12/31/12 0.21% 0.21% Realty Fund VII 12/31/13 12/31/13 12/31/12 0.21% 0.21% Realty Fund VII 12/31/13 12/31/13 12/31/12 0.44% 0.44% 0.44% Realty Fund VII 10/10/22 10/10/22 # of 0.44% 0.44% 0.44% 0.44% Community Fund II 05/30/16 in full liq. New Farget Funding Market 0.01% Opportunity Fund II 09/30/16 in full liq. N N 128,0000 0.53% 0.01% Opportunity Fund II 09/30/16 in full liq. N N 128,0000 0.05% 0.05% Opportunity Fund II 09/30/12 08/30/10 17/11 09/30/12 09/30/12 0.01% 0.01% Opportunity Fund II 09/30/12 09/30/12 17/11 09/30/12 09/30/12<	iguler Guff Distressed Real Estate Opp. Fund II	08/31/13	08/31/25				70,000,000	54,160,000	0.64%	21,752,000	
tate fund li tate fund li Realty Fund XII Realty Fund XII Realty Fund XI Realty Fund XI Outstanding Commitments Total Contranty Fund II Opportunity Fund II Opportunity Fund II Opportunity Fund VI Opportunity Fund VI Opportunity Fund VI Second Contranty Fund VI Opportunity Fund VI Opportunity Fund VI Second Contranty Fund VI Opportunity Fund VI Opportunity Fund VI Contranty Fund VI Opportunity Fund VI Contranty Fund VI Opportunity Fund VI Contranty Fund VI Contr	iguler Guff Distressed Real Estate Opp. Il Co-Inv	01/31/16	10/31/25				25,000,000	17,746,000	0.21%	7,967,000	
Realty Fund VII 12/31/11 12/31/18 12/31/18 12/31/10 0.49% 0 Realty Fund IX 10/10/14 10/10/22 10/10/12 10/10/22 0.48% 0.48% 0.48% 0 Realty Fund IX 10/10/14 10/10/22 10/10/12 0.128% 0.48% 0.48% 0 0.48% 0 0.48% 0 0.48% 0 0.48% 0 0.48% 0 0.48% 0 0.48% 0 0.48% 0 0 0.48% 0 <t< td=""><td>aulson Real Estate Fund II</td><td>11/10/13</td><td>11/10/20</td><td></td><td></td><td></td><td>20,000,000</td><td>22,424,000</td><td>0.27%</td><td></td></t<>	aulson Real Estate Fund II	11/10/13	11/10/20				20,000,000	22,424,000	0.27%		
Reaty Fund IX 10/10/14 10/10/22 10/10/22 0.148% 0.138% 0 Austanding Commitments 780,000,000 40,740,000 5.30% 1 Outstanding Commitments Total 187,766,000 408,370,000 5.30% 0 Outstanding Commitments Total # of Discretion New Target 178,000,000 40,375,000 5.30% 0 Outstanding Commitments Total Termination Fermination 867/LP Termination 843,370,000 0.48,370,000 0.48 0 Opportunity Fund II 09/20/05 10/172 80/30/16 2.nd 1 YR LP 0.6/30/18 75,000,000 4,0,375,000 0.48% Om Opportunity Fund IV 09/30/12 In full III, LP 06/30/18 75,000,000 4,0,375,000 0.652% Com Opportunity Fund IV 03/31/17 08/31/12 In full III 138,000,000 4,0,335,000 0.055% Com Energy Cre	ngelo Gordon Realty Fund VIII	12/31/11	12/31/18				80,000,000	41,217,000	0.49%	18,145,000	
780,000,000 448,370,000 5.30% 5.30% 5.30% Outstanding Commitments Tetal 187.966,000 5.30% Col Termination Termination Value Value 700 Optionunity Fund II 09/30/36 09/30/36 01/31/3 00/12 75,000,000 48,331,000 05/36% Optionunity Fund II 09/30/36 0 0 0 Optionunity Fund II 09/30/36 0 0 0 0 0	Angelo Gordon Realty Fund IX	10/10/14	10/10/22				65,000,000	40,740,000	0.48%	31,091,000	
Outstanding Commitments 187,966,000 Total 36,336,000 Total 536,336,000 Total 536,336,000 Total 536,336,000 Total Target # of Discretion NewTarget Funding Market % of Outs Opportunity Fund II 09/30/16 In-ull IIq. Discretion NewTarget Funding Market % of Outs Opportunity Fund II 09/30/16 In-ull IIq. Discretion NewTarget Funding Market % of Outs Opportunity Fund II 09/30/16 In-ull IIq. Discretion NewTarget Funding Market % of Outs Opportunity Fund II 09/30/16 In-ull IIq. Discretion Ostal Total Asset Com Opportunity Fund II 09/30/16 In-ull IIq. Discretion Total Asset Com Opportunity Fund V 12/31/17 08/31/27 Discretion Total Asset Com Opportunity Fund V 12/31/31							780,000,000	448,370,000	5.30%	187,966,000	
Total G36,336,000 Total G36,336,000 Inception Target # of Discretion New Target Funding Market % of Outs Date Termination New Target Funding Market % of Outs Opportunity Fund II 09/30/16 In full IIq, Value Total Asset Com Opportunity Fund II 09/30/16 In full IIq, Value Total Asset Com Opportunity Fund II 09/30/16 In full IIq, Value Total Asset Com Opportunity Fund II 09/30/16 In full IIq, Value Total Asset Com Opportunity Fund IV 1/31/31 09/17/22 09/17/22 09/17/22 <th cols<="" td=""><td></td><td>Outstanding Co</td><td>ommitments</td><td></td><td></td><td>-</td><td></td><td>187,966,000</td><td></td><td></td></th>	<td></td> <td>Outstanding Co</td> <td>ommitments</td> <td></td> <td></td> <td>-</td> <td></td> <td>187,966,000</td> <td></td> <td></td>		Outstanding Co	ommitments			-		187,966,000		
Inception Target # of Discretion New Target Funding Market % of Outs Opportunity Fund II Date Termination Extension by GP/LP Termination Commitment Value 7.300 0.48% Commitment Opportunity Fund II 09/30/06 06/30/16 In full liq, LP 06/30/18 12.3,000,000 4.0,375,000 0.48% Commitment Opportunity Fund II 09/30/06 06/30/16 In full liq, LP 06/30/18 7.5,000,000 4.0,375,000 0.66% <td></td> <td>Total</td> <td></td> <td></td> <td></td> <td></td> <td>• #</td> <td>636,336,000</td> <td></td> <td></td>		Total					• #	636,336,000			
Inception Target # of Discretion NewTarget Funding Market % of Outs Opportunity Fund II Date Termination Extension by GP/LP Termination Commitment Value Total Asset Commitment Opportunity Fund II 09/30/06 09/30/16 in full IIq, LP 06/30/18 Total Asset Commitment Value Total Asset Commitment Value 703,000 0.48% Commitment Commitment Value Total Asset Commitment Value Total Asset Commitment Fund III 09/30/06 0.43,31,000 0.68% Commitment Commitment Fund III Commitment Fund IIII Commitme											
Date Termination Extension by GP/LP Termination Commitment Value Total Total 09/28/06 09/30/16 in fulliq, 1 128,000,000 40,375,000 0.48% Commitment Value Total Asset Commitment Yalue Total Asset Commitment Yalue Yalue<	RIVATE CREDIT	Inception	Target	# of	Discretion	New Target	Funding	Market	% of	Outstanding	
09/28/06 09/30/16 in full liq. 128,000,000 40,375,000 0.48% 09/30/08 06/30/16 2 nd 1 YR LP 06/30/18 75,000 0.48% 08/01/12 08/30/16 2 nd 1 YR LP 06/30/18 75,000,000 46,335,000 0.68% 12/31/14 09/17/22 08/30/12 75,000,000 46,855,000 0.52% 12/31/17 09/17/22 12/31/17 09/17/22 0 0.000% 12/31/17 09/10/20 11/125,000 0.13% 0 0 0.00% 0 09/10/20 09/10/20 11/125,000 0.13% 0 0 0.00% 0 09/10/20 11/12 09/10/20 11/125,000 0.13% 75,000,000 11/14% 0 0 01/10/20 11/125,000 0.13% 0 0.00% 0 0 0.00% 0 0 0 0 0 0.03% 0 0 0 0 0 0 0 <		Date	Termination	Extension	by GP/LP	Termination	Commitment	Value	Total Asset	Commitment	
09/30/08 06/30/16 2nd 1 YR LP 06/30/18 75,000,000 4,803,000 0.06% 08/01/12 08/30/12 08/30/12 08/30/12 08/30/12 0.05% 12/31/14 09/17/24 12/31/17 09/17/24 0 0.00% 00/10/15 09/10/15 09/10/12 09/10/12 0.00% 0 0.00% unities Outstanding commitments Total Total	orchlight Debt Opportunity Fund II	09/28/06	09/30/16	in full liq.			128,000,000	40,375,000	0.48%		
08/01/12 08/30/20 08/30/20 0.52% 12/31/14 09/17/22 75,000,000 46,331,000 0.55% 12/31/17 09/17/24 75,000,000 46,855,000 0.55% 12/31/17 09/17/24 12/31/17 09/17/20 0.00% unities 09/10/15 09/10/10 11,215,000 11,215,000 0.13% Outstanding Commitments 394,500,000 147,579,000 1.74% Total Total	orchlight Debt Opportunity Fund III	80/08/60	06/30/16	2nd 1 YR	ΓЪ	06/30/18	75,000,000	4,803,000	0.06%		
12/31/14 09/17/22 09/17/22 0.55% 12/31/17 09/17/24 40,000,000 0 0.00% 09/10/15 09/10/12 09/10/20 1.1215,000 0.13% all figs colspan="4">Tiles colspan="4">Tiles colspan="4">Tiles colspan="4">Colspan="4" Colspan="4">Colspan="4"Colspan="4" Tile Tile Colspan="4"Colspan="	orchlight Debt Opportunity Fund IV	08/01/12	08/30/20				60,000,000	44,331,000	0.52%		
12/31/17 09/17/24 09/17/24 0 0.00% unities 09/10/15 09/10/20 11,215,000 0.13% Statistical 394,500,000 147,579,000 1.74% Outstanding Commitments 77,500,000 1.74% Total	orchlight Debt Opportunity Fund V	12/31/14	09/17/22				75,000,000	46,855,000	0.55%	37,500,000	
09/10/15 09/10/20 0.13% <th0.13%< th=""> 0.13% 0.13%</th0.13%<>	orchlight Debt Opportunity Fund VI	12/31/17	09/17/24				40,000,000	0	0.00%	40,000,000	
394,500,000 147,579,000 1.74% and ing Commitments 225,079,000 225,079,000	Angelo Gordon Energy Credit Opportunities	09/10/15	09/10/20				16,500,000	11,215,000	0.13%		
anding Commitments		20					394,500,000	147,579,000	1.74%	77,500,000	
~		Outstanding Co	ommitments			_		77,500,000			
		Total					•	225,079,000	_		

