Spokane Employees' Retirement System (SERS) Board Meeting, 1:30 p.m. July 26, 2017

City Hall - Conference Room 5A

AGENDA

- 1) Minutes of the July 26, 2016 Meeting
 - Motion
- 2) Director's Report
 - a) Retirements
 - Motion
 - b) Withdrawals
 - Motion
 - c) Deaths
 - Information
 - d) Expenditure Summary Report June 2017
 - Motion
 - e) Schedule of Investments June 2017
 - Information
 - f) Cash Reconciliation July 2017
 - Information
 - g) Sustainability Review
 - Discussion
 - h) Other Business
- 3) Other Business
- 4) Next Meeting Wednesday, August 30th at 12:30 p.m.

Spokane Employees' Retirement System (SERS) Board Meeting Minutes June 28, 2017

The regular monthly meeting was called to order at 12:31 p.m. in the 5th Floor Conference Room at City Hall.

Present: Mike Coster, Jim Tieken, Mike Cavanaugh, Candace Mumm, Dean Kiefer,

Brian Brill, and J.D. Morscheck

Staff: Phill Tencick, Christine Shisler, Donald Brown, and Tim Szambelan

Guests: Bill Dowd (SageView), Tammy Erickson and Kris Ryan (Moss Adams), Joe

Cavanaugh, Bob Olsen, Dave Henshaw, Natalie Hilderbrand, Joan Hamilton, Diana Windsor, Kim Bustos, John Bjork, and Richard Czernik

Moss Adams - December 31, 2016 Audit Report

Moss Adams presented the 2016 SERS independent audit report. The auditors explained how they test critical areas such as the investment assets, investment income, contributions, benefit payments and participant data. Moss Adams issued an unqualified (clean) opinion. They had no negative comments or areas of concern in the management letter, which reflects the continuing diligence of staff.

SageView Consulting – Experience Study

SageView presented the 2012-2016 experience study. As a result of the plan's experience, changes to demographic assumptions were recommended for retirement rates, termination rates, and the mortality table. Changes to economic assumptions were recommended for inflation and salary increases. No changes were recommended to the actuarial methods. The recommended changes would result in a slight increase in contribution rates (17.87% to 18.21%) and a slight decrease in funded status (53.0% to 51.8%).

Mike Cavanaugh moved and Jim Tieken seconded the motion to adopt the recommendations as presented by SageView. The motion passed unanimously.

Minutes of the June 7, 2017 Meeting

Candace Mumm moved and Jim Tieken seconded the motion to approve the minutes of the June 7, 2017 meeting as presented. The motion passed unanimously.

Director's Report

Service Retirements

Name	Age	Retirement Date	Years of Service	Option
Sandra M. O'Connor	52	07/06/2017	9.3	ST
Darlene L. Esperas	65	07/13/2017	26.8	ST
Maryann G. Carey	64	07/15/2017	13.7	E
Jo Anne E. Wright	70	07/29/2017	19.5	ST
Donald B. Nelson	65	08/12/2017	35.4	D

Jim Tieken moved and Dean Kiefer seconded the motion to approve the service retirements as presented on the June Retirement Transaction Report. The motion passed unanimously.

Withdrawals for June 2017

Name	Years of Service	Termination Date
Makaila A. Bergeron	0.4	05/12/2017

Mike Cavanaugh moved and Candace Mumm seconded the motion to approve the requests for withdrawal as presented on the June Retirement Transaction Report. The motion passed unanimously.

<u>Vesting</u>

Name	Department	Years of Service
Scott A. Lowell	Solid Waste Management	6.0

Deaths

Name	Date Retired	Age	Date of Death	Information
Jack D. Bryan	10/19/1996	70	05/15/2017	No Further Benefits
Arleigh Q. White	05/12/1990	87	06/01/2017	E Option Continues
Marjorie L. Cromwell	01/19/1985	93	06/04/2017	No Further Benefits

Vesting and Death information provided to the Board for review.

Expenditure Summary Report - May 2017

The Expenditure Summary Report was presented to the Board and discussed.

Dean Kiefer moved and Mike Cavanaugh seconded the motion to approve the May 2017 Expenditure Summary Report. The motion passed unanimously.

Schedule of Investments - May 2017

The monthly investment report was presented to the Board for review. The estimated market value of the SERS portfolio on May 31, 2017 was \$293 million with an estimated rate of return of 1.0% for the month.

Monthly Cash Reconciliation

The monthly cash reconciliation report was presented to provide the Board with additional insight into the ongoing liquidity, transactions, and cash position of the plan.

Contribution Interest Rate

Mr. Tencick presented a white paper that discussed the US Treasury Note rates. Being that there is no change in the one-year average, rounded to the nearest 25 basis points, for the 5-year US Treasury Note from last year, the interest rate on contributions will remain at 1.5%.

2018 Budget

The 2018 Budget was presented to the Board and discussed.

Mike Cavanaugh moved and Dean Kiefer seconded the motion to adopt the 2018 Budget as presented. The motion passed unanimously.

There being no other business, the meeting adjourned at 1:56 p.m.

Phillip Tencick, Retirement Director

SERS Retirement Transaction Report July 2017

Retirements

			Retirement	Years of		
	Name	Age	Date	Service	Department	Option
1	Paul E. Putman	58	07/06/2017	32.2	Fleet Services Advanced	ST
2	William F. Thomas	63	07/08/2017	25.0	Wastewater Treatment	ST
3	Jerry J. Richardson	71	08/02/2017	15.1	Solid Waste Disposal	E
	Retirements YTD	42				
	2016 Total Retirements	69				

Withdrawals

		Years of		Termination
	Name	Service	Department	Date
1	Charles Kline	1.0	Code Enforcement	02/15/2017
2	Laura Hathorn	0.5	Planning Services	05/01/2017
3	John Focht	2.0	Engineering Services	05/05/2017
4	Michael Yates	0.6	Water Division	05/22/2017

Deaths

		Date			
	Name	Retired	Age	Date of Death	Information
1	Ila I. Greenaway	06/09/2015	99	06/12/2017	No Further Benefits
2	Gary R. Driskell	08/14/1999	82	06/22/2017	No Further Benefits
3	Larry V. Stevens	09/07/2011	67	06/23/2017	E Option Continues
4	Lorraine C. Johnson	06/01/2015	76	06/29/2017	No Further Benefits
5	Lawrence E. Maly	04/06/1991	86	07/14/2017	D Option Continues

