CalPERS *Monthly Update – Investment Compliance*

MONTH ENDED OCTOBER 31, 2017



CalPERS Monthly Update – Investment Compliance

For the month ended October 31, 2017

Items Completed Under Delegated Authority
Disclosure of Placement Agent Fees
Investment Proposal Activity
Policy Exceptions
Disclosure of Closed Session Action Items
Investment Transactions

Items Completed Under Delegated Authority (for the month ended October 31, 2017)

Program Area	Name of Investment	Commitment (million)	Initial Funding Date	Complies with Delegation Number
Global Equity	CalPERS-managed Global Maximum Diversification strategy	\$1,105.00	Jun-2015	INV-16-04
Global Fixed Income	Nomura Corporate Research & Asset Management	\$2.00	Mar-2002	INV-16-05
Private Equity	TPG Growth IV, L.P.	\$75.00	Oct-2017	INV-17-04
Private Equity	Carlyle Asia Partners V, L.P.	\$250.00	Oct-2017	INV-17-04
Real Assets	AGI Resmark Partners, LLC	\$0.10	Sep-2014	INV-16-07



Firm Name	Riverstone Investment Group LLC
Asset Class	Private Equity
Fund	Riverstone/Carlyle Global Energy and Power Fund IV, L.P.
Placement Agent / Firm	Riverstone Capital Services LLC, Affiliated broker dealer formed in 2015 (CRD #27369) Patrick Connell, Riverstone employee since 2011 and registered representative of Riverstone Capital Services LLC since 2015
Placement Agent Employment	Internal employees of the General Partner and/or its affiliates
Registered with U.S. or non-U.S. financial regulatory authority	Riverstone Capital Services is registered with FINRA
Registered Lobbyist(s)	Patrick Connell is registered as a lobbyist in the State of CA.
Estimated Placement Agent Compensation	No third party placement agent was engaged in respect of the investment by CalPERS in Fund IV. Riverstone Capital Services LLC was formed in 2015 as an affiliated broker dealer. Riverstone Capital Services LLC has investor relations personnel but they are not compensated based on the CalPERS commitment or any other limited partner commitment, nor were any Riverstone personnel compensated for the Fund IV commitment by CalPERS. The investor relations personnel were and are compensated with a salary and bonus based on the overall performance of the firm. Approximately \$100 of total time has been spent in discussion with CalPERS regarding the amendment to the Fund IV documents.
Disclosed Campaign Gifts and Contributions	None
Notes	None
Transaction Type	Amendment

Disclosure of Placement Agent Fees (for the month ended October 31, 2017)

*This information is provided directly from the Placement Agent Disclosure Form as submitted to CalPERS.

Investment Proposal Activity (for the month ended October 31, 2017)

		Private Equity	Forestland	Infrastructure	Real Estate	Global Equities	Commodities	Global Fixed Income	Total
start of Month Propos	osals	16	0	3	6	5	0	0	30
ew Proposals Durin	ng the Month	13	2	4	6	7	0	2	34
einstated Proposals	s During Month	0	0	0	0	0	0	0	0
ecisions During the	Month	13	0	3	5	11	0	0	32
nd of Month Propos	sals	16	2	4	7	1	0	2	32
						Question regarding S	OM Proposals for GE		
atus Details									
			Private Ass	set Classes			Public Asset Classes		
	Status	Private Equity	Forestland	Infrastructure	Real Estate	Global Equities	Commodities	Global Fixed Income	Total
art of Month Propos	sals								
	Submitted	4	0	0	2	0	0	0	6
	Screening	4	0	2	3	5	0	0	14
	Due Diligence	6	0	1	1	0	0	0	8
	Approved	2	0	0	0	0	0	0	2
	Subtotal	16	0	3	6	5	0	0	30
ew Proposals Durin	a the Month								
ew Proposais Durin	Subtotal	13	2	4	6	7	0	2	34
	Cubiola		-	•			•	_	0.
einstated Proposals	s During Month								
	Subtotal	0	0	0	0	0	0	0	0
ecisions During the	Month								
	Committed	2	0	0	0	0	0	0	2
	Declined	7	0	1	3	0	0	0	11
	Failed to Materialize	1	0	0	0	0	0	0	1
	Referred	3	0	2	2	11	0	0	18
	Subtotal	13	0	3	5	11	0	0	32
	ale								
nd of Month Propos		6	0	0	0	0	0	0	6
nd of Month Propos	Submitted		0	0					
nd of Month Propos	Submitted		2	3	6	1	0	2	
nd of Month Propos	Screening	5	2	3	6	1	0	2	19
nd of Month Propos			2 0 0	3 0 1	6 0 1	1 0 0	0 0 0	2 0 0	19 3 4

*Start of Month Proposals for Global Equity (5) was revised downwards from September (6) due to duplicate proposals.