v

Private Market Investments As of December 31, 2017

PRIVATE EQUITY	Inception	Target	to #	Discretion	New Target	Funding	Market	% of	Outstanding
	Date	Termination	Extension	by GP/LP	Termination	Commitment	Value	Total Asset	Commitment
Adams Street Partners	12/22/95	INDEFINITE				180,000,000	128,215,000	1.52%	74,805,000
Adams Street Secondary II	12/31/08	12/31/20				30,000,000	10,211,000	0.12%	12,637,000
Adams Street Secondary V	10/31/12	10/31/22				40,000,000	23,087,000	0.27%	15,740,000
Adams Street Venture Innovation Fund	03/09/16	03/09/28				75,000,000	3,413,000	0.04%	71,587,000
Bay Area Equity Fund	06/14/04	12/31/14	2nd 2 YR	LP	12/31/2017	10,000,000	2,965,000	0.04%	
Bay Area Equity Fund II	2/29/09	12/31/19				10,000,000	8,615,000	0.10%	
Carpenter Community BancFund	10/31/09	10/31/19				30,000,000	4,399,000	0.05%	
EIF USPF I	11/08/02	11/08/15	in full liq.	LP	11/08/15	30,000,000	755,000	0.01%	
EIF USPF II	06/15/05	06/15/15	3rd 1 YR	LP	06/15/18	50,000,000	35,104,000	0.41%	
EIF USPF III	02/28/07	02/28/17	1st 1 YR	LP	02/28/18	65,000,000	45,637,000	0.54%	
EIF USPF IV	06/28/10	06/28/20				50,000,000	51,759,000	0.61%	
Oaktree Private Investment Fund 2009	02/28/10	12/15/19				40,000,000	12,370,000	0.24%	
Ocean Avenue Fund II	05/07/14	05/07/24				30,000,000	22,157,000	0.26%	6,384,000
Ocean Avenue Fund III	12/09/15	12/09/25				50,000,000	9,579,000	0.07%	40,000,000
Paladin III	08/15/08	08/15/18				25,000,000	26,064,000	0.31%	-
Pathway	11/09/98	05/31/21				125,000,000	24,766,000	0.29%	14,246,000
Pathway 2008	12/26/08	12/26/23				30,000,000	20,838,000	0.25%	5,738,000
Pathway 6	05/24/11	05/24/26	_	_		40,000,000	33,114,000	0.39%	10,809,000
Pathway 7	02/07/13	02/07/23				70,000,000	51,022,000	0.60%	18,977,000
Pathway 8	11/23/15	11/23/25				50,000,000	21,185,000	0.25%	32,842,000
Siguler Guff CCCERA Opportunities	06/03/14	05/31/25				200,000,000	139,999,000	1.65%	87,098,000
Siguler Guff Secondary Opportunities	12/31/16	12/31/26				50,000,000	11,046,000	0.13%	34,297,000
Real Assets									
Aether III & III Surplus	11/30/13	11/30/20				75,000,000	80,300,000	0.95%	13,772,000
Aether IV	01/01/16	01/01/28				50,000,000	17,726,000	0.21%	31,436,000
ARES EIF V	09/09/15	11/19/25				50,000,000	13,872,000	0.16%	38,561,000
Commonfund Capital Natural Resources IX	06/30/13	06/30/20				50,000,000	40,270,000	0.48%	12,875,000
Wastewater Opportunity Fund	12/31/15	11/30/22				25,000,000	5,081,000	0.06%	18,950,000
						1,545,000,000	843,549,000	10.02%	540,754,000
	Outstanding Commitments	mmitments					540,754,000		
	Total						1,384,303,000		

Market value column is the latest ending quarter plus any additional capital calls after the ending quarter. The Target Termination column is the beginning of liquidation of the fund, however, some funds may be extended for an additional two or three years.





Contra Costa County Employees' Retirement Association

Liquidity Report – December 2017

December 2017 Performance

	Cash Flow	Coverage Ratio
Benefit Cash Flow Projected by Model	\$38,500,000	
Liquidity Sub-Portfolio Cash Flow	\$38,500,000	100%
Actual Benefits Paid	\$35,526,648	108%
Next Month's Projected Benefit Payment	\$37,250,000	

Monthly Manager Positioning – December 2017

	Beginning Market Value	Liquidity Program Cash Flow	Market Value Change/Other Activity	Ending Market Value
Sit	\$489,562,007	(\$1,000,000)	\$479,187	\$489,041,194
DFA	\$420,399,720	(\$12,500,000)	\$302,467	\$408,202,187
Insight	\$861,668,426	(\$25,000,000)	\$851,144	\$837,519,570
Liquidity	\$1,771,630,153	(\$38,500,000)	\$1,632,798	\$1,734,762,951
Cash	\$258,490,77 <mark>6</mark>	\$2,973,352	(\$32,691,795)	\$228,772,333
Liquidity + Cash	\$2,030,120,929	\$(35,526,648)	(\$31,058,997)	\$1,963,535,284

Functional Roles

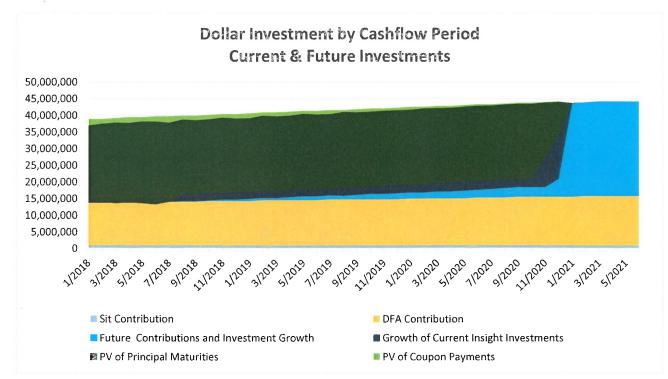
Manager	Portfolio Characteristics	Liquidity Contribution
Sit	High quality portfolio of small	Pays out net income on monthly basis. We expect
	balance, government guaranteed	this income to rise somewhat in the upcoming year.
	mortgages with higher yields.	
DFA	High quality, short duration portfolio	Pays out a pre-determined monthly amount. DFA
	of liquid, low volatility characteristics.	sources liquidity from across their portfolio.
Insight	Buy and maintain (limited trading)	Completion portfolio makes a payment through net
	portfolio of high quality, short	income and bond maturities that bridges the gap
	duration, primarily corporates.	between other managers and projected payment.
Cash	STIF account at custodial bank.	Buffer in the event of any Liquidity shortfall/excess.

Notes

The final cash flow from the liquidity program for 2017 was completed on December 22, 2017 and produced an excess cash flow of approximately \$3.0 million. With a year of cash flow experience, we have now begin to adjust down the model cash flows. The monthly cash flows have been reduced by \$1-1.5 mm monthly through the first half of the year relative to our original projections. We plan to review the projections again in May.

Cash Flow Structure

The chart below shows the sources of cash flow for the next several years of CCCERA's projected benefit payments. This table will change slightly as the model is tweaked and as the portfolios receive new rounds of funding each July as part of the Annual Funding Plan.







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February 14, 2018

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

Contra Costa County Employees' Retirement Association – GASB 45 Actuarial Valuation of Post Employment Benefits as of January 1, 2017

Dear Christina:

I am pleased to enclose the above-titled Milliman report. If you have any questions, please give me a call at (415) 394-3740.

Sincerely,

JSI R. F.

John R. Botsford, FSA, MAAA

JRB:dyu enc.

Contra Costa County Employees' Retirement Association

GASB 45 Actuarial Valuation of Post Employment Benefits Other than Pensions as of January 1, 2017

Prepared by:

John R. Botsford FSA, MAAA

Milliman, Inc. 2175 N. California Blvd., Suite 810 Walnut Creek, California 94596 Tel 888 881 4015 Fax 888 884 0329 milliman.com

February 14, 2018



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February 14, 2018

Contra Costa County Employees' Retirement Association 1355 Willow Way, Suite 221 Concord, CA 94520

Contra Costa County Employees' Retirement Association – GASB 45 Actuarial Valuation of Post Employment Benefits as of January 1, 2017

At the request of the Contra Costa County Employees' Retirement Association ("CCCERA"), we have completed an actuarial valuation of other post employment benefits as of January 1, 2017 for CCCERA's staff employees and retirees.

The purpose of this report is to determine the Annual Required Contribution and required financial disclosures under the Governmental Accounting Standards Board Statement No. 45 – Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions (GASB 45). Our determinations reflect the procedures and methods prescribed in GASB 45.

In preparing our report, we relied, without audit, on information (some oral and some in writing) supplied by CCCERA's staff. This information includes but not limited to employee census data, financial information and CCCERA's other post employment benefit (OPEB) provisions. While Milliman has not audited the financial and census data, they have been reviewed for reasonableness and are, in our opinion, sufficient and reliable for the purposes of our calculations. If any of this information as summarized in this report is inaccurate or incomplete, the results shown could be materially affected and this report may need to be revised.

All costs, liabilities, rates of interest, and other factors for CCCERA have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of CCCERA and reasonable expectations); and which, in combination, offer our best estimate of anticipated experience affecting CCCERA. Further, in our opinion, each actuarial assumption used is reasonably related to the experience of CCCERA and to reasonable expectations which, in combination, represent our best estimate of anticipated experience for CCCERA.

This valuation report is only an estimate of CCCERA's other post employment benefit liability as of a single date. It can neither predict the future condition of CCCERA's other post employment benefit liability nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of other post employment benefits, only the timing of CCCERA's allocation of costs. While the valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct. Determining results using alternative assumptions is outside the scope of our engagement.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: CCCERA experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions;

Contra Costa County Employees' Retirement Association GASB 45 Actuarial Valuation of Post Employment Benefits as of January 1, 2017 Page 2

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 other post employment benefit provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements. CCCERA has the final decision regarding the appropriateness of the assumptions and actuarial cost methods.

Actuarial computations presented in this report under GASB Statement No. 45 are for purposes of assisting CCCERA in fulfilling its financial accounting requirements. The computations prepared for this purpose may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of CCCERA's funding policy and goals. The calculations in this report have been made on a basis consistent with our understanding of CCCERA's funding of CCCERA's funding of CCCERA's current other post employment benefits described in Appendix A of this report, and of GASB Statement No. 45. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

Milliman's work is prepared solely for the internal business use of the Contra Costa County Employees' Retirement Association. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exceptions:

- a) CCCERA may provide a copy of Milliman's work, in its entirety, to CCCERA's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit CCCERA.
- b) CCCERA may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law.

No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuary is independent of CCCERA. We are not aware of any relationship that would impair the objectivity of our work.

Contra Costa County Employees' Retirement Association GASB 45 Actuarial Valuation of Post Employment Benefits as of January 1, 2017 Page 3

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, the report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the applicable Actuarial Standards of Practice of the American Academy of Actuaries. The undersigned is a member of the American Academy of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Sincerely,

OSL R. BE

John R. Botsford, FSA, MAAA Principal and Consulting Actuary

JRB:dyu

Section

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Contra Costa County Employees' Retirement Association GASB 45 Actuarial Valuation of Post Employment Benefits as of January 1, 2017 This work product was prepared solely for CCCERA for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product. Milliman

Introduction

Milliman, Inc. ("Milliman") has been retained by the Contra Costa County Employees' Retirement Association ("CCCERA") to provide a GASB 45 actuarial valuation of other post employment benefits (OPEB) for its staff employees and retirees. In our valuation we:

- Project expected payouts
- Calculate the present value of total benefits
- Calculate the actuarial accrued liability (present value of benefits attributable to past service)
- Determine the Annual Required Contribution (ARC) and annual OPEB expense under GASB Statement No. 45
- Prepare the financial statement disclosures relating to the funded status of the plan

Background

Staff employees who retire directly from CCCERA may receive certain retiree health benefits if they meet certain eligibility requirements. CCCERA contracts with CalPERS for health benefits. CCCERA will contribute an amount toward the cost of retiree health benefits for staff retirees consistent with the bargaining agreements between CCCERA and various bargaining units. Appendix A provides a more detailed summary of benefits.