SPOKANE EMPLOYEES' RETIREMENT SYSTEM - 6100 2017 EXPENDITURE SUMMARY REPORT JUNE 31, 2017

	2016 ACTUAL	2017 BUDGET	JUNE ACTUAL EXPENDITURES	2017 ACTUAL YTD EXPENDITURES	VARIANCE	PERCENTAGE USED
OPERATING EXPENDITURES					.,	
Departmental Salaries	261,984.86	279,341.00	20,469.80	122,608.87	156,732.13	43.9%
Departmental Benefits	76,531.55	80,482.00	6,235.14	37,619.80	42,862.20	46.7%
Reserve for Budget Adjustment	-	10,000.00	-	-	10,000.00	0.0%
Administrative Income	(19,375.31)	(10,000.00)	(4,762.30)	(9,754.89)	(245.11)	2.272
Postage/Supplies/Other	11,432.31	16,500.00	84.32	2,257.54	14,242.46	13.7%
State Audit Charges	11,172.03	12,000.00	2,266.71	4,070.41	7,929.59	33.9%
Contractual Services	80,222.66	173,475.00	45,383.00	86,998.34	86,476.66	50.2%
Travel	7,972.23	15,000.00	961.60	4,149.85	10,850.15	27.7%
Registration/Schooling	805.00	30,285.00	-	15,285.00	15,000.00	50.5%
Other Dues/Subscriptions/Membership	1,993.20	2,500.00	-	210.00	2,290.00	8.4%
Other Miscellaneous Charges	1,278.26	1,826.00	55.00	374.18	1,451.82	20.5%
Amortization	17,649.00	-	-	-	-	
TOTAL OPERATING EXPENDITURES	451,665.79	611,409.00	70,693.27	263,819.10	347,589.90	43.1%
INTERFUND EXPENDITURES						
Interfund - Centralized Accounting	2,303.96	2,347.00	_	1,173.46	1,173.54	50.0%
Interfund - IT Phones	1,505.77	1,451.00	122.07	633.84	817.16	43.7%
Interfund - IT Communications Replacement	-	-	-	-	-	-
Interfund - Risk Management	991.00	760.00	_	380.00	380.00	50.0%
Interfund - Unemployment	-	-	_	-	-	-
Interfund - Worker's Compensation	198.00	104.00	-	52.00	52.00	50.0%
Interfund - Reprographics	4,930.49	4,500.00	202.48	3,817.31	682.69	84.8%
Interfund - IT	12,980.37	14,078.00	1,173.17	5,865.85	8,212.15	41.7%
Interfund - IT Replacement	1,926.96	2,772.00	231.00	1,155.00	1,617.00	41.7%
Interfund - My Spokane	751.00	-	-	-	-	
TOTAL INTERFUND EXPENDITURES	25,587.55	26,012.00	1,728.72	13,077.46	12,934.54	50.3%
TOTAL ADMINISTRATIVE EXPENDITURES	477,253.34	637,421.00	72,421.99	276,896.56	360,524.44	43.4%

SPOKANE EMPLOYEES' RETIREMENT SYSTEM - 6100 2017 EXPENDITURE SUMMARY REPORT JUNE 31, 2017

	2016 ACTUAL	2017 BUDGET	JUNE ACTUAL EXPENDITURES	2017 ACTUAL YTD EXPENDITURES	VARIANCE	PERCENTAGE USED
PENSIONS						
Pensions-Annuity Benefit Payments	23,765,712.64	26,000,000.00	2,068,662.64	12,280,953.42	13,719,046.58	47.2%
Pensions-Disability Payments	125,328.48	160,000.00	10,444.04	62,664.24	97,335.76	39.2%
Pensions-Survivor Annuity Benefits Payments	1,846,473.52	2,000,000.00	158,621.04	967,640.85	1,032,359.15	48.4%
TOTAL PENSIONS	25,737,514.64	28,160,000.00	2,237,727.72	13,311,258.51	14,848,741.49	47.3%
Refunds	729,741.16	1,000,000.00	(512.82)	155,205.65	844,794.35	15.5%
TOTAL EXPENSES	26,944,509.14	29,797,421.00	2,309,636.89	13,743,360.72	16,054,060.28	46.1%
INVESTMENT EXPENSE* Advisory Technical Service	380,964.60	450,000.00	4,391.88	152,202.84	297,797.16	33.8%

^{*} investment expenses are netted against investment income in the statement of changes of plan net assets to arrive at a net investment income amount.

