

Spokane Employees' Retirement System (SERS)
Board Meeting, 1:30 p.m. January 27, 2016
City Hall – Conference Room 5A

AGENDA

1. Election of Chairperson
 - Motion
2. Minutes of the December 2, 2015 Meeting
 - Motion
3. Director's Report
 - a. Retirements
 - Motion
 - b. Withdrawals
 - Motion
 - c. Deaths
 - Information
 - d. Expenditure Summary Report – November 2015
 - Motion
 - e. Schedule of Investments – December 2015
 - Information
 - f. Investment Advisory Committee Meeting Minutes
 - Motion to Acknowledge
 - g. Newsletter
 - Information
 - h. Other Business
4. 2016 Education Priorities
 - Information
5. Asset Allocation Risk Factors
 - Information
6. Other Business
7. Next Meeting – Note special time for the quarterly investment update

Wednesday, February 24, 2016 at 12:30 p.m.

Jayson Davidson will present the 4th quarter performance report.

**Spokane Employees' Retirement System (SERS)
Board Meeting Minutes
December 2, 2015**

Mike Coster called the regular monthly meeting to order at 12:30 p.m. in the 5th Floor Conference Room at City Hall.

Present: Mike Coster, Mike Cavanaugh, Jim Tieken, Dean Kiefer, and Jerry McFarlane

Absent: Brian Brill and Jon Snyder

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

Guests: Jayson Davidson, Brian Loescher, Joe Cavanaugh, Joan Hamilton, Natalie Hilderbrand, and John Bjork

Hyas Group, 2015 3rd Quarter Investment Performance Report

Hyas Group reviewed with the Board the Third Quarter 2015 Performance Report and discussed overall portfolio and manager specific returns for the quarter. While recent performance for the Champlain Small Company and Sterling Mid Cap options has improved, Hyas Groups recommended the funds remain on watch for at least one additional quarter. The PIMCO Global Bond Fund is on watch for non-performance related reasons and no action was recommended or taken regarding this status. It should be noted that the Epoch Small Cap International Fund was removed from the portfolio and is thus no longer considered a watch status fund.

Mr. Davidson will forward an electronic version of the Goldman Sachs Money Market reform article for distribution to the Board.

The Board discussed the possibility of holding a retreat to assess the overall asset allocation study process and how to potentially model liability risk factors into the analysis. Hyas Group will plan to engage the asset allocation review project in early 2016 and will look to work with the Board and staff on the deliverables.

Principal REIT

The Principal REIT Fund was also on watch for non-performance reasons related to personnel departures in 2013. Hyas Group felt comfortable with the portfolio team in place and recommended removing the Fund from watch status.

Jim Tieken moved and Mike Cavanaugh seconded the motion to remove Principal REIT from watch status. The motion passed unanimously.

Investment Advisory Committee

The Board discussed the make-up and function of the Investment Advisory Committee, which is mandated by the RCW. Specifically, it was discussed whether this Committee

should be more active in review and evaluation of the SERS portfolio, investment analytics and investment products. Ultimately, no action was taken to revise the Investment Advisory Committee's current functions, which have the Committee meeting annually to be provide a broad review of the Board's actions and the portfolio for the prior year.

Investment Policy Statement

The Board engaged in its annual review of the Investment Policy. The draft change to add the Investment Advisory Committee under the “Roles and Responsibilities” was removed. Additionally, a more extensive review of the document will be required following the planned asset allocation study in 2016.

Dean Kiefer moved and Mike Cavanaugh seconded the motion to accept the Investment Policy Statement as amended. The motion passed unanimously.

Asset Allocation Study Project

Mr. Tencick recommended having a second Asset Allocation Study performed by Wilshire in parallel to the Asset Allocation Study that will be performed by Hyas. Discussion ensued and no action was taken.

Minutes of the October 28, 2015 Meeting

Jim Tieken moved and Jerry McFarlane seconded the motion to approve the minutes of the October 28, 2015 meeting as presented. The motion passed unanimously.