Rationale for Significant Assumptions

With any valuation of future benefits, assumptions of anticipated future events are required. If actual events differ from the assumptions made, the actual cost of the plan will vary as well.

<u>Discount Rate</u>. GASB 45 requires that the interest rate used to discount future benefit payments back to the present be based on the expected rate of return on any investments set aside to pay for these benefits. If the annual OPEB cost is set aside in a separate, irrevocable trust each year, the discount rate would be based on the expected return on investments held in the trust. CCCERA has not established a trust to fund its OPEB liabilities. Therefore we have shown valuation results using a 3.75% discount rate based on the S&P Municipal Bond 20 Year High Grade Rate Index representing results on an unfunded basis. A 3.50% discount rate was used in the prior valuation.

<u>Health Cost Trend.</u> We have assumed health costs will increase according to the health cost inflation trend derived by using the "Getzen" model developed by the Society of Actuaries. Under the Patient Protection and Affordable Care Act of 2010, including changes passed into law on December 18, 2015, a Federal excise tax will apply for high cost health benefits beginning in 2020. A margin to reflect the impact of the excise tax in future years is reflected in the assumed trend.

The CalPERS minimum contribution is assumed to increase by 3.5% per year. The minimum contribution is indexed to the medical component of CPI. Over the past 10 years, medical CPI has averaged approximately 3.3% per year.

Contra Costa County Employees' Retirement Association

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GASB 45 Actuarial Valuation of Post Employment Benefits as of January 1, 2017

<u>Demographic Decrement Rates.</u> The assumptions for mortality, turnover, retirement and disability used in this valuation are based on the latest pension actuarial report from the Contra Costa County Employees' Retirement Association (CCCERA). Since CCCERA became a separate employer on January 1, 2015, there is no experience data on mortality, turnover, disability and retirement rates for CCCERA staff employees. We have therefore used the rates developed for the CCCERA pension plan. These assumptions can be reviewed and modified in the future as experience emerges for CCCERA staff employees.

<u>Implicit Rate Subsidy</u>. Actuarial standards of practice require measurement of an implicit rate subsidy for health plans that charge the same premium rates for active employees and retirees. Appendix B provides a more detailed summary of the implicit rate subsidy.

<u>Coverage Election Rates and Spouse Age Difference.</u> Since CCCERA became a separate employer on January 1, 2015, there is insufficient experience data on health benefit election, spouse coverage, and spouse age differences to develop assumptions for CCCERA staff retirees. We have reviewed the current active enrollment information and have based our coverage and election assumptions on this information and actuarial judgment of future experience. For Unrepresented employees who are hired prior to January 1, 2009, or AFSCME employees hired prior to January 1, 2010, with at least 15 years of service, we assumed 100% of new retirees will elect medical and dental coverage at retirement and 70% of the new retirees will elect spouse coverage. New retirees electing medical coverage are assumed to elect the Kaiser Plan for medical coverage. For all other employees, we have assumed 50% of new retirees will elect medical and dental coverage at retirement and 70% of the new retirees will elect spouse coverage.

Female spouses are assumed to be three years younger than male spouses. We have assumed that 50% of retirees with spouse coverage will elect coverage for a dependent child until age 65.

A complete summary of the actuarial assumptions are presented in Appendix B.

GASB 74/75

In June 2015, the Governmental Accounting Standards Board adopted GASB 74 and 75 which will replace GASB 43 and 45. The new standards, which will be first effective for CCCERA for the 2018 fiscal year, are a significant change from the current standards. A study of the impact of the new standard was beyond the scope of this valuation. If CCCERA would like an analysis on the impact of the new standard on CCCERA's financial statements, we would be happy to assist.

Results of Study

The valuation results are summarized in the following exhibit and use the following terms:

The **Present Value of Benefits** is the present value of projected benefits (projected claims less retiree contributions) discounted at the valuation interest rate (3.75%).

Contra Costa County Employees' Retirement Association

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GASB 45 Actuarial Valuation of Post Employment Benefits as of January 1, 2017

The Actuarial Accrued Liability (AAL) is the present value of benefits that are attributed to past service only. The portion attributed to future employee service is excluded. For retirees, this is equal to the present value of benefits. For active employees, the actuarial present value of the projected benefits of each individual is allocated as a level percentage of expected salary for each year of employment between entry age (defined as age at hire) and assumed exit (until maximum retirement age). The portion attributed to service between entry age and the valuation date is the actuarial accrued liability.

The **Normal Cost** is that portion of CCCERA provided benefit attributable to employee service in the current year. The Normal Cost is expected to remain level as a percentage of pay throughout the participant's assumed working lifetime. Since retirees are not accruing any more service, their normal cost is zero.

The **Annual Required Contribution (ARC)** is equal to the Normal Cost plus an amount to amortize the unfunded AAL. For this valuation we have assumed an amortization method of a level dollar amount over a period of 30 years on a "closed" basis starting January 1, 2016. There are 29 years remaining as of January 1, 2017.

	Ja	nuary 1, 2017	Ja	nuary 1, 2016
Active Employees		45		48
Retirees after January 1, 2015		4		1
Retirees before January 1, 2015 ¹		0		23
Total Participants		49		72
Present Value of Benefits	\$	11,175,000	\$	14,837,000
Actuarial Accrued Liability	\$	7,568,000	\$	9,835,000
Assets		0		0
Unfunded Actuarial Accrued Liability	\$	7,568,000	\$	9,835,000
Normal Cost as of valuation date	\$	409,000	\$	574,000
Annual Required Contribution (ARC)	\$	858,000	\$	1,129,000

1. CCCERA was notified that retirees who retired before January 1, 2015, are retirees of Contra Costa County; therefore, we removed these retirees from this valuation.

Impact of Changes from Prior Valuation

The Actuarial Accrued Liability decreased by approximately \$2.2 million since the prior valuation. Exhibit 6 shows a summary of changes since the last valuation and their approximate impact on the Actuarial Accrued Liability (AAL).

Variability of Results

The results contained in this report represent our best estimates. However, variation from these or any other estimates of future retiree medical costs is not only possible but probable. Actual future costs may vary significantly from estimates in this report.

Contra Costa County Employees' Retirement Association

GASB 45 Actuarial Valuation of Post Employment Benefits as of January 1, 2017

This work product was prepared solely for CCCERA for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product.

Exhibit 1. Projected Benefit Payments

The table below illustrates the projected annual CCCERA costs of providing retiree health benefits. The projections only consider the closed group of existing employees and retirees.

Year	Explicit Subsidies	Implicit Subsidies	Total
0047	¢ 50.000	¢ 40.000	¢ 70.000
2017	\$ 58,000	\$ 12,000	\$ 70,000
2018	96,000	24,000	120,000
2019	136,000	42,000	178,000
2020	159,000	49,000	208,000
2021	181,000	55,000	236,000
2022	212,000	72,000	284,000
2023	242,000	82,000	324,000
2024	281,000	100,000	381,000
2025	310,000	110,000	420,000
2026	344,000	116,000	460,000
2027	392,000	144,000	536,000
2028	394,000	116,000	510,000
2029	407,000	111,000	518,000
2030	444,000	123,000	567,000
2031	440,000	92,000	532,000
2032	472,000	106,000	578,000
2033	492,000	112,000	604,000
2034	511,000	104,000	615,000
2035	557,000	136,000	693,000
2036	569,000	140,000	709,000
2037	593,000	137,000	730,000
2038	588,000	121,000	709,000
2039	578,000	98,000	676,000
2040	609,000	120,000	729,000
2041	557,000	70,000	627,000
2042	562,000	61,000	623,000
2043	583,000	63,000	646,000
2044	558,000	38,000	596,000
2045	573,000	40,000	613,000
2046	585,000	39,000	624,000

Contra Costa County Employees' Retirement Association

GASB 45 Actuarial Valuation of Post Employment Benefits as of January 1, 2017

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Exhibit 2. Liabilities and Normal Cost

The **Present Value of Benefits** is the actuarial present value of benefits expected to be paid for all eligible retirees and covered employees.

The Actuarial Accrued Liability (AAL) is the present value of benefits that are attributed to past service only. The portion attributed to future employee service is excluded. For retirees, this is equal to the present value of benefits. For active employees, the actuarial present value of the projected benefits of each individual is allocated as a level percentage of expected salary for each year of employment between entry age (defined as age at hire) and assumed exit (until maximum retirement age). The portion attributed to service between entry age and the valuation date is the actuarial accrued liability.

The **Normal Cost** is that portion of CCCERA provided benefit attributable to employee service in the current year. The Normal Cost is expected to remain level as a percentage of pay throughout the participant's assumed working lifetime. Since retirees are not accruing any more service, their normal cost is zero.

	Ja	nuary 1, 2017	Ja	nuary 1, 2016
Present Value of Benefits				
Actives	\$	10,177,000	\$	12,966,000
Retirees		998,000		1,871,000
Total	\$	11,175,000	\$	14,837,000
Actuarial Accrued Liability				
Actives	\$	6,570,000	\$	7,964,000
Retirees		998,000		1,871,000
Total	\$	7,568,000	\$	9,835,000
Normal Cost as of valuation date	\$	409,000	\$	574,000

Contra Costa County Employees' Retirement Association

GASB 45 Actuarial Valuation of Post Employment Benefits as of January 1, 2017

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Exhibit 3. Unfunded Actuarial Accrued Liability

The Unfunded Actuarial Accrued Liability (UAAL) is Actuarial Accrued Liability offset by any asset set aside in a trust to fund future retiree health benefits. The amortization of UAAL shown in the exhibit below is based on a level dollar amount over a period of 30 years on a closed basis from January 1, 2016. There are 29 years remaining as of January 1, 2017.

	Jai	nuary 1, 2017
Unfunded Actuarial Accrued Liability (UAAL)		
Actuarial Accrued Liability	\$	7,568,000
Assets		0
Unfunded Actuarial Accrued Liability	\$	7,568,000
Funded Percentage		0.0%
Amortization of UAAL for ARC		
UAAL	\$	7,568,000
Amortization Period		29 years
Level Dollar Amortization Factor		18.1540
Amortization Amount – January 1, 2017	\$	417,000
Interest to December 31, 2017		16,000
Amortization Amount – December 31, 2017	\$	433,000

Contra Costa County Employees' Retirement Association

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Exhibit 4. Required Financial Statement Disclosures

The following table shows the calculation of the Annual Required Contribution and Net OPEB Obligation.