SERS Schedule of Cash and Investments June 30, 2017

	June 30, 2017				
7/20/2017			Δ	llocation	1
1/20/2011	Typo				
Cook Hold by Trans.	Type	ф 40.54 <i>4</i>	raryet	Current	וווט.
Cash Held by Treasurer	Cash	\$ 49,511			
US Bank	Short-term Inv	123,933			
Total Cash		173,444	0.0%	0.1%	0.1%
Sterling Capital	Total Return	22,437,631			
			40.00/	7.00/	2.40/
Total Total Return		22,437,631	10.0%	7.6%	-2.4%
Hotchkis & Wiley	High Yield - Mutual Fund	21,760,218			
Total High Yield		21,760,218	5.0%	7.4%	2.4%
Polar	LLC	6,460,260			
American Beacon	Mutual Fund	1,319,350			
Castine Capital I	Ltd Partnership	7,414,272			
Post Limited Term High Yield	Ltd Partnership	5,960,481			
	•				
Rimrock Low Volatility	Ltd Partnership	9,545,506			
Total Absolute Return	l	30,699,869	8.0%	10.4%	2.4%
Total Capital Preservation		75,071,162	23.0%	25.4%	2.4%
Total Capital Freservation		73,071,102	23.0 /0	ZJ.4 /0	2.4 /0
Hotchkis & Wiley	LC Value - Mutual Fund	15,726,524			
Jackson Square (Delaware)	LC Growth - Mutual Fund	16,309,843			
·					
MFS Heritage	LC Core	16,317,688			
Vanguard S&P 500 Index	LC Core - Mutual Fund	9,793,857			
Total US Large Cap		58,147,912	21.0%	19.7%	-1.3%
			-1.0/0	/0	1.0 /0
Sterling	MC Value	5,770,648			
Vanguard MC Growth	MC Growth - Mutual Fund	4,374,640			
Vanguard MC Index	MC Core - Mutual Fund	3,598,673			
<u> </u>					
Champlain	SC Core	5,376,820			
Phocas	SC Value - Mutual Fund	4,072,699			
Bridge City	SC Growth	5,717,434			
	SC Core - Mutual Fund				
Vanguard SC Index		959,312			
Total US Small/Mid Cap		29,870,226	11.0%	10.1%	-0.9%
Total IIS Equition		88,018,138	32.0%	29.8%	-2.2%
Total US Equities		00,010,130	32.0%	29.0%	-2.2 70
Artisan	SMID Value - Mutual Fund	21,377,260			
Euro Pacific	LC Blend - Mutual Fund	21,684,145			
		21,004,143			
Vanguard International	LC Index - Mutual Fund				
-		10 004 105	45.00/	4.4.00/	-0.4%
I otal International Large Cap		43.061.405	15.0%	14.6%	-U.T/0
Total International Large Cap		43,061,405	15.0%	14.6%	- U. - 70
Trivalent	SC Value - Mutual Fund	12,065,800			
	SC Value - Mutual Fund		4.0%	4.1%	0.1%
Trivalent	SC Value - Mutual Fund	12,065,800 12,065,800			
Trivalent Total International Small/Mid Berens	SC Value - Mutual Fund Ltd Partnership	12,065,800 12,065,800 11,184,021	4.0%	4.1%	0.1%
Trivalent Total International Small/Mid	SC Value - Mutual Fund Ltd Partnership	12,065,800 12,065,800			
Trivalent Total International Small/Mid Berens Total Emerging Markets	SC Value - Mutual Fund Ltd Partnership	12,065,800 12,065,800 11,184,021 11,184,021	4.0%	4.1% 3.8%	0.1%
Trivalent Total International Small/Mid Berens	SC Value - Mutual Fund Ltd Partnership	12,065,800 12,065,800 11,184,021	4.0%	4.1%	0.1%
Trivalent Total International Small/Mid Berens Total Emerging Markets	SC Value - Mutual Fund Ltd Partnership	12,065,800 12,065,800 11,184,021 11,184,021	4.0%	4.1% 3.8%	0.1%
Trivalent Total International Small/Mid Berens Total Emerging Markets Total International Equities	SC Value - Mutual Fund Ltd Partnership	12,065,800 12,065,800 11,184,021 11,184,021 66,311,226	4.0%	4.1% 3.8%	0.1%
Trivalent Total International Small/Mid Berens Total Emerging Markets Total International Equities Weatherlow Offshore	SC Value - Mutual Fund Ltd Partnership Ltd Partnership	12,065,800 12,065,800 11,184,021 11,184,021 66,311,226 15,955,597	4.0%	4.1% 3.8%	0.1%
Trivalent Total International Small/Mid Berens Total Emerging Markets Total International Equities	SC Value - Mutual Fund Ltd Partnership	12,065,800 12,065,800 11,184,021 11,184,021 66,311,226	4.0%	4.1% 3.8%	0.1%
Trivalent Total International Small/Mid Berens Total Emerging Markets Total International Equities Weatherlow Offshore Royalty Opportunities I	SC Value - Mutual Fund Ltd Partnership Ltd Partnership Ltd Partnership Ltd Partnership	12,065,800 12,065,800 11,184,021 11,184,021 66,311,226 15,955,597 2,741,717	4.0%	4.1% 3.8%	0.1%
Trivalent Total International Small/Mid Berens Total Emerging Markets Total International Equities Weatherlow Offshore Royalty Opportunities I Royalty Opportunities II	SC Value - Mutual Fund Ltd Partnership Ltd Partnership Ltd Partnership Ltd Partnership Ltd Partnership	12,065,800 12,065,800 11,184,021 11,184,021 66,311,226 15,955,597	4.0%	4.1% 3.8%	0.1%
Trivalent Total International Small/Mid Berens Total Emerging Markets Total International Equities Weatherlow Offshore Royalty Opportunities I Royalty Opportunities II Troob	SC Value - Mutual Fund Ltd Partnership	12,065,800 12,065,800 11,184,021 11,184,021 66,311,226 15,955,597 2,741,717 2,196,375	4.0% 3.0% 22.0%	4.1% 3.8% 22.5%	0.1% 0.8% 0.5%
Trivalent Total International Small/Mid Berens Total Emerging Markets Total International Equities Weatherlow Offshore Royalty Opportunities I Royalty Opportunities II	SC Value - Mutual Fund Ltd Partnership	12,065,800 12,065,800 11,184,021 11,184,021 66,311,226 15,955,597 2,741,717	4.0%	4.1% 3.8%	0.1%
Trivalent Total International Small/Mid Berens Total Emerging Markets Total International Equities Weatherlow Offshore Royalty Opportunities I Royalty Opportunities II Troob	SC Value - Mutual Fund Ltd Partnership	12,065,800 12,065,800 11,184,021 11,184,021 66,311,226 15,955,597 2,741,717 2,196,375	4.0% 3.0% 22.0%	4.1% 3.8% 22.5%	0.1% 0.8% 0.5%
Trivalent Total International Small/Mid Berens Total Emerging Markets Total International Equities Weatherlow Offshore Royalty Opportunities I Royalty Opportunities II Troob Total Long Biased	SC Value - Mutual Fund Ltd Partnership Ltd Partnership Ltd Partnership Ltd Partnership Ltd Partnership Ltd Partnership	12,065,800 12,065,800 11,184,021 11,184,021 66,311,226 15,955,597 2,741,717 2,196,375 20,893,689	4.0% 3.0% 22.0%	4.1% 3.8% 22.5%	0.1% 0.8% 0.5%
Trivalent Total International Small/Mid Berens Total Emerging Markets Total International Equities Weatherlow Offshore Royalty Opportunities I Royalty Opportunities II Troob Total Long Biased Legacy Partners Realty Fund III	Ltd Partnership	12,065,800 12,065,800 11,184,021 11,184,021 66,311,226 15,955,597 2,741,717 2,196,375 20,893,689 26,953	4.0% 3.0% 22.0%	4.1% 3.8% 22.5%	0.1% 0.8% 0.5%
