



AGENDA

RETIREMENT BOARD MEETING

REGULAR MEETING
August 10, 2016
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. Routine items for August 10, 2016.
 - 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

CLOSED SESSION

4. The Board will go into closed session under Gov. Code Section 54957 to consider recommendations from the Medical Advisor and/or staff regarding the following disability retirement applications:

	<u>Member</u>	<u>Type Sought</u>	<u>Recommendation</u>
a.	Debra Hooper-Britton	Service Connected	Service Connected
b.	Graciela Olveda	Service Connected	Service Connected

5. The Board will continue in closed session to consider the Hearing Officer's recommendation regarding the disability application for Nancy Michelli.
6. The Board will continue in closed session to consider the Hearing Officer's recommendation regarding the disability application for Gail Clark.

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.

OPEN SESSION

7. Update from Verus and Staff regarding Draft Investment Policy Statement.
8. Recommendation from Verus to retain Zeno Consulting for Transaction Cost Analysis services.
9. Consider and take possible action to retain Zeno Consulting for Transaction Cost Analysis services.
10. Report from CIO on semi-annual rebalancing.
11. Presentation of semi-annual disability retirement report.
12. Consider authorizing the attendance of Board and/or staff:
 - a. CALAPRS Trustees Roundtable, September 30, 2016, Burbank, CA
13. 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.

CONTRA COSTA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

BOARD OF RETIREMENT

Meeting Date
08/10/16
Agenda Item
#3

Page 1

August 10, 2016

Items requiring Board Action

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

B. Service and Disability Retirement Allowances:

<u>Name</u>	<u>Number</u>	<u>Effective Date</u>	<u>Option Type</u>	<u>Group</u>	<u>Selected</u>
Aleridge, Christina	44237	3/31/16	SR	Tier II & III	Unmod
Bennett, Peggy	55653	3/1/16	SR	Tier II & III	Unmod
Cavallaro, Domenic	31988	3/31/16	SR	Tier III	Unmod
Chamblee, Melvin	53676	3/25/16	SR	Safety A	Unmod
Chilimidos, Daryl	64549	4/15/16	SCD	Safety C	Unmod
Crawford, James	49439	3/31/16	SR	Tier II & III	Unmod
Freier, Judith	D3406	3/31/16	SR	Tier I	Unmod
Giron, Annamarie	73837	3/31/16	SR	Tier III	Unmod
Gorton, Joseph	44462	3/4/16	SR	Safety A	Option 2
Hollender, John	65027	3/31/16	SR	Tier III	Unmod
Jacot, Cheryl	67129	5/15/16	SR	Tier III	Unmod
Kelley, Juliette	50576	3/31/16	SR	Tier II & III	Unmod
Malekani, Abolghasem	53938	4/30/16	SR	Tier III	Option 1
Masinas, Beverly	D9500	3/31/16	SR	Tier II & III	Unmod
Millier, Dorothy	D3406	3/31/16	SR	Tier I	Unmod
Morton, James	50132	3/15/16	SR	Tier II	Unmod
Ounniyom, An	60837	3/31/16	SR	Tier II & III	Unmod
Ourique, Michael	42581	3/25/16	SR	Tier II & III	Option 1
Perkins, Jill	D7274A/P	5/5/16	SR	Safety A	Unmod
Rosenbohm, Danice	54279	4/6/16	SR	Tier III	Unmod
Saied, Ghulam-Safdar	68652	5/1/16	SR	Tier III	Unmod
Somerton, Carol	32600	3/31/16	SR	Tier II & III	Unmod
Walton, Bobbie	69905A/P	4/8/15	SR	Tier III	Option 1
Walton, Robert	69905	4/30/16	SR	Tier III	Unmod
Zemmelman, Mimi	D9500	3/31/16	SR	Tier I	Option 2

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

<u>Name</u>	<u>Number</u>	<u>Filed</u>	<u>Type</u>
None			

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

CONTRA COSTA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

BOARD OF RETIREMENT

Page 2

August 10, 2016

D. Deaths:

<u>Name</u>	<u>Date of Death</u>	<u>Employer as of Date of Death</u>
Archimede, Joseph	07/21/16	Contra Costa County
Cluck, Roger	07/12/16	Contra Costa
Coyle, David	03/19/16	Contra Costa County
Dawkins, Alvin	06/27/16	City of Pittsburg
Fleck, Rosalee	07/08/16	Contra Costa County
Gomez, Beckie	07/28/16	Contra Costa County
Hart, Jean	07/28/16	Beneficiary
Hill, Laura	10/18/14	Contra Costa County
Holt, Laverne	07/11/16	Beneficiary
Lenz, Thelma	07/17/16	Contra Costa County
MacDougall, David	07/10/16	Contra Costa County
McCoy, Jane	06/29/16	Contra Costa County
McKenzie, Susan	06/18/16	Contra Costa County
Moore, Doris	05/17/16	Contra Costa County
Nelson, Blanche	07/13/16	Beneficiary
Schreiber, Christine	07/17/16	Beneficiary
Stearns, Gerald	06/01/16	Contra Costa County
Thresh, Christine	06/18/16	Bethel Island Municipal Improvement District
Vojvoda, John	07/29/16	Contra Costa County
Walker, Clark	07/21/16	Contra Costa County Fire Protection District
White, Frances	06/19/16	Contra Costa County
Williams, Rose	06/05/16	Beneficiary

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

Meeting Date
08/10/16
Agenda Item
#3a.

Name	Employee Number	Tier	Membership Date	Employer
Ackerman, Simone	80759	P5.2	06/01/16	Contra Costa County
Alavi, Shirin	83036	P5.2	06/01/16	Contra Costa County
Amaya, Eleuteria	78303	P5.2	06/01/16	Contra Costa County
Angstadt, Eric	83265	P5.2	06/01/16	Contra Costa County
Apassa, Modupe	71740	P5.2	06/01/16	Contra Costa County
Asuncion, Audrielle	83228	P5.2	06/01/16	Contra Costa County
Atwood, Chantal	82345	P5.2	06/01/16	Contra Costa County
Barlaan, Carlo	83220	P5.2	06/01/16	Contra Costa County
Bazua, Lindsey	83288	P5.2	06/01/16	Contra Costa County
Bermudez, Yvonne	79589	P5.2	06/01/16	Contra Costa County
Bradford, Alan	73313	S/E	06/01/16	CCC Fire Protection District
Broderick, Ethel	79692	P5.2	06/01/16	Contra Costa County
Brooks, Keaton	83058	S/E	06/01/16	Contra Costa County
Butler, Lorie	79381	P5.2	06/01/16	Contra Costa County
Cabral, Gerald	83337	P5.2	06/01/16	Contra Costa County
Caldwell, Christopher	75892	P5.2	06/01/16	Contra Costa County
Coverson, Drew	70189	P5.3	06/01/16	Superior Court
Davidson, Mollie	80747	P5.2	06/01/16	Contra Costa County
Davis, Ronald	82851	S/E	06/01/16	CCC Fire Protection District
Dayton, Kenneth	82925	S/E	06/01/16	CCC Fire Protection District
Dazhan, Kathleen	83316	P5.2	06/01/16	Contra Costa County
De Lang, Konnor	82852	S/E	06/01/16	CCC Fire Protection District
De Shields, Nathan	83345	P5.2	06/01/16	Contra Costa County
Do, William	82761	P5.2	06/01/16	Contra Costa County
Durley, Kimberly	83289	P5.2	06/01/16	Contra Costa County
Evangelista, Dennis	82384	P5.2	06/01/16	Contra Costa County
Filbert, Bailey	83325	P5.2	06/01/16	Contra Costa County
Frazier-Stafford, Linda	83266	P4.3	06/01/16	Contra Costa County
Frye, Elizabeth	83267	P5.2	06/01/16	Contra Costa County
Galo, Martha	83217	P5.2	06/01/16	Contra Costa County
Gartin, Stan	82853	S/E	06/01/16	CCC Fire Protection District
George, Brian	82870	S/E	06/01/16	CCC Fire Protection District
Gillilan, Justin	83272	P5.2	06/01/16	Contra Costa County
Gomez, Jessica	81260	P5.2	06/01/16	Contra Costa County
Gomez, Joellen	83006	P5.2	06/01/16	Contra Costa County
Graham, Tiffany	81233	P5.2	06/01/16	Contra Costa County
Grant, Jonathan	82854	S/E	06/01/16	CCC Fire Protection District

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

Name	Employee Number	Tier	Membership Date	Employer
Gudino, Henry	D4980	P4.3	06/01/16	CCCERA
Gupta, Nisha	83223	P5.2	06/01/16	Contra Costa County
Hafterson, Amber	82331	P5.2	06/01/16	Contra Costa County
Hall, David	82855	S/E	06/01/16	CCC Fire Protection District
Hanawalt, Amanda	73732	P5.2	06/01/16	Contra Costa County
Hartfield, Rolanda	42524	III	06/01/16	Contra Costa County
Haynes, Lynette	83348	P5.2	06/01/16	Contra Costa County
Hill, Hayley	80425	P5.2	06/01/16	Contra Costa County
Hines, Helena	D9990	P4	06/01/16	Housing Authority
Hoekwater, Ashley	83270	P5.2	06/01/16	Contra Costa County
Houston, Dorothy	82324	P5.2	06/01/16	Contra Costa County
Jara-Alegria, Paula	81745	P5.2	06/01/16	Contra Costa County
Jimenez, Janice	81162	P5.2	06/01/16	Contra Costa County
Kappadahl, Holly	82024	P5.2	06/01/16	Contra Costa County
Keller, Kurtis	83315	P5.2	06/01/16	Contra Costa County
Kirske, Isabelle	82959	P5.2	06/01/16	Contra Costa County
Korthamar, Natalie	D7830	P4	06/01/16	San Ramon Valley Fire District
Lapatha, Agnes	80717	P5.2	06/01/16	Contra Costa County
Lau, Shirley	83376	P5.2	06/01/16	Contra Costa County
Leach, Heather	82010	P5.2	06/01/16	Contra Costa County
Lee, Railing	83320	P5.2	06/01/16	Contra Costa County
Loza, Jose	83326	P5.2	06/01/16	Contra Costa County
Ly, Aileen	82728	P5.2	06/01/16	Contra Costa County
Mangahas, Geralyn	77027	P5.2	06/01/16	Contra Costa County
Mangahas, Geralyn	77027	III	06/01/16	Contra Costa County
Mankewich, Michelle	83234	P5.2	06/01/16	Contra Costa County
Martinez, Carolina	82808	P5.2	06/01/16	Contra Costa County
McGee, Cicelia	83372	P5.2	06/01/16	Contra Costa County
Medina, Rowena	83263	P5.2	06/01/16	Contra Costa County
Melton, Kelly	81056	P5.2	06/01/16	Contra Costa County
Mendoza, Cynthia	79401	P5.2	06/01/16	Contra Costa County
Miller, Nakia	83377	P5.2	06/01/16	Contra Costa County
Montemayor, Nicanor	83380	P5.2	06/01/16	Contra Costa County
Morgigno, David	82858	S/E	06/01/16	CCC Fire Protection District
Morrison, Steven	82859	S/E	06/01/16	CCC Fire Protection District
Nguyen, Hong	83354	P5.2	06/01/16	Contra Costa County
Nguyen, Jennette	80435	P5.2	06/01/16	Contra Costa County

Key:

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

CERTIFICATION OF MEMBERSHIPS

Name	Employee Number	Tier	Membership Date	Employer
Ong, Kevin	83324	P5.2	06/01/16	Contra Costa County
Ordonez, Corey	70359	P5.3	06/01/16	Superior Court
Ortiz, Zenia	80277	P5.2	06/01/16	Contra Costa County
Payton, Doreen	83335	P5.2	06/01/16	Contra Costa County
Pinell, Sara	82266	P5.2	06/01/16	Contra Costa County
Ponciano, Teri	83363	P5.2	06/01/16	Contra Costa County
Pong, Kimberly	D7830	P4	06/01/16	San Ramon Valley Fire District
Pool Varguez, Mabeyli	82830	P5.2	06/01/16	Contra Costa County
Pool, Brooke	70357	P5.3	06/01/16	Superior Court
Pullin, Eleanor	82226	P5.2	06/01/16	Contra Costa County
Ramirez Rodriguez Jr, Edgar	83061	S/E	06/01/16	Contra Costa County
Ramirez, Joshua	82923	S/E	06/01/16	CCC Fire Protection District
Razon, Danelyn	83287	P5.2	06/01/16	Contra Costa County
Richmond, Victoria	83323	P5.2	06/01/16	Contra Costa County
Romero, Abigail	82829	P5.2	06/01/16	Contra Costa County
Rozner, Andrew	82860	S/E	06/01/16	CCC Fire Protection District
Sagli, Jonathan	82868	S/E	06/01/16	CCC Fire Protection District
Salonga-Parker, Michelle	83219	P5.2	06/01/16	Contra Costa County
Sams, Christina	83367	P5.2	06/01/16	Contra Costa County
Santos, Carmen	83338	P5.2	06/01/16	Contra Costa County
Schott, Adam	82862	S/E	06/01/16	CCC Fire Protection District
Shafsky, Hannah	83334	P5.2	06/01/16	Contra Costa County
Smith, Shannon	D7830	P4	06/01/16	San Ramon Valley Fire District
Stewart, Michael	78549	P5.2	06/01/16	Contra Costa County
Stuart, Jennifer	83290	P5.2	06/01/16	Contra Costa County
Tahire, Ayenew	81986	P5.2	06/01/16	Contra Costa County
Tam, Sylvia	83319	P5.2	06/01/16	Contra Costa County
Taugher, Karl	82865	S/E	06/01/16	CCC Fire Protection District
Terrell, Laneisha	83276	P5.2	06/01/16	Contra Costa County
Thomas, Kaitlin	82206	P5.2	06/01/16	Contra Costa County
Thompson, Bryan	73958	S/E	06/01/16	CCC Fire Protection District
Thrower, Naila	79803	P5.2	06/01/16	Contra Costa County
Tiamzon, Divina	48952	III	06/01/16	Contra Costa County
Tobias, Peter	83277	P5.2	06/01/16	Contra Costa County
Tucker, Mohammed	83349	S/D	06/01/16	Contra Costa County
Van der Meulen, Hendrik	83333	P5.2	06/01/16	Contra Costa County
Vasta, Anthony	82924	S/E	06/01/16	CCC Fire Protection District
Ventura, Fanabella	76880	III	06/01/16	Contra Costa County
Vo, Chau	83227	P5.2	06/01/16	Contra Costa County
Walton, Nathan	83268	P5.2	06/01/16	Contra Costa County

Key:

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

CERTIFICATION OF MEMBERSHIPS

<i>Name</i>	<i>Employee Number</i>	<i>Tier</i>	<i>Membership Date</i>	<i>Employer</i>
Watts, Trevor	82866	S/E	06/01/16	CCC Fire Protection District
Wenbourne, Brock	82867	S/E	06/01/16	CCC Fire Protection District
Williams, Cristy	81635	P5.2	06/01/16	Contra Costa County
Williams, Lashonda	64041	P5.2	06/01/16	Contra Costa County
Witt, Joy	79769	P5.2	06/01/16	Contra Costa County
Zapanta, Shalise	82392	P5.2	06/01/16	Contra Costa County
Zaragoza, Elizabeth	83269	P5.2	06/01/16	Contra Costa County
Zeiler, Mary	83103	P5.2	06/01/16	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

ASSET ALLOCATION

Current Assets (Market Value)

\$7,221,302,000

Reporting Month End: June 30, 2016

Prepared By: Chih-Chi Chu

Robeco

Jackson Square Partners (fka Delaware)

Emerald Advisors

Intech (Core)

PIMCO Stocks+ Absolute Return

Ceredex

Total Domestic Equity

Pyrford (BMO)

William Blair

Total International Equity

JPMorgan Global Opportunities

First Eagle

Artisan Global Opportunities

Intech (Global Low Volatility)

Total Global Equity

Total Equity

AFL-CIO Housing Investment Trust

PIMCO Total Return

GSAM "Park" Portfolio

Goldman Sachs Asset Management

Lord Abbett

Torchlight Debt Opportunity Funds

Total Domestic Fixed Income

Lazard Asset Management

Total Global Fixed Income

Allianz Global Investors (fka Nicholas Applegate)

Total High Yield Fixed Income

Wellington Real Total Return

PIMCO All Asset

Private Real Asset

Total Real Asset

Total Real Estate

Total Alternative Investments

State Street Bank

Total Cash & Equivalents

Total Market Opportunities

TOTAL ASSETS

Meeting Date
08/10/16
Agenda Item
#3e.

