

Managers and Assets Under Management as of September 30, 2018  
State of Hawaii Employees' Retirement System

Risk-Based Policy Framework

Strategic Class	Sub-Class	Manager	Assets Under Management	% of Total	Inception Date
Broad Growth	Traditional Growth				
	Global Small Cap Equity	Fidelity Institutional	448,234,389	2.66%	4/1/2017
	Global Small Cap Equity	Wellington	480,805,725	2.85%	4/1/2017
	Global Mid-Large Cap Equity	Longview	672,253,896	3.99%	9/1/2017
	Global Mid-Large Cap Equity	QMA	820,480,647	4.87%	9/1/2017
	Global Equity - Passive	BlackRock - Alpha Tilts	1,603,103,445	9.51%	6/1/2016
	Global Equity - Passive	Legal & General	1,450,661,556	8.61%	5/1/2016
	Stabilized Growth				
	Public Extended Global Credit	Tortoise Credit	243,671,322	1.45%	5/1/1990
	Public Extended Global Credit	PIMCO	177,715,951	1.05%	4/1/2015
	Public Extended Global Credit	Western Asset Management	391,993,739	2.33%	7/1/2005
	Core Real Estate (Separate)	Heitman Capital	303,866,856	1.80%	11/1/1995
	Core Real Estate	Heitman Core RE Debt Fund	50,132,567	0.30%	2/1/2018
	Core Real Estate (Separate)	INVESCO Realty	49,760,382	0.30%	8/1/1998
	Core Real Estate	Cabot Ind Core	43,503,842	0.26%	8/1/2016
	Core Real Estate	H2 Core Real Estate Debt Fund	28,216,677	0.17%	9/1/2015
	Core Real Estate	INVESCO Comm Mortgage	7,440,111	0.04%	5/1/2018
	Low Volatility Equity	Robeco	538,318,038	3.19%	10/1/2016
	Low Volatility Equity	TOBAM	523,277,499	3.10%	10/1/2016
	Options-Based Equity	Gateway Investment Advisers LLC - Put-Write	694,147,395	4.12%	9/1/2016
	Options-Based Equity	Gateway Investment Advisers LLC - Non-Replication	1,017,290,128	6.04%	12/1/2011
	Options-Based Equity	Neuberger Berman	662,528,034	3.93%	10/1/2016
	Options-Based Equity	UBS	666,758,118	3.96%	10/1/2016
	Private Growth				
	Private Equity	Hamilton Lane	1,310,652,557	7.78%	11/1/1997
	Private Equity	I-Squared Global Infrastructure	18,943,672	0.11%	6/1/2015
	Private Equity	I-Squared Global Infrastructure II	2,833,108	0.02%	7/1/2018
	Private Equity	Secondary Private Equity	1,239,367	0.01%	7/1/2018
	HiTIP	Stafford	22,919,795	0.14%	5/1/2009
	HiTIP	Stafford II	2,778,748	0.02%	4/1/2017
	Non-Core Real Estate - Opportunistic	BlackSand Capital Fund I	4,189,442	0.02%	9/1/2011
	Non-Core Real Estate - Opportunistic	Blackstone Real Estate VII	16,024,062	0.10%	6/1/2012
	Non-Core Real Estate - Opportunistic	Cerberus IV	15,633,361	0.09%	1/1/2017
	Non-Core Real Estate - Opportunistic	Fortress Japan Opp Fund II	6,363,652	0.04%	7/1/2012
	Non-Core Real Estate - Opportunistic	Fortress Japan Opp Fund III	16,073,725	0.10%	1/1/2015
	Non-Core Real Estate - Opportunistic	Fortress Japan Opp Fund IV	461,636	0.00%	8/1/2018
	Non-Core Real Estate - Opportunistic	Lone Star Fund II	643,498	0.00%	6/1/2011
	Non-Core Real Estate - Opportunistic	Lone Star Fund VII	289,023	0.00%	6/1/2011
	Non-Core Real Estate - Opportunistic	Torchlight Debt Opportunity Fund V	27,787,145	0.16%	6/1/2015
	Non-Core Real Estate - Opportunistic	Torchlight Debt Fund VI	3,097,097	0.02%	3/1/2018
	Non-Core Real Estate - Value-Add	AG Asia Realty Fund III	29,430,151	0.17%	7/1/2016
	Non-Core Real Estate - Value-Add	AG Core Plus Realty Fund II	1,557,113	0.01%	4/1/2008
	Non-Core Real Estate - Value-Add	AG Core Plus Realty Fund III	5,855,490	0.03%	4/1/2012