Trivalent Total International Small/Mid Berens Total Emerging Markets Total International Equities Weatherlow Offshore Royalty Opportunities I Royalty Opportunities II Troob Total Long Biased Legacy Partners Realty Fund III Metropolitan Real Estate Partners	SC Value - Mutual Fund Ltd Partnership	12,065,800 12,065,800 11,184,021 11,184,021 66,311,226 15,955,597 2,741,717 2,196,375 20,893,689 26,953 335,121	4.0% 3.0% 22.0%	4.1% 3.8% 22.5%	0.1% 0.8% 0.5%
Trivalent Total International Small/Mid Berens Total Emerging Markets Total International Equities Weatherlow Offshore Royalty Opportunities I Royalty Opportunities II Troob Total Long Biased Legacy Partners Realty Fund III	Ltd Partnership	12,065,800 12,065,800 11,184,021 11,184,021 66,311,226 15,955,597 2,741,717 2,196,375 20,893,689 26,953	4.0% 3.0% 22.0%	4.1% 3.8% 22.5%	0.1% 0.8% 0.5%
Trivalent Total International Small/Mid Berens Total Emerging Markets Total International Equities Weatherlow Offshore Royalty Opportunities I Royalty Opportunities II Troob Total Long Biased Legacy Partners Realty Fund III Metropolitan Real Estate Partners Morrison Street Fund IV	SC Value - Mutual Fund Ltd Partnership	12,065,800 12,065,800 11,184,021 11,184,021 66,311,226 15,955,597 2,741,717 2,196,375 	4.0% 3.0% 22.0%	4.1% 3.8% 22.5%	0.1% 0.8% 0.5%
Trivalent Total International Small/Mid Berens Total Emerging Markets Total International Equities Weatherlow Offshore Royalty Opportunities I Royalty Opportunities II Troob Total Long Biased Legacy Partners Realty Fund III Metropolitan Real Estate Partners Morrison Street Fund IV Morrison Street Fund V	SC Value - Mutual Fund Ltd Partnership Ltd Cartnership	12,065,800 12,065,800 11,184,021 11,184,021 66,311,226 15,955,597 2,741,717 2,196,375 	4.0% 3.0% 22.0%	4.1% 3.8% 22.5%	0.1% 0.8% 0.5%
Trivalent Total International Small/Mid Berens Total Emerging Markets Total International Equities Weatherlow Offshore Royalty Opportunities I Royalty Opportunities II Troob Total Long Biased Legacy Partners Realty Fund III Metropolitan Real Estate Partners Morrison Street Fund IV Morrison Street Fund V Morrison Street Debt Opportunties	SC Value - Mutual Fund Ltd Partnership Ltd C LLC LP	12,065,800 12,065,800 11,184,021 11,184,021 66,311,226 15,955,597 2,741,717 2,196,375 - 20,893,689 26,953 335,121 1,276,816 5,463,605 3,229,458	4.0% 3.0% 22.0%	4.1% 3.8% 22.5%	0.1% 0.8% 0.5%
Trivalent Total International Small/Mid Berens Total Emerging Markets Total International Equities Weatherlow Offshore Royalty Opportunities I Royalty Opportunities II Troob Total Long Biased Legacy Partners Realty Fund III Metropolitan Real Estate Partners Morrison Street Fund IV Morrison Street Fund V	SC Value - Mutual Fund Ltd Partnership Ltd Cartnership	12,065,800 12,065,800 11,184,021 11,184,021 66,311,226 15,955,597 2,741,717 2,196,375 	4.0% 3.0% 22.0%	4.1% 3.8% 22.5%	0.1% 0.8% 0.5%
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Trivalent Total International Small/Mid Berens Total Emerging Markets Total International Equities Weatherlow Offshore Royalty Opportunities I Royalty Opportunities II Troob Total Long Biased Legacy Partners Realty Fund III Metropolitan Real Estate Partners Morrison Street Fund IV Morrison Street Fund V Morrison Street Debt Opportunties	Ltd Partnership	12,065,800 12,065,800 11,184,021 11,184,021 66,311,226 15,955,597 2,741,717 2,196,375 - 20,893,689 26,953 335,121 1,276,816 5,463,605 3,229,458	4.0% 3.0% 22.0%	4.1% 3.8% 22.5%	0.1% 0.8% 0.5%
Trivalent Total International Small/Mid Berens Total Emerging Markets Total International Equities Weatherlow Offshore Royalty Opportunities I Royalty Opportunities II Troob Total Long Biased Legacy Partners Realty Fund III Metropolitan Real Estate Partners Morrison Street Fund IV Morrison Street Fund V Morrison Street Debt Opportunities Principal (REITs) Total Real Estate	SC Value - Mutual Fund Ltd Partnership Ltd Partnership	12,065,800 12,065,800 11,184,021 11,184,021 66,311,226 15,955,597 2,741,717 2,196,375 	4.0% 3.0% 22.0%	4.1% 3.8% 22.5% 7.1%	0.1% 0.8% 0.5%
Trivalent Total International Small/Mid Berens Total Emerging Markets Total International Equities Weatherlow Offshore Royalty Opportunities I Royalty Opportunities II Troob Total Long Biased Legacy Partners Realty Fund III Metropolitan Real Estate Partners Morrison Street Fund IV Morrison Street Fund V Morrison Street Debt Opportunities Principal (REITs) Total Real Estate Beach Point	SC Value - Mutual Fund Ltd Partnership LtC LLC LP REITs	12,065,800 12,065,800 11,184,021 11,184,021 66,311,226 15,955,597 2,741,717 2,196,375 20,893,689 26,953 335,121 1,276,816 5,463,605 3,229,458 15,090,377 25,422,330 9,918,712	4.0% 3.0% 22.0% 7.0%	4.1% 3.8% 22.5% 7.1%	0.1% 0.8% 0.5% 0.1%
Trivalent Total International Small/Mid Berens Total Emerging Markets Total International Equities Weatherlow Offshore Royalty Opportunities I Royalty Opportunities II Troob Total Long Biased Legacy Partners Realty Fund III Metropolitan Real Estate Partners Morrison Street Fund IV Morrison Street Fund V Morrison Street Debt Opportunities Principal (REITs) Total Real Estate Beach Point	SC Value - Mutual Fund Ltd Partnership LtC LLC LP REITs	12,065,800 12,065,800 11,184,021 11,184,021 66,311,226 15,955,597 2,741,717 2,196,375 	4.0% 3.0% 22.0%	4.1% 3.8% 22.5% 7.1%	0.1% 0.8% 0.5%
Trivalent Total International Small/Mid Berens Total Emerging Markets Total International Equities Weatherlow Offshore Royalty Opportunities I Royalty Opportunities II Troob Total Long Biased Legacy Partners Realty Fund III Metropolitan Real Estate Partners Morrison Street Fund IV Morrison Street Fund V Morrison Street Debt Opportunities Principal (REITs) Total Real Estate	SC Value - Mutual Fund Ltd Partnership LtC LLC LP REITs	12,065,800 12,065,800 11,184,021 11,184,021 66,311,226 15,955,597 2,741,717 2,196,375 20,893,689 26,953 335,121 1,276,816 5,463,605 3,229,458 15,090,377 25,422,330 9,918,712	4.0% 3.0% 22.0% 7.0%	4.1% 3.8% 22.5% 7.1%	0.1% 0.8% 0.5% 0.1%