	Dece	ember 31, 2017	Dec	ember 31, 2016
Determination of Annual Required Contribution				
Normal Cost at Fiscal Year End	\$	425,000	\$	594,000
Amortization of UAAL		433,000		535,000
Annual Required Contribution (ARC)	\$	858,000	\$	1,129,000
Determination of Net OPEB Obligation				
Annual Required Contribution	\$	858,000	\$	1,129,000
Interest on Prior Year Net OPEB Obligation		32,000		0
Adjustment to ARC		(51,000)		0
Annual OPEB Cost	\$	839,000	\$	1,129,000
Less Contributions Made		TBD		204,000
Increase in Net OPEB Obligation	\$	TBD	\$	925,000
Net OPEB Obligation – Beginning of Year	\$	925,000	\$	0
Net OPEB Obligation – End of Year	\$	TBD	\$	925,000

The following table shows the annual OPEB cost and net OPEB obligation for the prior years.

Fiscal Year Ended	Annual OPEB Cost	Percentage Of OPEB Cost Contributed	et OPEB bligation
12/31/2016	\$ 1,129,000	18.1%	\$ 925,000
12/31/2017	\$ 839,000	TBD	\$ TBD

Funded Status and Funding Progress. As of January 1, 2017, the most recent actuarial valuation date, CCCERA's OPEB was 0.0% funded. The actuarial accrued liability for benefits was \$7.6 million, and the actuarial value of assets was \$0.0 million, resulting in an unfunded actuarial accrued liability of \$7.6 million.

Contra Costa County Employees' Retirement Association

GASB 45 Actuarial Valuation of Post Employment Benefits as of January 1, 2017

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Exhibit 5. Required Supplementary Information

The following table shows a schedule of Funding Progress required under GASB 45.

Actuarial Valuation Date	al Value of sets	AAL	UAAL	Funded Ratio
01/01/2016	\$ 0	\$ 9,835,000	\$ 9,835,000	0.0%
01/01/2017	0	7,568,000	7,568,000	0.0%

Contra Costa County Employees' Retirement Association

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Exhibit 6. Reconciliation of Actuarial Accrued Liability from Prior Valuation

The following table shows a summary of changes since the last valuation and their approximate impact on the Actuarial Accrued Liability (AAL).

	(In N	Aillions)
Actuarial Accrued Liability as of January 1, 2016	\$	9.8
Increase due to benefit accrued from 1/1/2016 to 12/31/2016	\$	0.5
Decrease due to expected benefit payments made from 1/1/2016 to 12/31/2016		(0.2)
Increase due to decrease in the discount period from 1/1/2016 to 12/31/2016		0.4
Decrease due to health cost increases less than expected from prior valuation		(0.6)
Decrease due to change in health trend from prior valuation		(0.2)
Decrease due to exclusion of retirees who retired before January 1, 2015		(1.8)
Decrease due to change in discount rate from 3.50% to 3.75%		(0.3)
Total change in Actuarial Accrued Liability 1/1/2016 to 12/31/2016	\$	(2.2)
Actuarial Accrued Liability as of January 1, 2017	\$	7.6

Contra Costa County Employees' Retirement Association

GASB 45 Actuarial Valuation of Post Employment Benefits as of January 1, 2017

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Exhibit 7. Sensitivity Analysis – Discount Rate Assumption

The following exhibit shows the results of the valuation based on alternate discount rates of 3.75% and 7.00%. The discount rate is used to calculate the present value of expected future benefit payments. The higher the discount rate used, the lower the present value will be because a greater share of OPEB costs is expected to be funded by investment returns. GASB 45 requires that the discount rate be reflective of the assets used to pay benefits. Although an asset fund invested in asset classes with higher expected returns will produce lower GASB 45 liabilities, the risk of investment losses and volatility in asset values is typically greater for portfolios with higher expected returns. CCCERA has requested that we show a comparison of valuation results based on a 7% discount rate for illustrative purposes.

Another factor in establishing the discount rate is the extent to which liabilities are funded by assets held in the trust. In general, if a funding policy is adopted whereby the ARC is funded every year, then the discount rate would be based on the expected return on plan assets. However, if an amount less than the ARC is funded each year, then a blended discount rate (the funded rate and the unfunded rate of 3.75%) would be used to value liabilities.

CCCERA has indicated that it has set aside \$2,283,000 to be used to fund retiree medical liabilities, but the funds have not been placed in an irrevocable trust solely for purposes of paying retiree medical liabilities. At CCCERA's request, we have shown the effect on the UAAL and ARC if these assets were placed in such a trust.

	Current Plan – Pay-as-you-go (3.75%)		Pre-Funding (7.00%)	
Present Value of Benefits				
Active Employees	\$	10,177,000	\$	5,377,000
Retirees		998,000		661,000
Total	\$	11,175,000	\$	6,038,000
Actuarial Accrued Liability				
Active Employees	\$	6,570,000	\$	4,001,000
Retirees		998,000		661,000
Total	\$	7,568,000	\$	4,662,000
Assets	\$	0	\$	2,283,000
UAAL	\$	7,568,000	\$	2,379,000
Normal Cost as of December 31, 2017	\$	425,000	\$	208,000
Annual Required Contribution	\$	858,000	\$	402,000

Contra Costa County Employees' Retirement Association

GASB 45 Actuarial Valuation of Post Employment Benefits as of January 1, 2017

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Appendix A. Summary of Benefits

The following description of retiree health benefits is intended to be only a brief summary and is not complete information.

Eligibility

Eligible for the Premium Subsidy

Unrepresented CCCERA staff employees who are hired prior to January 1, 2007 and retire with a CCCERA pension benefit. Unrepresented CCCERA staff employees who are hired on January 1, 2007 to December 31, 2008 with completion of 15 years of service and retire with a CCCERA pension benefit. AFSCME CCCERA staff employees who are hired prior to January 1, 2007 and retire with a CCCERA pension benefit. AFSCME CCCERA staff employees who are hired prior to January 1, 2007 and retire with a CCCERA pension benefit. AFSCME CCCERA staff employees who are hired on January 1, 2007 to December 31, 2009 with completion of 15 years of service and retire with a CCCERA pension benefit.

PEMHCA Minimum Contribution

Unrepresented CCCERA staff employees who are hired on or after January 1, 2009 and retire with a CCCERA pension benefit. AFSCME CCCERA staff employees who are hired on or after January 1, 2010 and retire with a CCCERA pension benefit.

Health Benefits (Retirement date on or after January 1, 2015)

Eligible CCCERA staff employees and their dependents may elect coverage under the health plans sponsored by CalPERS. For employees who meet the eligibility requirements to receive the premium subsidy, the maximum monthly subsidies are shown below by rate tier for 2017.

Coverage	Medical	
Employee Only	\$	746.47
Employee + 1		1,492.94
Employee + Family		1,940.82
Coverage		Dental
Coverage Employee Only	\$	Dental 46.21
	\$	
Employee Only	\$	46.21

For employees who meet the eligibility to receive the PEMHCA minimum contribution the benefit is (\$128 per month for 2017, subject to an annual increase based on the medical Consumer Price Index).

Contra Costa County Employees' Retirement Association

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GASB 45 Actuarial Valuation of Post Employment Benefits as of January 1, 2017

Health Insurance Premium Rates

Retirees may choose among the following PEMHCA plans.

	Contraction of the	Monthly Pr	remium Rates – E	Effective Janua	ary 1, 2017		
	Sing	Single		2-Party		Family	
	Under 65	Over 65	Under 65	Over 65	Under 65	Over 65	
Anthem HMO Select	\$ 783.46	N/A	\$ 1,566.92	N/A	\$ 2,037.00	N/A	
Anthem HMO Traditional	990.05	N/A	1,980.10	N/A	2,574.13	N/A	
BSC Access+	1,024.85	N/A	2,049.70	N/A	2,664.61	N/A	
HealthNet SmartCare	733.29	N/A	1,466.58	N/A	1,906.55	N/A	
Kaiser Permanente	733.39	300.48	1,466.78	600.96	1,906.81	901.44	
PERS Choice	830.30	353.63	1,660.60	707.26	2,158.78	1,060.89	
PERS Select	736.27	353.63	1,472.54	707.26	1,914.30	1,060.89	
PERSCare	932.39	389.76	1,864.78	779.52	2,424.21	1,169.28	
United Healthcare	1,062.26	324.21	2,124.52	648.42	2,761.88	972.63	

Dental Plan Premiums

The following table shows monthly retiree dental insurance premiums for the 2017 calendar year.

Coverage	Monthly Rate	
Employee Only	\$	57.76
Employee and Spouse		129.65
Employee and Child		129.26
Family		211.73

Contra Costa County Employees' Retirement Association GASB 45 Actuarial Valuation of Post Employment Benefits as of January 1, 2017

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Appendix B. Actuarial Cost Method and Assumptions

The actuarial cost method described below is one of several acceptable costs methods described in GASB 45, and the assumptions represent our best estimate of anticipated future experience based on information provided to us. Note that the ultimate responsibility of selecting/approving the actuarial cost method and assumptions lies with CCCERA and its auditor.

Actuarial Cost Method

The actuarial cost method used for determining the benefit obligations is the individual Entry Age Normal Cost Method ("EAN"). Under the principles of this method, the actuarial present value of the projected benefits of each individual included in the valuation is allocated as a level percentage of expected salary for each year of employment between entry age (defined as age at hire) and assumed exit.

The portion of this actuarial present value allocated to a valuation year is called the normal cost. The portion of this actuarial present value not provided for at a valuation date by the sum of (a) the actuarial value of the assets, and (b) the actuarial present value of future normal costs is called the Unfunded Actuarial Accrued Liability (UAAL).

In determining the Annual Required Contribution, the UAAL may be amortized over a period of up to 30 years under GASB 45. For this valuation, we have assumed a level dollar amortization over 30 years on a "closed" basis as of January 1, 2016. There are 29 years remaining as of January 1, 2017. The actuarial assumptions are summarized below.

Economic Assumptions

Discount Rate (Liabilities)	3.75%
General Inflation	2.50%

Assumed Salary Increases (Applied to Individual Entry Age Normal Cost Method)

The assumed annual rates of compensation increases used for the EAN actuarial cost method are the same as the assumption used in the December 31, 2015 CCCERA Actuarial Valuation.

Years of Service	General
Less than 1	13.25%
1	10.50%
2	8.50%
3	7.00%
4	6.00%
5	5.50%
10	4.40%
15 or more	4.00%

Contra Costa County Employees' Retirement Association

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GASB 45 Actuarial Valuation of Post Employment Benefits as of January 1, 2017

Demographic Assumptions

Below is a summary of the assumed rates for mortality, retirement, disability and withdrawal, which are consistent with assumptions used in the December 31, 2015 CCCERA Actuarial Valuation.

Pre / Post Retirement Mortality

- <u>Healthy</u>: For General Members: Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table, projected generationally with the two-dimensional MP-2015 projection scale.
- <u>Disabled</u>: For General Members: Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table set forward eight years, projected generationally with the two-dimensional MP-2015 projection scale.
- <u>Beneficiaries</u>: Beneficiaries are assumed to have the same mortality as a General Member of the opposite sex who had taken a service (non-disability) retirement.

Withdrawal – Sample probabilities of terminating employment from CCCERA are shown below for selected years of CCCERA service.