Material Exceptions to Policy

According to policy requirements, the following is a summary of investment policy exceptions as reported by the Investment Office program areas. The following program areas had no exceptions to report for the month:

- o Global Equity
- o Global Fixed Income
- o Investment Manager Engagement Programs
- o Investment Risk and Performance
- o Investment Servicing Division
- o Sustainable Investment Program
- o Trust Level Portfolio Management



Number of Monthly Policy Exceptions

New:

Program Area or Asset Class	Event Date	Resolution Date	Policy	Exception Description	Event Description and Resolution (expected) or Next Steps
No items to report					

Existing:

Program Area or Asset Class	Event Date	Resolution Date	Policy	Exception Description	Event Description and Resolution (expected) or Next Steps
Private Equity	6/30/2014	Est. (11/13/17)	Statement of Investment Policy for Restricted Private Equity (PE) Investments in Public Sector Outsourcers (Policy)	The Policy Procedures Manual (Appendix 1 to the Policy) requires PE Staff to report the following to the Investment Committee as periodically required, or at a minimum annually: Waivers granted by PE Staff to PE fund managers to not treat a portfolio company as an Outsourcer. The results and effectiveness of the Policy. The impact, if any, of the Policy on the PE Program's investment opportunities. PE Staff have continually provided annual reporting to the Committee on waivers (there have been no waivers requested). However, there has been a gap in PE Staff annual reporting on the results and effectiveness of the Policy and the impact of the Policy on investment opportunities.	The PE Program's Board reporting documents have not addressed two of the three annual reporting requirements in the Outsourcers Policy Procedures Manual since 2013. The inadvertant cessation of this component of the reporting appears to have coincided with other Board reporting changes and refinements that occurred in 2014. PE Staff will provide this annual reporting to the Committee at the next PE annual review, which will occur in November 2017. PE Staff have confirmed that to date there have been no adverse impacts on the PE Program's investment opportunities or compliance issues associated with implementation of the Policy. PE Staff have also confirmed that on every fund commitment, they obtain written acknowledgement from the PE manager that it will use good faith efforts to comply with the Outsourcers Policy.

Existing: (cont'd)

Program Area or Asset Class	Event Date	Resolution Date	Policy	Exception Description	Event Description and Resolution (expected) or Next Steps
Real Assets	1/1/2017	TBD	Investment Policy for Real Assets Program	For the beginning of the Q3'17 reporting period, the "Core" risk classification represented 44.9% of the Forestland portfolio, which is below the policy range of 75-100% for this risk classification of the Forestland portfolio.	The new RA Policy went into effect 1/1/17. New policy parameters included the consistent application of risk classifications, geographic ranges, and leverage limits across the Real Assets Program and to each of its constituent portfolios. Given the illiquid nature of the RA portfolio, staff anticipates a lag time to make the asset shifts required to bring the portfolio in line with the new strategic plan and policy ranges, along with the required updates to systems and processes as noted to the Investment Committee (IC) at the August, 2016 IC meeting. When the policy exception was first reported in May 2017, the most recently available RA Program data at that time was for Q4'16. Given that 12/31/16 ending balances became 1/1/1 starting balances, the Core Forestland NAV was not within the new RA Policy range as of the date it took effect (1/1/17). For reporting purposes, moreover, RA staff made the conservative assumption when the policy exception was first reported that this exception wuld not have been cured by the end of Q1'17 due to the illiquid nature of the Forestland investments. Data has been finalized for 6/30/17 and the policy exception still exists. The timing of any resolution remains uncertain.

Existing: (cont'd)

Program Area or Asset Class	Event Date	Resolution Date	Policy	Exception Description	Event Description and Resolution (expected) or Next Steps
Real Assets	1/1/2017	TBD	Investment Policy for Real Assets Program	For the beginning of the Q3'17 reporting period, the "Value-Add" risk classification represented 38.8% of the Forestland portfolio, which is above the policy range of 0-25% for this risk classification within the Forestland portfolio.	The new RA Policy went into effect 1/1/17. New policy parameters included the consistent application of risk classifications, geographic ranges, and leverage limits across the Real Assets Program and to each of its constituent portfolios. Given the illiquid nature of the RA portfolio, staff anticipates a lag time to make the asset shifts required to bring the portfolio in line with the new strategic plan and policy, along with the required updates to systems and processes as noted to the Investment Committee (IC) at the August, 2016 IC meeting. When the policy exception was first reported in May 2017, the most recently available RA Program data at that time was for Q4'16. Given that 12/31/16 ending balances became 1/1/1 starting balances, the Value-Added Forestland NAV was not within the new RA Policy range as of the date it took effect (1/1/17). For reporting purposes, moreover, RA staff made the conservative assumption when the policy exception was first reported that this exception would not have been cured by the end of Q1'17 due to the illiquid nature of the Forestland investments. Data has been finalized for 6/30/17 and the policy exception still exists.