Director’s Report
Service Retirements

<i>Name</i>	<i>Age</i>	<i>Retirement Date</i>	<i>Years of Service</i>	<i>Option</i>
Lester R. Lea	56	11/21/2015	14.2	ST
Nancy L. Goodspeed	66	12/03/2015	8.8	ST
Marie C. Wyatt	61	12/05/2015	11.0	ST
Johnna M. Boxley	67	01/21/2016	17.5	E
Catherine A. Caron	65	01/21/2016	8.2	ST

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

Withdrawals for December 2015

<i>Name</i>	<i>Years of Service</i>	<i>Termination Date</i>
Helen B. Gebeke	1.0	01/03/2015

Jerry McFarlane moved and Mike Cavanaugh seconded the motion to approve the requests for withdrawal as presented on the December Retirement Transaction Report. The motion passed unanimously.

Vesting

<i>Name</i>	<i>Department</i>	<i>Years of Service</i>
Roberta G. Moxley	IT	18.7

Deaths

<i>Name</i>	<i>Date Retired</i>	<i>Age</i>	<i>Date of Death</i>	<i>Information</i>
Anthony I. Montgomery	11/02/1996	80	10/29/2015	E Option Continues
Mary F. Stabin	10/06/1990	90	11/13/2015	No Further Benefits

Vesting and death information provided to the Board for review.

Expenditure Summary Report – October 2015

The Expenditure Summary Report was presented to the Board and discussed noting that expenditures were forecast to be under budget without requiring an Emergency Budget Ordinance (EBO) as was previously expected.

Mike Cavanaugh moved and Jim Tieken seconded the motion to approve the October 2015 Expenditure Summary Report. The motion passed unanimously.

Schedule of Investments – October 2015

The monthly investment report was presented to the Board for review. The estimated market value of the SERS portfolio on October 31, 2015 was \$269 million with an estimated rate of return for September of 3.59%.

Other Business

Mr. Tencick informed the Board he will be sending them a survey regarding trustee education. The results of the survey will help in building a training schedule for the Board Members.

Other Business

Jerry McFarlane informed the Board his intent to step down, in January, from the Board.

There being no other business, the meeting adjourned at 2:02 p.m.

Phillip Tencick, Retirement Director

SERS Retirement Transaction Report

January 2016

Retirements

	Name	Age	Retirement Date	Years of Service	Department	Option
1	Michael F. Busby	50	12/29/2015	16.2	Police	E
2	Steffon P. Sobosky	52	01/05/2016	8.1	Solid Waste Management	E
3	Pamela J. Brenden	55	01/06/2016	24.0	Public Works & Utilities	ST
4	Ole J. Lokken	65	01/08/2016	27.5	Water	E
5	Della P. Gaylord	61	01/11/2016	24.2	Solid Waste Management	E
6	Jerry A. Coulter	61	01/15/2016	31.0	Public Works & Utilities	ST
7	Richard L. Deibel	66	01/15/2016	22.8	Solid Waste Disposal	ST
8	Donna R. McBride	50	02/02/2016	19.9	Probation Services	C-15
9	Roy Cheney	62	02/13/2016	25.3	Golf	D
10	Geoffrey D. Glenn	52	02/13/2016	23.7	Solid Waste Disposal	ST
11	Linda L. Hattenburg	67	02/13/2016	32.5	Engineering Services	ST
12	Robert J. Morgan	62	02/13/2016	23.2	Golf	E
	Retirements YTD	10				
	2015 Total Retirements	83				

Withdrawals

	Name	Years of Service	Department	Termination Date
1	William J. Tucker	2.2	Building Services	09/25/2015
2	Cynthia A. Sager	0.6	Finance	10/23/2015
3	Jaime N. Rowland beneficiary of Glenn E. Martin	14.1	Street	12/05/2015

Deaths

	Name	Date Retired	Age	Date of Death	Information
1	Natella I. Stickels	06/06/2007	69	11/24/2015	No Further Benefits
2	Caryl J. Anstadt	11/04/1995	83	12/04/2015	No Further Benefits