A	B	C	D	C-B	D-A	Range
% of Target	Target Assets	Market Value	Actual Assets	Over (Under)	Over (Under)	
4.1%	296,073,382	322,774,000	4.47%	26,700,618	0.37%	
4.1%	296,073,382	291,480,000	4.04%	(4,593,382)	(0.06%)	
2.9%	209,417,758	220,204,000	3.05%	10,786,242	0.15%	
3.8%	274,409,476	288,158,000	3.99%	13,748,524	0.19%	
3.8%	274,409,476	256,876,000	3.56%	(17,533,476)	(0.24%)	
2.9%	209,417,758	252,648,000	3.50%	43,230,242	0.60%	
21.6%	1,559,801,232	1,632,140,000	22.60%	72,338,768	1.00%	
5.3%	382,729,006	402,771,000	5.58%	20,041,994	0.28%	
5.3%	382,729,006	394,587,000	5.46%	11,857,994	0.16%	
10.6%	765,458,012	797,358,000	11.04%	31,899,988	0.44%	
4.0%	288,852,080	261,751,000	3.62%	(27,101,080)	(0.38%)	
4.0%	288,852,080	312,234,000	4.32%	23,381,920	0.32%	
4.0%	288,852,080	307,247,000	4.25%	18,394,920	0.25%	
0.3%	21,663,906	24,181,000	0.33%	2,517,094	0.03%	
12.3%	888,220,146	905,413,000	12.54%	17,192,854	0.24%	
44.5%	3,213,479,390	3,334,911,000	46.18%	121,431,610	1.68%	40% TO 55%
3.3%	238,302,966	233,682,000	3.24%	(4,620,966)	(0.06%)	
5.6%	404,392,912	352,292,000	4.88%	(52,100,912)	(0.72%)	
0.0%	0	4,000	0.00%	4,000	0.00%	
4.6%	332,179,892	327,920,000	4.54%	(4,259,892)	(0.06%)	
4.6%	332,179,892	330,701,000	4.58%	(1,478,892)	(0.02%)	
1.9%	137,204,738	135,689,000	1.88%	(1,515,738)	(0.02%)	
20.0%	1,444,260,400	1,380,288,000	19.11%	(63,972,400)	(0.89%)	
4.0%	288,852,080	243,031,000	3.37%	(45,821,080)	(0.63%)	
24.0%	1,733,112,480	1,623,319,000	22.48%	(109,793,480)	(1.52%)	20% TO 30%
5.0%	361,065,100	325,609,000	4.51%	(35,456,100)	(0.49%)	
5.0%	361,065,100	325,609,000	4.51%	(35,456,100)	(0.49%)	2% TO 9%
0.8%	54,159,765	181,470,000	2.51%	127,310,235	1.76%	
1.8%	126,372,785	124,588,000	1.73%	(1,784,785)	(0.02%)	
2.5%	180,532,550	65,987,000	0.91%	(114,545,550)	(1.59%)	
5.0%	361,065,100	372,045,000	5.15%	10,979,900	0.15%	0% TO 10%
12.5%	902,662,750	852,330,000	11.80%	(50,332,750)	(0.70%)	10% TO 16%
8.0%	577,704,160	608,404,000	8.43%	30,699,840	0.43%	5% TO 12%
		71,229,000	0.99%			
0.5%	36,106,510	71,229,000	0.99%	35,122,490	0.49%	0% TO 1%
0.5%	36,106,510	33,455,000	0.46%	(2,651,510)	(0.04%)	0% TO 5%
100.0%	7,221,302,000	7,221,302,000	100%	0	0%	

UNDER REVIEW:

Nogales Investors - Performance, Board Action 5/28/08

Wellington - Personnel Change, Board Action 4/13/16

Private Market Investments
As of June 30, 2016

REAL ESTATE INVESTMENTS	Inception Date	Target Termination	# of Extension	Discretion by GP/LP	New Target Termination	Funding Commitment	Market Value	% of Total Asset	Outstanding Commitment
DLJ Real Estate Capital Partners, L.P. III	06/30/05	06/30/14	1st 2 YR	GP	6/30/2016	75,000,000	41,782,000	0.58%	18,958,000
DLJ Real Estate Capital Partners, L.P. IV	12/31/07	09/30/16				100,000,000	82,551,000	1.14%	19,113,000
DLJ Real Estate Capital Partners, L.P. V	07/31/13	12/31/22				75,000,000	45,214,000	0.63%	39,072,000
Hearthstone Partners II	06/17/98	12/31/09				6,230,000	1,000	0.00%	
Invesco IREF I	10/22/03	04/30/11	3rd 1 YR	GP	4/30/2014	50,000,000	6,532,000	0.09%	
Invesco IREF II	05/30/07	12/31/15				85,000,000	14,861,000	0.21%	20,305,000
Invesco IREF III	08/01/13	08/01/20				35,000,000	19,281,000	0.27%	19,223,000
Invesco IREF IV	12/01/14	12/01/21				35,000,000	17,574,000	0.24%	
Long Wharf FREG III	03/30/07	12/30/15				75,000,000	12,558,000	0.17%	
Long Wharf FREG IV	08/14/13	09/30/21				25,000,000	24,671,000	0.34%	
Oaktree Real Estate Opportunities Fund V	12/15/11	12/31/16				50,000,000	33,370,000	0.46%	
Oaktree Real Estate Opportunities Fund VI	09/30/13	09/30/20				80,000,000	89,579,000	1.24%	5,682,000
Oaktree Real Estate Opportunities Fund VII	02/28/15	02/28/23				65,000,000	0	0.00%	65,000,000
Siguler Guff Distressed Real Estate Opp. Fund	12/31/11	12/31/16				75,000,000	67,994,000	0.94%	11,993,000
Siguler Guff Distressed Real Estate Opp. Fund II	08/31/13	08/31/20				70,000,000	47,719,000	0.66%	44,905,000
Siguler Guff Distressed Real Estate Opp. II Co-Inv	01/31/16	01/31/23				25,000,000	10,000,000	0.14%	15,000,000
Paulson Real Estate Fund II	11/10/13	11/10/20				20,000,000	20,213,000	0.28%	3,574,000
Angelo Gordon Realty Fund VIII	12/31/11	12/31/18				80,000,000	65,987,000	0.91%	18,145,000
Angelo Gordon Realty Fund IX	10/10/14	10/10/22				65,000,000	13,856,000	0.19%	55,900,000
LaSalle Income & Growth Fund VI	01/31/12	01/31/19				75,000,000	83,633,000	1.16%	3,946,000
Adelante Capital Management (REIT)						0	97,973,000	1.36%	
INVESCO International REIT						0	56,981,000	0.79%	
Outstanding Commitments						1,361,250,000	852,330,000	11.80%	340,816,000
Total							340,816,000		
							1,193,146,000		

PRIVATE DEBT INVESTMENTS	Inception Date	Target Termination	# of Extension	Discretion by GP/LP	New Target Termination	Funding Commitment	Market Value	% of Total Asset	Outstanding Commitment
Torchlight Debt Opportunity Fund II	09/28/06	09/30/16				128,000,000	48,577,000	0.67%	
Torchlight Debt Opportunity Fund III	09/30/08	09/30/16				75,000,000	10,513,000	0.15%	0
Torchlight Debt Opportunity Fund IV	08/01/12	08/30/20				60,000,000	61,858,000	0.86%	
Torchlight Debt Opportunity Fund V	12/31/14	09/17/22				75,000,000	14,741,000	0.20%	71,250,000
Outstanding Commitments						338,000,000	135,689,000	1.88%	71,250,000
Total							71,250,000		
							206,939,000		

**Private Market Investments
As of June 30, 2016**

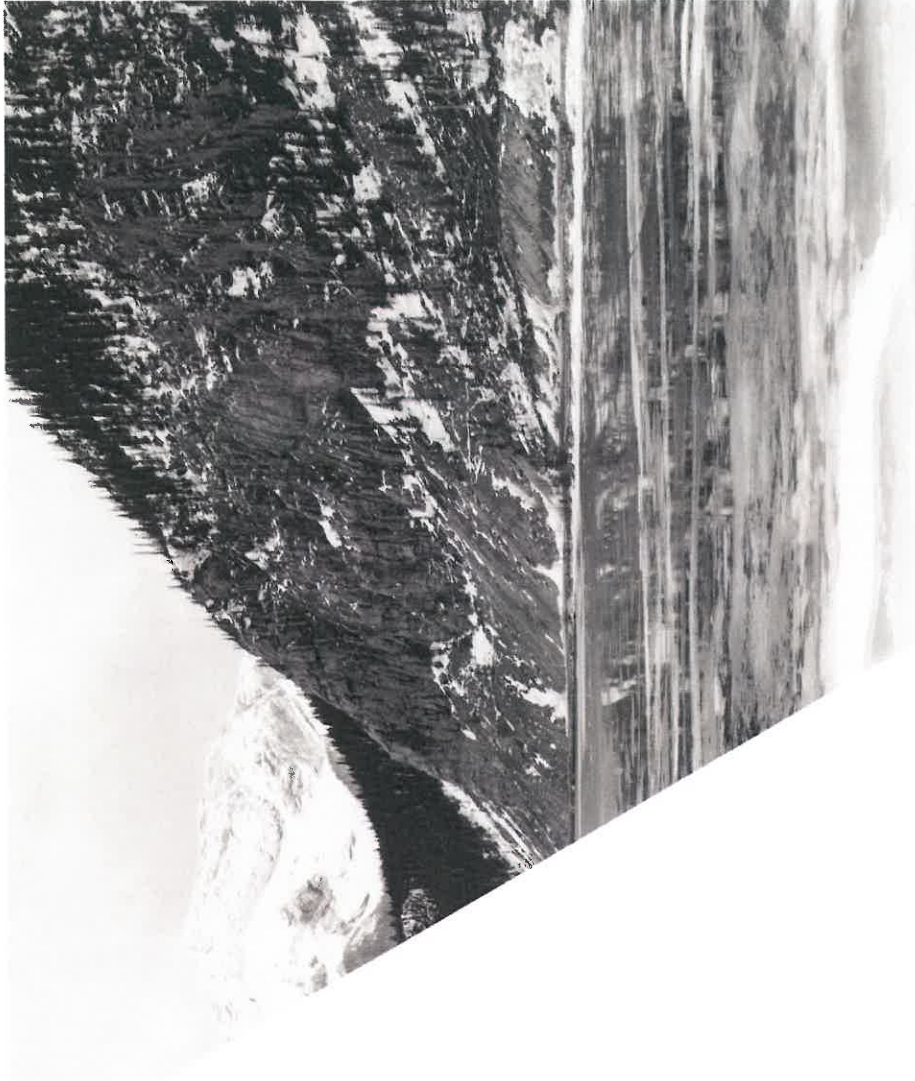
ALTERNATIVE INVESTMENTS	Inception Date	Target Termination	# of Extension	Discretion by GP/LP	New Target Termination	Funding Commitment	Market Value	% of Total Asset	Outstanding Commitment
Adams Street Partners	12/22/95	INDEFINITE				180,000,000	129,479,000	1.79%	92,865,000
Adams Street Secondary II	12/31/08	12/31/20				30,000,000	19,395,000	0.27%	12,637,000
Adams Street Secondary V	10/31/12	10/31/22				40,000,000	16,840,000	0.23%	21,884,000
Adams Street Venture Innovation Fund	03/09/16	03/09/28				75,000,000	0	0.00%	75,000,000
Pathway	11/09/98	05/31/21				125,000,000	46,268,000	0.64%	18,249,000
Pathway 2008	12/26/08	12/26/23				30,000,000	24,360,000	0.34%	6,931,000
Pathway 6	05/24/11	05/24/26				40,000,000	28,725,000	0.40%	15,231,000
Pathway 7	02/07/13	02/07/23				70,000,000	28,353,000	0.39%	40,846,000
Pathway 8	11/23/15	11/23/25				50,000,000	5,256,000	0.07%	45,925,000
Siguler Guff CCCERA Opportunities	06/03/14	05/31/25				200,000,000	60,932,000	0.84%	145,858,000
EIF USPF I	11/08/02	11/08/12	3rd YR	LP	11/08/15	30,000,000	807,000	0.01%	0
EIF USPF II	06/15/05	06/15/15				50,000,000	43,389,000	0.60%	0
EIF USPF III	02/28/07	02/28/17				65,000,000	62,813,000	0.87%	0
EIF USPF IV	06/28/10	06/28/20				50,000,000	50,086,000	0.69%	2,519,000
Bay Area Equity Fund	06/14/04	01/15/13	1st 2 YR	LP	1/15/2015	10,000,000	5,554,000	0.08%	0
Paladin III	2/29/09	12/31/17				10,000,000	10,753,000	0.15%	514,000
Carpenter Community BancFund	01/31/08	01/31/16				25,000,000	25,374,000	0.35%	0
Ocean Avenue Fund II	06/11/14	05/31/24				30,000,000	27,135,000	0.38%	1,479,000
Ocean Avenue Fund III	06/11/14	05/31/24				50,000,000	17,885,000	0.25%	14,884,000
Outstanding Commitments						1,155,000,000	608,404,000	8.36%	539,822,000
Total							539,822,000		
							1,148,226,000		

MARKET OPPORTUNITIES	Inception Date	Target Termination	# of Extension	Discretion by GP/LP	New Target Termination	Funding Commitment	Market Value	% of Total Asset	Outstanding Commitment
Oaktree Private Investment Fund 2009	02/28/10	01/31/17				40,000,000	18,455,000	0.26%	5,163,000
Angelo Gordon Energy Credit Opportunities	09/10/15	09/10/20				75,000,000	15,000,000	0.21%	60,000,000
Outstanding Commitments						115,000,000	33,455,000	0.46%	65,163,000
Total							98,163,000		

REAL ASSET INVESTMENTS	Inception Date	Target Termination	# of Extension	Discretion by GP/LP	New Target Termination	Funding Commitment	Market Value	% of Total Asset	Outstanding Commitment
Commonfund Capital Natural Resources IX	06/30/13	06/30/20				50,000,000	24,073,000	0.33%	25,000,000
Wastewater Opportunity Fund	12/31/15	11/30/22				25,000,000	1,165,000	0.02%	23,835,000
Aether III & III Surplus	11/30/13	11/30/20				75,000,000	40,249,000	0.56%	34,806,000
Aether IV	01/01/16	01/01/28				50,000,000	500,000	0.01%	49,500,000
ARES/EIF V	09/09/15	09/09/25				50,000,000	0	0.00%	50,000,000
Outstanding Commitments						250,000,000	65,987,000	0.91%	183,141,000
Total							183,141,000		
							249,128,000		

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.

Verus⁷⁷



Meeting Date
08/10/16
Agenda Item
#7



PERSPECTIVES
THAT DRIVE
ENTERPRISE
SUCCESS

AUGUST 10, 2016

Investment Policy Statement Development Discussion

Contra Costa County Employees' Retirement Association

Goals of this project

The overarching goal of this project is to create a new Investment Policy Statement (IPS) that accurately and concisely serves as an effective document for all parties to follow in administering the CCCERA investment program.

Specific areas of focus included the following:

- Governance structure. The Board approved transitioning from a Board-centric governance model to more of a team-based model, delegating specific responsibilities to Staff.
- Asset allocation. The Functionally Focused Portfolio (FFP) approach to portfolio construction represents a fundamentally different way of managing the investment program.
- Board-level policy issues. The old IPS includes not only Board-level policy issues but also a variety of other operational and procedural topics. Refining the IPS to focus strictly on board-level policy issues ensures a more concise, focused, relevant document for Board members to use and reference.

The Process

All topics in the old IPS were identified and traced throughout the drafting process and fall into one of three categories:

- Deletions. Those topics that are no longer applicable were identified as deletions. Example: asset-class-level investment objectives.
- Revisions. Most other sections were re-worded to bring up to old standards and reflect the true intent of today's Program.
- Transitions. References to items that should be expected to be updated regularly or those which focus on operational issues have been moved to other documents.

Verus and Staff collaborated to ensure each and every topic was appropriately categorized following this process and treated appropriately.

New language was also introduced to capture other changes to the Program. Example: zones 1 and 2 for rebalancing.

Ultimately, the changes required a re-write rather than an amended version of the document.

The Result: A New IPS

The new draft of the IPS seeks to fulfill the goals outlined:

- Governance structure. The new IPS now reflects the delegation of duties to Staff to hire and terminate investment managers as approved at the April 27th Board meeting and operate within zones 1 and 2 for rebalancing.
- FFP. The dynamic nature of the FFP approach to portfolio construction is now reflected to show how the Liquidity portfolio functions and how it works with the Growth, and Diversifying portfolios.
- Board-level policy issues. This IPS focuses solely on policy issues. Procedural and operational items have been moved from the IPS to 2 new documents:
 - *Investment Directives*. Board-directed investment guidance provided on an on-going basis will now be captured in this more time-responsive construct. Annual updates to the asset allocation will be reflected here instead of the IPS itself.
 - *Investment Procedures*. How the investment program operates will now be detailed in a separate set of procedures. This will be more detailed than in the past and provide a more comprehensive treatment of the procedural issues in managing the Program.

Topics requiring direction from the Board

Several topics addressed in the old IPS requiring further direction from the Board:

1. Asset Allocation. The old IPS includes an asset allocation table, which historically had been updated every 3-5 years. With the dynamic nature of the FFP approach, the table has been moved to the Investment Directives and will be updated annually.
2. Economically Targeted Investing (ETI) and Environmental, Social, Governance (ESG) Investing. The old IPS includes language under the Authority section addressing ETI / ESG. The new IPS discusses all investment strategies will be considered based on investment merits with an analysis of potential risks.
3. Emerging Managers. The old IPS includes language under the Authority section addressing emerging managers. The new IPS discusses all investment strategies will be considered based on investment merits with an analysis of potential risks.
4. Tobacco. The old IPS includes a general guideline restricting investment in securities of any corporation that derives 15% or more of its revenue from tobacco products. The new IPS removed this language.

Next Steps

This first draft of the IPS is provided for the Board’s review of the intended changes with several questions to be answered:

1. Incorporate direction on topics outlined on the previous slide and any others as needed.
2. Once incorporated, are the key concepts previously identified by the Board appropriately reflected in the new IPS?
 - If yes, then drafting of the Procedures and Directives may proceed
3. Does the IPS in combination with the Directives and Procedures documents accurately capture the Board’s intent with respect to the management of the Program?

Once the Board can answer “yes” to these questions, the IPS may be approved.

Notices & disclosures

Post performance is no guarantee of future results. This document is provided for informational purposes only and is directed to institutional clients and eligible institutional counterparties only and is not intended for retail investors. Nothing herein constitutes investment, legal, accounting or tax advice, or a recommendation to buy, sell or hold a security or pursue a particular investment vehicle or any trading strategy. This document may include or imply estimates, outlooks, projections and other "forward-looking statements." No assurance can be given that future results described or implied by any forward looking information will be achieved. Investing entails risks, including possible loss of principal. Verus Advisory Inc. and Verus Investors, LLC ("Verus") file a single form ADV under the United States Investment Advisors Act of 1940, as amended.

Contra Costa County Employees' Retirement Association
Investment Policy Statement

-DRAFT-

Adopted: [_____]

Restated: [_____]

**CCCERA INVESTMENT POLICY STATEMENT
- D R A F T -**

Table of Contents

1.	PURPOSE.....	2
2.	AUTHORITY.....	2
3.	GOVERNANCE.....	3
	A. ROLES AND RESPONSIBILITIES.....	3
	1. Board of Retirement.....	3
	2. Staff.....	3
	3. General investment consultant	4
	4. Specialty investment consultants	4
	5. Investment managers.....	4
	6. Custodian bank.....	5
	B. DELEGATION OF AUTHORITY.....	5
	1. Rebalancing.....	5
	2. Managing Investment Strategies	6
4.	INVESTMENT PHILOSOPHY	8
5.	INVESTMENT OBJECTIVES	9
6.	INVESTMENT STRATEGY.....	10
	A. ASSET ALLOCATION.....	10
	B. FUNCTIONAL SUB-PORTFOLIOS.....	10
	1. Liquidity Sub-Portfolio	10
	2. Growth Sub-Portfolio.....	11
	3. Diversifying Sub-Portfolio.....	11
	4. Interaction between the functional sub-portfolios.....	12
	C. INVESTMENT STRATEGIES.....	12
7.	RISK PHILOSOPHY	13
8.	PORTFOLIO MONITORING	13
	APPENDIX 1: REFERENCED DOCUMENTS	14

CCCERA INVESTMENT POLICY STATEMENT
- D R A F T -

Contra Costa County Employees' Retirement Association
Investment Policy Statement

Adopted: [_____]

Restated: [_____]

AMENDED: 1/14/86, 2/27/86, 10/13/87, 8/9/88, 6/13/89, 8/8/89, 1/8/91, 10/13/92, 2/9/93,
5/2/94, 10/14/97, 5/4/99, 1/9/01, 2/12/02, 06/11/02, 11/06/02, 1/28/04, 5/26/04, 7/28/04,
12/14/05, 10/24/07, 4/08/09, 10/30/13

The Contra Costa County Employees' Retirement Association (CCCERA) is a public employee retirement system that was established by the County of Contra Costa on July 1, 1945. CCCERA is administered by the CCCERA Board of Retirement to provide service retirement, disability, death and survivor benefits for county employees and sixteen other participating agencies under the County Employees Retirement Law of 1937, California Government Code Section 31450 *et. seq.* (CERL), the California Public Employees' Pension Reform Act of 2013, California Government Code Section 7522 *et. seq.* (PEPRA) and other applicable laws.

