Memo

To: **Board of Trustees – FELRA & UFCW Pension Fund**

From: **Rich Sichel, David Russell, Jennifer Carroll**

CC: **Bill Jensen, Barry Slevin, Esq., Harry Burton, Esq.**

Date: **March 5, 2017**

Re: **FELRA & UFCW Pension Fund – Cash Flow Analysis (REVISED)**

This memo is per your request in follow-up to conversations during the last Board of Trustees' meeting regarding the liquidity issues facing the FELRA and UFCW Pension Fund. We discussed in what order the Fund's portfolios should be liquidated so there is sufficient cash to pay benefits and administrative expenses, given the Fund's projected insolvency. This memo does not address the Fund's asset allocation, which has been the subject of other memos from IPS and thus this memo assumes the Fund's current asset allocation as that subject needs to be separately addressed by the Trustees.

As of December 31, 2016, the market value of Total Fund assets was $366 million. As illustrated in actuarial reports and using historical data, the FELRA & UFCW Pension Fund is projected to require a minimum of $10 million cash per month to fund ongoing benefit obligations and expenses. Assuming a total cash need of $120 million for the calendar year ending December 31, 2017, the projected ending market value of Total Fund assets is $246.2 million.

Following is the Pension Fund's asset allocation relative to the targets and ranges permitted in the investment policy statement:

As of December 31, 2016

Allocation vs. Targets and Policy

	Current Balance	Current Allocation	Policy	Policy Range	Difference	Difference
Domestic Equity	$105,993,546	28.9%	30.0%	25.0% - 35.0%	-1.1%	-$3,855,226
International Equities	$9,613,125	2.6%	5.0%	0.0% - 10.0%	-2.4%	-$8,695,004
Emerging Markets Equity	$5,492,511	1.5%	5.0%	0.0% - 10.0%	-3.5%	-$12,815,618
Investment Grade Fixed Income	$6,827,883	1.9%	5.0%	0.0% - 10.0%	-3.1%	-$11,480,246
Global Bonds	$34,564,145	9.4%	10.0%	5.0% - 15.0%	-0.6%	-$2,052,112
High Yield Fixed Income	$5,200,222	1.4%	4.5%	0.0% - 10.0%	-3.1%	-$11,277,094
Real Estate	$79,553,423	21.7%	15.0%	10.0% - 20.0%	6.7%	$24,629,037
Hedge Fund of Funds	$54,917,209	15.0%	10.0%	5.0% - 15.0%	5.0%	$18,300,952
Global Tactical Asset Allocation	$61,888,068	16.9%	15.0%	10.0% - 20.0%	1.9%	$6,963,683
Cash	$2,112,439	0.6%	0.5%	0.0% - 5.0%	0.1%	$281,626
Total	**$366,162,571**	**100.0%**	**100.0%**			

As requested at the January 26, 2017 Board of Trustees' meeting, the long term expected return of the portfolio (current allocation) is 7.24% with a standard deviation of 9.22. The return expectations are based on the 2016 IPS 10 – 20 year net of fee index return expectations. Given the assets of the Fund are expected to be exhausted within approximately three to four years, long-term risk and return assumptions may not be meaningful. In addition, the projections assume the Fund's asset allocation remains at these percentage allocations over that entire time period.

Scenario 1 – Funding Cash Needs from Liquid Investments

The investment managers that offer daily liquidity are summarized in the chart below and total $167.7 million (46% of Total Fund assets). The managers not included in this scenario are JP Morgan (real estate), EnTrust (HFoF), Mesirow (HFoF) and First Eagle (global tactical asset allocation). JP Morgan, EnTrust and Mesirow are limited to quarterly transactions with advance notification requirements for withdrawals ranging from 45-90 days. The First Eagle investment is limited to monthly transactions with a minimum of 10-day notice required for withdrawals. As of December 31, 2016, the illiquid assets totaled $198.5 million (54% of Total Fund assets).

The chart below illustrates the breakdown of liquid assets by investment manager, each portfolio's market value as of December 31, 2016 and the percentage that each portfolio represents of total liquid assets. Assuming a one-year total cash need of $120 million, the final two columns show the pro-rata share of each manager's net withdrawals for the year and projected ending market value as of December 31, 2017.

Investment Manager	Asset Class/ Portfolio Style	Investment Structure	12/31/16 MV (1)	% of Liquid	2017 W/D	12/31/17 MV(1) (2)
Wedge Capital	Domestic Equity	Separate Account	$33.2	19.8%	($23.7)	$9.5
Vanguard	Domestic Equity	Mutual Fund	$72.8	43.4%	($52.1)	$20.7
Gryphon	International Equity	Separate Account	$9.6	5.7%	($6.9)	$2.7
Vanguard	Emerging Mkts Equity	Mutual Fund	$5.5	3.3%	($3.9)	$1.6
F.Templeton	Global Bonds	Commingled Fund	$34.6	20.6%	($24.8)	$9.8
SBH	Inv. Grade Bonds	Separate Account	$6.8	4.1%	($4.9)	$1.9
Chartwell	Short Duration HY	Separate Account	$5.2	3.1%	($3.7)	$1.5
		Totals:	$167.7M	100.0%	$120.0	$47.7

(1) In millions
(2) Projected and assuming no market fluctuation.