Trivalent Total International Small/Mid Berens Total Emerging Markets Total International Equities Weatherlow Offshore Royalty Opportunities I Royalty Opportunities II Troob Total Long Biased Legacy Partners Realty Fund III Metropolitan Real Estate Partners Morrison Street Fund IV Morrison Street Fund V Morrison Street Debt Opportunities Principal (REITs) Total Real Estate Beach Point Total Opportunistic Credit	SC Value - Mutual Fund Ltd Partnership LtC LP REITs	12,065,800 12,065,800 11,184,021 11,184,021 66,311,226 15,955,597 2,741,717 2,196,375 20,893,689 26,953 335,121 1,276,816 5,463,605 3,229,458 15,090,377 25,422,330 9,918,712 9,918,712	4.0% 3.0% 22.0% 7.0%	4.1% 3.8% 22.5% 7.1%	0.1% 0.8% 0.5% 0.1%
Trivalent Total International Small/Mid Berens Total Emerging Markets Total International Equities Weatherlow Offshore Royalty Opportunities I Royalty Opportunities II Troob Total Long Biased Legacy Partners Realty Fund III Metropolitan Real Estate Partners Morrison Street Fund IV Morrison Street Fund V Morrison Street Debt Opportunities Principal (REITs) Total Real Estate Beach Point Total Opportunistic Credit Caduceus (OrbiMed II)	Ltd Partnership LtC LLC LP REITs Ltd Partnership	12,065,800 12,065,800 11,184,021 11,184,021 66,311,226 15,955,597 2,741,717 2,196,375 20,893,689 26,953 335,121 1,276,816 5,463,605 3,229,458 15,090,377 25,422,330 9,918,712 9,918,712 9,366,621	4.0% 3.0% 22.0% 7.0% 7.0%	4.1% 3.8% 22.5% 7.1% 8.6%	0.1% 0.8% 0.5% 0.1%
Trivalent Total International Small/Mid Berens Total Emerging Markets Total International Equities Weatherlow Offshore Royalty Opportunities I Royalty Opportunities II Troob Total Long Biased Legacy Partners Realty Fund III Metropolitan Real Estate Partners Morrison Street Fund IV Morrison Street Fund V Morrison Street Debt Opportunities Principal (REITs) Total Real Estate Beach Point Total Opportunistic Credit	Ltd Partnership LtC LLC LP REITs Ltd Partnership	12,065,800 12,065,800 11,184,021 11,184,021 66,311,226 15,955,597 2,741,717 2,196,375 20,893,689 26,953 335,121 1,276,816 5,463,605 3,229,458 15,090,377 25,422,330 9,918,712 9,918,712	4.0% 3.0% 22.0% 7.0%	4.1% 3.8% 22.5% 7.1%	0.1% 0.8% 0.5% 0.1%
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Trivalent Total International Small/Mid Berens Total Emerging Markets Total International Equities Weatherlow Offshore Royalty Opportunities I Royalty Opportunities II Troob Total Long Biased Legacy Partners Realty Fund III Metropolitan Real Estate Partners Morrison Street Fund IV Morrison Street Fund V Morrison Street Debt Opportunities Principal (REITs) Total Real Estate Beach Point Total Opportunistic Credit Caduceus (OrbiMed II) Total Special Opportunities	SC Value - Mutual Fund Ltd Partnership LtC LLC LP REITs Ltd Partnership	12,065,800 12,065,800 11,184,021 11,184,021 66,311,226 15,955,597 2,741,717 2,196,375 20,893,689 26,953 335,121 1,276,816 5,463,605 3,229,458 15,090,377 25,422,330 9,918,712 9,918,712 9,366,621 9,366,621	4.0% 3.0% 22.0% 7.0% 9.0% 0.0%	4.1% 3.8% 22.5% 7.1% 8.6% 3.4%	0.1% 0.8% 0.5% 0.1% -0.4% -3.6%
Trivalent Total International Small/Mid Berens Total Emerging Markets Total International Equities Weatherlow Offshore Royalty Opportunities I Royalty Opportunities II Troob Total Long Biased Legacy Partners Realty Fund III Metropolitan Real Estate Partners Morrison Street Fund IV Morrison Street Fund V Morrison Street Debt Opportunities Principal (REITs) Total Real Estate Beach Point Total Opportunistic Credit Caduceus (OrbiMed II)	SC Value - Mutual Fund Ltd Partnership LtC LLC LP REITs Ltd Partnership	12,065,800 12,065,800 11,184,021 11,184,021 66,311,226 15,955,597 2,741,717 2,196,375 20,893,689 26,953 335,121 1,276,816 5,463,605 3,229,458 15,090,377 25,422,330 9,918,712 9,918,712 9,366,621	4.0% 3.0% 22.0% 7.0% 9.0% 0.0%	4.1% 3.8% 22.5% 7.1% 8.6% 3.4%	0.1% 0.8% 0.5% 0.1% -0.4% -3.6%
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Trivalent Total International Small/Mid Berens Total Emerging Markets Total International Equities Weatherlow Offshore Royalty Opportunities I Royalty Opportunities II Troob Total Long Biased Legacy Partners Realty Fund III Metropolitan Real Estate Partners Morrison Street Fund IV Morrison Street Fund V Morrison Street Debt Opportunities Principal (REITs) Total Real Estate Beach Point Total Opportunistic Credit Caduceus (OrbiMed II) Total Special Opportunities	Ltd Partnership LtC LLC LP REITs Ltd Partnership Ltd Partnership	12,065,800 12,065,800 11,184,021 11,184,021 66,311,226 15,955,597 2,741,717 2,196,375 20,893,689 26,953 335,121 1,276,816 5,463,605 3,229,458 15,090,377 25,422,330 9,918,712 9,918,712 9,366,621 9,366,621 \$295,001,878	4.0% 3.0% 22.0% 7.0% 9.0% 0.0%	4.1% 3.8% 22.5% 7.1% 8.6% 3.4%	0.1% 0.8% 0.5% 0.1% -0.4% -3.6%
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Trivalent Total International Small/Mid Berens Total Emerging Markets Total International Equities Weatherlow Offshore Royalty Opportunities I Royalty Opportunities II Troob Total Long Biased Legacy Partners Realty Fund III Metropolitan Real Estate Partners Morrison Street Fund IV Morrison Street Fund V Morrison Street Debt Opportunities Principal (REITs) Total Real Estate Beach Point Total Opportunistic Credit Caduceus (OrbiMed II) Total Special Opportunities	Ltd Partnership LtC LLC LP REITs Ltd Partnership Ltd Partnership	12,065,800 12,065,800 11,184,021 11,184,021 66,311,226 15,955,597 2,741,717 2,196,375 20,893,689 26,953 335,121 1,276,816 5,463,605 3,229,458 15,090,377 25,422,330 9,918,712 9,918,712 9,366,621 9,366,621 9,366,621 \$295,001,878 \$ \$ \$ \$ \$ \$ \$ \$292,962,593	4.0% 3.0% 22.0% 7.0% 9.0% 0.0%	4.1% 3.8% 22.5% 7.1% 8.6% 3.4%	0.1% 0.8% 0.5% 0.1% -0.4% -3.6%