1. Purpose

CCCERA has established an investment program ("the Investment Program") to provide sufficient assets in a timely manner to pay the benefits due to participants today and in the future, over the long-term. The purpose of this Investment Policy Statement ("IPS") is to establish the policies through which the Board of Retirement intends to conduct the Investment Program. This IPS is intended to provide guidance to the Board and to its delegates, the Staff and third-party professionals. This IPS is supported by procedural and operational directives, guidelines and procedures ("Guidelines and Procedures") that reflect the needs of the employee defined benefit plan that the Board administers ("the Plan").

2. Authority

The investment of the assets of the Trust shall be in accordance with applicable law, including but not limited to the following:

- The assets of the Plan are trust funds and shall be held for the exclusive purposes of providing benefits to the participants in the Plan and their beneficiaries and defraying reasonable expenses of administering the Plan (Cal. Gov. Code Sec. 31595 (a)); CA Const. art. XVI, sec. 17(b).
- Investments shall be made with the care, skill, prudence and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with these matters would use in the conduct of an enterprise of a like character and with like aims (Cal. Gov. Code Sec 31595 (b)); CA Const. art. XVI, sec. 17(c).

CCCERA INVESTMENT POLICY STATEMENT

– D R A F T –

- Investments shall be diversified so as to minimize the risk of loss and to maximize the rate of return unless under the circumstances it is clearly prudent not to do so (Cal. Gov. Code Sec. 31595 (c)); CA Const. art. XVI, sec. 17(d).

3. Governance

The Board of Retirement (“the Board”) hereby adopts a governance model whereby specific authority, responsibility, and accountability are either retained by the Board or delegated to others based on areas of expertise and appropriate oversight. The Board retains sole responsibility for the governance of the Plan, setting investment policy, and monitoring the Investment Program. It may choose to delegate specific areas of responsibility provided it retains appropriate oversight of the delegated activity.

A. Roles and Responsibilities

1. BOARD OF RETIREMENT

The Board maintains the sole and plenary authority and fiduciary responsibility for the Investment Program. The Board also understands it may delegate certain responsibilities under the Investment Program for purposes of administrative efficiency and expertise. The areas of the Investment Program the Board may not delegate include:

- The governance model of the Investment Program
- Establishing and maintaining investment policy, including:
 - Investment beliefs
 - This IPS
 - Investment objectives
 - Strategic asset allocation
 - Allocation-level performance benchmarks
 - Risk philosophy
- Engagement of Board consultants and service providers
- Monitoring the Investment Program

2. STAFF

CCCERA Staff (“Staff”), including the Chief Executive Officer (“CEO”) and Chief Investment Officer (“CIO”), is broadly responsible for supporting the Board in the effective execution of the Investment Program. The CEO and the CIO, under the supervision of the CEO, have been delegated authority to execute specific elements of the Investment Program. The CEO has the authority to execute contracts between CCCERA and investment managers or other service providers that have been approved by the Board. The CIO has the authority to rebalance the portfolio consistent with Section 3.B.1. of this IPS. The CIO also has the authority to manage the investment strategies within the Plan consistent with Section 3.B.2 of this IPS.

CCCERA INVESTMENT POLICY STATEMENT

– D R A F T –

3. GENERAL INVESTMENT CONSULTANT

The General Investment Consultant (“Consultant”) is engaged by the Board to provide independent, objective investment advice. The Consultant is and shall agree to be a fiduciary to the Plan under California law. The Consultant works with Staff in the development of recommendations while recognizing its fiduciary duty is to provide prudent investment advice to the Board. The Consultant provides advice without discretionary authority to execute on its advice. The specific duties of the Consultant are indicated in an Agreement for Professional Investment Consulting Services, and generally include providing advice with respect to:

- Investment strategy development and implementation
- Investment policy development
- Asset allocation among classes and subclasses
- Investment manager selection, evaluation and termination
- Investment performance monitoring
- Investment risk monitoring
- Capital markets projections
- Coordination with the Plan’s actuary in conducting periodic asset/liability studies and other required reporting
- Board education

4. SPECIALTY INVESTMENT CONSULTANTS

Specialty consultants may be hired by the Board to work with Staff, the Consultant, or the Board. These will typically be asset class consultants (e.g., real estate, private equity, hedge funds) that may operate on a discretionary or non-discretionary basis, as directed by the Board, to meet the objectives of the Investment Program.

5. INVESTMENT MANAGERS

Investment Managers are delegated the responsibility of investing and managing Plan assets in accordance with this IPS and all other applicable laws and the terms of the applicable investment documents evidencing CCCERA’s acquisition of an interest in an investment vehicle, and other controlling documents. Each Investment Manager must be (1) an investment advisor registered under the Investment Advisors Act of 1940; (2) a bank, as defined in that Act; (3) an insurance company qualified under the laws of more than one state to perform the services of managing, acquiring or disposing of the Plans’ assets; (4) a trust operating as an investment company under the Investment Company Act of 1940; or (5) a state-chartered trust company authorized to carry on a trust banking business. Each Investment Manager shall agree that it is a fiduciary of the Plan under California law. Subject to this IPS and their specific contractual obligations to the Plan, Investment Managers are responsible for making all investment decisions on a discretionary basis regarding assets placed under their jurisdiction and will be accountable for achieving their investment objectives.

CCCERA INVESTMENT POLICY STATEMENT

– D R A F T –

Such discretion shall include decisions to buy, hold, and sell investments in amounts and proportions that are reflective of the stated investment mandate.

6. CUSTODIAN BANK

The custodian bank, selected by the Board to act as the principal custodian of assets of the Trust (the "Custodian Bank"), is delegated the responsibility of holding the assets and evidence of interests owned by CCCERA in investment vehicles and cash (and equivalents). The Board may authorize the Custodian Bank to invest in temporary short-term fixed income investments both for the investment strategies and as a part of the cash portion of Plan assets. Such investments will be managed in general accordance with short-term fixed income investment guidelines as detailed in the CCCERA Investment Guidelines ("the Guidelines"). Cash managed for investment strategies shall be considered to be sub-portions of the assets managed by the directing Investment Managers.

The Custodian Bank shall be authorized to conduct a securities lending program within liquidity and risk constraints as established by the Board.

B. Delegation of Authority

The Board has delegated authority to the CIO under the supervision of the CEO for certain functions as specified in the Board of Retirement's Investment Directives ("the Directives"). Delegation of authority will be coordinated with workflow, compliance and reporting procedures that are clearly defined, reviewed, and approved. This IPS is used to describe the delegation of authority generally with the CCCERA Investment Procedures ("the Procedures") and the Directives providing additional requirements and processes. The Board shall be notified timely of all investment decisions made by the CIO and their implications to the Plan.

1. REBALANCING

The Board recognizes there may be a cost to maintaining strict adherence to a target asset allocation in terms of both transaction costs and opportunity costs. The Board also recognizes that the benefit of cost minimization must be balanced against the assumption of active risk associated with allowing variances to asset allocation targets.

Staff shall conduct portfolio rebalancing in order to meet two distinct objectives. The first is to maintain the long-term strategic asset allocation targets approved by the Board. The second is to capture valuation-based opportunities by deviating from the long-term strategic asset allocation targets within Zones 1 and 2 as follows:

CCCERA INVESTMENT POLICY STATEMENT

– D R A F T –

i. Zone 1

Staff may periodically rebalance the portfolio within Zone 1 ranges as set forth in the Investment Directives. When such rebalancing activity occurs, the Board shall be notified at the next regularly scheduled meeting.

ii. Zone 2

With prior approval of the Board, Staff may rebalance the portfolio within Zone 2 ranges as set forth in the Investment Directives. When such rebalancing activity occurs, the Board shall be notified at the next regularly scheduled meeting.

For each of the zones listed above, special consideration will be given to illiquid asset classes recognizing that their funding and redemption processes are different than those of the liquid asset classes. As such, each illiquid asset class is assigned a specific liquid asset class to function as a holding asset class while the corresponding illiquid strategies are being funded.

Portfolio rebalancing may occur by adjusting allocations to individual investment strategies or through the use of an overlay provider using derivatives.

2. MANAGING INVESTMENT STRATEGIES

While the Board believes the vast majority of investment return over the long term is dependent on the asset allocation decision, it recognizes additional risk and return may be generated by how the asset allocation is implemented. These implementation decisions will largely be delegated to the CIO, under the CEO's supervision, to be executed within the Guidelines and Procedures.

i. Hiring a new manager

The CIO shall have the authority to hire new managers (i.e., purchase interests in new investment vehicles) in accordance with the Plan's active risk budget and up to an investment amount of \$100 million. The \$100 million shall represent the cumulative total amount of originally committed capital under the management of a single investment manager and its affiliates. (By way of example, two vintage year funds under one manager with a commitment of \$50 million each would reach the total of \$100 million.) The CEO shall have authority to execute the contracts consistent with the Procedures. Any cumulative commitment above \$100 million shall require explicit Board approval. In all cases, the hiring process must be consistent with the requirements for vendor selection detailed in the Procedures and other Plan policy documents, including but not limited to the Code of Fiduciary Conduct and Ethics, Conflict of Interest Code, Placement Agent Disclosure Policy and Procurement of Products and Services Policy.

CCCERA INVESTMENT POLICY STATEMENT

– D R A F T –

Subject to the foregoing limitations, the CIO, with the assistance of the Investment Consultant, shall conduct all due diligence activities in connection with hiring new managers. The CIO may, but shall not be required to, request the involvement of one or more Board members in the due diligence process.

Quiet period. During the process of hiring a new manager, a "quiet period" will apply during the evaluation process, during which time no Board member may knowingly have any communication with any actual or potential candidate for the mandate, unless authorized by the Board in connection with the due diligence process in selecting managers. The quiet period shall cease upon the Board's entering into a contract for the Investment Manager(s) selected for the mandate. The CIO is responsible for alerting the candidates and the Board to the quiet period and its restrictions. A violation of the quiet period rule may result in disqualification of the candidate or other appropriate Board action.

ii. Investing in a new closed-end fund with an existing manager

In the case of closed-end funds with a limited investment lifecycle, additional investments are periodically required to maintain asset allocation targets. For such "follow-on" investments, Staff shall have the authority to make additional investments in an amount necessary to maintain the intended exposure, as estimated by a detailed funding analysis. Any additional investment must be approved by the Board.

In all cases, the hiring process must be consistent with the requirements for vendor selection detailed in the Procedures and other Plan policy documents (e.g., Procurement of Products and Services Policy, Placement Agent Disclosure Policy, Conflict of Interest Code).

iii. Terminating existing managers

The Board recognizes investments may need to be adjusted or removed from the Plan portfolio from time to time for a variety of reasons, including:

- Organizational changes including those to the people and processes in place
- Manager's style has deviated from initial investment thesis
- A manager's style, strategy, ethics, or philosophy is no longer appropriate for the Investment Program
- Underperformance relative to benchmark or other expectations
- Uncompetitive pricing vis-à-vis available alternatives

The CIO shall have the authority to terminate investment managers. Absent emergency circumstances (described below), prior to terminating a manager, Staff shall present a detailed termination memo to the Board that includes:

- Purpose of the mandate

CCCERA INVESTMENT POLICY STATEMENT

– D R A F T –

- Reason(s) for termination
- Specific plan to replace or temporarily invest the assets

Although the Board's explicit approval is not required, it shall maintain veto authority should a majority of the Board decide the planned termination is not in the best interest of the Plan.

Emergency termination. An emergency will be deemed to exist when an investment strategy suffers the resignation or other loss of its portfolio manager(s) and no appropriate replacement is available; when an investment management firm dissolves, ceases to exist, or is otherwise incapable of carrying out its activities in the ordinary course of its business; when an investment management firm is actually or effectively shut down by a regulatory agency of a state or the Federal government or is accused of theft or fraud by a regulatory agency or other government body; when the Plan's investment is in jeopardy of material loss; or when such other developments with the investment management firm give concern to the CIO that the investment is no longer prudent for the Investment Program. Staff shall take action to transfer management of the affected investment strategy as soon as possible after CCCERA learns of the emergency. In the case of an emergency, the CEO, or in the CEO's absence, the Deputy CEO or the CIO will attempt to notify the Chair and Vice Chair of the Board immediately; notify the Custodian Bank that the Investment Manager's Managed Account is to be frozen and, except for those trades which are pending, no further trading is authorized; and may call a special meeting of the Board to take further action.

4. Investment Philosophy

The Investment Philosophy represents the foundational principles on which the Investment Program is based. Every investment decision should be made with these foundational principles in mind to promote the fulfillment of the fiduciary obligations. The statements below set forth the Board's Investment Philosophy:

Plan objectives should guide all decision making

The Investment Program is designed to provide benefits to participants over a long term without accepting undue risks that could be detrimental to the participants or Plan sponsors. The Investment Program, therefore, must be managed in a prudent manner recognizing the relationships between the benefits promised to participants and their beneficiaries, the financial health of the sponsors, and the exposures within the Investment Program.

Asset allocation drives portfolio volatility and returns

It is impossible to accurately and consistently predict the future; therefore, the Plan is required to be prudently diversified across and within asset classes in anticipation of

CCCERA INVESTMENT POLICY STATEMENT

– D R A F T –

various economic conditions. In a well-diversified portfolio, the overall volatility of investment returns is principally driven by the asset allocation and secondarily driven by the individual investment strategies. As such, asset allocation is the primary tool by which the Board can manage the risk/return profile of the Plan.

Short-term investing

Over shorter investment periods of up to 5 years, volatility can be more detrimental to the success of the Investment Program. Because paying benefits to participants and their beneficiaries occurs continuously, the forced selling of assets during broad market corrections to meet these payments could result in the long-term impairment of investable capital. By maintaining a portion of the portfolio invested in low-volatility, highly liquid securities and investment strategies, the Investment Program will be able to mitigate or avoid the forced selling of assets during broad market corrections.

Long-term investing

Over longer investment periods, volatility can be managed more effectively to produce beneficial results for the Investment Program. Market corrections will occur and when they do, patient and well-capitalized investors are able to wait until the market recovery takes place. Additionally, broad market corrections have historically provided investment opportunities for those with available capital and the foresight to make additional investments.

Fees

Fees directly impact the investment results of the Investment Program but are necessary to appropriately compensate the investment management of the Investment Program. Fees must, therefore, be measured closely against the value the Investment Program expects to earn and aligned to ensure incentives are consistent with the objectives of the Plan.

5. Investment Objectives

The investment objectives of the Investment Program are:

- To provide liquidity to meet retiree benefit payments in a timely manner;
- To produce long-term growth to meet future retiree benefit payments and maintain a funding surplus or closing a funding gap over time; and
- To protect the assets against the adverse impacts of rising inflation and investment market volatility.

Investment objectives specific to the individual investment strategies are further defined in the Board of Retirement's Investment Directives.

CCCERA INVESTMENT POLICY STATEMENT

– D R A F T –

6. Investment Strategy

The Board has chosen to employ an investment strategy that seeks to align the Investment Program with the investment objectives listed in Section 5 of this IPS. The strategy divides the portfolio into three functional sub-portfolios—Liquidity, Growth, and Diversifying—to address each investment objective highlighted in Section 5. The Liquidity portfolio is dedicated to funding near-term benefit payments. It is paired with the longer-term Growth portfolio as well as the Diversifying portfolio, which is intended to offset some of the investment risks embedded in the Growth portfolio. While the three sub-portfolios are aligned with the investment objectives individually, collectively they allow the Investment Program to offer appropriate risk and return characteristics.

A. Asset Allocation

The Board has adopted a strategic asset allocation based on the Plan's projected actuarial liabilities, liquidity needs, risk tolerance and the risk/return expectations for various asset classes. This asset allocation seeks to optimize long-term returns for the level of risk the Board considers appropriate. The current asset allocation table may be found in Investment Directive 610: Asset Allocation.

Since projected liability and risk/return expectations will change over time, the Board will conduct a periodic review of the strategic asset allocation to maintain an optimal allocation. The Board may also revise the asset allocation in response to significantly changing conditions that have affected valuations and forward-looking expected returns of asset classes. The Board will review capital market expectations annually. The result of this review shall be used to update the Investment Directives as needed.

B. Functional Sub-portfolios

As noted previously, the investment strategy for the Investment Program employs three functional sub-portfolios to construct the comprehensive asset allocation. The allocation to the Liquidity portfolio is assessed annually and is based on the projected benefit payments and expenses of the Plan. The remaining assets are invested in the Growth and Diversifying portfolios. The relative size and composition of these sub-portfolios is reviewed annually by the Board and revised as necessary through Investment Directives. The functional sub-portfolios are set forth below:

1. LIQUIDITY SUB-PORTFOLIO

The purpose of the Liquidity Portfolio is to ensure adequate assets are available to pay benefits over an extended timeframe as outlined in the Investment Directives. The Board has established a target allocation of 48 months of projected benefit payments in the Liquidity Portfolio, which will be drawn down and replenished annually. The assets will be invested in highly liquid, low volatility securities expected to generate modest levels of return while preserving capital throughout a market cycle. This portfolio will contain assets such as cash, short-term bonds, laddered government

CCCERA INVESTMENT POLICY STATEMENT

– D R A F T –

bonds, derivatives, and other investments that provide fixed, contractual cash flows with a minimum level of credit risk. As a secondary purpose, a portion of the Liquidity Portfolio may be allocated to the Growth Portfolio during broad market corrections so long as at least 24 months of projected benefit payments and expenses are maintained in the Liquidity Portfolio.

The success of the Liquidity Portfolio will be measured by its ability to directly fund benefit payments through low-risk, cash flowing investments, as well as providing a stable offset to the rest of the portfolio during periods of severe market stress.