Assuming there is no change in the market values of illiquid assets during this time period, the projected December 31, 2017 market value of Total Fund assets is $246.2 million with an ending asset allocation as follows:

Asset Class	Actual Allocation	Target
Domestic Equity	12.3%	30.0%
International Equity	1.1%	5.0%
Emerging Markets Equity	0.6%	5.0%
Investment Grade Fixed Income	0.8%	5.0%
Global Bonds	4.0%	10.0%
High Yield Fixed Income	0.6%	4.5%
Real Estate	32.3%	15.0%
Hedge Fund of Funds	22.3%	10.0%
Global Tactical Asset Allocation	25.1%	15.0%
Cash	0.9%	0.5%
Total:	100.0%	100.0%

As requested at the January 26, 2017 Board of Trustees' meeting, the long term expected return of the portfolio as of December 31, 2017 is 7.27% with a standard deviation of 7.60. The return expectations are based on the 2016 IPS 10 – 20 year net of fee index return expectations. Given the assets of the Fund are expected to be exhausted within approximately three to four years, long term risk and return assumptions may not be meaningful. In addition, the projections assume the Fund's asset allocation remains at these percentage allocations over that entire time period.

Scenario 2 – Funding Cash Needs Utilizing Illiquid Investments

1. Hedge Fund of Fund Managers – Reduce Target from 10% to 0%

   By eliminating the allocation to hedge fund of funds, the Pension Fund would generate approximately $54 million in cash. The managers involved (EnTrust and Mesirow) both require a minimum of 90 days' notice for transactions, therefore the next opportunity to redeem is June 30, 2017 with notice due by March 31, 2017. EnTrust would then distribute proceeds over two quarters (July & October) while Mesirow would distribute the majority of proceeds 4-6 weeks following the valuation date (August).

2. Real Estate – Rebalance to 15% Target

   The current market of the JP Morgan real estate portfolio is $80 million. Rebalancing the asset class to the 15% target as of December 31, 2017 would require a reduction in assets by $40 million (15% of 12/31/17 projected TF assets = $40 million).

   JP Morgan is limited to quarterly valuations with 45 days' notification required. Redemptions submitted at the end of each calendar quarter become available the following month (April, July, October, January).

3. GTAA – Rebalance to 15% Target

   The current market value of the First Eagle GTAA portfolio is $62 million. Rebalancing the asset class to the 15% target as of December 31, 2017 would require a reduction in assets by $22 million (15% of 12/31/17 projected TF assets = $40 million).

The above three transactions would generate a total of $116 million cash if completed in full. However, we do not recommend rebalancing the RE and GTAA targets to the year-end target in the short term (i.e., submitting the full $40M + $22M effective March 31, 2017).

Under this scenario, we illustrate funding the $120 million cash needs for the year by utilizing the liquid managers for a portion of the year ($30 million pro-rata, shown below) with the proceeds received from the elimination of HFoF mangers ($54 million) and partial RE/GTAA rebalancing ($36 million - $12 million from First Eagle GTAA and $24 million from JPM RE) for a portion of the year.

Investment Manager	Asset Class/ Portfolio Style	Investment Structure	12/31/16 MV (1)	% of Liquid	2017 W/D	12/31/17 MV(1) (2)
Wedge Capital	Domestic Equity	Separate Account	$33.2	19.8%	($6.0)	$27.2
Vanguard	Domestic Equity	Mutual Fund	$72.8	43.4%	($13.0)	$59.8
Gryphon	International Equity	Separate Account	$9.6	5.7%	($2.0)	$7.6
Vanguard	Emerging Mkts Equity	Mutual Fund	$5.5	3.3%	($1.0)	$4.5
F.Templeton	Global Bonds	Commingled Fund	$34.6	20.6%	($6.0)	$28.6
SBH	Inv. Grade Bonds	Separate Account	$6.8	4.1%	($1.0)	$5.8
Chartwell	Short Duration HY	Separate Account	$5.2	3.1%	($1.0)	$4.2
		Totals:	$167.7M	100.0%	$30.0	$137.7

The projected ending asset allocation utilizing this scenario (assuming no market fluctuation) is as follows:

Asset Class	Actual Allocation	Target
Domestic Equity	35.4%	30.0%
International Equity	3.1%	5.0%
Emerging Markets Equity	1.8%	5.0%
Investment Grade Fixed Income	2.4%	5.0%
Global Bonds	11.6%	10.0%
High Yield Fixed Income	1.7%	4.5%
Real Estate	22.6%	15.0%
Hedge Fund of Funds(3)	0.3%	10.0%
Global Tactical Asset Allocation	20.3%	15.0%
Cash	0.9%	0.5%
Total:	100.0%	100.0%

(3) Represents holdback positions from EIM Management and MDF Special Investments SPC, Ltd./MDEF June 2011/Pool 12/11.

As requested at the January 26, 2017 Board of Trustees' meeting, the long term expected return of the portfolio as of December 31, 2017 is 7.39% with a standard deviation of 10.29. The return expectations are based on the 2016 IPS 10 – 20 year net of fee index return expectations. Given the assets of the fund are expected to be exhausted within approximately three to four years, long term risk and return assumptions may not be meaningful. In addition, the projections assume the Fund's asset allocation remains at these percentage allocations over that entire time period.

Note: The primary reason scenario #1 appears to be optimal is due to the very large real estate allocation.