Trivalent Total International Small/Mid Berens Total Emerging Markets Total International Equities Weatherlow Offshore Royalty Opportunities I Royalty Opportunities II Troob Total Long Biased Legacy Partners Realty Fund III Metropolitan Real Estate Partners Morrison Street Fund IV Morrison Street Fund V Morrison Street Debt Opportunities Principal (REITs) Total Real Estate Beach Point Total Opportunistic Credit Caduceus (OrbiMed II) Total Special Opportunities	SC Value - Mutual Fund Ltd Partnership LtC LLC LP REITs Ltd Partnership S S S S S S S S S S S S S S S S S S S	12,065,800 12,065,800 11,184,021 11,184,021 66,311,226 15,955,597 2,741,717 2,196,375 20,893,689 26,953 335,121 1,276,816 5,463,605 3,229,458 15,090,377 25,422,330 9,918,712 9,918,712 9,366,621 9,366,621 9,366,621 \$295,001,878 \$ \$ \$ \$ \$ \$ \$ \$292,962,593	4.0% 3.0% 22.0% 7.0% 9.0% 0.0%	4.1% 3.8% 22.5% 7.1% 8.6% 3.4%	0.1% 0.8% 0.5% 0.1% -0.4% -3.6%
Trivalent Total International Small/Mid Berens Total Emerging Markets Total International Equities Weatherlow Offshore Royalty Opportunities I Royalty Opportunities II Troob Total Long Biased Legacy Partners Realty Fund III Metropolitan Real Estate Partners Morrison Street Fund IV Morrison Street Fund V Morrison Street Debt Opportunities Principal (REITs) Total Real Estate Beach Point Total Opportunistic Credit Caduceus (OrbiMed II) Total Special Opportunities Total Cash and Investments	Ltd Partnership LtC LLC LP REITs Ltd Partnership S Ltd Partnership S Estimated Rate of Return	12,065,800 12,065,800 11,184,021 11,184,021 66,311,226 15,955,597 2,741,717 2,196,375 20,893,689 26,953 335,121 1,276,816 5,463,605 3,229,458 15,090,377 25,422,330 9,918,712 9,918,712 9,918,712 9,366,621 9,366,621 9,366,621 \$295,001,878 \$ \$ \$ \$ \$ \$ \$292,962,593 0.7%	4.0% 3.0% 22.0% 7.0% 7.0% 100.0%	4.1% 3.8% 22.5% 7.1% 8.6% 3.4% 100.0%	0.1% 0.8% 0.5% 0.1% -0.4% -3.6% 0.0%
Trivalent Total International Small/Mid Berens Total Emerging Markets Total International Equities Weatherlow Offshore Royalty Opportunities I Royalty Opportunities II Troob Total Long Biased Legacy Partners Realty Fund III Metropolitan Real Estate Partners Morrison Street Fund IV Morrison Street Fund V Morrison Street Debt Opportunities Principal (REITs) Total Real Estate Beach Point Total Opportunistic Credit Caduceus (OrbiMed II) Total Special Opportunities	SC Value - Mutual Fund Ltd Partnership LtC LLC LP REITs Ltd Partnership S S S S S S S S S S S S S S S S S S S	12,065,800 12,065,800 11,184,021 11,184,021 66,311,226 15,955,597 2,741,717 2,196,375 20,893,689 26,953 335,121 1,276,816 5,463,605 3,229,458 15,090,377 25,422,330 9,918,712 9,918,712 9,366,621 9,366,621 9,366,621 \$295,001,878 \$ \$ \$ \$ \$ \$ \$ \$292,962,593	4.0% 3.0% 22.0% 7.0% 9.0% 0.0%	4.1% 3.8% 22.5% 7.1% 8.6% 3.4%	0.1% 0.8% 0.5% 0.1% -0.4% -3.6%
Trivalent Total International Small/Mid Berens Total Emerging Markets Total International Equities Weatherlow Offshore Royalty Opportunities I Royalty Opportunities II Troob Total Long Biased Legacy Partners Realty Fund III Metropolitan Real Estate Partners Morrison Street Fund IV Morrison Street Fund V Morrison Street Debt Opportunities Principal (REITs) Total Real Estate Beach Point Total Opportunistic Credit Caduceus (OrbiMed II) Total Special Opportunities Total Cash and Investments	Ltd Partnership LtC LLC LP REITs Ltd Partnership Solution Withdrawals As of May 31, 2017 Estimated Rate of Return	12,065,800 12,065,800 11,184,021 11,184,021 66,311,226 15,955,597 2,741,717 2,196,375 20,893,689 26,953 335,121 1,276,816 5,463,605 3,229,458 15,090,377 25,422,330 9,918,712 9,918,712 9,366,621 9,366,621 \$295,001,878 \$ \$ \$ \$ \$ \$ \$ \$292,962,593 0.7%	4.0% 3.0% 22.0% 7.0% 7.0% 100.0%	4.1% 3.8% 22.5% 7.1% 8.6% 3.4% 100.0%	0.1% 0.8% 0.5% 0.1% -0.4% -3.6% 0.0%
Trivalent Total International Small/Mid Berens Total Emerging Markets Total International Equities Weatherlow Offshore Royalty Opportunities I Royalty Opportunities II Troob Total Long Biased Legacy Partners Realty Fund III Metropolitan Real Estate Partners Morrison Street Fund IV Morrison Street Fund V Morrison Street Debt Opportunities Principal (REITs) Total Real Estate Beach Point Total Opportunistic Credit Caduceus (OrbiMed II) Total Special Opportunities Total Cash and Investments Abs. Return and Total Return FI High Yield and Opp Credit	Ltd Partnership LtC LLC LP REITs Ltd Partnership Etd Partnership Ltd Partnership Thesis 2017.1 Thesis 2017.2	12,065,800 12,065,800 11,184,021 11,184,021 66,311,226 15,955,597 2,741,717 2,196,375 20,893,689 26,953 335,121 1,276,816 5,463,605 3,229,458 15,090,377 25,422,330 9,918,712 9,918,712 9,366,621 9,366,621 9,366,621 \$295,001,878 \$ \$ \$ \$ \$292,962,593 0.7% 53,137,500 31,678,930	4.0% 3.0% 22.0% 7.0% 9.0% 7.0% 100.0%	4.1% 3.8% 22.5% 7.1% 8.6% 3.4% 100.0%	0.1% 0.8% 0.5% 0.1% -0.4% -3.6% 0.0% -1.3%
Trivalent Total International Small/Mid Berens Total Emerging Markets Total International Equities Weatherlow Offshore Royalty Opportunities I Royalty Opportunities II Troob Total Long Biased Legacy Partners Realty Fund III Metropolitan Real Estate Partners Morrison Street Fund IV Morrison Street Fund V Morrison Street Debt Opportunities Principal (REITs) Total Real Estate Beach Point Total Opportunistic Credit Caduceus (OrbiMed II) Total Special Opportunities Total Cash and Investments	Ltd Partnership LtC LLC LP REITs Ltd Partnership Solution Withdrawals As of May 31, 2017 Estimated Rate of Return	12,065,800 12,065,800 11,184,021 11,184,021 66,311,226 15,955,597 2,741,717 2,196,375 20,893,689 26,953 335,121 1,276,816 5,463,605 3,229,458 15,090,377 25,422,330 9,918,712 9,918,712 9,366,621 9,366,621 \$295,001,878 \$ \$ \$ \$ \$ \$ \$ \$292,962,593 0.7%	4.0% 3.0% 22.0% 7.0% 7.0% 100.0%	4.1% 3.8% 22.5% 7.1% 8.6% 3.4% 100.0%	0.1% 0.8% 0.5% 0.1% -0.4% -3.6% 0.0%