Years of Service	General
Less than 1	13.50%
1	9.25%
2	9.00%
3	6.00%
4	4.50%
5	4.25%
10	2.75%
15	2.10%
20 or more	1.50%

Disability

Tier 1	PEPRA
0.01%	0.01%
0.02%	0.02%
0.04%	0.03%
0.08%	0.05%
0.22%	0.08%
0.36%	0.13%
0.52%	0.16%
0.60%	0.20%
0.60%	0.28%
0.60%	0.32%
	0.01% 0.02% 0.04% 0.08% 0.22% 0.36% 0.52% 0.60%

Contra Costa County Employees' Retirement Association

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Retirement

Non-PEPRA		PE	PRA
Age	Rates	Age	Rates
50	5%	50 – 51	0%
51	4%	52	2%
52 – 53	5%	53 – 54	3%
54	14%	55 – 56	5%
55 – 58	20%	57	6%
59	25%	58	8%
60	28%	59	9%
61 – 62	35%	60	10%
63 – 64	30%	61	14%
65	35%	62 - 64	20%
66 – 69	40%	65	25%
70 – 74	50%	66 – 69	30%
75	100%	70 – 74	50%
		75	100%

Coverage Election Assumptions

Retiree and Spouse Coverage – For Unrepresented employees who are hired prior to January 1, 2009, or AFSCME employees hired prior to January 1, 2010, with at least 15 years of service, we have assumed 100% of new retirees will elect medical and dental coverage at retirement and 70% of the new retirees will elect spouse coverage. For all other employees, we have assumed 50% of new retirees will elect medical and 70% of the new retirees will elect spouse coverage at retirement and 70% of the new retirees will elect spouse coverage.

Spouse Age – Female spouses are assumed to be three years younger than male spouses.

Dependent Coverage – We have assumed 30% of retirees with no spouse coverage will elect coverage for a dependent child until age 65 and 50% of retirees with spouse coverage will elect coverage for a dependent child until age 65.

Health Plan Election – We have assumed that all new retirees electing medical coverage will elect the Kaiser plan for medical coverage.

Valuation of Retiree Premium Subsidy Due to Active Health Costs

The California PERS (PEMHCA) health plans charge the same premiums for retirees who are not yet eligible for Medicare as for active employees. Therefore, the retiree premium rates are being subsidized by the inclusion of active lives in setting rates. (Premiums calculated only based on retiree health claims experience would have resulted in higher retiree premiums.) GASB 45 requires that the value of this subsidy be recognized as a liability in valuations of OPEB costs. To account for the fact that per member health costs vary depending on age (higher health costs at older ages), we calculated equivalent per member per month (PMPM) costs that vary by age based on the age distribution of covered members, and based on relative cost factors by age.

Contra Costa County Employees' Retirement Association

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The relative cost factors were developed from the Milliman Health Cost Guidelines[™]. Based on the carrier premium rates and relative age cost factors assumptions, we developed age adjusted monthly PMPM health costs for 2017 to be used in valuing the implicit rate subsidy.

	Retirees		Spo	uses	
Age	Male	Female	Male	Female	
50	\$ 773	\$ 934	\$ 686	\$ 846	
55	946	1,029	874	971	
60	1,200	1,195	1,115	1,131	
64	1,510	1,376	1,405	1,298	

Age Adjusted Medical PMPM Costs for 2017

Since premiums for retirees with Medicare are determined without regard to active life experience, no such subsidy exists for this group.

Medical Cost Inflation Assumption

The assumed future increases to the health costs and premiums are based on the "Getzen" model published by the Society of Actuaries for purposes of evaluating long term medical trend. Under the Patient Protection and Affordable Care Act of 2010, including changes passed into law on December 18, 2015, a Federal excise tax will apply for high cost health plans beginning in 2020. A margin to reflect the impact of the excise tax in future years is reflected in the assumed trend. The following table shows the assumed rate increases in future years for Medical premiums.

Calendar Year	Pre 65	Calendar Year	Post 65
2017	8.75%	2017	8.75%
2018	6.00%	2018	6.00%
2019	5.25%	2019 - 2022	5.25%
2020 - 2021	5.50%	2023 - 2044	5.50%
2022	5.25%	2045 - 2050	5.25%
2023	5.50%	2051	5.50%
2024	5.75%	2052	5.75%
2025 - 2043	6.00%	2053 - 2060	5.50%
2044 - 2046	5.75%	2061 - 2062	5.25%
2047 - 2055	5.50%	2063	5.50%
2056 - 2065	5.25%	2064	5.75%
2066 - 2067	5.00%	2065 - 2066	5.50%
2068 - 2070	4.75%	2067 - 2069	5.25%
2071 - 2077	4.50%	2070 - 2071	5.00%
2078 and beyond	4.25%	2072 - 2077	4.75%
		2078 and beyond	4.50%

For CCCERA staff plan employees who retire on or after January 1, 2015 and are eligible for the CCCERA premium subsidy shown in Appendix A, we assumed that the subsidy will increase each year at the same rate as medical inflation.

Dental Cost Medical CPI We assumed Dental costs will increase 4.0% annually. We assumed the PEMHCA minimum will increase 3.5% annually.

Contra Costa County Employees' Retirement Association

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GASB 45 Actuarial Valuation of Post Employment Benefits as of January 1, 2017

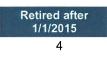
Appendix C. Summary of Participant Data

The following census of participants was used in the staff plan actuarial valuation and provided by Contra Costa County Employees' Retirement Association as of January 1, 2017.

Active Employees

Non-PEPRA Hired before 1/1/2013	PEPRA – Hired on or after 1/1/2013		Total
24	21		45
Average Age at Valuation Date: Average Service at Valuation Date:		46.17 9.90	

Current Retirees



Average Age on Valuation Date: 60.57

Contra Costa County Employees' Retirement Association GASB 45 Actuarial Valuation of Post Employment Benefits as of January 1, 2017

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MEMORANDUM

Date: February 14, 2018

To: CCCERA Board of Retirement

From: Gail Strohl, Chief Executive Officer

Subject: Consider and take possible action to adopt the Actuarial Valuation Report of Post-Employment Benefits. Consider and take possible action regarding the funding of CCCERA's OPEB liability.

Background

On January 1, 2015, CCCERA became an independent employer. As an employer, CCCERA is responsible for the cost of retiree health benefits for CCCERA employees who retired on or after January 1, 2015. CCCERA provides payments to CalPERS, the health insurance provider, for those retired employees. Currently, CCCERA makes benefit payments on a pay as you go basis. For the retiree health benefits provided to employees that retire from CCCERA after January 1, 2015, Milliman has prepared an actuarial valuation report of post-employment benefits for those benefits in accordance with GASB 45 to determine the liability, annual required contribution and required financial disclosures.

As to the cost of retiree health benefits for County employees who worked at CCCERA and retired prior to CCCERA becoming an independent employer, those are included in Contra Costa County's Irrevocable Trust for Other Post-Employment Benefits (OPEB) funding. CCCERA currently provides payments to Contra Costa County for those retired employees.

Analysis

There are two options for funding retiree health benefits, pay as you go or prefunding. Under pay as you go, CCCERA pays the actual health payments as they are experienced. In addition, on an annual basis CCCERA has been posting an accounting entry to establish a liability reserve. If there are future increases in benefits, they are accounted for at the time of the increase without utilizing the liability reserve. Under this scenario, the actuarial valuation report values assets using a 20 year municipal bond rate, usually much lower than the actual investment rate that could be earned, which would result in a higher actuarial accrued liability. Further, the actuarial valuation report could not use the previously established liability reserve as credit.

Under prefunding, assets are set aside in anticipation of future benefits. In this scenario, a higher investment rate can be utilized, most likely causing the liability to be reduced. The Board can determine the level of prefunding desired, either funding the annual required contribution or the full liability.

Prefunding could potentially reduce long term costs of providing this benefit. The staff recommendation would be to fund the annual required contribution. In order to utilize the investment rate, funds would need to be held in an irrevocable trust. Along with a trust agreement (detailing the objective of the trust, designation of trustees, etc.), a funding policy would also be recommended. These assets could either be managed externally by a third party or internally. If this option is preferred, it would be recommended to issue a RFP to review the potential costs and returns of a third party provider. This information would be utilized to assess and determine whether or not a third party provider would be more beneficial. CCCERA would be able to administer the OPEB assets internally, however they would segregated from the pension trust fund accounts and asset allocation.

The annual required contribution is considered an administrative expense. If a decision is made to prefund the annual required contribution, there would be an additional administrative expense of approximately \$60K above what had already been budgeted for OPEB expense for the 2018 calendar year which would require a mid-year budget adjustment.

Recommendation

Consider and take possible action to adopt the Actuarial Valuation Report of Post-Employment Benefits.

Consider and take possible action regarding the funding of CCCERA's OPEB liability. The implementation options under consideration are:

- 1. Continue to pay as you go, making current payments and continue to post an accounting entry for the associated liability. Or;
- 2. Establish an Irrevocable Trust per Internal Revenue Code Section 115 and prefund the actuarially determined Annual Required Contribution (ARC). Direct the CEO to develop a draft irrevocable trust agreement, funding policy and related mid-year budget adjustment for further consideration at a future Board meeting.



MEMORANDUM

Date:	February 14, 2018
To:	CCCERA Board of Retirement
From:	Gail Strohl, Chief Executive Officer Henry Gudino, Accounting Manager
Subject:	Consider and Take Possible Action to issue a Request For Proposal for Master Custodian.

Background

CCCERA has utilized the services of its current Master Custodian, State Street Bank and Trust, for many years. In an effort to assure that the services are the most effective and cost efficient, and continue to be in the best interests of CCCERA, its members, and beneficiaries; staff requests approval to issue a Request For Proposal for Master Custodian. A Master Custodian is considered an important core service provider in accordance with CCCERA's Procurement of Products and Services Policy. The Request For Proposal will provide sound research and analysis along with clear and appropriate screening criteria of potential master custodians.

Recommendation

Consider and take possible action to issue a Request For Proposal for Master Custodian.



CII SPRING 2018 CONFERENCE

AGENDA

Conference Schedule:

For most attendees (those not attending any closed meetings or education courses), the conference will start on Monday, March 12 with member-hosted meetings at 1 PM and the first CII-hosted plenary sessions at 4 PM. Please see the full agenda or contact CII staff at 202.822.0800 with any questions.

Hotel Rooms:

CII has reserved a block of discounted rooms starting at \$299/night at the Omni Shoreham Hotel. A link to reserve a room in this block is provided after registering for the conference, Register soon as the discount ends February 19 (or when space runs out).

Press:

Members of the press are allowed at all receptions, plenary and breakout sessions on Monday, March 12 and Tuesday, March 13. Sessions on Wednesday, March 14, are closed to press.