2. GROWTH SUB-PORTFOLIO

The purpose of the Growth Portfolio is to grow invested assets over the long term in order to pay future benefits. Assets from the growth portfolio may be sold over time and transferred to the Liquidity Portfolio as needed. This portfolio is characterized by a long investment horizon and can, therefore, accept a higher level of volatility. Assets in this portfolio may be volatile, have reduced liquidity, and derive the bulk of their return from capital appreciation. These assets include public and private equity, corporate and other debt with credit risk premiums, private real estate and other private assets.

The success of this portfolio will be measured primarily by compounded annual growth rates in conjunction with the annualized standard deviation of returns as the primary measure of risk.

3. DIVERSIFYING SUB-PORTFOLIO

The purpose of the Diversifying Portfolio is to offset the investment risk of the Growth Portfolio. Investment strategies in the Diversifying Portfolio are expected to have return profiles that have a low correlation to those in the Growth Portfolio. This is expected to effectively dampen the market volatility across the entire portfolio. As a secondary objective, the investment strategies in the Diversifying Portfolio will offer additional sources of return to those in the Liquidity and Growth portfolios. Assets in the Diversifying Portfolio may be sold during times of market stress or when the assets in the Growth Portfolio are impaired in order to fund the Liquidity Portfolio.

The success of the Diversifying Portfolio will be measured by its ability to offset declines in value in the Growth Portfolio, as well as its ability to provide liquidity during times of market stress.

CCCERA INVESTMENT POLICY STATEMENT

– D R A F T –

4. INTERACTION BETWEEN THE FUNCTIONAL SUB-PORTFOLIOS

The allocations to the Liquidity, Growth, and Diversifying portfolios will vary over time. The Liquidity portfolio will operate as a drawdown vehicle to pay benefits and expenses. The Growth and Diversifying portfolios will be subject to the volatility of the markets in which each functional sub-portfolio invests. In order to reallocate between the functional sub-portfolios, the Board will conduct two annual reviews: an annual capital review to assess the relative value and risks associated with each asset class; and an annual funding plan to determine how to replenish the Liquidity portfolio.

An annual review of the capital markets will be delivered to the Board jointly by the Consultant and the CIO. The Consultant will provide the Board current forward-looking risk and return assumptions for all major asset classes. In conjunction with this review, the CIO will provide a recommendation of how best to allocate assets within each functional sub-portfolio. If necessary, the CIO will recommend changes in target allocations to the underlying asset classes in order to deploy CCCERA's assets effectively in the upcoming year.

Additionally and subsequent to the capital markets review, Staff will present an annual funding plan, which will provide a recommendation of how best to replenish the Liquidity program for the next projected 48 months of benefits payments and expenses. Staff will provide a monthly report to the Board on the progress of funding the Liquidity portfolio through a combination of harvesting income from the Growth and Diversifying portfolios, asset sales in the Growth and/or Diversifying portfolios or the use of contributions. Under normal market conditions, the balance in the Liquidity portfolio is expected to vary between 36 and 48 months of projected benefit payments and expenses.

C. Investment Strategies

All investment strategies, whether currently used by the Investment Program or being considered for inclusion in the Investment Program, will be evaluated on their own unique risk and return characteristics as well as their contribution to the overall Investment Program's risk and return characteristics. Other risks pertaining to the individual investment strategies and / or the firm managing the strategy will also be considered.

Fees and expenses of the investment strategies will be closely evaluated against competitive strategies and the value provided for the services rendered. While lower fees are clearly preferred over higher fees, the Plan seeks to identify investment strategies capable of providing value for participants by generating investment returns in excess of benchmark returns plus fees. Fee structures will be evaluated to ensure appropriate incentives are provided to achieve the desired outcomes for the Investment Program.

CCCERA INVESTMENT POLICY STATEMENT

– D R A F T –

7. Risk Philosophy

The Board of Retirement recognizes that the assumption of investment risk is necessary to meet the Plan's objectives. Investment risk is viewed as both the annualized standard deviation of investment returns (volatility) and drawdown exposure. Drawdown exposure measures the expected investment loss during a market correction. Additional sources of risk include regulatory, governmental, counterparty, environmental, social and currency. Investment risk, in and of itself, is intrinsically neither good nor bad; it is a resource used to generate investment returns. The goal in managing investment risk is to ensure that an acceptable level of risk is being taken at the total Plan portfolio level. To accomplish this goal, the Plan invests in broad asset classes, via specific investment strategies within those asset classes, which have desirable expected return, risk, and correlation characteristics. While the individual strategies have a wide range of risk and return characteristics, the correlations between the strategies allows for effective portfolio creation.

The approach used in constructing the portfolio further focuses on the risk characteristics by ensuring the preservation of the Liquidity Portfolio assets as detailed previously in this IPS. Because these assets are invested in lower risk and lower return investments, the assets are well protected. This then allows for the Growth Portfolio to assume greater investment risk in pursuit of higher expected returns. The Risk Diversifying Portfolio then offsets a portion of the investment risk embedded in the Growth Portfolio to protect against drawdown risks.

8. Portfolio Monitoring

Delegation of investment functions by the Board requires proper oversight. Reporting processes are, therefore, designed to provide the Board with this oversight. Accurate, timely, and clear reporting to the Board of the Plan's assets, investment returns and risks, portfolio costs, and investment decisions are essential to assisting the Board in discharging its fiduciary duties. The Procedures detail the reporting processes and delegation of duties to assist the Board in fulfilling its duties.

CCCERA INVESTMENT POLICY STATEMENT
- D R A F T -

Appendix 1: Referenced Documents

The documents referenced in the Investment Policy Statement are listed below:

- CCCERA Investment Procedures
- CCCERA Investment Directives
- Placement Agent Disclosure Policy
- Code of Fiduciary Conduct and Ethics
- Conflict of Interest Code
- Procurement of Products and Services Policy
- Investment Manager On Site Visits Policy

Procedure Class	Procedure Number	Procedure Name
INV - 100 Investment Management		
Asset Allocation & Rebalancing	INV-110	Asset Allocation
	INV - 111	Targets
	INV - 111.10	Annual Capital Markets Review
	INV - 112.10	Rebalancing - Zone 1
	INV - 112.11	Rebalancing - Zone 2
	INV - 113	Rebalancing - Use of Overlay
	INV - 113.10	Cash Equitization
	INV - 113.20	Synthetic Alignment to Target
	INV - 113.30	Interim Targets - Standards to Identify and Deploy
	INV - 113.40	Holding Strategies/Asset Classes For Illiquid - Standards for Strategy Development
	INV - 114	Concentration - Single Active Strategy
	INV - 115	Concentration - Single Manager
	INV - 116	Concentration - Passive Investment Strategies
Risk Management	INV - 120	Risk Monitoring
	INV - 121	Derivatives
	INV - 122	Leverage
Securities Litigation	INV - 150	Securities Litigation
INV - 200 Investment Underwriting		
	INV - 200	Hiring Managers
	INV - 210	Underwriting Process
	INV - 210.10	Identification of New Managers
	INV - 210.11	Identification of New Investments
	INV - 210.12	Quiet Period
	INV - 210.13	Placement Agent Disclosure
	INV - 220	Research
	INV - 220.10	Broad Asset Class Research
	INV - 220.11	Strategy Portfolio Alignment Research
	INV - 220.12	Strategy Approval
	INV - 230	Due Diligence

Procedure Class	Procedure Number	Procedure Name
	INV - 230.10	On-Site
	INV - 240	Underwriting Research Memo
	INV - 240.10	Underwriting Approval - CIO Delegated Discretion
	INV - 240.20	Underwriting Approval - BOR Approval
	INV - 241	Legal Review
	INV - 242	Contracting
	INV - 243	Funding
	INV - 244	Follow-on Investments
INV - 300 Monitoring & Reporting		
	INV - 300	Portfolio Monitoring
	INV - 310	Performance Reporting
	INV - 311	Time-Based
	INV - 312	Goal-Focused
	INV - 313	Risk - Focused
	INV - 314	Benchmarking
	INV - 315	Quarterly Review
	INV - 316	Custodial Review
	INV - 317	Placing A Manager Under Review
	INV - 318	Manager Changing Mandates
	INV - 319	Terminating Managers
INV - 400 Investment Staff Supervision		
	INV - 400	General Supervision of Investment Staff
	INV - 401	CEO Supervisory Duties
	INV - 402	CIO Supervisory Duties
	INV - 412	Supervision of Personal Investments & Trading

Investment Directive Class	Investment Directive Number	Directive Name
INV 600 Investment Directives	Pre-Ambles	
	INV - 600	Strategy Definition
	INV - 610	Asset Allocation
	INV - 610.10	Liquidity Portfolio
	INV - 610.11	Zone 1 Defined
	INV - 610.12	Zone 2 Defined
	INV - 610.13	Interim Targets
	INV - 610.14	Holding Strategies/Asset Classes For Illiquid
	INV - 620	Maximum Allocations
	INV - 620.10	By Strategy
	INV - 620.20	By Manager
	INV - 630	Specific Directives
	INV - 630.10	Bank STIF
	INV - 630.20	Use of Derivatives
	INV - 630.30	Use of Leverage
	INV - 630.40	Other Mandates
	INV - 630.41	Anti-Discrimination
	INV - 630.42	Economically Targeted Investments
	INV - 630.43	Tobacco Investment Policy
	INV - 640	[Reserved to provide BOR direction to Consultant]
	INV - 650	Annual Review of CIO Delegation of Authority
	INV - 690	Board of Retirement's Annual Directive Checklist

DRAFT

Board Investment Directive 610: Asset Allocation

4/27/2016

The Board has adopted the following target asset mix.

Program/Asset Class	Target Allocation
Liquidity	25%
Cash	1%
Short Term Government/Credit	24%
Growth	63%
US Large Cap Equity	6%
International Developed	10%
Emerging Markets	10%
Private Equity	12%
Private Credit	16%
Value-Add Real Estate	4%
Opportunistic Real Estate	4%
US REITs	1%
Diversifying	12%
US Treasury	3%
Risk-Diversifying Strategies	9%

DRAFT

Board Investment Directive 630.41: Emerging Managers

Adopted 10/10/95

In considering potential investment managers, it is the policy of the Board not to exclude managers from consideration based on ethnic background or gender, and not to arbitrarily exclude an emerging firm if, in the opinion of the Board, that firm has equal or superior capabilities to other candidates.

DRAFT

Board Investment Directive 630.42: Economically Targeted Investments

Adopted 9/12/95

It shall be the policy of the Board that an Economically Targeted Investment (ETI) can be considered if and only if it has return and risk characteristics attractive in comparison to other alternatives.

DRAFT

Board Investment Directive 630.43: Tobacco Divestment

Adopted 3/7/00

All Domestic Equity and Domestic Fixed Income portfolios, unless exempted by the Board, shall not hold securities in any corporation that derives 15% or more of its revenue from tobacco products. All other Investment Managers are encouraged to avoid investments in companies that derive 15% or more of their revenues from tobacco products.

**CONTRA COSTA COUNTY
Employees' Retirement
Association
BOARD OF RETIREMENT**

**Statement of General
INVESTMENT POLICIES
And GUIDELINES**

Adopted 7/9/85
Last revised 10/30/13

**Statement of General INVESTMENT POLICIES
and GUIDELINES
TABLE OF CONTENTS**

	TOPIC	PAGE
I.	INTRODUCTION	1
II.	AUTHORITY	2
III.	ASSET CATEGORIES	3
IV.	INVESTMENT OBJECTIVES	5
	A. Total Fund Benchmarks	5
	B. Global Equity Portion	5
	C. Global Fixed Income	5
	D. Real Estate	6
	E. Real Assets	6
	F. Alternative Investments	6
	G. Opportunistic	6
	H. Incidental Cash	6
V.	CUSTODIAN BANK and COUNTY TREASURER	8
VI.	ASSET ALLOCATION	9
	A. Targets	9
	B. Rebalancing	9
	C. Cash Allocation	9
VII.	INVESTMENT MANAGER SELECTION	11
	A. Process for Identifying Investment Managers for Consideration	11
	B. Standard Search Process	11
	C. Non-Standard Search Process	13
	D. Follow-on Funds	13
	E. Alternative Investments - Use of Fund-of-Funds	13
	F. Multiple Products with one Investment Manager	13
VIII.	INVESTMENT MANAGER MONITORING	14
	A. Quarterly Review	14
	B. Custodial Reconciliation	14
	C. Under Review Policy	14
	D. Investment Manager On-Site Due Diligence	15
	E. Participation on Advisory Committees or Advisory Boards	16
	F. Emergencies	17
IX.	AUTHORITY OF INVESTMENT MANAGERS	18

X.	INVESTMENT GUIDELINES	19
	A. In General	19
	C. Global Fixed-Income Portion	20
	D. Incidental Cash Portion	21
XI.	SEPARATELY HELD REAL ESTATE	22
XII.	SECURITIES LITIGATION	23
	Adoption and Acceptance	24
	Schedule I Asset Class Targets	25
	Schedule II Allocation of Cash	26
	Schedule III Investment Manager Benchmarks	27

**STATEMENT OF GENERAL INVESTMENT POLICIES
AND GUIDELINES FOR THE RETIREMENT PLAN TRUST OF THE
CONTRA COSTA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION**

ADOPTED 7/9/85

**AMENDED: 1/14/86, 2/27/86, 10/13/87, 8/9/88, 6/13/89, 8/8/89, 1/8/91,
10/13/92, 2/9/93, 5/2/94, 10/14/97, 5/4/99, 1/9/01, 2/12/02, 06/11/02, 11/06/02,
1/28/04, 5/26/04, 7/28/04, 12/14/05, 10/24/07, 4/08/09, 10/30/13**

I. INTRODUCTION

The Board of Retirement (the "Board") of the Contra Costa County Employees' Retirement Association ("CCCERA") has established the following Statement of General Investment Policies and Guidelines (the "Statement") for the investment of the trust fund (the "Trust") of the CCCERA Retirement Plan (the "Plan"). The Board reserves the right at any time and from time to time to amend, supplement or rescind this Statement.

II. AUTHORITY

The investment of the assets of the Trust shall be in accord with applicable law, including but not limited to the following:

- A. Investments shall be solely in the interest of, and for the exclusive purposes of providing benefits to the participants in the Plan and their beneficiaries, minimizing the contributions of employers thereto, and defraying the reasonable expenses of administering the Trust (Cal. Gov. Code Sec. 31595 (a)).
- B. Investments shall be made with the care, skill, prudence and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with these matters would use in the conduct of an enterprise of a like character and with like aims (Cal. Gov. Code Sec 31595 (b)).
- C. Investments shall be diversified so as to minimize the risk of loss and to maximize the rate of return unless under the circumstances it is clearly prudent not to do so (Cal. Gov. Code Sec. 31595 (c)).
- D. In considering potential investment managers, it is the policy of the Board not to exclude managers from consideration based on ethnic background or gender, and not to arbitrarily exclude an emerging firm if, in the opinion of the Board, that firm has equal or superior capabilities to other candidates.
- E. It shall be the policy of the Board that an Economically Targeted Investment (ETI) can be considered if and only if it has return and risk characteristics attractive in comparison to other alternatives.

III. ASSET CATEGORIES

For the purpose of setting objectives and guidelines for the investment of the assets of the Trust, the assets shall be considered as divided into seven portions described as the **Global Equity Portion**, the **Global Fixed Income Portion**, the **Real Estate Portion**, the **Real Assets Portion**, the **Alternative Investments Portion**, the **Opportunistic Portion** and the **Incidental Cash Portion**. The Domestic and International Equity Programs are considered part of the Global Equity Portion. The Domestic Fixed Income Program, the High Yield Fixed Income Program and the Non-Traditional Fixed Income Program are considered parts of the Global Fixed Income Portion.

The Global Equity Portion, the Global Fixed Income Portion, the Real Estate Portion, the Real Assets Portion, the Alternative Investments Portion and the Opportunistic Portion shall be under the supervision of qualified Investment Managers and shall collectively and individually be called Managed Accounts. The term 'Investment Manager' shall include traditional investment managers that exercise discretionary authority in selecting investments, as well as general partners of limited partnerships in which CCCERA invests and similarly situated management of other entities in which CCCERA invests (collectively, 'Partnerships'). The term "Investment Manager" shall also include investment advisors retained by any such Partnerships, to the extent such investment advisors exercise discretionary authority in selecting investments for any such Partnerships.

- A: The **Global Equity Portion** shall consist of investments in common stock and other securities which are convertible into common stock and cash equivalents and securities which are being used as substitutes for common stock. The Global Equity Portion cash and cash equivalents of separate accounts shall be held and invested by the Custodian Bank described in Section V below. The Global Equity Portion may be further divided into domestic, international and global; large, mid and small capitalization; and growth, value, and core.
- B: The **Global Fixed Income Portion** shall consist of investments in fixed income securities including cash equivalents. Global Fixed Income may be divided into domestic, international and global core and core-plus, High Yield (publicly traded) and Non-Traditional Fixed Income.
- C: The **Real Estate Portion** shall consist of investments in real estate through the use of commingled and direct investments, and publicly traded real estate investment trusts (REITs), including cash equivalents.

- D: The **Real Assets Portion** shall consist of investments in real assets, in both public security and private partnership forms. The public security allocations shall be the temporary holder of capital to be called for the real asset private partnerships. Real Assets shall include, but not be limited to, investments in energy production, energy transmission, timber, agriculture, inflation protected securities, commodities and infrastructure.
- E: The **Alternative Investments Portion** shall consist of other investments of recognized institutional merit not included in III A, B, C, D or F, through the use of commingled and direct investments.
- F: The **Opportunistic Portion** shall consist of investments of recognized institutional merit. This allocation is intended to exploit temporary market or asset dislocations.
- G: The **Incidental Cash Portion** shall include short-term monies not allocated to the Managed Accounts, including but not limited to unallocated or prepaid contributions and funds formerly allocated to Investment Manager(s) awaiting reallocation to other Investment Manager(s). The Incidental Cash Portion shall be invested in short-term fixed income instruments.

IV. INVESTMENT OBJECTIVES

A. Total Fund Benchmarks

The general investment objective of **the Trust** is the preservation of capital plus a return from capital appreciation plus current income that meets Trust needs without taking undue risk. The relative return objective is a total return on a market value basis which exceeds that of a custom index composed of appropriate asset class indexes weighted proportionally by corresponding asset class targets. The minimum average annualized rate of return objective over a market cycle is 400 basis points in excess of the National Consumer Price Index for all Urban consumers over that market cycle.