SPOKANE EMPLOYEES' RETIREMENT SYSTEM - 6100
 2015 EXPENDITURE SUMMARY REPORT
 NOVEMBER 30, 2015

	2014 ACTUAL	2015 BUDGET	NOVEMBER ACTUAL EXPENDITURES	2015 ACTUAL YTD EXPENDITURES	VARIANCE	PERCENTAGE USED
OPERATING EXPENDITURES						
Departmental Salaries	126,543.74	241,313.00	19,372.21	187,066.58	54,246.42	77.5%
Departmental Benefits	45,556.51	79,608.00	5,988.98	58,672.21	20,935.79	73.7%
Reserve for Budget Adjustment	-	-	-	-	-	
Administrative Income	(6,696.46)	(15,000.00)	-	(16,336.89)	1,336.89	
					-	
Postage/Supplies/Other	11,773.73	16,500.00	729.77	13,754.55	2,745.45	83.4%
State Audit Charges	10,375.50	10,000.00	2,003.07	10,021.31	(21.31)	100.2%
Contractual Services	142,938.52	155,000.00	1,080.00	90,558.08	64,441.92	58.4%
Travel	2,559.37	15,000.00	962.40	1,522.69	13,477.31	10.2%
Registration/Schooling	400.00	11,000.00	10,089.00	10,789.00	211.00	98.1%
Other Dues/Subscriptions/Membership	1,013.20	2,500.00	-	538.20	1,961.80	21.5%
Other Miscellaneous Charges	2,837.20	4,370.00	57.00	4,400.84	(30.84)	100.7%
Depreciation & Amortization	18,525.92	-	-	-	-	
TOTAL OPERATING EXPENDITURES	355,827.23	520,291.00	40,282.43	360,986.57	159,304.43	69.4%
INTERFUND EXPENDITURES						
Interfund - Accounting Central Services	3,150.20	3,052.00	-	2,781.80	270.20	91.1%
Interfund - IT Phones	1,935.21	1,512.00	129.53	1,300.70	211.30	86.0%
Interfund - IT Communications Replacement	288.96	241.00	20.08	200.80	40.20	83.3%
Interfund - Motor Pool	-	-	-	-	-	
Interfund - Risk Management	962.00	1,121.00	280.25	1,121.00	-	100.0%
Interfund - Unemployment	500.00	500.00	125.00	500.00	-	100.0%
Interfund - Worker's Compensation	86.00	78.00	-	58.50	19.50	75.0%
Interfund - IT	16,422.69	13,892.00	1,157.67	11,576.70	2,315.30	83.3%
Interfund - IT Replacement	4,209.00	3,584.00	298.67	2,986.70	597.30	83.3%
Interfund - Reprographics	2,346.95	4,000.00	1,363.13	3,587.78	412.22	89.7%
Interfund - Warrant Costs	986.00	-	-	-	-	
TOTAL INTERFUND EXPENDITURES	30,887.01	27,980.00	3,374.33	24,113.98	3,866.02	86.2%
TOTAL ADMINISTRATIVE EXPENDITURES	386,714.24	548,271.00	43,656.76	385,100.55	163,170.45	70.2%

SPOKANE EMPLOYEES' RETIREMENT SYSTEM - 6100
 2015 EXPENDITURE SUMMARY REPORT
 NOVEMBER 30, 2015

	2014 ACTUAL	2015 BUDGET	NOVEMBER ACTUAL EXPENDITURES	2015 ACTUAL YTD EXPENDITURES	VARIANCE	PERCENTAGE USED
PENSIONS						
Pensions-Annuity Benefit Payments	20,659,575.08	22,205,000.00	1,902,938.67	20,292,488.67	1,912,511.33	91.4%
Pensions-Disability Payments	125,328.48	126,000.00	10,444.04	114,884.44	11,115.56	91.2%
Pensions-Survivor Annuity Benefits Payments	1,473,938.36	1,642,000.00	139,305.73	1,499,066.34	142,933.66	91.3%
TOTAL PENSIONS	<u>22,258,841.92</u>	<u>23,973,000.00</u>	<u>2,052,688.44</u>	<u>21,906,439.45</u>	<u>2,066,560.55</u>	
Refunds	625,184.41	775,000.00	1,302.28	635,934.20	139,065.80	82.1%
TOTAL EXPENSES	<u><u>23,270,740.57</u></u>	<u><u>25,296,271.00</u></u>	<u><u>2,097,647.48</u></u>	<u><u>22,927,474.20</u></u>	<u><u>2,368,796.80</u></u>	90.6%
INVESTMENT EXPENSE*						
Advisory Technical Service	373,109.86	478,200.00	50,842.84	364,417.17	113,782.83	76.2%

