

Managers and Assets Under Management as of December 31, 2017
State of Hawaii Employees' Retirement System

Risk-Based Policy Framework

Strategic Class	Sub-Class	Manager	Assets Under Management	% of Total
Broad Growth	Traditional Growth			
	Global Small Cap Equity	Fidelity Institutional	433,825,273	2.56%
	Global Small Cap Equity	Wellington	465,486,967	2.75%
	Global Mid-Large Cap Equity	Longview	615,009,520	3.63%
	Global Mid-Large Cap Equity	QMA	810,251,336	4.78%
	Global Equity - Passive	BlackRock - Alpha Tilts	1,661,031,069	9.80%
	Global Equity - Passive	Legal & General	1,733,969,516	10.23%
	Stabilized Growth			
	Public Extended Global Credit	Bradford & Marzec	241,433,332	1.43%
	Public Extended Global Credit	PIMCO	177,148,684	1.05%
	Public Extended Global Credit	Western Asset Management	400,994,768	2.37%
	Core Real Estate (Separate)	Heitman Capital	238,896,439	1.41%
	Core Real Estate (Separate)	INVESCO Realty	82,678,591	0.49%
	Core Real Estate	Cabot Ind Core	40,413,916	0.24%
	Core Real Estate	H2 Core Real Estate Debt Fund	27,471,632	0.16%
	Low Volatility Equity	Robeco	527,416,309	3.11%
	Low Volatility Equity	TOBAM	520,627,300	3.07%
	Options-Based Equity	Gateway Investment Advisers LLC - Put-Write	676,207,602	3.99%
	Options-Based Equity	Gateway Investment Advisers LLC - Non-Replication	969,794,090	5.72%
	Options-Based Equity	Neuberger Berman	663,820,595	3.92%
	Options-Based Equity	UBS	651,840,610	3.85%
	Private Growth			
	Private Equity	Hamilton Lane	1,108,021,520	6.54%
	Private Equity	I-Squared Global Infrastructure	16,583,293	0.10%
	HiTIP	Stafford	22,171,196	0.13%
	HiTIP	Stafford II	1,131,915	0.01%
	Non-Core Real Estate - Opportunistic	BlackSand Capital Fund I	4,485,543	0.03%
	Non-Core Real Estate - Opportunistic	Blackstone Real Estate VII	16,892,491	0.10%
	Non-Core Real Estate - Opportunistic	Cerberus IV	12,287,200	0.07%
	Non-Core Real Estate - Opportunistic	Fortress Japan Opp Fund II	11,830,977	0.07%
	Non-Core Real Estate - Opportunistic	Fortress Japan Opp Fund III	13,574,237	0.08%
	Non-Core Real Estate - Opportunistic	Lone Star Fund II	1,456,402	0.01%
	Non-Core Real Estate - Opportunistic	Lone Star Fund VII	398,742	0.00%
	Non-Core Real Estate - Opportunistic	Torchlight Debt Opportunity Fund V	25,507,849	0.15%
	Non-Core Real Estate - Value-Add	AG Asia Realty Fund III	16,659,264	0.10%
	Non-Core Real Estate - Value-Add	AG Core Plus Realty Fund II	1,819,768	0.01%
	Non-Core Real Estate - Value-Add	AG Core Plus Realty Fund III	8,279,853	0.05%
	Non-Core Real Estate - Value-Add	AG Core Plus Realty Fund IV	20,138,456	0.12%
	Non-Core Real Estate - Value-Add	Almanac VI	7,485,644	0.04%
	Non-Core Real Estate - Value-Add	Almanac VII	22,626,448	0.13%
	Non-Core Real Estate - Value-Add	BlackRock Asia IV	19,391,738	0.11%
	Non-Core Real Estate - Value-Add	CBRE Strategic Partners Value Fund VI	2,219,101	0.01%