B. Global Equity Portion

1. For the combined **Global Equity Portion**, the objective is an after fee rate of return in excess of a custom benchmark composed of **60% Russell 3000 and 40% MSCI World ex US**
2. For overall **Domestic Equities**, the objective is an after fee rate of return in excess of the Russell[®] 3000 and a rate of return within the upper half of a database of domestic equity portfolios.
3. For the **Domestic Large Capitalization** sub-set, a rate of return, after fees, on a risk-adjusted basis, which is in excess of the Standard & Poor 500 and a return within the upper half of the large capitalization database; and
4. For the **Domestic Small Capitalization** sub-set, a rate of return which, after fees, exceeds that of the Russell[®] 2000 Index and is within the upper half of the small capitalization database.
5. The objective of overall **International Equities** is a rate of return, after fees, in excess of the Morgan Stanley Capital International Europe, Australia and the Far East (MSCI EAFE) Index (gross); and which is within the upper half of the appropriate database of international equity investment managers.

C. Global Fixed Income

1. The objective of the overall **Global Fixed Income Portion** is a custom index composed of 80% Barclays Capital US Aggregate, 10% Barclays Capital Global Aggregate and 10% Merrill Lynch High Yield II.
2. The objective of overall **Domestic Fixed Income** (including non-traditional fixed income) is a rate of return which, after fees, is in excess of the Barclays

Capital Universal Bond Index and which is within the upper half of a database of domestic fixed income portfolios.

3. The objective of the publicly traded **Domestic High Yield Fixed Income** subset is to exceed, after fees, the Merrill Lynch High Yield II index and to achieve a rate of return within the upper half of its peer group.
4. The objective of the **Global Fixed Income portfolio(s)** is to exceed, after fees, the rate of return of the Barclays Capital Global Aggregate Bond Index.

D. Real Estate

1. The objective of the overall **Real Estate Portion** is a rate of return which, after fees, is in excess of a custom index weighted 64% in the NCREIF Index and 36% in the Dow Jones Wilshire REIT Index, and which is within the upper half of a database of real estate portfolios.
2. The objective for the investments in illiquid real estate (direct and commingled) is the NCREIF Index, plus an appropriate premium based upon the fund's risk profile, as detailed in Schedule III.

E. Real Assets

1. The objective of the overall **Real Assets Portion** is a rate of return, after fees, in excess of that of the CPI-U Index + 400 basis points
2. The objective for the investments in illiquid real assets (direct and commingled) is the CPI-U Index + 600 basis points.

F. Alternative Investments

The objectives of the **Alternative Investments Portion** are:

1. A rate of return after all fees which is in excess of that of the Standard & Poor's 500 stock index plus 4% per year.
2. A rate of return in excess of that of other comparable investments.

G. Opportunistic Investments

The objective of the **Opportunistic Portion** is:

1. A rate of return after all fees which is in excess of the Total Fund return target.

H. **Incidental Cash**

The objective of the **Incidental Cash Portion** is to achieve a return after fees in excess of that of Treasury Bills of a comparable average maturity.

I. **Individual Manager Objectives** are presented in Schedule III.

V. CUSTODIAN BANK and COUNTY TREASURER

- A. The custodian bank selected by the Board to act as the principal custodian of assets of the Trust (the "Custodian Bank") may be directed to invest in temporary short-term fixed income investments both for the Managed Account Investment Managers and as a part of the Incidental Cash Portion. Such investments are not to exceed 15 months in maturity. Cash managed for Managed Account Investment Managers shall be considered to be sub-portions of the asset Portions managed by the directing Investment Managers.
- B. The Custodian Bank shall be authorized to conduct a securities lending program within liquidity and risk constraints as established by the Board.
- C. The County Treasurer will manage any assets of the Incidental Cash Portion not managed by the Custodian Bank in accordance with Government Code Section 53601 et al.

VI. ASSET ALLOCATION

A. Targets

The asset allocation targets and their associated ranges, which are a function of the returns and risks from various asset classes and the nature of the Plan's liabilities, are set forth on Schedule I of this Statement. The Board may make tactical adjustments to these targets and ranges, and may change the targets and ranges as appropriate.

B. Rebalancing

To facilitate rebalancing the portfolio and transfer of excess cash with minimal transaction cost or disruption of individual managers' investment strategies:

1. All Investment Managers of separate accounts will remit interest, dividends and rents unless otherwise directed by the Board.
2. At a Board meeting in August and February, and at any other time deemed appropriate, the Board may consider rebalancing that has been, or is to be, implemented by staff as follows:
 - a. The under-funded class(es) may be rebalanced with funds from the class(es) that are over-funded according to the asset allocation targets.
 - b. Within each class, the under-funded Investment Manager(s) may be rebalanced with funds from the Investment Manager(s) who are over-funded according to the asset allocation targets.
 - c. Because of illiquidity and/or structure constraints, real estate, alternative investments and other privately traded investments will not have funds withdrawn if they are temporarily over-funded, with the exception of REIT investments.

C. Cash Allocation

1. Cash flow "in" that is expected to be needed to meet capital calls or other cash flow requirements will be temporarily placed in the most under-target asset class of either Domestic Equities, Domestic Fixed Income, or REITs according to Schedule II.
2. Cash flow "in" in excess of Item 1 will be allocated to the most under-target asset class which is able to accept new funds, and to the most under-target Investment Manager in the class, until that Investment Manager is brought to target, with the exception that if the Board has decided that an

Investment Manager will be precluded from new funding (Section VIII C.3), the next most under-target Investment Manager will be funded.

3. Cash flow "out" will be planned for and will generally come from available cash or from a designated portfolio as in Schedule II.

VII. INVESTMENT MANAGER SELECTION

A. Process for Identifying Investment Managers for Consideration

An investment manager candidate may be considered by the Board either as the result of a manager search the Board has authorized or because the candidate has been presented as an idea at a Board meeting by a Board member, by the Chief Investment Officer or by the Investment Consultant.

In the ordinary course of business, managers are to be identified and presented to the Board for consideration following the Standard Search Process, below. However, any Board member, the Chief Investment Officer or the investment consultant who thinks an investment idea or product merits consideration, may raise the matter at a Board meeting. If the Board agrees that the idea has merit, the Board's Investment Consultant may be asked to review and comment on the investment. If, after the Consultant's review the Board concurs that the idea or product merits consideration, the applicable Investment Manager may be invited to appear at a future Board meeting, subject to further due diligence. Alternatively, the Board member may request the matter be placed on an agenda to discuss whether a presentation should be scheduled. In this case, the Board Chair may request that the Board's Investment Consultant be prepared to offer comment during the meeting, with the intent that the Board could make a decision at the meeting regarding a presentation.

In connection with the Board's consideration of any presentation by an Investment Manager as outlined above, Board members and senior Investment Staff shall publicly disclose at the board meeting any prior communications they have had with the subject Investment Manager, and any actual or potential personal financial interests they may have that could be impacted by the Board's consideration of the Investment Manager.

Once a prospective Investment Manager has been invited to present to the Board, the manager and Board shall abide by the "quiet period" restrictions set forth in Sec. B. 2, below.

In all instances when CCCERA is considering a new investment, the prospective firm must complete the CCCERA Placement Agent questionnaire prior to presenting to the Board.

B. Standard Search Process

1. Ordinarily, the Board will identify a particular mandate for which one or more Investment Managers are to be engaged. The Board will direct the Investment Consultant and Staff to develop a detailed "Manager Profile,"

specifying the criteria sought for a manager or managers to fulfill the mandate.

2. Once the Board has directed the Investment Consultant and Staff to develop a Manager Profile, a "quiet period" will ensue, during which time no Board member may knowingly have any communication with any actual or potential candidate for the mandate, *unless* authorized by the Board in connection with the due diligence process in selecting managers. The quiet period shall cease upon the Board's entering into a contract for the Investment Manager(s) selected for the mandate. The Investment Consultant is responsible for alerting the candidates to the quiet period and its restrictions. A violation of the quiet period rule may result in disqualification of the candidate or other appropriate Board action.
3. An Investment Manager search may follow the Board's identification of a mandate. The Investment Consultant will conduct the search in accordance with the Manager Profile. The search criteria will include the scope of the mandate, the investment style, benchmark, fee structure and minimum qualifications for candidates. The minimum qualifications will include successful performance track record relative to benchmark, disciplined investment processes, effective risk management procedures, size of assets under management, experience and capability of staff, organizational stability and applicable regulatory certification and compliance.
4. The Investment Consultant initially will examine its database to identify possible candidates who fit the Manager Profile. Any member of the Board and Staff may also suggest that the Investment Consultant to examine the specific merits of a particular candidate.
5. The Investment Consultant will send out requests for information to qualified candidates meeting the requirements of the Candidate Profile.
6. The Investment Consultant will evaluate candidates and return to the Board with a semi-finalist list, and recommendations for narrowing the list to a finalist list for interview by the Board. Investment Consultant and Staff may perform on-site due diligence on finalist managers, as directed by the Board.
7. Any investment managers that present to the Board as finalists will have satisfied the Investment Consultant and Staff that they are appropriate candidates.
8. All Investment Manager contracts will be subject to final due diligence (including an on-site visit) and satisfactory documentation following Board approval.

C. Non-Standard Search Process

1. Some investments by their nature present unique opportunities and are not suited for a standard search. For example, time constraints may limit the ability to conduct a full search given the inherent features of closed end funds. Further, there may not be suitable competitors for a unique investment opportunity.
2. When such an investment is brought up at a Board meeting, the Board may request Staff and the Investment Consultant perform due diligence to evaluate the merits of the investment and its suitability, and identify competitive managers.
3. Following the requested due diligence report and an interview with the Investment Manager candidate, the Board may vote to move forward with the investment, subject to further due diligence and documentation following the Board vote.

D. Follow-on Funds

A follow-on fund is an investment which has essentially the same strategy as an illiquid closed end fund from the same Investment Manager in which CCCERA has already invested. When a follow-on fund investment becomes available in an asset class that is under its allocation target, the Board may determine to invest in such a fund without conducting a standard search. Such investment will follow the Non-Standard Search Process outlined in C, above.

E. Alternative Investments - Use of Fund-of-Funds

With investments in private equity, including without limitation, leveraged buyouts and venture capital, the Board has determined that it prefers to use fund-of-funds. This does not preclude the use of individual funds or partnerships, should the characteristics of a particular investment prove compelling and have merit for consideration.

F. Multiple Products with one Investment Manager

The Board will examine the use of one manager for more than one mandate on a case-by-case basis. It is the policy of the Board to restrict assets entrusted to any one investment management organization to no more than one-quarter of the total Trust assets.

VIII. INVESTMENT MANAGER MONITORING

A. Quarterly Review

1. All Investment Managers will report quarterly investment performance and compliance using a standard reporting format specified by the Board. In addition, Investment Managers are encouraged to provide their performance information in their own format as supplemental to the required report.
2. The agenda for each Quarterly Performance Review meeting is mailed to all Investment Managers in advance of the meeting. Quarterly reports are to be received in the Retirement Office in accordance with the instructions as set forth on the agenda.
3. Investment and compliance performance will be reviewed and evaluated quarterly. The Board's Investment Consultant, working with the Custodian Bank, will provide performance reports to the Board on each Investment Manager, on each asset class, and on the Trust assets in total.
4. The Board will review the income generated by its securities lending program on a quarterly basis as part of the Board's performance review process.

B. Custodial Reconciliation

1. All Investment Managers with Managed Accounts held at the Custodian Bank will provide monthly custodial market value reconciliation reports to the Retirement Accounting Manager with copies to the Investment Consultant. The reconciliation reports are to be received in the Retirement Office by the 25th day following the end of each month. This report must include a reconciliation of all cash, holdings and market values.

C. Under Review Policy

1. The Board will decide if an Investment Manager should be under review. Reasons for an Investment Manager to be under review include:
 - a. Poor performance,
 - b. Failure to meet Board requirements,
 - c. Deviation from mandate,
 - d. Change in personnel,
 - e. Adverse publicity,
 - f. Change in ownership,
 - g. Regulatory compliance issues,
 - h. Risk management issues,

- i. Lack of appropriate communication, or
 - j. Any other reason the Board deems appropriate.
2. If an Investment Manager is placed under review, staff will notify the manager in writing that it has been placed under review.
3. If an Investment Manager is placed under review, the Board will at the same time decide if the manager should be precluded from new funding.
4. At least each quarter, and whenever the Board deems appropriate, the Board will evaluate all Investment Managers under review, and for each such manager take one of three actions:
 - a. Decide the manager is no longer under review,
 - b. Terminate the manager, or
 - c. Keep the manager under review.
5. If the Board determines that an Investment Manager is no longer to be under review, staff will notify the manager in writing of this determination.
6. If the Investment Manager is kept under review, the Board may revisit the question of whether the manager should be precluded from new funding.

D. Investment Manager On-Site Due Diligence

1. The Board may authorize certain of its members to conduct visits to either the home office or a satellite office of a current or prospective Investment Manager or to a real estate property in the portfolio of a real estate Investment Manager.
2. Visits to investment management firms may include but are not limited to:
 - a. Review of back office procedures and record keeping
 - b. Review of trading operations and resources
 - c. Review of research capabilities and operations
 - d. Observing investment committee meetings
 - e. Review of decision-making processes
 - f. Review of risk management procedures
 - g. Review of compliance procedures
 - h. Review of disaster recovery plan
3. Visits to real estate properties may include but are not limited to:
 - a. Site inspection

- b. Tour of the surrounding area
 - c. Visits to competing properties in the area
 - d. Meetings with building management and leasing agent
 - e. Meetings with tenants
 - f. Observing construction or renovation activities
4. The Board members, accompanied by the Investment Consultant and senior investment staff and/or CEO, will normally visit with a prospective Investment Manager in its offices prior to hiring, as approved by the Board.
 5. Visits to investment management firms may be conducted when an Investment Manager is placed under review or when there has been a change in firm ownership.
 6. Generally, not more than three Board members and no more than four will be authorized to conduct an Investment Manager visit.
 7. A written report on each Investment Manager visit shall be provided to the Board.
 8. Informal visits to an Investment Manager (existing or prospective) or to a real estate property by Board or staff members are encouraged when a Board member or staff member is in the area.
- E. Participation on Advisory Committees or Advisory Boards
1. The Board shall not appoint a representative to any advisory committee or board established in connection with any of the limited partnerships (or other entities) in which CCCERA invests, and a Board or staff member shall not accept such a position, unless:
 - a. The general partner (or other manager of the entity) has agreed, under the partnership agreement, or other agreements specifically incorporated therein, that such representative shall have no authority or discretion to vote to approve or disapprove, or consent to, the activities of the general partner or other manager;
 - b. The general partner and other manager or advisor have disclaimed any rights against such representative as a member of the advisory committee or board, including subrogation rights; and
 - c. The general partner and other manager or advisor has agreed that such representative, CCCERA and the partnership (or other entity) shall be indemnified by the partnership, the general partner and other manager or

advisor for any actions taken against any of them as to which the representative acted in good faith.

- d. The general and limited partners, and other manager or advisor, have expressly agreed in writing that the representative and CCCERA do not owe a fiduciary duty to any of them by reason of its participation on such advisory committee or board.
2. The Board may appoint a representative to such a position on a case-by-case basis consistent with the foregoing provisions.

F. Emergencies

1. An “emergency” will be deemed to exist whenever:
 - a. A Managed Account suffers the resignation or other loss of its Investment Manager and no appropriate replacement is available; or
 - b. An Investment Manager dissolves, ceases to exist, or is otherwise incapable of carrying out its activities in the ordinary course of its business; or
 - c. An Investment Manager is “shut down” by a regulatory agency of a state or the Federal government or is accused of theft or fraud by a regulatory agency or other government body; and
2. Action to transfer management of the affected Managed Account shall be taken as soon as possible after CCCERA learns of the emergency.
3. In the case of an emergency, the Chief Executive Officer, or in the Chief Executive Officer’s absence, the Deputy Chief Executive Officer or the Chief Investment Officer will:
 - a. Attempt to notify the Chair and Vice Chair immediately.
 - b. Notify the Custodian Bank that the Investment Manager’s Managed Account is to be frozen and, except for those trades which are pending, no further trading is authorized.
 - c. Call an emergency meeting of the Board to take action of a more long-term nature.

IX. AUTHORITY OF INVESTMENT MANAGERS

Subject to the terms and conditions of this Statement, Investment Managers shall have full discretionary power to direct the investment, exchange, liquidation and reinvestment of the assets of the Managed Accounts. The Board expects that the Investment Managers will recommend changes to this Statement at any time when the Manager views any part of this Statement to be at variance with overall market and economic conditions.

The Managers shall place orders to buy and sell securities and, by notice to the Custodian Bank, shall cause said custodian to deliver and receive securities on behalf of the Trust.

The Board shall either vote or, through a third party administrator, direct the voting of its proxies for all stocks held in its separate account equity portfolios.

X. INVESTMENT GUIDELINES

The following guidelines apply to all Investment Managers. Any further constraints, limitations or authorities to an individual manager, which are specific to that manager and have been agreed to by the manager and CCCERA, also apply.

A. In General

1. All investments shall comply with all applicable laws of the State of California governing the investment of the pension funds of counties.
2. All securities transactions shall be executed by reputable broker/dealers or banks, including any bank acting as custodian, and shall be at a best execution including, without limitation, best price basis. Those Domestic Equity Investment Managers so directed by the Board are expected to direct up to 25% of their transactions to brokers participating in the Board's commission recapture program. All Investment Managers shall provide periodic transaction information so that the Board may monitor the placement of commissions.
3. Investments shall possess value and quality corroborated by accepted techniques and standards of fundamental economic, financial and security analysis.
4. Except for the private partnerships, fees paid to Investment Managers shall be based on the Custodian Bank's valuation of the manager's portfolio on a market and trade date basis.
5. All Domestic Equity and Domestic Fixed Income portfolios, unless exempted by the Board, shall not hold securities in any corporation that derives 15% or more if its revenue from tobacco products. All other Investment Managers are encouraged to avoid investments in companies that derive 15% or more of their revenues from tobacco products.

B. Global Equity Portion

The Global Equity Investment Managers may invest solely in equity securities as defined in III A above, subject to the following:

1. The maximum percentage of the value of a Managed Account which may be invested in the securities of a single corporation shall be 10% of the value of the Managed Account at market, unless a different maximum percentage is specified in the Investment Manager's agreement with CCCERA.

2. A Managed Account shall not hold more than 5% of the equity securities of an issuer, unless a different percentage is specified in the Investment Manager's agreement with CCCERA.
3. Derivatives shall only be used to obtain exposure to the equity markets, to reduce unwanted exposure to foreign currencies, or as a substitute for an underlying common stock. The Investment Manager shall explain any use of a derivative as a substitute for a common stock.
4. Other securities as detailed in accordance with the Investment Manager's agreement with CCCERA.