	Non-Core Real Estate - Value-Add	AG Core Plus Realty Fund IV	27,091,042	0.16%	6/1/2015
	Non-Core Real Estate - Value-Add	AG Europe Realty II	17,712,687	0.11%	5/1/2018
	Non-Core Real Estate - Value-Add	Almanac VI	5,742,778	0.03%	11/1/2012
	Non-Core Real Estate - Value-Add	Almanac VII	27,002,440	0.16%	4/1/2015
	Non-Core Real Estate - Value-Add	BlackRock Asia IV	30,177,393	0.18%	7/1/2017
	Non-Core Real Estate - Value-Add	CBRE Strategic Partners Value Fund VI	67,603	0.00%	10/1/2012
	Non-Core Real Estate - Value-Add	CBRE Strategic Partners Value Fund VII	6,332,980	0.04%	5/1/2015
	Non-Core Real Estate - Value-Add	CBRE Strategic Partners Value B	32,766,898	0.19%	10/1/2017
	Non-Core Real Estate - Value-Add	DRA GR INC X	17,055,961	0.10%	2/1/2017
	Non-Core Real Estate - Value-Add	H2 CP (RE Debt)	20,846,735	0.12%	11/1/2016
	Non-Core Real Estate - Value-Add	Kayne Anderson V	16,084,858	0.10%	6/1/2018
	Non-Core Real Estate - Value-Add	KKR Rep Americas II	9,547,644	0.06%	3/1/2018
	Non-Core Real Estate - Value-Add	LaSalle Income & Growth Fund VII	22,366,350	0.13%	8/1/2016
	Non-Core Real Estate - Value-Add	Mesa West RE Inc Fund III	4,959,669	0.03%	9/1/2013
	Non-Core Real Estate - Value-Add	Mesa West RE Fund IV	6,081,911	0.04%	4/1/2017
	Non-Core Real Estate - Value-Add	Prudential Sr Housing Fund IV	14,937,778	0.09%	4/1/2012
	Non-Core Real Estate - Value-Add	Prudential Sr Housing Fund V	17,617,939	0.10%	5/1/2015
	Non-Core Real Estate - Value-Add	Starwood Fund XI	1,673,115	0.01%	8/1/2018
Opportunities		Lowe Enterprises	28,766,709	0.17%	1/1/2015
Principal Protection					
	US Intermediate	Bank of Hawaii	357,805,272	2.12%	11/1/2017
	US Intermediate	First Hawaiian Bank	360,104,458	2.14%	11/1/1991
	Non-US Intermediate	Eaton Vance	644,890,995	3.83%	6/1/1989
Crisis Risk Offset					
	Alternative Return Capture	Graham Quant Macro	216,052,119	1.28%	4/1/2017
	Alternative Return Capture	Mellon Risk Premia	107,624,768	0.64%	1/1/2018
	Alternative Return Capture	P/E Global Macro	210,478,452	1.25%	4/1/2017
	Alternative Return Capture	Welton MultiQuant	101,742,772	0.60%	4/1/2017
	Systematic Trend Following	AlphaSimplex	235,355,458	1.40%	1/1/2018
	Systematic Trend Following	Aspect Core Fund	239,614,720	1.42%	4/1/2017
	Systematic Trend Following	Campbell Core Trend	241,673,100	1.43%	4/1/2017
	Systematic Trend Following	Crabel Advaned Trend	240,729,019	1.43%	4/1/2017
	Treasury Duration Capture	Ryan Labs Long Treasury	511,913,850	3.04%	4/1/2017
Real Return					
	Timber	Hancock Timber	184,970,828	1.10%	9/1/1999
	GILS	BlackRock	287,520,179	1.71%	9/1/2011
	Infrastructure	KKR Global Infrastructure II	37,989,269	0.23%	12/1/2014
All Other Assets					
	Cash Account	BNY Mellon	161,903,159	0.96%	2/1/1998
	Cash Account	Bank of Hawaii	42,306,321	0.25%	1/1/1972
	Transition Account I	BNY Mellon	886,254	0.01%	4/1/2002
	Transition Account II	BNY Mellon	918	0.00%	7/1/2011
	Residual Account	BNY Mellon	87,729	0.00%	6/1/2013
Closing Accounts					
	World ex-US Equity	Franklin Templeton	1,090,063	0.01%	11/1/2011
	World ex-US Equity	JP Morgan Chase	700,929	0.00%	9/1/2005
	World ex-US Equity	Mercator Asset Mgt LP	619,575	0.00%	12/1/2003
	Emerging Markets Equity	QMA	1,930	0.00%	12/1/2011
	Non-US Intermediate	PIMCO	38,724	0.00%	3/1/1979
<b>Total Fund Value</b>			<b>16,853,866,314</b>	<b>100.00%</b>	

Source: BNY Mellon