Existing: (cont'd)

Program Area or Asset Class	Event Date	Resolution Date	Policy	Exception Description	Event Description and Resolution (expected) or Next Steps
Real Assets	1/1/2017	TBD	Investment Policy for Real Assets Program	For the beginning of the Q3'17 reporting period, DSCR for the Forestland portfolio was 0.78, which is below the minimum DSCR of 1.25, as required by the RA Policy.	The new RA Policy went into effect 1/1/17. New policy parameters included the consistent application of risk classifications, geographic ranges, and leverage limits across the Real Assets Program and to each of its constituent portfolios. Given the illiquid nature of the RA portfolio, staff anticipates a lag time to make the asset shifts required to bring the portfolio in line with the new strategic plan and policy, along with the required updates to systems and processes as noted to the Investment Committee (IC) at the August, 2016 IC meeting. When the policy exception was first reported in May 2017, the most recently available RA Program data at that time was for Q4'16. Given that 12/31/16 ending balances became 1/1/1 starting balances, the Forestland portfolio DSCR did not meet the required minimum DSCR for that portfolio as of the date the new RA Policy took effect (1/1/17). For reporting purposes, moreover, RA staff made the conservative assumption when the policy exception was first reported that this exception would not have been cured by the end of Q1'17 due to the illiquid nature of the Forestland investments. Data has been finalized for 6/30/17 and the policy exception still exists. The timing of any resolution remains uncertain.

Disclosure of Closed Session Action Items (for the month ended October 31, 2017)

Investn Commi		Agenda Item	Investment Committee Action	Vote	
No items to	o report				

Investment Transactions (for the month ended October 31, 2017)

		Total Fund - Public Markets							
	Public Equity	Income	Inflation	ARS	Liquidity	TLPM			
Beginning Market Value	166,789,224,910	64,710,743,222	26,360,459,593	268,948,535	12,544,834,068	1,495,475,662			
+ Purchases	2,960,721,503	2,820,268,779	3,356,668,300	0	548,780,000	33,131,805			
- Sales	(5,458,645,911)	(4,150,054,575)	(4,163,558,943)	(1,670,056)	(834,239,000)	(32,524,623)			
+ Unitized Fund Purchases	0	0	0	0	0	0			
- Unitized Fund Sales	0	0	0	0	0	0			
+/- Other Changes in MV	5,893,778,037	1,338,817,154	1,075,622,679	3,345,325	3,134,987,283	25,655,036			
Ending Market Value	170,185,078,539	64,719,774,580	26,629,191,628	270,623,803	15,394,362,352	1,521,737,880			

Total Fund - Private Markets								
	Private Equity	Real Estate	Forestland	Infrastructure				
Beginning Market Value	26,857,272,723	30,362,443,875	1,965,045,453	3,719,939,958				
+ Contributions	234,523,092	189,443,163	0	94,372,488				
- Distributions	(730,413,261)	(87,261,513)	0	(36,881,843)				
+ Unitized Fund Purchases	0	0	0	0				
- Unitized Fund Sales	0	0	0	0				
+/- Other Changes in MV	564,608,148	(223,553,476)	1	(96,760,265)				
Ending Market Value	26,925,990,702	30,241,072,048	1,965,045,454	3,680,670,338				

	Total Public Markets	Total Private Markets	Total Fund
Beginning Market Value	272,169,685,991	62,904,702,009	335,074,387,999
+ Contributions	9,719,570,387	518,338,743	10,237,909,130
- Distributions	(14,640,693,110)	(854,556,617)	(15,495,249,726)
+ Unitized Fund Purchases	0	0	0
- Unitized Fund Sales	0	0	0
+/- Other Changes in MV	11,472,205,515	244,294,408	11,716,499,922
Ending Market Value	278,720,768,782	62,812,778,543	341,533,547,325

Note: Numbers will not tie exactly to the Asset Allocation/Performance categories due to classification differences.