C. Global Fixed-Income Portion

1. Core plus fixed income account securities will be restricted to the following:
 - a. Obligations of the U.S. Treasury
 - b. Obligations guaranteed by an agency of the United States
 - c. Government, agency, quasi-government and supranational bonds.
 - d. Certificates of deposit and banker's acceptance of credit-worthy banks
 - e. Corporate, asset backed and mortgage backed securities and structured notes and other evidences of debt.
 - f. Eligible instruments issued pursuant to SEC Rule 144(a) or Regulation S.
 - g. Commercial paper (including variable rate notes) of issuers rated not less than P-2 by Moody's Investor Services and A-2 by Standard & Poor's.
 - h. Lower risk planned amortization class (PAC) collateralized mortgage obligations ("CMO") and Sequential CMOs. CMOs other than PACs and Sequentials are limited to a maximum of 10% of the fixed income portfolio at cost.
 - i. Currency Forwards and Non-Deliverable Forwards (NDF's). Such currency forwards shall only be with counterparty banks with A or better credit ratings by Standard & Poor's or Moody's.
 - j. Derivatives may be used to obtain exposure to the fixed income markets, to adjust portfolio risk, and to reduce unwanted exposure to foreign currencies.

- k. Other use of derivatives than e. and h. above, including credit default swaps, interest rate swaps (except for centrally cleared,) IO's, PO's, inverse floaters and CMO support bonds, shall not in the aggregate exceed 15% of the portfolio measured at the time of investment.
- l. Other securities as detailed in accordance with the Investment Manager's agreement with CCCERA.

2. High yield account(s)

- a. Any security permitted for the Core Plus fixed income managers in X.D.1(a)-(e) above.
- b. High yield securities as specified in accordance with the Investment Manager's agreement with CCCERA.

D. Incidental Cash Portion

The Incidental Cash Portion shall be invested in the same readily marketable and diversified assets as are enumerated in the Fixed Income Portion Guidelines. The maturity of such assets shall not exceed 15 months. The investments by the County Treasurer shall comply with the laws of the State of California.

The Board may invest in non-negotiable certificates of deposit if the following criteria are satisfied.

- 1. The CDs are registered in the name of CCCERA.
- 2. FDIC insurance coverage covers the entire invested amount, and,
- 3. FDIC insurance is not waived by CCCERA.

XI. SEPARATELY HELD REAL ESTATE

Market appraisals shall be conducted by an independent appraiser every three years on all properties which are separately held.

In accordance with the standards as set forth in the Government Accounting Standards Board (GASB) statement #25, all properties will be reflected in-CCERA's financial statements at fair value.

XII. SECURITIES LITIGATION

CCCERA's custodian is responsible for the filing and reporting of all proofs of claim in U.S. securities litigation class action lawsuits for which CCCERA is eligible. CCCERA will retain one or more law firms or securities monitoring services to monitor CCCERA's securities litigation class action lawsuits. For international class action lawsuits, staff may work with legal counsel to determine the proper course of action.

Further details are contained in the CCCERA Securities Litigation policy.

ADOPTION AND ACCEPTANCE

The Board of Retirement of the Contra Costa County Employees' Retirement Association hereby adopts this Statement of Investment Policies and Guidelines and Schedules thereto.

By: _____

Date: _____

The undersigned Investment Manager acknowledges receipt of this Statement and:

1. Warrants that it is currently, and will maintain registration as:
 - ◆ An investment advisor under the Investment Advisers Act of 1940,
 - ◆ A bank (as defined in that act),
 - ◆ An insurance company qualified to perform investment management services under state law in more than one state,
 - ◆ A trust operating as an investment company under the Investment Company Act of 1940, or
 - ◆ A state-chartered trust company authorized to carry on a trust banking business.
2. By signing this acceptance, acknowledges that it is a fiduciary with respect to assets of the Trust under its management or control (including assets of any Partnership attributable to the Trust).
3. Agrees to include within its periodic report to the Board of Retirement assurance that it believes its investment decisions are in accord with the provisions of this Statement.
4. Agrees to recommend to the Board changes to this Statement at any time when the Investment Manager views any part of this Statement to be at variance with overall market and economic conditions.
5. States that it is unable to provide an unqualified acknowledgment and acceptance of item(s) ____ above but has agreed to explain same and to provide a modified acknowledgment and acceptance as to such item(s), which may be found in _____.

ACCEPTED

By: _____
Signature

Date: _____

Name _____
Print

Company Name _____
Print

INVESTMENT POLICY

SCHEDULE I

ASSET CLASS TARGETS

	<u>Target</u>	<u>Range</u>
Global Equity	42.6 %	40- 55%
Global Fixed Income	24.4 %	20 - 30 %
High Yield Fixed Income	5%	2 - 9 %
Real Estate	12.5 %	10 - 16 %
Real Assets	5%	0 - 10 %
Alternative Investments	10 %	5 - 12 %
Opportunistic	0%	0 - 5 %
Cash	0.5 %	0 - 1 %

INVESTMENT POLICY

SCHEDULE II

ALLOCATION OF CASH RECEIVED

IF THE MOST UNDER-TARGET
ASSET CLASS IS:

TEMPORARILY PLACE
CASH IN:

Equities	PIMCO Stocks Plus portfolio
Fixed Income	Core Plus Fixed Income (ie. PIMCO and/or Lord Abbett and/or Goldman Sachs (core plus account))
Real Estate	Adelante Capital Management
Real Assets	Wellington Total Return

ALLOCATION OF CASH DISPERSED

IF THE MOST OVER-TARGET
ASSET CLASS IS:

TEMPORARILY DISPERSE
FROM:

Equities	PIMCO Stocks Plus portfolio
Fixed Income	Core Plus Fixed Income (ie. PIMCO and/or Lord Abbett and/or Goldman Sachs (core plus account))
Real Estate	Adelante Capital Management
Real Assets	Wellington Total Return

INVESTMENT POLICY
SCHEDULE III
INVESTMENT MANAGER BENCHMARKS

<u>Manager</u>	<u>Index</u>	<u>Database</u>
Ceredex	Russell 2000® Value	US Eq Small Value
Delaware	Russell 1000® Growth	US Eq Large Growth
Emerald	Russell 2000® Growth	US Eq Small Growth
Intech Large Cap Core	S&P 500	US Eq Large Core
PIMCO Stocks Plus	S&P 500	US Eq Large Core
Robeco Boston Partners	Russell 1000® Value	US Eq Large Value
TBD	MSCI EAFE Value	Intl Equity
William Blair	MSCI ACWI ex-US Growth	Intl Equity
Artisan Partners	MSCI ACWI	Global Equity
First Eagle	MSCI ACWI	Global Equity
INTECH	MSCI ACWI	Global Equity
JP Morgan	MSCI ACWI	Global Equity
AFL-CIO Housing	Barclays Capital US Aggregate	US Fixed Income
Goldman Sachs	Barclays Capital US Aggregate	US Fixed Income
Lord Abbett	Barclays Capital US Aggregate	US Fixed Income
PIMCO	Barclays Capital US Aggregate	US Fixed Income
Torchlight I, II, III, IV	Merrill Lynch Hi Yield Master II	US High Yield
Allianz Global	Merrill Lynch Hi Yield Master II	US High Yield
Lazard Asset	Barclays Capital Global Aggregate	Global Fixed Income
Adelante	Wilshire REIT	US REIT
Invesco (Int'l REIT)	FTSE EPRA/NAREIT Global ex-US	Int'l REIT
PIMCO All Asset	CPI + 400 bps	N/A
Wellington Total Return	CPI + 400 bps	N/A
Commonfund IX	CPI + 600 bps	N/A
Angelo Gordon VIII	NCREIF + 500 bps	US Real Estate
DLJ RECP II, III, IV, V	NCREIF + 500 bps	US Real Estate
Hearthstone I, II	NCREIF + 500 bps	US Real Estate
Invesco I, II, III	NCREIF + 300 bps	US Real Estate
LaSalle	NCREIF + 300 bps	US Real Estate

Long Wharf II, III, IV	NCREIF + 300 bps	US Real Estate
Oaktree REOF V, VI	NCREIF + 500 bps	US Real Estate
Siguler Guff DREOF I, II	NCREIF + 300 bps	US Real Estate
Adams Street	S&P 500 + 400 bps	
Bay Area Equity 1,2	S&P 500 + 400 bps	
Carpenter	S&P 500 + 400 bps	
Energy Inv. USPF 1, 2, 3, 4	S&P 500 + 400 bps	
Nogales	S&P 500 + 400 bps	
Paladin	S&P 500 + 400 bps	
Pathway	S&P 500 + 400 bps	
Oaktree PIF 2009	CPI + 400 bps	

Verus⁷⁷



**PERSPECTIVES
THAT DRIVE
ENTERPRISE
SUCCESS**



Meeting Date
08/10/16
Agenda Item
#8

AUGUST 10, 2016

Transaction Cost Analysis Presentation to

Contra Costa County Employees' Retirement Association

Table of Contents



VERUSINVESTMENTS.COM

SEATTLE 206-622-3700

LOS ANGELES 310-297-1777

SAN FRANCISCO 415-362-3484

Transaction cost analysis overview	3
Zeno consulting group overview	6
Zeno’s proposal for CCCERA	10
Recommendation & next steps	12
Appendix: Sample transaction cost analysis reports	15

Past performance is no guarantee of future results. This document is provided for informational purposes only and is directed to institutional clients and eligible institutional counterparties only and is not intended for retail investors. Nothing herein constitutes investment, legal, accounting or tax advice, or a recommendation to buy, sell or hold a security or pursue a particular investment vehicle or any trading strategy. This document may include or imply estimates, outlooks, projections and other “forward-looking statements.” No assurance can be given that future results described or implied by any forward looking information will be achieved. Investing entails risks, including possible loss of principal. Verus Advisory Inc. and Verus Investors, LLC (“Verus”) file a single form ADV under the United States Investment Advisors Act of 1940, as amended.

Transaction cost analysis overview

What are trading costs?

The loss of asset value incurred as a result of a manager building or unwinding a position in their portfolio.

Only considering explicit (“direct”) costs can be naive.

— Even more so today where commission rates have experienced significant compression.*

- Implementation shortfall, also known as “slippage”, is the difference between the decision price and the final execution price for a trade and incorporates both explicit and implicit costs.
- Defining trading costs as implementation shortfall helps Fund fiduciaries better understand the impact that trading costs have on Fund performance.



Estimated Explicit Costs
“Direct” Costs

Potential Implicit Costs
“Indirect” Costs

Sources: Northern Trust, Zeno Consulting Group

*Below one cent per share for many large domestic equity transitions

Transaction cost analysis

- Transaction cost analysis (“TCA”) is the process of utilizing account specific trade data, obtained directly from the custodian, to measure the total trading costs of external investment managers. TCA is generally performed on an on-going basis.
 - This process is different than the transaction cost analysis performed during a Transition Management engagement, which measures the total trading costs of a one-time transition event.
- The TCA process can help answer the following questions:
 - What were trading costs at the fund, manager, broker, and commission levels?
 - Were those costs reasonable relative to each trade’s “difficulty” and peers?
 - What were the reasons behind those costs?
 - What potential follow-up is required with managers?
- TCA can only be performed on separate accounts, not commingled vehicles.

Zeno Consulting Group overview

Zeno Consulting Group

- Zeno Consulting Group is a Maryland-based consulting firm that works with large institutional clients to monitor and manage their external investment managers' trading processes. Their services are designed to help asset owners understand their managers' trading processes, what they pay to execute trades, whether they obtained best execution, and the impact of trading costs on performance.
- The firm was founded in 1986 as "Plexus Group" which was acquired by JP Morgan in 2002, then subsequently acquired in 2006 by ITG (a brokerage and technology firm). In 2010, the firm re-established its independence as an employee-owned firm and was renamed Zeno Consulting Group.
- Zeno's service offerings include:
 - Equity trading cost analysis
 - FX trading cost analysis
 - Fixed income trading cost analysis
 - Commission recapture and soft-dollar audits
 - Transition services

Zeno Consulting Group

Zeno utilizes a three step process in performing transaction cost analysis:

1. Review of quantitative analytics
 - Includes aggregate fund-level and manager-level costs, peer group comparisons, strategies driving overall costs, commission rates, broker usage, and identification of potential compliance issues
2. Identification of specific issues that are driving managers' costs
 - Includes a review of managers' trading policies and procedures, resources and tools employed by managers, if AUM is creating capacity issues, etc.
3. Communication of findings to the manager
 - Discussion with managers to follow up on any significant issues that are identified and to gain comfort that the managers' trading practices are functioning in the best interest of the client. This service is provided by Zeno at an additional cost.

Following the execution of each transaction cost analysis project, Zeno provides clients with in depth reports by asset class (equity, fixed income, FX) which include aggregate fund level and manager specific detail and a summary highlighting key issues and follow-up items.

Zeno Consulting Group

In addition to TCA services, Zeno also offers soft-dollar audit services which include the following:

1. Fund staff and Zeno administer a qualitative soft-dollar survey to each manager
2. Zeno conducts a quantitative analysis of each manager's annual trade activity (including any trades involving commissions earmarked for the managers "Research Payment Accounts")
3. Zeno evaluates each manager's survey response, commission rates, execution efficiency, soft-dollar purchases and research budgeting practices and policies
4. Zeno presents CCCERA with a written report detailing the findings of the Soft-dollar Audit, and identifying any issues warranting follow-up
5. Zeno or Staff follows-up on potential "issues" flagged in the Audit

Zeno's proposal for CCCERA

Zeno TCA proposal

Zeno proposed the following two options for CCCERA:

	Option 1: Multi-Asset Class TCA (<u>without</u> manager follow-up)	Option 2: Multi-Asset Class TCA (<u>including</u> manager follow-up)
Strategies analyzed	All equity, fixed income, and FX strategies	
Reporting frequency	Quarterly reporting (beginning with Q1 2016)	
Consultant commitment	<ul style="list-style-type: none"> Quarterly conference calls Annual in-person visit with CCCERA 	<ul style="list-style-type: none"> Quarterly conference calls Annual in-person visit with CCCERA Manager follow-up (on “as needed” basis)
Fee	<ul style="list-style-type: none"> \$32,500 annually (up to 15 portfolios) <ul style="list-style-type: none"> \$1,500 for each additional portfolio above 15 Additional \$10,833 for 2015 historical back-data analysis (optional) 	<ul style="list-style-type: none"> \$37,500 annually (up to 15 portfolios) <ul style="list-style-type: none"> \$1,500 for each additional portfolio above 15 Additional \$10,833 for 2015 historical back-data analysis (optional)
Soft-dollar audit (optional add-on service)	<ul style="list-style-type: none"> \$10,000 annually Annual reporting 	<ul style="list-style-type: none"> All equity and fixed income strategies analyzed

Recommendation & next steps

TCA recommendation

Option 2 – Multi-asset class TCA including manager follow-up

Under option 2, Zeno will follow-up with CCCERA's external managers and their portfolio management and trading staff on behalf of CCCERA as the need arises, easing the operational burden on Staff. Zeno will provide a written summary detailing the content of each meeting, as well as any recommendations for subsequent follow-up .

Next steps

- At the Board's direction, Staff / Verus to negotiate final pricing and scope of services with Zeno

Appendix: Sample transaction cost analysis reports

Sample TCA reports

- Zeno performed three sample transaction cost analysis using CCCERA manager trade data for the following managers:
 - Robeco (Large Cap Value Equity, Equity transactions analyzed)
 - First Eagle (Global Equity, FX transactions analyzed)
 - Goldman Sachs (Core Plus Fixed Income)
- The following pages contain a summary of the results of each of these reviews. The full report for each asset class is contained in the appendix of this deck.

2015 Sample Annual TCA Review

- The Zeno oversight process is designed to help plan fiduciaries assess overall execution quality and identify where, when and how portfolio managers, traders and brokers execute trades. In this respect, it is a measurement of trading efficiencies in multi-asset global markets.
- Two 2 types of issues are flagged in Zeno's reports:
 - Compliance/Fiduciary due diligence related issues.
 - Issues that when addressed appropriately can result in Trade Cost savings.
- Zeno's 2015 Sample Review monitored the trading activity of one equity manager (Robeco), one fixed income manager (Goldman Sachs), and the foreign exchange transactions of one manager (First Eagle). The review of these managers flagged 3 unique issues regarding 2 of the Fund managers (for whom Zeno would typically recommend that each manager be contacted). These issues consisted of:
 - 1 Compliance/Fiduciary due diligence-related issues (Fixed Income).
 - 3 Trade Cost-related issues (2 Equity, and 1 Fixed Income) involving approximately \$340,000 in excess trade and commission costs.
- To the extent the Fund decided to retain Zeno, Zeno would work with Fund staff and/or Consultants in conducting follow-up inquiries to the managers flagged in the reports. Subsequent reports would quantify the ongoing trade performance (and savings/benefits if any) to the Fund.
- In this fashion, with respect to the managers reviewed in 2015, the Fund would have:
 - Met its Compliance/Fiduciary obligations with respect to ongoing trade cost and commission monitoring obligations (for equity, fixed income and foreign exchange trades).
 - Identified approximately \$340,000 in potential savings (from 2015 trade execution and commission-related questions that warrant follow-up in 2016).