	Non-Core Real Estate - Value-Add	CBRE Strategic Partners Value Fund VII	18,006,379	0.11%
	Non-Core Real Estate - Value-Add	CBRE Strategic Partners Value B	20,089,158	0.12%
	Non-Core Real Estate - Value-Add	DRA GR INC X	13,545,125	0.08%
	Non-Core Real Estate - Value-Add	H2 CP (RE Debt)	29,496,676	0.17%
	Non-Core Real Estate - Value-Add	LaSalle Income & Growth Fund V	1,729	0.00%
	Non-Core Real Estate - Value-Add	LaSalle Income & Growth Fund VII	20,421,082	0.12%
	Non-Core Real Estate - Value-Add	Mesa West RE Inc Fund III	6,864,007	0.04%
	Non-Core Real Estate - Value-Add	Mesa West RE Fund IV	6,185,612	0.04%
	Non-Core Real Estate - Value-Add	Prudential Sr Housing Fund IV	19,115,968	0.11%
	Non-Core Real Estate - Value-Add	Prudential Sr Housing Fund V	13,319,640	0.08%
Opportunities		Lowe Enterprises	28,692,632	0.17%
Principal Protection				
	US Intermediate	Bank of Hawaii	362,031,727	2.14%
	US Intermediate	First Hawaiian Bank	362,246,041	2.14%
	Non-US Intermediate	Oeschle Intl. Advisors	637,062,096	3.76%
Crisis Risk Offset				
	Alternative Return Capture	Graham Quant Macro	224,252,730	1.32%
	Alternative Return Capture	Mellon Risk Premia	107,630,013	0.64%
	Alternative Return Capture	P/E Global Macro	214,631,882	1.27%
	Alternative Return Capture	Welton MultiQuant	111,278,980	0.66%
	Systematic Trend Following	AlphaSimplex	249,840,268	1.47%
	Systematic Trend Following	Aspect Core Fund	249,374,255	1.47%
	Systematic Trend Following	Campbell Core Trend	246,095,887	1.45%
	Systematic Trend Following	Crabel Advaned Trend	259,707,774	1.53%
	Treasury Duration Capture	Ryan Labs Long Treasury	557,446,305	3.29%
Real Return				
	Timber	Hancock Timber	174,712,498	1.03%
	GILS	BlackRock	288,184,511	1.70%
	Infrastructure	KKR Global Infrastructure II	35,520,231	0.21%
All Other Assets				
	Cash Account	BNY Mellon	362,336,218	2.14%
	Cash Account	Bank of Hawaii	40,567,321	0.24%
	Transition Account I	BNY Mellon	4,531,586	0.03%
	Transition Account II	BNY Mellon	905	0.00%
	Residual Account	BNY Mellon	40,057	0.00%
Closing Accounts				
	Domestic Large Cap Core Equity	Bank of Hawaii	548	0.00%
	Domestic Large Cap Core Equity	CM Bidwell & Associates	1,414	0.00%
	Domestic Large Cap Value Equity	Barrow Hanley	19,026	0.00%
	Domestic Large Cap Value Equity	CS McKee Investment Mgrs	143,931	0.00%
	Domestic Large Cap Growth Equity	Sands Capital	0	0.00%
	Domestic Small Cap Core Equity	Jennison Associates	87,446	0.00%
	Domestic Small Cap Core Equity	T Rowe Price Associates	9,270	0.00%
	World ex-US Equity	Franklin Templeton	1,110,150	0.01%
	World ex-US Equity	JP Morgan Chase	1,384,687	0.01%
	World ex-US Equity	Mercator Asset Mgt LP	629,241	0.00%
	Emerging Markets Equity	QMA	247,059	0.00%
	Emerging Markets Equity	Research Affiliates	572,693	0.00%
	Covered Calls	Gateway - Replication	1,364	0.00%
	Non-US Intermediate	PIMCO	3,756,265	0.02%
Total Fund Value			16,942,471,577	100.00%

Source: BNY Mellon