Cash Recon - Jul 17

Date	Transactions	Sources	Uses	Balance
6/23/2017 B	Beginning Balance			686,941.21
6/26/2017	Payroll Contributions	625,259.56		1,312,200.77
6/26/2017	Capital Call - Morrison Street Debt Ops		(325,008.14)	987,192.63
6/28/2017	Distribution - Metro V	13,359.03		1,000,551.66
6/29/2017	Distribution - Royalty Ops	62,326.27		1,062,877.93
6/29/2017	Rebalancing - High Yield to Beach Point		(900,000.00)	162,877.93
6/30/2017	Sale - Hothckis & Wiley High Yield	2,200,000.00		2,362,877.93
6/30/2017	Pension Payments		(2,239,225.21)	123,652.72
7/3/2017	Interest	279.92		123,932.64
7/5/2017	Lump Sum Distribution		(1,591.83)	122,340.81
7/10/2017	Payroll Contributions	616,373.14		738,713.95
7/13/2017	Purchase - Principal REIT		(727,000.00)	11,713.95
7/14/2017	Distribution - Morrison Street IV	23,640.66		35,354.61
7/19/2017	Correction - Redeposit	1,596.90		36,951.51
7/19/2017	Correction - Reissue		(1,560.14)	35,391.37
7/20/2017 E	inding Balance	3,542,835.48	(4,194,385.32)	35,391.37
<u>L</u>	Jpcoming			
7/25/2017	Payroll Contributions	610,000.00		
7/31/2017	Pension Payments		(2,269,040.44)	
7/31/2017	Subscription - Angelo Gordon Super Fund		(10,000,000.00)	

SERS SUSTAINABILITY STRATEGIC REVIEW

July 26, 2017



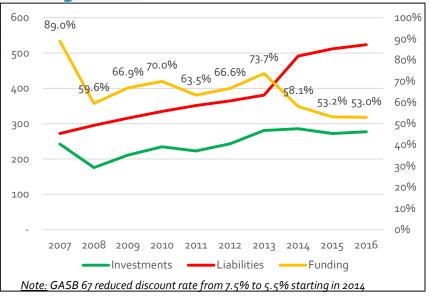
The problem

- Glide path vs. projected
 - Not going to close funding gap on current path!
- Contribution to city's balance sheet
 - 32% of ALL City Liabilities
 - •126% of General Obligation Bonds outstanding



Key Plan Metrics

Funding Status



Investment Performance

	1 yr	3 yr	5 yr	10 yr
SERS Plan	6.71%	3.65%	8.14%	4.92%
Policy Index	9.87%	4.44%	8.74%	5.11%
Variance	-3.16%	-0.79%	-0.60%	-0.19%