* 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
December 31, 2015

1/21/2016	Type	Market	Actual Allocation	Approved Allocation
Cash and Short-term Investments:				
Cash Held by Treasurer	Cash	\$ 230,773		
US Bank	Short-term Inv	<u>1,915,207</u>		
Total Cash and Short-term Investments		2,145,980	0.8%	1.0%
Fixed Income:				
Vanguard Short-Term	Total Return - Mutual Fund	10,226,949		
Hotchkis & Wiley	High Yield - Mutual Fund	10,035,748		
PIMCO Global	International- Mutual Fund	<u>11,374,492</u>		
Total Fixed Income		31,637,189	11.6%	15.0%
U.S. Equities:				
Hotchkis & Wiley	LC Value - Mutual Fund	14,207,692		
Delaware	LC Growth - Mutual Fund	15,034,295		
MFS Heritage	LC Core	16,426,339		
Vanguard S&P 500 Index	LC Core - Mutual Fund	7,988,878		
Sterling	MC Value	7,997,426		
Vanguard MC Growth	MC Growth - Mutual Fund	7,666,922		
Vanguard MC Index	MC Core - Mutual Fund	5,087,493		
Champlain	SC Core	4,865,051		
Phocas	SC Value - Mutual Fund	4,015,853		
Bridgecity	SC Growth	4,564,763		
Vanguard SC Index	SC Core - Mutual Fund	<u>2,289,114</u>		
Total U.S. Equities		90,143,826	33.0%	
International:				
Berens	Ltd Partnership	9,433,099		
Euro Pacific	LC Blend - Mutual Fund	11,908,157		
Artisan	SMID Value - Mutual Fund	14,371,486		
Trivalent	SC Value - Mutual Fund	<u>8,604,385</u>		
Total International		44,317,127	16.2%	
Total Global Equities			49.2%	50.0%
Alt Absolute Return Hedge:				
Polar Long/Short (Altairis)	LLC	5,945,316		
American Beacon	Mutual Fund	9,678,672		
Castine Capital I	Ltd Partnership	6,126,527		
Post Limited Term High Yield	Ltd Partnership	5,515,222		
Rimrock Low Volatility	Ltd Partnership	<u>8,837,463</u>		
Total Alt Absolute Return Hedge		36,103,200	13.2%	10.0%
Alt Long-Short Growth & Special Opps:				
Weatherlow Offshore	Ltd Partnership	14,687,392		
Caduceus (OrbiMed)	Ltd Partnership	10,260,009		
Royalty Opportunities I	Ltd Partnership	4,450,151		
Royalty Opportunities II	Ltd Partnership	298,411		
Troob	Ltd Partnership	3,963,908		
Beach Point	Ltd Partnership	<u>7,637,021</u>		
Total Alt Long-Short Growth & Special Opps		41,296,892	15.1%	14.0%
Real Estate:				
Legacy Partners Realty Fund III	Ltd Partnership	1,330,712		
Metropolitan Real Estate Partners	Ltd Partnership	785,616		
Morrison Street Fund IV	LLC	2,846,242		
Morrison Street Fund V	LLC	4,795,082		
Principal (REITs)	REITs	<u>9,312,614</u>		
Total Real Estate		19,070,266	7.0%	6.0%
PIMCO Commodites PLUS	Commodities - Mutual Fund	8,412,201	3.1%	4.0%
Total Cash and Investments		<u>\$ 273,126,681</u>	<u>100.0%</u>	<u>100.0%</u>
as of November 30, 2015	withdrawals	(900,000)		
		\$ 277,695,231		
	estimated rate of return	-1.32%		



**SPOKANE EMPLOYEES'
RETIREMENT SYSTEM**
808 W. SPOKANE FALLS BLVD.
SPOKANE, WASHINGTON 99201-3324
509.625.6330
FAX 509.625.6861
www.spokanesers.org

Dear Spokane Employees' Retirement System (SERS) Member,

Enclosed you will find your annual contribution statement. While this statement shows how much your contributions are worth, it does not show you the value of this investment in your future. Upon retirement, you will receive an annuity that is guaranteed for life and paid out on a monthly basis.

Over the past five years, the average monthly annuity has been \$2,156, which is nearly 44% of the average employee's final salary. Over the normal life span, that works out to just under \$600,000 in total annuity payments. In this example, the annuity payments would be more than 6.5 times as much as the retiree's contributions. Talk about a great return on investment!

To help you determine the value of **your** retirement benefit, a new pension estimator was unveiled this past year. It is available in PeopleSoft, under the Benefits Information menu in Self Service. It can also be accessed through the SERS website (www.spokanesers.org). This new tool provides more accurate estimates and allows you to try out many scenarios when determining the value of **your** benefit.

