

Board of Investments
Info. for SAVA Meeting Aug. 23, 2016

6/30/2016
FY 2015 - FY 2016

Plan Asset Allocation

	MDEP	MTIP	MPEP	MTRP	RFBP	STIP	Total
Public Employees Retirement	37.7%	15.4%	11.1%	9.3%	23.6%	2.8%	5,024,726,833
Teachers Retirement	37.8%	15.5%	11.2%	9.3%	23.7%	2.7%	3,624,745,324
Firefighters Retirement	37.7%	15.4%	11.1%	9.3%	23.6%	2.8%	337,325,464
Police Retirement	37.7%	15.4%	11.1%	9.3%	23.6%	2.9%	329,527,987
Sheriffs Retirement	37.7%	15.5%	11.2%	9.3%	23.7%	2.7%	298,638,458
Game Wardens Retirement	37.6%	15.4%	11.1%	9.2%	23.6%	3.1%	154,411,520
Highway Patrol Retirement	37.6%	15.4%	11.1%	9.2%	23.6%	3.1%	128,572,000
Judges Retirement	37.7%	15.4%	11.1%	9.3%	23.6%	2.9%	87,451,667
Vol. Firefighters Retirement	35.8%	14.6%	10.6%	8.8%	22.4%	7.8%	33,622,275
06/30/2016	37.7%	15.4%	11.1%	9.3%	23.6%	2.8%	10,019,021,528
Approved Ranges	28 - 44%	14 - 22%	9 - 15%	6-10%	22 - 30%	1 - 5%	

Allocation Changes from Last Period

	MDEP	MTIP	MPEP	MTRP	RFBP	STIP	Total
Public Employees Retirement	(2.0%)	(1.2%)	0.5%	0.4%	1.3%	1.1%	(25,691,719)
Teachers Retirement	(1.9%)	(1.1%)	0.5%	0.4%	1.3%	0.8%	(53,657,185)
Firefighters Retirement	(2.0%)	(1.2%)	0.5%	0.4%	1.3%	1.0%	10,560,886
Police Retirement	(2.1%)	(1.2%)	0.4%	0.4%	1.2%	1.3%	8,295,505
Sheriffs Retirement	(1.8%)	(1.1%)	0.5%	0.4%	1.4%	0.6%	3,285,032
Game Wardens Retirement	(2.0%)	(1.2%)	0.5%	0.4%	1.3%	0.9%	6,230,471
Highway Patrol Retirement	(2.2%)	(1.3%)	0.4%	0.4%	1.2%	1.5%	158,183
Judges Retirement	(1.9%)	(1.1%)	0.5%	0.4%	1.3%	0.8%	635,782
Vol. Firefighters Retirement	(1.8%)	(1.1%)	0.5%	0.4%	1.2%	0.9%	(329,473)
Increase (Decrease) From FY 2015	(2.0%)	(1.2%)	0.5%	0.4%	1.3%	0.9%	(50,512,518)

Pension and Pool Cash Exposure

	MDEP	MTIP	MPEP	MTRP	RFBP	STIP	Total
As Percent of Pool	2.9%	1.8%	5.5%	3.2%	0.7%	100%	
As Percent of Pension	1.1%	0.3%	0.6%	0.3%	0.2%	2.8%	5.2%
In Dollars	107,927,321	27,567,505	61,746,246	29,499,934	16,445,644	280,410,795	523,597,444
6/30/2016	3,777,649,896	1,546,568,510	1,116,978,237	928,406,582	2,369,007,508	280,410,795	10,019,021,528

Net Plan Contributions (Distributions)

	MDEP	MTIP	MPEP	MTRP	RFBP	STIP	Total
Public Employees Retirement	(135,963,671)	11,774,680	(10,859,937)	(34,928,224)	(9,343,483)	52,497,968	(126,822,667)
Teachers Retirement	(106,043,963)	5,841,802	(10,609,014)	(28,024,987)	(12,182,013)	25,918,175	(125,100,000)
Firefighters Retirement	(4,518,968)	2,614,051	667,352	(1,236,244)	2,169,300	3,558,011	3,253,503
Police Retirement	(5,607,156)	2,076,392	328,564	(1,482,323)	1,451,729	4,420,253	1,187,460
Sheriffs Retirement	(5,692,689)	1,667,694	59,561	(1,504,461)	863,261	1,831,671	(2,774,963)
Game Wardens Retirement	(1,391,080)	1,472,523	457,798	(387,180)	1,343,685	1,569,986	3,065,732
Highway Patrol Retirement	(3,401,604)	330,452	(255,891)	(876,398)	(189,724)	1,948,009	(2,445,156)
Judges Retirement	(1,862,741)	406,385	(45,268)	(491,715)	128,521	722,970	(1,141,848)
Vol. Firefighters Retirement	(883,082)	80,519	(88,367)	(244,593)	(91,345)	275,996	(950,871)
6/30/2015 - 06/30/2016	(265,364,954)	26,264,499	(20,345,201)	(69,176,124)	(15,850,069)	92,743,039	(251,728,810)