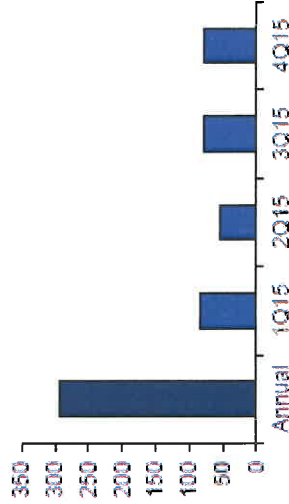
Recommended 2016 Monitoring and Oversight

Manager	Comment
Robeco (Large Cap Value)	<p><i>Explore manager's execution process and policies regarding its impact on returns; particularly with respect to the potential VWAP strategies and price reversions.</i></p> <p><i>Explore broker allocation and oversight policies, particularly regarding Bank of America.</i></p>
Goldman Sachs (US Core Plus)	<p><i>Note concentration of 4Q15 costs among the four most expensive trades (i.e. the top 1% most expensive trades accounted for 19% of all costs).</i></p> <p><i>Discuss high cost trade of High Yield security (Chesapeake Energy), which cost -479 bp vs T-1.</i></p>
First Eagle (Global All Country)	<p><i>No issues currently warrant follow-up regarding FX trading.</i></p>

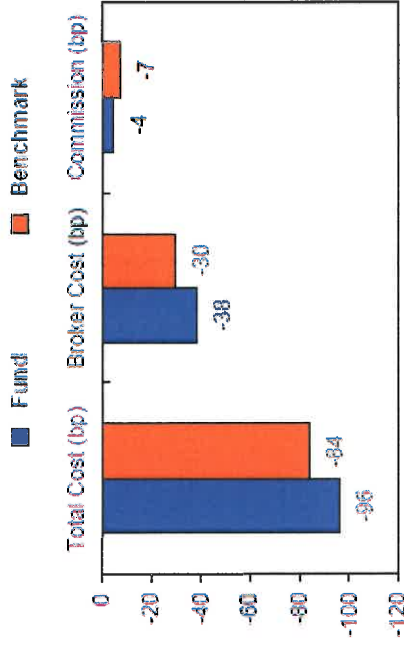
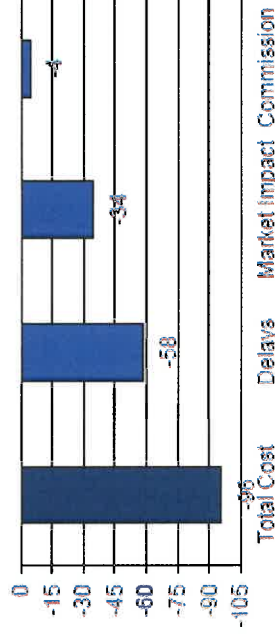


Robeco – Large Cap Value

Volume Trend \$MM



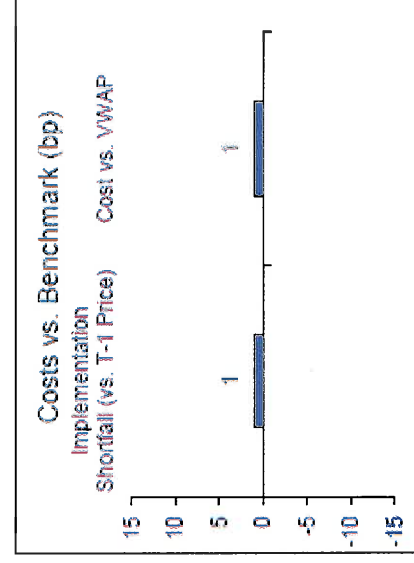
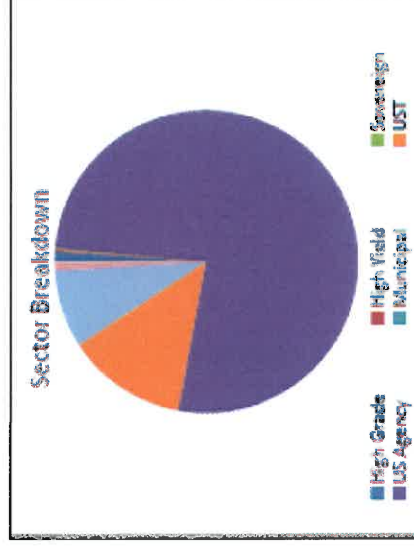
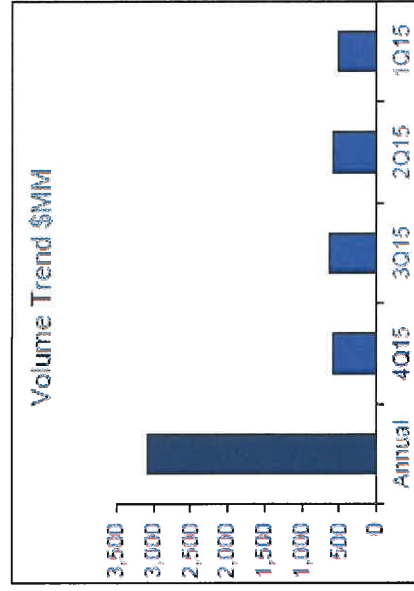
Cost Attribution (bp)



Review

- Trading activity (\$293.2 mm) was stable throughout the year (except for a slight dip in 2Q15). Annual turnover was 49% and in-line with Zeno's Large Cap Value Peer Universe.
- Total Costs (-96 bp) lagged the Total Cost Benchmark (-84 bp), and ranked in the 4th Quartile of Zeno's Large Cap Value Peer Universe. Trading costs were driven by both daily market-impact costs, and multi-day delays. Costs lagged VWAP slightly.
- Brokerage Costs (-38 bp) slightly lagged the Brokerage Benchmark (-30 bp). UBS received the largest allocation of 2015 trade volume (20%). Trades executed through Bank of America in 4Q15 appeared expensive (-57 bp vs. benchmark) and experienced potential price reversions. Aggregate trading for quarter and year also experienced potential price reversions.
- Commissions (-1.8¢) ranked in the top half of Zeno's Large Cap Value Peer Universe.
- Quarter-end returns on traded securities were negative (common with "value" strategies). Combination of high trading costs, and turnover rate, significantly impacted annual investment returns (29% of gross investment performance).

Goldman Sachs (Core Plus) – Fixed Income



Observations

- Traded approximately \$3.1 billion million in 2015, of which \$3.0 billion was evaluated, and \$2.9 billion was in relatively liquid securities. Trade volume was fairly consistent throughout the year.
- Fixed income securities were traded at an Implementation Shortfall cost of +1 bp (i.e. relative to the prior night's price evaluation), as well as +1 bp relative to the 3-day average surrounding the day of each respective trade. Most costs were concentrated in top 5% of most expensive trades. One High Yield trade (Chesapeake Energy) incurred costs of about -4.8%.
- During the review period, Credit Suisse (\$1.0 billion), JP Morgan (\$516 million), and Bank of America (\$398 million) received the largest allocations among the Broker/Dealer counterparties. 83% of the 2015 transactions were US Agency, and 12% were US Treasury Securities.
- Combination of high turnover and small trading gains, positively impacted annual investment returns (18% of gross investment performance).

First Eagle (Global All Country) – Foreign Exchange

Summary

Total FX Dollars Traded: \$63.0 MM

Total Costs/Savings

vs. Avg Daily Mid: +3 bp

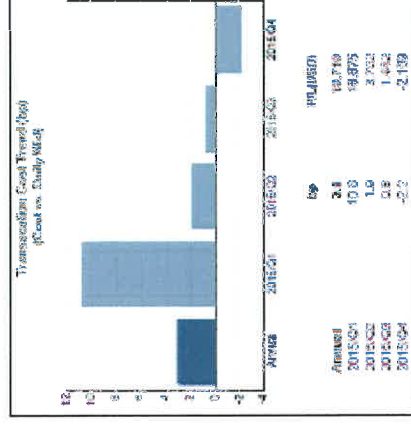
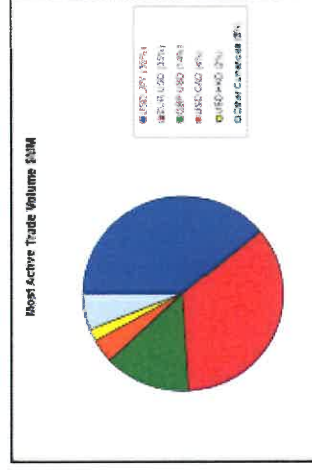
vs. London 4:00 pm Close: +1 bp

FX Dollars Traded through Custodian: \$3.9 MM

Total Costs/Savings

vs. Avg Daily Mid: +6 bp

vs. London 4:00 pm Close: +9 bp



Observations

- \$63.0 million of FX Trading activity occurred during 2015, with an average trade size of approximately \$93,000. The custodian share of the FX trades was 4%, with an average trade size of approximately \$22,000.
- Annual FX execution rates slightly outperformed both the Daily Mid (+3 bp) and the London Close (+1 bp); although costs trended downward throughout 2015. Trades executed by the custodian similarly outperformed both the Daily Mid (+6 bp) and the London Close (+9 bp). In aggregate, Buys and Sells were randomly distributed, and within their respective daily range.
- The top three Counterparties were BNY (33%), Goldman Sachs (25%) and HSBC (19%), all of whom executed their transactions at rates in-line with the Daily Mid.
- The top three currency pairs (USD:JPY, EUR:USD and GBP:USD) represented 88% of all transaction volume, and were executed at rates in-line with the Daily Mid. 98% of all trading was executed in Non-restricted markets.

Notices & disclosures

Past performance is no guarantee of future results. The information presented in this report is provided pursuant to the contractual agreement (the "Contract") by and between Contra Costa Employees' Retirement Association ("Client") and Verus Advisory, Inc. ("Company"). In the event of conflict between the terms of this disclosure and the Contract, the Contract shall take precedence. Client is an institutional counter-party and in no event should the information presented be relied upon by a retail investor.

The information presented has been prepared by the Company from sources that it believes to be reliable and the Company has exercised all reasonable professional care in preparing the information presented. However, the Company cannot guarantee the accuracy of the information contained therein. The Company shall not be liable to Client or any third party for inaccuracy or in-authenticity of information obtained or received from third parties in the analysis or for any errors or omissions in content.

The information presented does not purport to be all-inclusive nor does it contain all information that the Client may desire for its purposes. The information presented should be read in conjunction with any other material furnished by the Company. The Company will be available, upon request, to discuss the information presented in the report that Client may consider necessary, as well as any information needed to verify the accuracy of the information set forth therein, to the extent Company possesses the same or can acquire it without unreasonable effort or expense. Nothing contained therein is, or should be relied on as, a promise, representation, or guarantee as to future performance or a particular outcome. Even with portfolio diversification, asset allocation, and a long-term approach, investing involves risk of loss that the client should be prepared to bear.

The material may include estimates, outlooks, projections and other "forward-looking statements." Such statements can be identified by the use of terminology such as "believes," "expects," "may," "will," "should," "anticipates," or the negative of any of the foregoing or comparable terminology, or by discussion of strategy, or assumptions such as economic conditions underlying other statements. No assurance can be given that future results described or implied by any forward-looking information will be achieved. Actual events may differ significantly from those presented. Investing entails risks, including possible loss of principal. Risk controls and models do not promise any level of performance or guarantee against loss of principal.



Meeting Date
08/10/16
Agenda Item
#10

MEMORANDUM

Date: August 3, 2016
To: CCCERA Board of Retirement
From: Timothy Price, Chief Investment Officer
Subject: Semi-Annual Rebalancing

Overview

CCCERA received its annual pre-payments of select employer contributions in late July and used these proceeds, in conjunction with two withdrawals from existing investment managers, to conduct the semi-annual rebalancing. Most segments of the CCCERA investable universe experienced substantial volatility, but overall modest returns in the first half of 2016.

Anticipating the upcoming implementation of the new asset allocation targets in the latter half of 2016, we made a concerted effort to keep overall asset class programs near their targets, but we concentrated the contributions into portfolios that have exhibited the lowest transaction costs. In this way, we can maintain a fully-invested program but also shift to the new allocation targets at the lowest possible transition costs.

We took withdrawals from two domestic value equity portfolios totaling \$53 million. These proceeds, along with \$277 million in employer pre-payments, were used to fund a number of managers distributed broadly across public equities and fixed income. Additionally, a total of \$102 million in contributions was kept in the Cash account to meet a number of expected capital calls in August along with July and August benefit payments.

The following tables show the rebalancing trades which occurred between the end of July and early August, 2016.

Funds were raised from the following sources:

Employer pre-payments	\$277.0	Million
Robeco Boston Partners	\$17.0	Million
Ceredex	\$36.0	Million
	<hr/>	
	\$330.0	Million

Proceeds were invested with the following investment managers:

Jackson Square	\$14.0	Million
PIMCO Stocks Plus	\$65.0	Million
AFL-CIO Housing Investment Trust	\$12.0	Million
PIMCO Total Return	\$90.0	Million
Allianz	\$47.0	Million
Cash	\$102.0	Million
	<u>\$330.0</u>	Million

The rebalancing exercise used the adjusted target asset class weights as approved by the Board on January 11, 2012. The temporary adjustments were put in place to account for the time lag in building out private allocations as well as to account for the unfunded allocation to long bonds. As the balances invested in private allocations shift (a rise in private equity, a reduction in opportunistic, etc), we revise the temporary adjustments to reflect our funding progress. The adjustments used in this rebalancing are outlined below.

Asset Class	Long-term Target	Prior Temporary Adjustment	New Temporary Adjustment	Total Adjusted Target
Global Equity	42.6%	+3.0%	+1.9%	44.5%
Global Fixed	19.4%	+4.6%	+4.6%	24.0%
Long Bonds	5.0%	-5.0%	-5.0%	0.0%
High Yield	5.0%	-	-	5.0%
Real Estate	12.5%	-	-	12.5%
Alternatives	10.0%	-3.0%	-2.0%	8.0%
Real Assets	5.0%	-	-	5.0%
Cash	0.5%	-	-	0.5%
Opportunistic	0.0%	+0.4%	+0.5%	0.5%

	% of Total Adjusted		6/30/2016		Over/Under		Market Value		% of Total After	
	Target	Market Value	% of June	Target*	Rebalance	After Rebalance	Rebalance	After Rebalance	Rebalance	After
Robeco	4.1%	322,774,000	4.5%	16,778,618	(17,000,000)	305,774,000	(17,000,000)	305,774,000	4.1%	4.1%
Jackson Square Partners (fka Delaware)	4.1%	291,480,000	4.1%	(14,515,382)	14,000,000	305,480,000	14,000,000	305,480,000	4.1%	4.1%
Emerald Advisors	2.9%	220,204,000	3.1%	3,768,242	-	220,204,000	-	220,204,000	3.0%	3.0%
Intech (Core)	3.8%	288,158,000	4.0%	4,552,524	-	288,158,000	-	288,158,000	3.9%	3.9%
PIMCO Stocks +	3.8%	256,876,000	3.6%	(26,729,476)	65,000,000	321,876,000	65,000,000	321,876,000	4.3%	4.3%
Ceredex	2.9%	252,648,000	3.5%	36,212,242	(36,000,000)	216,648,000	(36,000,000)	216,648,000	2.9%	2.9%
Total Domestic Equity	21.6%	1,632,140,000	22.7%	20,066,768	26,000,000	1,658,140,000	26,000,000	1,658,140,000	22.2%	22.2%
Pyrford	5.3%	402,771,000	5.6%	7,215,994	-	402,771,000	-	402,771,000	5.4%	5.4%
William Blair	5.3%	394,587,000	5.5%	(968,006)	-	394,587,000	-	394,587,000	5.3%	5.3%
Total International Equity	10.6%	797,358,000	11.1%	6,247,988	-	797,358,000	-	797,358,000	10.7%	10.7%
JPMorgan Global Opportunities	4.0%	261,751,000	3.6%	(36,781,080)	(36,781,080)	261,751,000	(36,781,080)	261,751,000	3.5%	3.5%
First Eagle	4.0%	312,234,000	4.3%	13,701,920	13,701,920	312,234,000	13,701,920	312,234,000	4.2%	4.2%
Artisan Global Opportunities	4.0%	307,247,000	4.3%	8,714,920	8,714,920	307,247,000	8,714,920	307,247,000	4.1%	4.1%
Intech (Global Low Volatility)	0.3%	24,181,000	0.3%	1,791,094	1,791,094	24,181,000	1,791,094	24,181,000	0.3%	0.3%
Total Global Equity	12.3%	905,413,000	12.6%	(12,573,146)	-	905,413,000	-	905,413,000	12.1%	12.1%
Total Equity	44.5%	3,334,911,000	46.4%	13,741,610	26,000,000	3,360,911,000	26,000,000	3,360,911,000	45.0%	45.0%
AFL-CIO Housing Investment Trust	3.3%	233,682,000	3.3%	(12,606,966)	12,000,000	245,682,000	12,000,000	245,682,000	3.3%	3.3%
PIMCO	5.6%	352,292,000	4.9%	(65,652,912)	90,000,000	442,292,000	90,000,000	442,292,000	5.9%	5.9%
GSAM "Park" Portfolio	0.0%	4,000	0.0%	4,000	4,000	4,000	4,000	4,000	0.0%	0.0%
Goldman Sachs Asset Management	4.6%	327,920,000	4.6%	(15,391,892)	(15,391,892)	327,920,000	(15,391,892)	327,920,000	4.4%	4.4%
Lord Abbett	4.6%	330,701,000	4.6%	(12,610,892)	(12,610,892)	330,701,000	(12,610,892)	330,701,000	4.4%	4.4%
Torchlight Debt Opportunity Fund II	0.8%	48,577,000	0.7%	(11,129,416)	(11,129,416)	48,577,000	(11,129,416)	48,577,000	0.7%	0.7%
Torchlight Debt Opportunity Fund III	0.1%	10,513,000	0.1%	3,049,698	3,049,698	10,513,000	3,049,698	10,513,000	0.1%	0.1%
Torchlight Debt Opportunity Fund IV	0.6%	61,858,000	0.9%	17,078,188	17,078,188	61,858,000	17,078,188	61,858,000	0.8%	0.8%
Torchlight Debt Opportunity Fund V	0.4%	14,741,000	0.2%	(15,112,208)	(15,112,208)	14,741,000	(15,112,208)	14,741,000	0.2%	0.2%
Total Domestic Fixed Income	20.0%	1,380,288,000	19.2%	(112,372,400)	102,000,000	1,482,288,000	102,000,000	1,482,288,000	19.9%	19.9%
Lazard Asset Management	4.0%	243,031,000	3.4%	(55,501,080)	(55,501,080)	243,031,000	(55,501,080)	243,031,000	3.3%	3.3%
Total Global Fixed Income	24.0%	1,623,319,000	22.6%	(167,873,480)	102,000,000	1,725,319,000	102,000,000	1,725,319,000	23.1%	23.1%
Allianz	5.0%	325,609,000	4.5%	(47,556,100)	47,000,000	372,609,000	47,000,000	372,609,000	5.0%	5.0%
Total High Yield Fixed Income	5.0%	325,609,000	4.5%	(47,556,100)	47,000,000	372,609,000	47,000,000	372,609,000	5.0%	5.0%
Wellington Real Total Return	0.8%	181,470,000	2.5%	125,495,235	125,495,235	181,470,000	125,495,235	181,470,000	2.4%	2.4%
PIMCO All Asset	1.8%	124,588,000	1.7%	(6,019,785)	(6,019,785)	124,588,000	(6,019,785)	124,588,000	1.7%	1.7%
Private Real Asset	2.5%	65,987,000	0.9%	(120,595,550)	(120,595,550)	65,987,000	(120,595,550)	65,987,000	0.9%	0.9%
Total Real Asset	5.0%	372,045,000	5.2%	(1,120,100)	-	372,045,000	-	372,045,000	5.0%	5.0%
Total Real Estate	12.5%	852,330,000	11.9%	(80,582,750)	-	852,330,000	-	852,330,000	11.4%	11.4%
Total Alternative Investments	8.0%	608,404,000	8.5%	11,339,840	102,000,000	608,404,000	102,000,000	608,404,000	8.2%	8.2%
State Street Bank	0.5%	36,229,000	0.5%	(1,087,510)	102,000,000	138,229,000	102,000,000	138,229,000	1.9%	1.9%
Total Cash & Equivalents	0.5%	36,229,000	0.5%	(1,087,510)	102,000,000	138,229,000	102,000,000	138,229,000	1.9%	1.9%
Total Market Opportunities	0.5%	33,455,000	0.5%	(3,861,510)	-	33,455,000	-	33,455,000	0.4%	0.4%
TOTAL ASSETS	100.0%	7,186,302,000	100.0%³	(277,000,000)	277,000,000	7,463,302,000	277,000,000	7,463,302,000	100.0%	100.0%