Funding Status by Tier

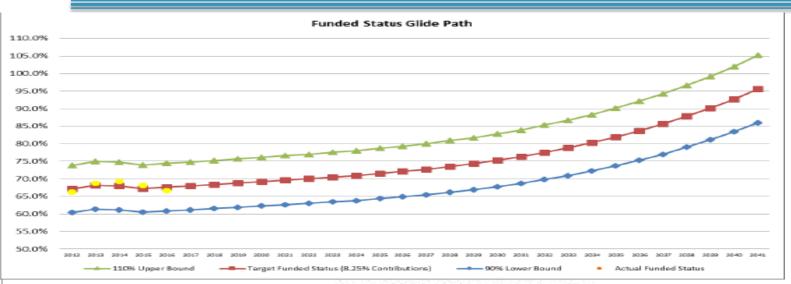
	Members	Liability (\$Ms)	Liability/ Member	Assets (\$Ms)	Funding
Retired/Vested	1,451	299,979	206,740	256,856	50.8%
Active 5/50	863	205,728	238,387		
Active Rule 75	337	16,118	47,829	18,372	114.0%
Active Rule 80	260	1,909	7,343	2,104	110.2%
Total	2,911	5 ² 3,735	179,916	277,332	53.0%

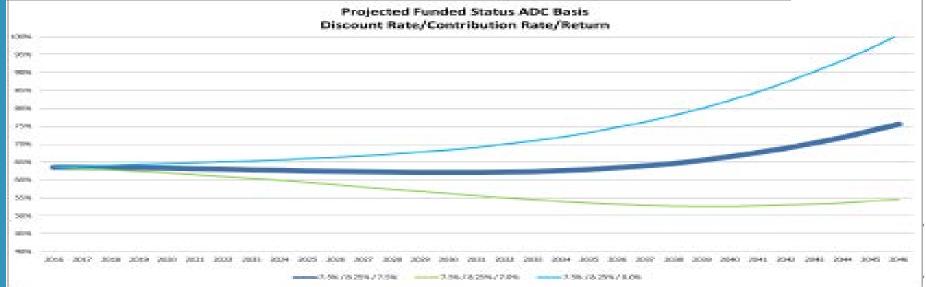
Contribution History





Glide Path vs Long-Term Projections





Current Strategy Sufficient?

- Funding Policy: 8.25% for EE and ER
 - Pending: 9.0% (≈ADC), with mechanism to adjust
- Investment Strategy: Grow our way out seeking
 7.5% return
- •Plan Design: New Tiers (75, 80, 90?) to reduce future liabilities
- Valuation Assumptions: Follow actuary recommendations, with Future ≈ Past



Next Steps

- Develop process
- Define objectives
- Develop framework
- Identify and engage stakeholders
- Identify and engage experts
 - Arnold Group
- Develop and evaluate alternatives



Framework

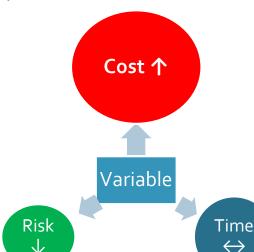
- ➤ Goal: 90%+ Funding Ratio
 - How much? When? How likely?

Variables

- 1) Funding Policy
- 2) Investment Strategy
- 3) Plan Design
- 4) Valuation Assumptions

Constraints

- Vested Benefits (Liability)
- 2) Approval/Implementation Authority





Spokane Employees' Retirement System

Variables

- Funding Policy
 - Contribution Rates → Must meet ADC to close funding gap!
 - Cost: +/- \$1.0M per 100bp (split evenly between EE and ER)
 - Time: 7-10 years (compounded)
 - Risk: Reduced via lowered hurdle rate
 - Lump Sum (e.g. Pension Obligation Bond)
 - Cost: Reduce/Eliminate amortized costs, Increase financing costs
 - Time: Align with payback of lump sum contribution
 - Risk: Increased, requires return spread over cost of capital; process and feasibility TBD
- Investment Strategy
 - Target Rate of Return
 - Cost: +/- \$1.2M per 25bp (1.1% of payroll)
 - Time: Unchanged
 - Risk: Inverse relationship to cost



Variables

- Plan Design
 - Cost: Short Term Fixed; Long Term Variable
 - Time: Short Term Fixed; Long Term Variable
 - Risk: Short Term Fixed; Long Term Variable
- Valuation Assumptions
 - Cost: Short Term Variable; Long Term Fixed
 - Time: Short Term Variable; Long Term Fixed
 - Risk: Mean Reverting



Arnold Foundation Case Studies

- •San Jose, CA Ballot initiative reduced DB benefit, partially overturned in court
- •Utah Moved to DC Plan
- Jacksonville, FL Closed DB plan to new EE, funded deficit through sales tax increase
- Arizona Public Safety Hybrid plan for new EE
- •Rhode Island DB frozen, future benefits accrued under hybrid plan; COLA suspended until 80% funded, then progressive
- Houston Pending: Benefit reductions, obligation bonds, ADC required, "cost corridor"



Alternative Models

1) Corporate Plans

- De-risk through investment allocation (LDI), plan design (closing), and buyouts
 - Benefit: Reduce earnings volatility, minimize plan risks
 - Cost: Higher contribution rates to offset lower returns, cannot subsidize from active pool, buyout cost greater than assumed
 - Risks: Lower retention and retirement readiness

2) European Model

- Centralized, discount at risk-free rate, invest for market returns
 - Benefit: Minimize risk with most conservative valuation method
 - Cost: High contribution rates
 - Risks: Return spread covers liability growth (e.g. increased longevity)



Alternative Models

3) Australian Model (Superannuation)

- Centralized, DC Plan, Mandatory ER Contributions
 - Benefit: Cost certainty for employer, Good participant outcomes
 - Cost: Contribution rates similar to DB plans
 - Risks: Lifetime income level uncertain

4) Canadian Model

- Centralized, Minimize costs through investment performance
 - Benefit: Record of strong performance reduced costs, investments can hedge risks or provide local stimulus
 - Cost: Extensive staff, knowledge and cost required
 - Risks: Scalability, persistence



Alternative Models

5) Guaranteed Income

- DC Plan with required annuity option
 - Benefit: Cost certainty for employer, Income certainty for employee
 - Cost: Generally higher than DB Plan to provide same income level
 - Risks: Lifetime income level uncertain, fiduciary risk in selecting annuity provider