At SERS, we are very aware that the value of your benefit relies on the value of our guarantee. At the end of 2015, SERS had more than \$270 million invested on behalf of its members. These investments, when combined with the contributions of its members and the City of Spokane, provide the foundation necessary to build a secure and sustainable pension plan.

The Plan is professionally managed with numerous levels of oversight to help insure the Plan's ongoing stability. The Retirement Department manages the day-to-day operations. The Board provides strategic direction and includes members elected by SERS participants to represent their interests. Outside professionals provide independent oversight and expertise. These professionals include investment consultants, auditors, actuaries, attorneys, and investment managers. The value of this structure can be seen in investment performance that has beaten its benchmark in 10 of the last 12 quarters.

SERS takes great pride in providing its members an extremely valuable and secure benefit. We believe that pensions are an important part of retirement and strive to insure that we are able to keep the promises made today, tomorrow, and into the future.

Sincerely,

Phillip Tencick
Retirement Director

	Priority (Highest to Lowest)							Conducted by						
	1	2	3	4	5	6	7	Average	Staff	Hyas	Board	Actuary	Attorney	Other
Benefits Administration - A review of how SERS interacts with participants. The focus would be on the full life-cycle of interactions, from enrollment/new-hire orientation, through the calculation of the final retirement benefit and into retirement.	0	0	0	2	1	1	2	4.7	6	0	0	0	0	0
Risk Management - Identification, analysis, assessment, and controls designed to minimize risks and manage future events, with the primary focus on investment risks.	0	2	0	3	1	0	0	3.0	3	4	0	0	0	1
Investments - A thorough review of investment classes and the investment process, including capital market assumptions, strategic asset allocation, portfolio implementation (including manager selection), and ongoing monitoring and performance review.	1	1	4	0	0	0	0	2.1	1	6	1	0	0	0
Actuarial Matters - The science and art of determining pension liabilities. How actuaries determine SERS' based on the various assumptions made and how each impacts the liability. Compare how actuarial liabilities compare to accounting liabilities.	1	1	1	1	2	0	0	2.9	1	0	0	6	0	0
Fiduciary Matters - Explaining the duties and responsibilities of a fiduciary and the consequences of failing to meet the fiduciary duty. Evaluating the duties that can be delegated and identifying all of the Plan's fiduciaries.	4	0	1	0	1	0	0	1.7	1	1	1	0	4	0
Ethics - Review of ethical issues faced by pension plans, including identification of potential conflicts of interest. Review ethics policies applicable to the Board and Staff.	0	1	0	0	0	2	3	5.0	3	0	1	0	5	0
Governance - Identify trends and best practices in Plan governance. Compare other governance models to current SERS governance practices. Could coincide with comprehensive Board Rules review.	0	1	0	0	1	3	1	4.6	4	0	1	0	2	0
Other - GASB Standards, Conducted by Accountant									0	0	0	0	0	1

Notes: As of January 20th, 6 responses received, of which 5 were Board Members; all responses are anonymous. Questions regarding who should conduct training allowed for multiple responses.

Board Meeting	Topic
January	Asset Allocation (Risk)
February	Performance Review, Asset Allocation (Asset Classes)
March	Asset Allocation Results
April	Actuary's Plan Valuation, Education (Actuarial Matters)
May	Performance Review
June	Audit Report
July	Education (Fiduciary Matters)
August	Performance Review
September	Education (Investments)
October	Education (Risk Management)
November/December	Performance Review

TBD, as needed:

- Manager Searches
- Investment Policy Statement
- Manager Review Presentations

ASSET ALLOCATION: RISK FACTORS

SERS Board Meeting

January 27, 2016



What is Risk?

- Dictionary: Exposure to danger, harm, or loss
- ISO 31000: The effect of uncertainty on objectives
- Investments: Possibility that actual return will be different than expected
- Behavioral Economics: Uncertainty of outcome

- “I know it when I see it”

Risk Management Process

1. Identify – Determine all of the potential risks
2. Assess – Determine the impact of each risk and the factors that contribute
3. Address
 - a) Eliminate – Withdraw or do not enter
 - b) Transfer – Insure or outsource
 - c) Reduce – Optimize or mitigate
 - d) Retain – Accept and budget