Contra Costa County Employees' Retirement Association

Meeting Date
08/10/16
Agenda Item
#11

Semi-Annual Disability Retirement Report

*for the years ended December 31, 2013, 2014 and 2015
update for January 1 through June 30, 2016*

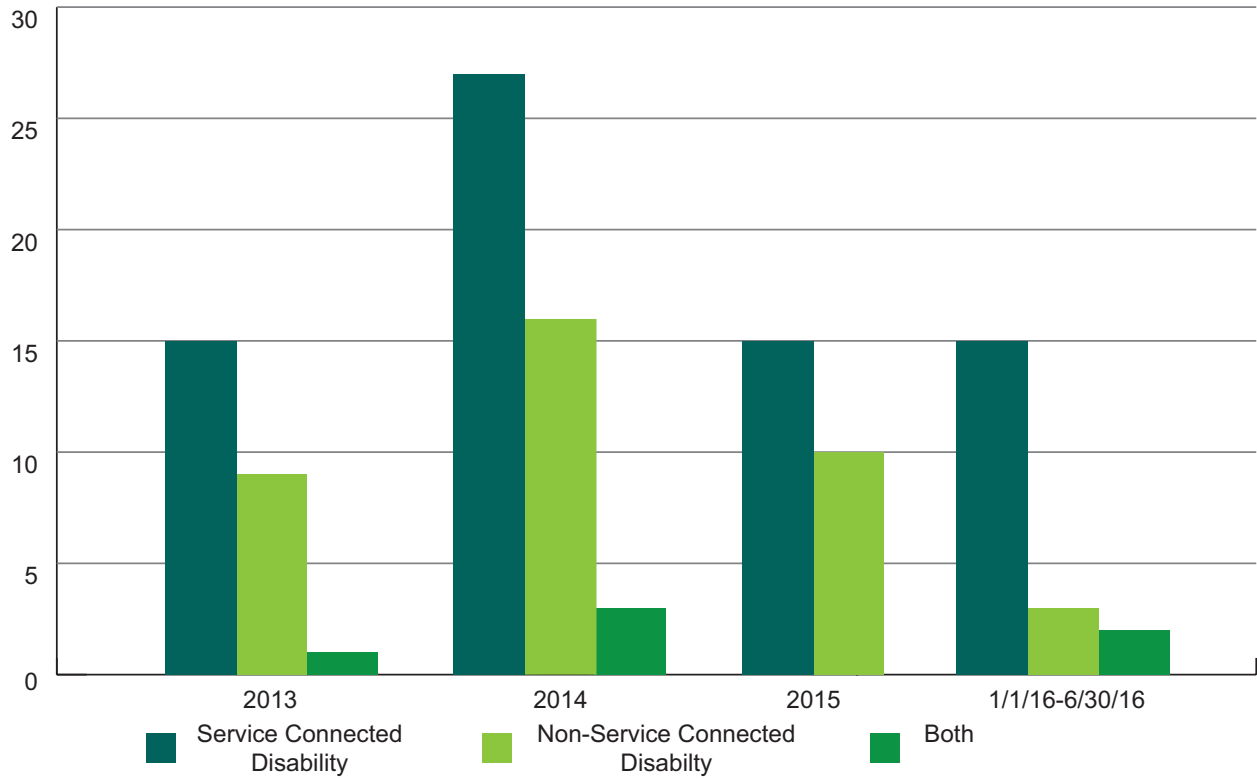


Contra Costa County Employees' Retirement Association
1355 Willow Way, Suite 221
Concord, California 94520-5728
cccera.org

Semi-Annual Disability Retirement Report

Exhibit 1: Disability Retirement Applications Received by Year

As of June 30, 2016



Contra Costa County Employees' Retirement Association
 Semi-Annual Disability Retirement Report (Continued)

Exhibit 2: Total Applications Filed with CCCERA (by Employer)

As of June 30, 2016

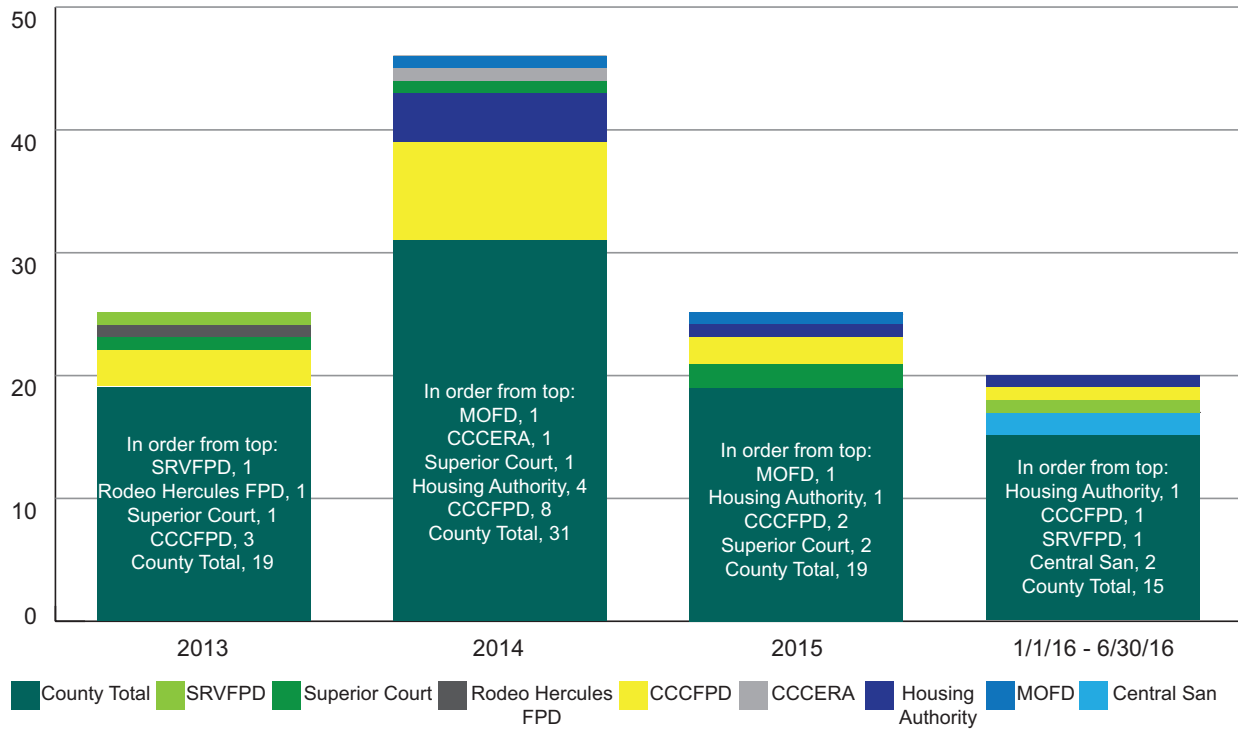
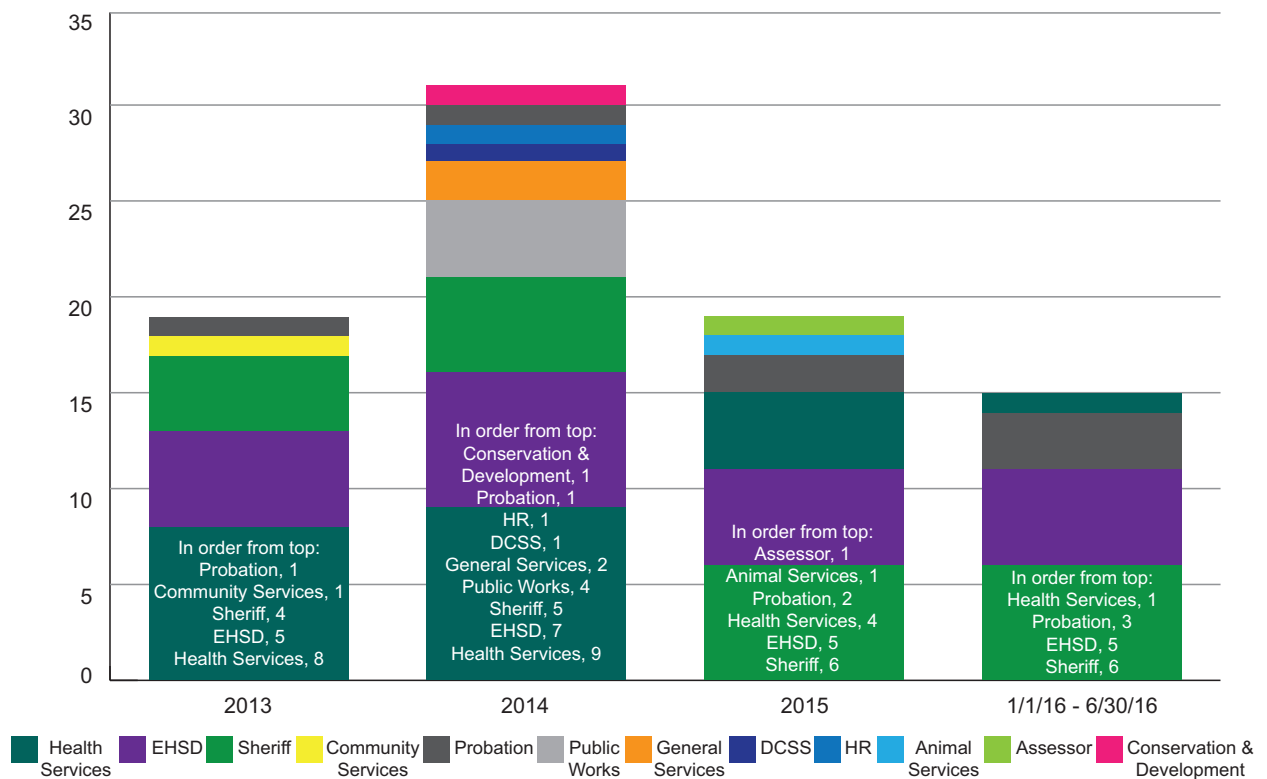


Exhibit 3: Total Applications Filed with CCCERA (by County Department)

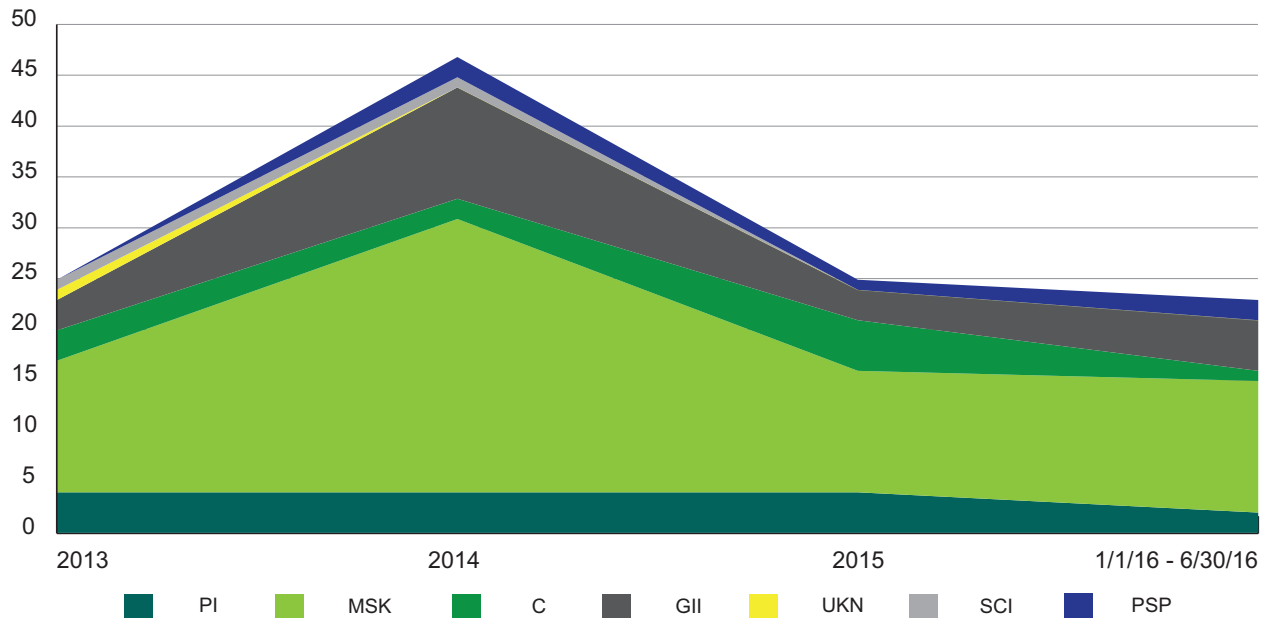
As of June 30, 2016



Contra Costa County Employees' Retirement Association
 Semi-Annual Disability Retirement Report (Continued)

Exhibit 4: Total Disability Filed by Type

As of June 30, 2016*



The following acronyms group different illnesses together by type to show trends and are not limited to the examples below.

Psychiatric Incapacitation (PI)	Will include all psychiatric and mental health conditions and injuries. Examples would be PTSD, OCD, depression, schizophrenia, anxiety disorders, mood and emotional disorders.
Musculoskeletal (MSK)	Will include all orthopedic injuries and illness. Examples include carpal tunnel syndrome, amputation, avascular necrosis, back injury, degenerative disc disease, fibromyalgia, lumbar stenosis, neck injury, shoulder injury, and disc herniation.
Cancer (non-presumptive) (C)	Will include all permanent incapacitation that was the result of a form of cancer.
Public Safety Presumptions (PSP)	Will include all illness and injuries where the cause is governed under GC Sections 31720.5, 31720.6, 31720.7, or 31720.9.
General Internal Incapacitation (GII)	Will include all injuries and illness that are general non-orthopedic issues, not covered by the noted above. Examples include diabetes, any disease or injury to an internal organ, rheumatology, pulmonary, gastrointestinal.
Unknown (UKN)	Disability application filed for unknown medical reasons. An example would be an employer that filed an application with limited medical records due to HIPAA.
Severe Cognitive Impairment (SCI)	Will include all illness' and injuries where the incapacitation has caused diminished cognitive function. Examples include traumatic brain injury, dementia, dyslexia, dyscalculia, memory impairments, diminished concentration and speech.

Contra Costa County Employees' Retirement Association
 Semi-Annual Disability Retirement Report *(Continued)*

Exhibit 5: Type of Disability by Injury/Illness Group				
Employer	2013	2014	2015	1/1/2016 - 06/30/2016
Contra Costa County Fire Protection District (CCCFPD)				
PI	0	1	0	0
MSK	2	5	1	1
C	1	0	0	0
PSP	0	2	1	0
Contra Costa County Employees' Retirement Association (CCERA)				
GII	0	1	0	0
Central Sanitary District				
MSK	0	0	0	2
Housing Authority of Contra Costa County				
MSK	0	3	0	1
C	0	0	1	0
GII	0	1	0	0
Moraga/Orinda Fire Protection District				
MSK	0	1	1	0
Rodeo/Hercules Fire Protection District				
MSK	1	0	0	0
San Ramon Valley Fire Protection District				
PI	0	0	0	1
MSK	1	0	0	1
Contra Costa County Superior Court				
MSK	0	1	1	0
C	0	0	1	0
GII	1	0	0	0
Contra Costa County*				
PI	4	3	4	1
MSK	9	16	9	8
C	2	3	3	1
PSP	0	0	0	2
GII	2	7	3	5
UNK	1	0	0	0
SCI	1	2	0	0

*Detail by Contra Costa County departments on following page.

Contra Costa County Employees' Retirement Association
 Semi-Annual Disability Retirement Report *(Concluded)*

Exhibit 5: Type of Disability by Injury/Illness Group

Department	2013	2014	2015	1/1/2016 - 06/30/2016
Contra Costa County				
<i>Animal Services</i>				
GII	0	0	1	0
<i>Assessor</i>				
GII	0	0	1	0
<i>Community Services</i>				
PI	1	0	0	0
<i>Conservation and Development</i>				
MSK	0	1	0	0
<i>Department of Child Support Services (DCSS)</i>				
C	0	1	0	0
<i>Employment & Human Services Department (EHSD)</i>				
PI	0	1	2	0
MSK	4	2	2	1
C	0	1	1	1
GII	1	1	0	3
SCI	0	2	0	0
<i>General Services Department</i>				
MSK	0	1	0	0
C	0	1	0	0
<i>Health Services Department</i>				
PI	2	1	1	0
MSK	3	4	1	1
C	0	0	1	0
GII	1	4	1	1
UNK	1	0	0	0
SCI	1	0	0	0
<i>Human Resources Department</i>				
GII	0	1	0	0
<i>Public Works Department</i>				
MSK	0	3	0	0
GII	0	1	0	0
<i>Probation Department</i>				
PI	0	1	1	1
MSK	0	0	1	1
C	1	0	0	0
PSP	0	0	0	1
GII	0	0	0	1
<i>Sheriff's Office</i>				
PI	1	0	0	0
MSK	2	5	5	5
C	1	0	1	0
PSP	0	0	0	1

Meeting Date
08/10/16
Agenda Item
#12a.

PROGRAM ANNOUNCEMENT



Friday, September 30, 2016
From 8:30am to 3:30pm



Marriott Burbank Airport
2500 N Hollywood Way
Burbank, CA 91505
(818) 843-6000

Room block rate:
\$189/night + tax

Cutoff date:
August 31

Reserve online [HERE](#) or by
calling 1-818-843-6000.

[Get Directions >](#)
Closest Airport: BUR
Free Airport Shuttle: Yes
Parking: \$21/day with
validation from CALAPRS

Trustees Roundtable

CALAPRS invites you to attend the Trustees Roundtable to discuss relevant and timely topics for the trustees of our member retirement systems.

[REGISTER NOW](#)

Meeting Agenda: What would you like to discuss?

Your meeting chair will be **Vere Williams** from San Bernardino County Employees' Retirement Association. Please contact him at WilliamsV@armc.sbcounty.gov with suggestions for presentations or discussion topics to be added to the agenda.

The agenda will be emailed to you and posted on the CALAPRS website as soon as it is available. The program will begin at 8:30 a.m. and end by 3:30 p.m. Breakfast and lunch are provided.

MORE UPCOMING PROGRAMS...