Pool Changes from Last Period

	MDEP	MTIP	MPEP	MTRP	RFBP	STIP	Total
6/30/2015	3,993,206,916	1,671,724,751	1,074,507,359	892,097,470	2,251,249,144	186,748,405	10,069,534,046
Dollar Value Added	49,807,934	(151,420,740)	62,816,078	105,485,236	133,608,432	919,351	201,216,292
Dividend and Interest Distributed	(17,864,954)	(9,235,501)	(4,345,201)	(34,176,124)	(70,850,069)	(919,351)	(137,391,200)
Pools Bought (Sold)	(247,500,000)	35,500,000	(16,000,000)	(35,000,000)	55,000,000	93,662,390	(114,337,610)
6/30/2016	3,777,649,896	1,546,568,510	1,116,978,237	928,406,582	2,369,007,508	280,410,795	10,019,021,528
\$ Change From 6/30/2015	(215,557,020)	(125,156,241)	42,470,878	36,309,112	117,758,364	93,662,390	(50,512,518)
% Change From 6/30/2015	(5.4%)	(7.5%)	4.0%	4.1%	5.2%	50.2%	(0.5%)

Montana Board of Investments
Comparative Performance
Retirement Plans

As of June 30, 2016

	QTD	CYTD	FYTD/ 1 Year	3 Years	5 Years	7 Years	10 Years	2015	2014	2013	2012	2011
Public Employees' Retirement - Net	1.58	2.84	2.07	7.74	7.68	10.33	5.89	1.86	8.07	17.38	13.24	2.13
Public Employees' Benchmark	1.88	4.28	2.84	8.51	8.32	11.04	6.22	1.40	9.08	17.94	14.88	1.67
Difference	-0.30	-1.44	-0.77	-0.77	-0.64	-0.71	-0.33	0.46	-1.01	-0.56	-1.64	0.46
Public Employees' Retirement - Gross	1.71	3.08	2.51	8.24	8.21	10.90	6.40	2.31	8.61	17.96	13.83	2.68
All Public Plans > \$3B Total Fund Median	1.79	2.84	0.55	6.27	6.40	9.20	5.59	0.33	6.81	14.65	13.08	1.24
Rank	54	38	7	1	1	2	6	7	8	6	32	32
Teachers' Retirement - Net	1.59	2.86	2.08	7.75	7.69	10.34	5.89	1.86	8.09	17.38	13.24	2.14
Teachers' Benchmark	1.88	4.28	2.82	8.52	8.32	11.04	6.22	1.40	9.11	17.94	14.89	1.66
Difference	-0.29	-1.42	-0.74	-0.77	-0.63	-0.70	-0.33	0.46	-1.02	-0.56	-1.65	0.48
Teachers' Retirement - Gross	1.71	3.11	2.52	8.26	8.22	10.91	6.41	2.32	8.63	17.96	13.84	2.68
All Public Plans > \$3B Total Fund Median	1.79	2.84	0.55	6.27	6.40	9.20	5.59	0.33	6.81	14.65	13.08	1.24
Rank	54	36	7	1	1	2	6	7	8	6	32	31
Police Retirement - Net	1.58	2.85	2.09	7.75	7.68	10.31	5.85	1.86	8.07	17.41	13.23	2.10
Police Benchmark	1.88	4.28	2.84	8.51	8.31	11.00	6.16	1.41	9.10	17.92	14.80	1.66
Difference	-0.30	-1.43	-0.75	-0.76	-0.63	-0.69	-0.31	0.45	-1.03	-0.51	-1.57	0.44
Police Retirement - Gross	1.71	3.10	2.53	8.26	8.20	10.87	6.36	2.31	8.61	18.00	13.78	2.65
All Public Plans > \$3B Total Fund Median	1.79	2.84	0.55	6.27	6.40	9.20	5.59	0.33	6.81	14.65	13.08	1.24
Rank	54	37	7	1	1	2	7	7	8	5	36	34

Net performance shown is net of all manager fees and expenses (Net-All). All Public Plans > \$3B Total Fund Median is reported gross of fees. Benchmark returns reflect unmanaged indices which are not impacted by management fees. Fiscal year ends on June 30.