Once a risk has been identified, ignoring it becomes an active decision

Identify Risk Factors

Investment Risk		Plan Risk
<u>Market Risks</u>	<u>Implementation Risks</u>	<u>Liability Risks</u>
<ul style="list-style-type: none"> • Volatility • Liquidity • Style (Value, Quality, Momentum, etc.) • Inflation • Interest Rates • Credit • Duration • Currency • Market Structure • Regulatory • Residual 	<ul style="list-style-type: none"> • Asset Allocation • Rebalancing • Active Risk • Manager Selection • Principal/Agent • Fiduciary 	<ul style="list-style-type: none"> • Investment Risk (Discount Rate) • Interest • Longevity • Plan Design • Regulatory • Participant Behavior • Funding

Assess Risk Factors

Investment Risk		Plan Risk
<u>Market Risks</u>	<u>Implementation Risks</u>	<u>Liability Risks</u>
<ol style="list-style-type: none"> 1. Interest Rates 2. Inflation 3. Volatility 4. Credit 5. Style (Value, Quality, Momentum, etc.) 6. Liquidity 7. Duration 8. Currency 9. Market Structure 10. Regulatory 11. Residual 	<ol style="list-style-type: none"> 1. Asset Allocation 2. Rebalancing 3. Manager Selection 4. Active Risk 5. Fiduciary 6. Principal/Agent 	<ol style="list-style-type: none"> 1. Plan Design 2. Investment Risk (Discount Rate) 3. Funding 4. Participant Behavior 5. Interest 6. Longevity 7. Regulatory

- Ranked in order of impact
- Manageable factors in **RED**

Understanding Uncertainty

- Managing risk requires predicting future outcomes using data that measures past risk

	Bonds			Equities			Alternatives	
	Aggregate	High Yield	Int'l	US Large Cap	US Mid Cap	US Small Cap	REITs	Commodities
Forecast Return	8.3%	8.6%	6.6%	10.3%	12.4%	13.4%	10.3%	5.6%
Reliability	44%	22%	51%	31%	13%	30%	15%	42%
Forecast Risk	5.2%	7.9%	10.2%	16.9%	17.0%	25.0%	13.6%	12.7%
Reliability	42%	27%	29%	26%	29%	50%	25%	54%

Address

- Eliminate – Withdraw or do not enter
 - Not feasible at Plan or Investment level
 - Possible with specific factors, but impacts other risks
- Transfer – Insure or outsource
 - Possible, generally requires frozen plan
- Reduce – Optimize or mitigate
 - Market risks optimized through asset allocation process
 - Hedge risk factors impacting both assets and liabilities
- Retain – Accept and budget
 - Insure market risk premiums exist and are being captured
 - Evaluate and budget implementation risks

Assess Risk Factors

Investment Risk		Plan Risk
<u>Market Risks</u>	<u>Implementation Risks</u>	<u>Liability Risks</u>
<ol style="list-style-type: none"> 1. Interest Rates 2. Inflation 3. <u>Volatility</u> 4. <u>Credit</u> 5. Style (Value, Quality, Momentum, etc.) 6. <u>Liquidity</u> 7. <u>Duration</u> 8. Currency 9. Market Structure 10. Regulatory 11. Residual 	<ol style="list-style-type: none"> 1. <u>Asset Allocation</u> 2. <u>Rebalancing</u> 3. Manager Selection 4. <u>Active Risk</u> 5. Fiduciary 6. Principal/Agent 	<ol style="list-style-type: none"> 1. Plan Design 2. <u>Investment Risk (Discount Rate)</u> 3. Funding 4. Participant Behavior 5. <u>Interest</u> 6. <u>Longevity</u> 7. Regulatory

- Optimizable risk factors in **GREEN**, (CURRENT FACTORS)
- Risk Factor Premiums in **RED**, (CURRENT FACTORS)
- Management requires 3rd party intervention in **BOLD**

Asset Allocation Risk Factors

- Currently Optimized
 - Asset Allocation used as implementation model
 - Volatility used as single measure of risk
 - 7.5% used as target rate of return
- Potential Changes
 - Add Interest Risk Factor – As it relates to the valuation of the liability, including this factor would hedge the funding ratio against changes in the municipal bond interest rate
 - Add Duration Risk Factor– Align risks of assets and liabilities related to changes in the yield curve (e.g. the movements of short-term and long-term interest rates)
 - Change target rate of return – An increase would require accepting greater investment risk, while a decrease would increase funding risk