Optional 🕸 Fee 🚞

Monday, March 12, 2018

Registration 8:00 AM - 7:45 PM Registration and Information Desk Member Lounge Member Lounge

8:00 AM - 7:45 PM	Member Lounge
	The member lounge is open to all conference attendees and includes complimentary coffee,
	tea, and other drinks, snacks and comfy places to sit and have quiet conversation.
	Computers and a small desktop printer are also provided for your convenience. The member
	lounge is sponsored by:
	EY
	Center for Board Matters

Education Course (Additional Fees May Apply)

9:00 AM - 3:30 PM	Trustee Training	• =
	CII and the CFA Institute are pleased to offer the latest in our series of educational programs	
	for new and experienced fund trustees. The March 12 course will focus on three key	
	elements of fiduciary fitness: fiduciary skills, investment skills and current and emerging	
	practices (full course description here).	
	Pension fund trustees are welcome to register for the course at a special reduced rate of	
	\$395 (non-CII member trustees pay \$595). The program precedes CII's spring conference in	
	Washington, D.C., March 12-14, 2018. Trustees who participate in the course are welcome	
	to attend the conference at no charge.	
	Trustees may also attend a private dinner and roundtable discussion on March 12, at	
	7:15-9:00 PM at the Omni Shoreham Hotel. The dinner, which is free and open just to	
	trustees, will be chaired by Marc Levine, chairman of the Illinois State Board of Investment.	
	To register for trustee training and the dinner, please contact Kylund Arnold at	
	<u>kylund@cii.org</u> or 202.261.7084.	
	Speakers: Jeff Bailey.	
	Bob Dannhauser,	
	John Griswold,	
	Marc Levine,	
	Kurt Schacht,	
	Michael Schlachter,	
	Meredith Williams,	
	Ken Bertsch	

Closed Meetings

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10:00	AM - 11:15 AM	Corporate Governance Advisory Council Meeting
10:00	AM - 11:15 AM	Markets Advisory Council Meeting
10:00	AM - 11:00 AM	Policies Committee Meeting Meeting
11:30	AM - 12:00 PM	CII Board and Advisory Councils Coffee

Education Course (Additional Fees May Apply)

11:45 AM - 2:00 PM	Master Class: Activist Investing, Shareholder Proxy Contest Decision-Making and	÷ 🚍
	Board Dynamics	
	This session is intended to extend two previous CII Master Classes that have been among	
	the most popular in the series: CII's Spring 2016 class on Analyzing Proxy Contests, and the	
	Fall 2017 class on Board Self-Evaluation and Shareholder Evaluation of Directors.	

Member-Hosted Meetings (Open to All Attendees)

1:00 PM - 2:00 PM	Stewardship lessons for US investors from governance scandals in Brazil, Germany and Japan	
	This session is hosted by Hermes EOS. Speakers:	
	 Alicia Ogawa, Columbia Business School 	
	 Mauro Rodrigues da Cunha, AMEC 	
	Dr Hans-Christoph Hirt, Hermes EOS	
	Tim Goodman, Hermes EOS	
1:00 PM - 2:00 PM	Understanding Investor Risks at Amazon.com	
	This session is hosted by UFCW.	
2:30 PM - 3:30 PM	Raising the Bar: How Limited Partners Can Drive Responsible Real Estate and Infrastructure Practices	
	This session is hosted by LIUNA and the NYC Comptroller's Office.	
2:30 PM - 3:30 PM	Return-Driven Private Equity Impact Investing	
	This session is hosted by 57 Stars.	
2:30 PM - 3:30 PM	Why Asset Owners are Integrating ESG: Investment Case and Practitioner Insights	
	This session is hosted by MSCI.	

Closed Meetings

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3:00 PM - 3:45 PM	New Member & First-Time Attendee Welcome Reception	
	Sponsored by:	
	Battea [®] CLASS ACTION SERVICES	
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Plenary Sessions

4:00 PM - 4:45 PM	Plenary 1: Interview with the SEC Chairman
	Moderator: <u>Elisse Walter</u> Keynote Speaker: <u>Jay Clayton</u>
4:45 PM - 5:20 PM	Plenary 2: The Role of Index Providers in a Changing World of Investments, Part I
	Speakers: <u>Henry Fernandez</u> Moderator: <u>Jennifer O'Dell</u>
5:20 PM - 6:15 PM	Plenary 3: Board Members Speak: Board Oversight of Corporate Culture
	Speakers: <u>Elizabeth Duke</u> . <u>Robert Herz,</u> <u>Ruth Ann Marshall</u>

Networking Reception

6:15 PM - 7:45 PM	Cocktail Reception
	Arrive early for tributes to Anne Sheehan, director of corporate governance, California State
	Teachers' Retirement System, and James Doty, former chairman, Public Company
	Accounting Oversight Board.
	Sponsored by:



Closed Meetings

7:15 PM - 9:00 PM

Trustee Dinner and Roundtable (Invitation Only)

Tuesday, March 13, 2018

Registration	
7:00 AM - 7:00 PM	Registration and Information Desk
Member Lounge	
7:00 AM - 7:00 PM	Member Lounge
	The member lounge is open to all conference attendees and includes complimentary coffee, tea, and other drinks, snacks and comfy places to sit and have quiet conversation. Computers and a small desktop printer are also provided for your convenience. The member lounge is sponsored by:
	EY
	Center for Board Matters

Food/Meals

7:30 AM - 8:15 AM

Sponsored by:

Continental Breakfast

MSCI 💮

Plenary Sessions

8:15 AM - 8:30 AM Plenary 4: Remembrance of Greg Smith Speakers: Meredith Williams. Theread Whitmarsh 8:30 AM - 8:45 AM Plenary 5: Board Accountability 2.0 Speakers: Scott Stringer 8:45 AM - 9:20 AM Plenary 6: The Role of Index Providers in a Changing World of Investments, Part II Speakers: Mark Makepeace Moderator: Rakhi Kumar 9:20 AM - 10:10 AM Plenary 7: Emerging Markets: Governance and Investment Panelists: Teresa Barger. James Donald Moderator: Alberto Fassinotti 10:10 AM - 10:40 AM Plenary 8: SASB at Launch Speakers: Jean Rogers	-	
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		Moderator: Alberto Fassinotti
Speakers: Jean Rogers	10:10 AM - 10:40 AM	Plenary 8: SASB at Launch
		Speakers: Jean Rogers
Food/Meals	Food/Meals	

10:40 AM - 11:10 AM

Networking Break



Breakout Sessions

11:10 AM - 12:10 PM	Breakout 1: Investors and the Washington Outlook
	Speakers: <u>Joel Oswald</u> Panelists: Keir Gumbs.
	Jeff Mahoney Moderator: <u>Amy Borrus</u>
11:10 AM - 12:10 PM	Breakout 2: The Rise of the Working Class Shareholder
11:10 AM - 12:10 PM	Breakout 3: Dual Class Stock: Are Sunset Provisions the Way Forward?
	Speakers: <u>Lucian Bebchuk</u> , <u>Andrew Winden</u>

Plenary Sessions

12:15 PM - 1:45 PM	Plenary 9: The Wasted Crisis: What We Didn't Learn From Black Monday 1987	
	Speakers: <u>Diana Henriques</u>	

Associate Members' Meeting	
Corporate General Members' Meeting	
Public Fund General Members' Meeting	
Union Fund General Members' Meeting	
	Corporate General Members' Meeting Public Fund General Members' Meeting

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Closed Meetings

3:15 PM - 4:15 PM General Members' Business Meeting

1:30 PM - 5:30 PM	Beyond the Balance Sheet: How ESG Can Drive Voting Considerations
	Hosted by ISS Institutional Shareholder Services
:30 PM - 5:30 PM	Engaging Carbon Intensive Companies on Climate Change Risks & Opportunities
	Hosted by CERES.
1:30 PM - 5:30 PM	Investors for Opioid Accountability
	Hosted by the International Brotherhood of Teamsters and the UAW Retiree Medical Benefits Trust.
1:30 PM - 5:30 PM	Social Purpose Engagement—Investor Perspectives on Navient
	Hosted by the American Federation of Teachers.
1:30 PM - 5:30 PM	Where Are the Gatekeepers?
	A discussion on the role investment funds play in the effort to curtail corporate misconduct

Networking Reception

5:30	ΡM	-	7:00	PM

Cocktail Reception Sponsored by:

Innisfree®

Wednesday, March 14, 2018

Closed Meetings		
7:45 AM - 9:00 AM	Board Meeting	
Registration		
8:00 AM - 12:00 PM	Registration and Information Desk	

Member Lounge

8:00 AM - 12:00 PM	Member Lounge	
	The member lounge is open to all conference attendees and includes complimentary coffee,	
	tea, and other drinks, snacks and comfy places to sit and have quiet conversation.	
	Computers and a small desktop printer are also provided for your convenience. The member	
	lounge is sponsored by:	
	EY	
	Center for Board Matters	

Food/Meals

8:30 AM - 9:15 AM	Continental Breakfast
Plenary Sessions	
9:15 AM - 9:30 AM	Plenary 10: Policies Committee Update
9:30 AM - 10:30 AM	Plenary 11: International Spotlight: Corporate Governance in India, Brazil and Canada
	Speakers: <u>Stephen Erlichman.</u> <u>Mauro Rodrigues da Cunha.</u> <u>Amit Tandon</u>
	Moderator: <u>Mohani Maharai</u>

10:30 AM - 10:45 AM Coffee Break

Plenary Sessions

 10:45 AM - 12:00 PM
 Plenary 12: Shareholder Advocacy Committee

 Food/Meals
 I2:00 PM - 1:30 PM

 12:00 PM - 1:30 PM
 Networking Buffet Lunch

 Closed Meetings
 I2:15 PM - 2:15 PM

 Engaged Shareholder Group Meeting (Invitation Only)

EIGHTH ANNUAL "DAY OF EDUCATION IN PRIVATE EQUITY FOR TRUSTEES AND STAFF"

The Day of Education is an educational conference designed to address the continuing informational needs of today's critical investment issues related to private equity for institutional investors, endowments, foundation trustees and staff and their legal counsel. Participants of the 2018 Day of Education will receive access to some of the leading institutional investors in the United States including pension plan sponsors, endowments, foundations, investment consultants, fund-of-funds managers, private equity fund managers, and attorneys with private equity expertise. This year's program will focus on current issues in the private equity market.

The Day of Education will commence on Thursday, March 29, 2018 at The Luxe (City Center) Hotel, 1020 S. Figueroa St., Los Angeles, 90015. The event will run from 7:00 a.m. to 5:30 pm PT with a closing reception immediately following.

Conference Registration Pricing Details

Early Bird General Registration (Good thru midnight PST February 28, 2018) – \$645.00 General Registration – \$725.00 Member Registration – \$595.00* (Special Member code required.) Speaker Registration - \$645.00 College Student – \$25.00 Trustees and Staff – Complimentary

NOTE: Sponsorship includes registration for the event. See our sponsorship levels for more information on how many participants are included.

* If you have not received an email with the special member code, please contact Tanya Victor at tanya.victor@naspsocal.org (prior to registering). DETAILS

WHEN

Wednesday, March 28, 2018 - Thursday, March 29, 2018 5:00 PM - 7:00 PM Pacific Time WHERE

The Luxe (City Center) Hotel 1020 S. Figueroa Street Los Angeles, California 90015 USA (213) 748-1291 PLANNER

Tanya Victor



(index.htm)

Day of Education in Private **Equity Conference**

EVENT BACKGROUND

The NASP Southern California Conference

This is a day-long educational conference designed to address the on-going informational needs of pension fund, endowment, foundation trustees and staff and their legal counsel on a series of critical investment issues.

Private equity encompasses several investment strategies including venture capital, growth equity, leveraged buyouts, mezzanine, distressed and secondaries. Experienced and knowledgeable private equity experts will discuss the nuances, opportunities, and issues associated with investing in these asset classes. Panels will be designed to be interactive and educational at both the executive/trustee and staff levels and provide tangible take-a-ways that can be applied to your investment decision-making processes. There will also be roundtable discussions on today's most important legal issues involving three constituencies: in-house counsel, fund formation attorneys (advising private equity fund managers) and outside counsel to institutional investors.

OUR EIGHTH ANNUAL DAY OF PRIVATE EQUITY EDUCATION March 29, 2018

Conference Registration Pricing Details

➔ General Registration – \$725.00

Member Registration – \$595.00* Special Member code required.

College Student - \$25.00

Trustees and Staff – Complimentary



REGISTER HERE (HTTP://WWW.CVENT.COM/D/RTQRDB)

NOTE: Sponsorship includes registration for the event. See levels for more information. (sponsorship.htm)

All trustees/staff please be mindful of your individual pension plan policy for conference attendance.

* If you have not received an email with the special member code, please contact Tanya Victor at tanya.victor@naspsocal.org (mailto:tanya.victor@naspsocal.org) (prior to registering).

DAY OF EDUCATION IN PRIVATE EQUITY

Who is Attending and Why?

Each year we have a diverse group of attendees for the Day of Education in Private Equity. The day provides institutional investors, private equity and general pension consultants, private equity fund managers, amongst others, an opportunity to hear from top industry experts to expand their understanding and stay abreast of today's issues and opportunities in private equity, as well as interface with their peers.

Attendees Will Include



- Trustees: public and corporate pensions, foundations, endowments
- **~**

Investment staff: public and corporate pensions, foundations,

Investment staff: public and cor endowments, and family offices



Fund-of-funds managers

Separate account managers specializing in private equity



Consulting firms: private equity specialists, full retainer general pension consultants

Legal counsel: in-house counsel for public and corporate pensions, foundations, endowments and family offices

Fund formation counsel

Outside counsel to institutional investors

Prior Attendees

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Conference Schedule — March 29, 2018

UPDATED SCHEDULE COMING SOON!		
7:00 AM		BREAKFAST SERVICE BEGINS
8:00 AM	0	WELCOME ADDRESS 📀 Keynote Speaker
8:30 AM		GENERAL SESSION I
9:30 AM		NETWORKING BREAK
9:45 AM		GENERAL SESSION II
10:45 AM		GENERAL SESSION III
11:45 AM		LUNCHEON SERVICE BEGINS
12:00 PM		FAST-TRACK PROGRAM 🛇
1:45 PM		

NETWORKING BREAK

2:00 PM	0	BREAKOUT SESSIONS
2:45 PM	\bigcirc	GENERAL SESSION IV
3:30 PM	\bigcirc	NETWORKING BREAK
3:45 PM	\bigcirc	GENERAL SESSION V
4:30 PM	\bigcirc	GENERAL SESSION VI
5:30 PM	\bigcirc	RECEPTION
7:30 PM	\bigcirc	END OF RECEPTION

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BECOME A 2018 SPONSOR

MORE INFORMATION (SPONSORSHIP.HTM)

ALL DOCTORATE MASTERS BACHELORS ASSOCIATES

NATIONAL CONFERENCE ON PUBLIC EMPLOYEE RETIREMENT SYST

<u>Meeting Date</u> 2/14/18 <u>Agenda Item</u> #11c.

ADVOCACY

RESEARCH

EDUCATION

ANNUAL CONFERENCE & EXHIBITION (ACE)



MAY 13 – 16 SHERATON NEW YORK TIMES SQUARE HOTEL NEW YORK, NY

FUND MEMBER REGISTRATION FORM

Follow Us on Twitter 🔰 #ACE18



TRUSTEE EDUCATIONAL SEMINAR (TEDS) MAY 12 – 13 | 8:00 AM – 1:00 PM

Cost:

\$450 (early-bird rate through April 20) \$650 (after April 20 or on-site)

Registration Fee Includes:

- Program materials
- Breakfast and coffee breaks
- Certificate of completion

ABOUT

he Trustee Educational Seminar (TEDS) is intended for new and novice trustees who are seeking a better understanding of their roles and responsibilities as trustees of their pension funds. It also serves as a refresher for experienced trustees interested in staying up-to-date.

This two-day program provides an introduction to fiduciary responsibilities, creating a solid foundation of knowledge for those who have limited experience in pension plan trusteeship. Program content is designed to address the critical elements of trust fund management, including important topics such as investing, legal requirements, and trustee ethics.

Attendance at TEDS provides trustees with eight (8) hours of continuing education credit.

WHO SHOULD ATTEND?

- New trustees get started with a solid foundation of knowledge so you'll be prepared to fulfill your obligations to your retirees.
- **Experienced trustees** get updated on the most recent trends and developments in the public pension fund industry to ensure your continued success.
- Administrators and pension staff be better prepared to do your job as a key implementer of policies and critical fund initiatives.

PRELIMINARY AGENDA

SATURDAY, MAY 12

6:30 am – 8:00 am	Breakfast
6:30 am – 1:00 pm	Registration
8:00 am – 8:15 am	Opening Remarks
8:15 am – 1:00 pm	GENERAL SESSION I
	 Using Retirement to Build Strong Communities

- Fund Structure: Investment Policy Statement, Asset Allocation & Benchmarking
- Investments 101: Fixed Income & Public Equities
- Investments 201: Alternatives
- History and Mechanics of the Defined Benefit Plan

5:00 pm – 6:00 pm

SUNDAY, MAY 13

6:30 am – 8:00 am 6:30 am – 1:00 pm 8:00 am – 1:00 pm

1:00 pm

Breakfast	
Registration	
GENERAL SESSION I	I

Time Value of Money

President's Reception

- Actuarial Concepts 101
- Asset Allocation Challenge (interactive computer-based investment training session)
- Laws That Every Trustee Should Know
- Presentation of Certificates







For updates or to register online, visit www.NCPERS.org/ACE. Question? Call 202-624-1456 or e-mail registration@ncpers.org.

NCPERS ACCREDITED FIDUCIARY (NAF) PROGRAM MODULES 1/2 OR 3/4 | MAY 12 – 13 | 8:00 AM to 3:00 PM

Cost:

\$800 (early-bird rate through April 20) \$1,000 (after April 20 or on-site)

Registration Fee Includes:

- Study materials
- Breakfast, coffee breaks, and lunch
- Exam preparation webinar (upon completion of all 4 modules)
- Completion certificate and NAF lapel pin

he NCPERS Accredited Fiduciary (NAF) Program is a trustee accreditation program specifically designed and tailored for public pension governance. NAF divides plan governance, oversight, and administration into four modules (see below). Each module delves into the fundamental components and strategies necessary for governing a public pension fund, allowing trustees and plan staff to walk away with the key competencies critical to their fiduciary responsibilities.

ELIGIBILITY

Elected or appointed pension trustees and staff interested in pursuing the next level of professional development.

CERTIFICATION REQUIREMENTS

- It is recommended that candidates first complete the NCPERS Trustee Educational Seminar (TEDS) as a refresher course.
- Candidates are required to complete all four NAF Modules (in any order), earning a total of twelve (12) hours of continuing
 education credit.
- Candidates must demonstrate mastery of content through an online exam.

Upon successful completion of all requirements and receipt of a passing grade on the examination, NAF candidates will earn their NCPERS Accredited Fiduciary (NAF) designation.

Reserve your seat at the table today! Class size limited to 45.





MODULE 1: Governance and the Board's Role

Learning Objectives

- Understanding the roles, responsibilities and accountabilities of your public pension board as well as the differing governance models and principles that exist
- How to become a "high-functioning Board"

Day 2 MODULE 2:

Investment, Finance, and Accounting

Learning Objectives

- Understanding what you as a director need to know and how to access the required information to make informed financial decisions
- Proper administration of your fund's investments, ensuring compliance with investment policies, performance management, and adequate reporting

Day 1 MODULE 3: Legal, Risk Management, and Communication

Learning Objectives

- Understanding the legal and risk oversight duties of your board and you as an individual trustee
- The roles and responsibilities of the audit committee?
- Responding to media and the importance of your corporate reputation
- Effective stakeholder communication

Day 2 MODULE 4: Human Capital

Learning Objectives

- The fundamentals of total executive compensation design
- The use of compensation strategies and performance management plans to guide behavior and maximize fund performance
- Ensuring that employment contracts and service agreements avoid pitfalls and facilitate positive growth transitions
- The importance of ongoing development and active succession planning for key roles within your fund



\$800 (early-bird rate through April 20) | \$1,000 (after April 20 or on-site)

TUESDAY, MAY 15 (cont'd)

Advancing Secure Savings and Investment for Pension Funds through Innovation

Speaker: Ari Rubenstein, CEO & Co-Founder, GTS

Public Plan Funding Standards

CPERS' focus on trustee education makes the NCPERS Annual Conference the premier public pension education conference in the United States — and the best place to connect with pension trustees, administrators, staff members, union officials, and investment professionals. The Annual Conference provides an unparalleled opportunity to keep up-to-date on pension trends, best practices, and the latest news and information pertinent to your fiduciary obligations. Hear from noted expert speakers in the pension industry — and network with colleagues from across the United States and Canada.

SCHEDULE OF EVENTS*

SUNDAY, MAY 13

 2:00 pm - 6:00 pm
 Registration

 4:00 pm - 6:00 pm
 Exhibition

 4:00 pm - 6:00 pm
 Welcome Reception

MONDAY, MAY 14

MONDAY, MAY	14	Speaker:	David Kausch, Gabriel Roeder Smith
6:30 am – 7:45 am	Breakfast		& Company
6:30 am – 2:00 pm	Registration	10:30 am – 11:00 am	Exhibit Break
8:00 am – 1:30 pm	Exhibition	11:00 am – 12:00 pm	Three (3) Concurrent Breakout Sessions
8:00 am – 10:30 am	General Session I	12:15 pm – 1:15 pm	Three (3) Concurrent Breakout Sessions
	Panel on Economic Outlook	1:30 pm – 2:30 pm	Lunch & Lecture Series (not open to guests)
Moderator:	Doug Mosely, NEPC	2:45 pm – 3:30 pm	National Committee Executive
Panelists:	Speaker TBD, J.P. Morgan Asset		Board Election
	Management	WEDNESDAY, M	MAV 16
	Ronald Temple, Lazard Asset Management		
	Legal Panel: Securities Litigation	6:30 am – 7:45 am	Breakfast
Moderator:	Jonathan Davidson, Kessler Topaz	7:00 am – 12:00 pm	Registration
	Meltzer & Check	8:00 am – 10:30 am	General Session III
Panelists:	Jeremey Lieberman, Pomerantz		C-Suite Conversation
	Darren Robbins, Robbins Geller Rudman & Dowd	Speaker:	Gregg Hymowitz, EnTrustPermal
	Chet Waldman, Wolf Popper		Legal Panel: Benefits, Tax & Regulations
	Managing Costs and Optimizing	Moderator:	, , , , , , , , , , , , , , , , , , , ,
	Performance	Panelists:	
Speaker:	Mike Heale, CEM Benchmarking		Gregg S. Buksbaum, Squire Patton Boggs
			Peter Mixon, Nossaman LLC
10:30 am – 11:00 am 11:00 am – 12:00 pm	Exhibit Break Three (3) Concurrent Breakout Sessions		Secure Choice Implementation: California &
12:15 pm – 1:15 pm	Three (3) Concurrent Breakout Sessions	Moderator:	National Update
1:30 pm – 2:30 pm	Lunch & Lecture Series	Panelists:	Hank Kim, NCPERS David Morse, K&L Gates
1.50 pm - 2.50 pm	(not open to quests)	raneusis.	Katie Selenski, California Secure
2:45 pm – 3:45 pm	National Committee Election		Choice Retirement Savings Program
		10:30 am – 11:00 am	Refreshment Break
TUESDAY, MAY	15	11:00 am – 12:00 pm	Three (3) Concurrent Breakout Sessions
6:30 am – 7:45 am	Breakfast	12:15 pm – 1:15 pm	Three (3) Concurrent Breakout Sessions
7:00 am – 2:00 pm	Registration	1:30 pm – 2:30 pm	Lunch & Lecture Series (not open to guests)
8:00 am – 1:30 pm	Exhibition	2:45 pm – 3:45 pm	Administrator's Forum
8:00 am – 10:30 am	General Session II	2:45 pm – 3:45 pm	Small Plans Forum
	CIO Panel Discussion	2:45 pm – 3:45 pm	Annual Business Meeting
Moderator:	Hank Kim, NCPERS	6:00 pm – 7:00 pm	Closing Reception
Panelists:	Scott Evans, New York City Plans CIO	7:00 pm – 9:00 pm	Closing Dinner & Show
	Jonathan Grabel, LACERA CIO		

JOIN US FOR THESE FEATURED SESSIONS!



EDUCATION

ACE provides a multitude of educational offerings for its members at all levels of experience. These opportunities will help you develop the knowledge, skills, and ideas you need to better serve your fund or union, move forward in your professional development, and engage effectively with colleagues across the United States and Canada.

NCPERS is recognized as a learning provider and is an accredited sponsor of continuing education in several states. By attending ACE, trustees can earn up to 16.5 hours of continuing education credit.

Educational sessions will include these:

- Economic Update
- Reform & Regulations

Investment Strategies

- Corporate Governance
- Portfolio Risk and
- Shareholder Activism
- Trustee Ethics
- Pension Law Update
- Healthcare Reform

Performance

- Emerging Markets
- GASB Update

FEATURED SESSIONS

Pension Actuarial Science

CIO Panel

Tuesday, May 15 | 8:15 am – 9:00 am

This session will explore current trends, challenges-and opportunities faced by public plans. Attendees will hear from chief investment officers of leading city, county, and statewide retirement systems about their views on various topics. Set in a conversational format, this session will be conducive to Q&A exchanges with the audience.

David Webber

Professor of Law at Boston University School of Law

Wednesday, May 16 | 1:30 pm - 2:30 pm

Based on his recently published book, The Rise of the Working Class Shareholder: Labor's Last Best Weapon, David Webber will share the rare good-news story for American workers. He will combine legal rigor with inspiring narratives of labor victory to show how workers can wield their own capital to reclaim their strength. He will shine a light on labor's most potent remaining weapon: its multitrillion-dollar pension funds. Outmaneuvered at the bargaining table and under constant assault in Washington, state houses, and the courts, worker organizations are beginning to exercise muscle through markets. Shareholder activism has been used to divest from anti-labor companies, resist privatization of public services, create jobs, and challenge outlandish CEO pay. While workers have found in labor's capital a potent strategy against their exploiters, Professor Webber cautions that labor must be vigilant against corporate interests that are already working to deny labor's access to this powerful and underused tool.

Small Plans Forum

Wednesday, May 16 | 2:45 pm - 3:45 pm

Recognizing the need for small pension plans to meet and discuss issues with peers who have similar demands and constraints, NCPERS will host a forum devoted to the needs of small public plan trustees and staff. This session will be moderated by a small-plan representative and will allow attendees to ask questions, discuss issues related to their funds, and learn how others are addressing mutual concerns.

HOTEL RESERVATION INFORMATION

Sheraton New York Times Square Hotel



RESERVATION DEADLINE APRIL 20



NCPERS GROUP RATE \$369 SINGLE/DOUBLE OCCUPANCY

Book your hotel room at the Sheraton and receive the discounted conference rate. **The group rate is available until Monday, April 20,** or until the group block is sold out, whichever comes first. After April 20, rates will be based on the hotel's prevailing room rates.

Please be sure to identify yourself to the Sheraton reservation agent as attending the National Conference on Public Employee Retirement Systems or NCPERS 2018 Annual Conference.

CALL RESERVATIONS 1-888-627-7067 BOOK ONLINE WWW.NCPERS.ORG/ACE

Sheraton New York Times Square Hotel 811 Seventh Avenue | New York, NY 10019 | Tel: 212-581-1000

For updates or to register online, visit www.NCPERS.org/ACE. Question? Call 202-624-1456 or e-mail registration@ncpers.org.

MEMBERSHIP REQUIRED

The NCPERS Annual Conference & Exhibition is a members-only conference. Your organization must be a current member of NCPERS in order for your registration to be processed.

To verify your organization's membership status, please e-mail your inquiry to membership@ncpers.org.

WHO ATTENDS?

Professionals from all venues of the pension industry, including trustees, administrators and staff, state and local officials, investment and financial consultants, individuals who provide products and services to pension plans, union officers, and regulators from across the United States and Canada.

CONTINUING EDUCATION CREDITS

NCPERS is recognized as a learning provider in the public pension industry and is an accredited sponsor of continuing education (CE) in several states.

Attending TEDS = up to 8 hours of CE credit Attending NAF = 6 hours of CE credit Attending the Annual Conference = up to 16.5 hours of CE credit

REGISTRATION FEES

There are no per-day registration rates for ACE. If you register on-site, the full conference rate will apply, regardless of the day you register.

Registration fees include the following events (unless otherwise noted). The registration fee does not include hotel accommodations, airfare, or transportation.

- Conference materials
- Three daily breakfasts
- Three daily refreshment breaks
- Sunday and Wednesday night receptions
- Three daily lunches as part of the Lunch & Lecture Series (Lunch not open to guests)
- Closing dinner and show

GUEST REGISTRATION

A guest is a spouse or personal friend, **not a business associate, staff member,** or **colleague**. All guests must be registered to attend NCPERS events. No admittance will be given to guests without a registration name badge.

The guest fee includes access to the following functions:

- Breakfasts (valued at \$50 per person)
- Receptions (valued at \$75 per person)
- Exhibit hall refreshment breaks (valued at \$25 per person)
- Closing dinner with show (valued at \$175 per person)

Note: Guests will not be admitted to the Lunch & Lecture Series lunch as this is an educational event for trustees.

REGISTRATION DEADLINE

Register by Monday, April 20, to receive the early-bird conference rates and be included in the preliminary attendee list (this list is used by our service providers to send invitations to their client events). You may still register for the conference after this date, but higher conference fees will apply.

REGISTRATION CHANGES

All registration changes must be received in writing. Please e-mail all registration changes to registration@ncpers.org or fax to 202-624-1439.

REGISTRATION METHODS



Submit your registration online at www. NCPERS.org. You will need your individual username and password to log in.



E-mail the registration form directly to registration@ncpers.org

Fax the registration form to 202-624-1439



Mail the registration form to

NCPERS 444 North Capitol Street, NW Suite 630 Washington, DC 20001



ATTENDEE REGISTRATION	Early-Bird Registration Fees (through April 20)	Registration Fees (after April 20 or on-site)
Trustee Educational Seminar (TEDS)*	\$450/person	\$650/person
NCPERS Accredited Fiduciary (NAF) Program – Modules 1 & 2*	\$800/person	\$1,000/person
NCPERS Accredited Fiduciary (NAF) Program – Modules 3 & 4*	\$800/person	\$1,000/person
Annual Conference & Exhibition (ACE)	\$800/person	\$1,000/person

* The NCPERS pre-conference programs will run concurrently. Attendees should register for only one of the programs.

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Organization Name:

First Name:______Last Name:______

______State: ______Zip Code: ______

Title:

Preferred Mailing Address:

City: _

Daytime Phone: ______E-Mail Address*: ______

*Please provide your e-mail address for conference updates and registration confirmation.

GUEST REGISTRATION	Early-Bird Registration Fees (through April 20)	Registration Fees (after April 20 or on-site)
TEDS Guest Registration	\$50/person	\$75/person
ACE Guest Registration	\$150/person	\$200/person
Children 12 and Under	\$25/person	\$50/person

There is no guest registration for NAF.

A guest is a spouse or personal friend, not a business associate, staff member, or colleague. All guests must be registered to attend NCPERS events. See General Information page for more details.

First Name:	Last Name:
First Name:	Last Name:

QUESTION

• Yes • No Is this your first time attending the NCPERS Annual Conference & Exhibition?

REGISTRATION/ORDER SUMMARY

GRAND TOTAL (U.S. funds)	\$
Guest Registration	\$
Annual Conference Registration	\$
NAF Module 3&4 Registration	\$
NAF Module 1&2 Registration	\$
TEDS Registration	\$

CANCELLATION POLICY

All registration cancellations must be received in writing before April 20 to receive a refund and will be subject to a processing fee: \$100 for TEDS, NAF, and ACE, and \$50 for guest registrations. No refunds will be given for cancellations after April 20 or no-shows. Please e-mail your cancellation request to registration@ncpers.org.

PAYMENT METHODS

Online at www.ncpers.org

You will need your username and password to log in. Check Send registration form(s) and check, made payable to NCPERS: 444 North Capitol Street, NW, Suite 630

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Washington, DC	20001

Credit Card: Fax to 202-624-1439 or e-mail to registration@ncpers.org

🖸 American Express 🚟 🛛 🛈 Visa 💯] 🛛 MasterCard 🌄	
Credit Card #:		
Expiration Date:	_ CC Verification Code:	
Name (as it appears on the card):		
CC Billing Address:		
City:	State:	Zip:
Authorized Amount to Charge: \$		
By submitting this form, I certify I have read ar If paying by credit card, I authorize NCPERS to indicated.		

Signature: ____



National Conference on Public Employee Retirement Systems *The Voice for Public Pensions*

444 North Capitol St., NW, Suite 630 Washington, DC 20001 Phone: 202-624-1456 Fax: 202-624-1439 info@NCPERS.org www.NCPERS.org/ACE

he National Conference on Public Employee Retirement Systems (NCPERS) is the largest trade association for public sector pension funds, representing more than 500 funds throughout the United States and Canada. It is a unique nonprofit network of trustees, administrators, public officials, and investment professionals who collectively manage nearly \$3 trillion in pension assets held in trust for approximately 21 million public employees and retirees — including firefighters, law enforcement officers, teachers, and other public servants.

Founded in 1941, NCPERS is the principal trade association working to promote and protect pensions by focusing on Advocacy, Research, and Education for the benefit of public-sector pension stakeholders... It's who we **ARE**!

