

Executive Summary

Key Takeaways:

❑ Funding ratio decline from 116.9% in 2003 to 76.6% in 2013

Change in assumed rate of return 7.5% to 7.0% in 2003 caused 8.8% decline in funding ratio. Early retirement incentive in 2010 caused 6.8% decline in funding ratio. These two items together account for 15.6% decline in funding, which is 39% of the overall funding ratio decline in the last 10 years. ($15.6\% / 40.3\% = 39\%$). Balance is due to investment earnings over the last 10 years in an environment where the median public fund earned less than 7.0%. With US stock markets returning +7.4%, International stocks returning +7.4% and US Bonds returning 4.6%, earning in excess of 7.0% was a difficult proposition.

When compared to a random sampling of similar plans around the Michigan, with assets between \$150,000,000 and \$250,000,000, the change in funding ratio over the last 5 years for Monroe County of -13% compares favorably to the average decline of -17%.

❑ Total Fund Performance vs. Index, vs. Peers, vs. 7.0% Target

Since hiring Graystone Consulting in 2012, our implemented changes have generated excess performance vs. allocation index and actuary assumed rate of return. Peer group rankings explained by conservative asset allocation.

❑ Intermediate and Long Term Performance for Investment Managers

4 of the 5 long term (greater than 5 year) Domestic and International Equity managers outperform their benchmarks by a range of 0.67% to 2.78%. Only underperforming manager, Eagle Global, terminated in 2014.

❑ Proactive vs. Reactive Changes to Portfolio

Asset allocation discussion in late 2011 to add 10% to equity from fixed (going from 50/45/5 Stock / Bonds / Cash to 60/35/5).

Further discussion in summer 2013 to allocate assets away from Fixed Income into Real Estate and Hedge Funds.

❑ Consulting Fees

Overall fee savings for the investment side of the portfolio have been substantial. Changes made in 2013 to custody and investment manager fee schedules, coupled with the long term ability for Monroe to trade at zero commission resulted in a projected \$292,622 in fee savings in 2013. Overall cost savings provided by relationship with Graystone Consulting far exceeds the 0.12% consulting fee.

Funding Ratio Changes – Similar Plans in Michigan

There are over 25 public employees retirement systems in Michigan with assets between \$150,000,000 and \$250,000,000 in assets, similar to Monroe County in asset size and demographics. Using the annual audit filing (CAFR) database available on the Michigan State Treasurer’s website, we gathered funding information from a random sampling of municipalities. Their results are listed below.

Of note – no one was immune to funding ratio declines in the last 5 years, the most readily available common time period. Monroe County’s decline of -13% compares favorably to the average decline of -17%

	2008	2009	2010	2011	2012	Funding Ratio Change Last 5 Years
Bay County	116%	110%	106%	100%	98%	-18%
Berrien County	89%	84%	80%	73%	65%	-24%
City of Monroe	112%	109%	106%	102%	100%	-12%
Farmington Hills	90%	88%	82%	83%	81%	-9%
Genesee County	83%	78%	71%	66%	69%	-14%
Southfield PF	108%	104%	96%	89%	82%	-26%
St Clair County	91%	87%	86%	83%	81%	-10%
Sterling Heights PF	95%	85%	78%	67%	66%	-29%
Washtenaw County	79%	78%	74%	70%	66%	-14%
Wyoming	103%	99%	95%	95%	86%	-17%
Monroe County	93%	89%	83%	80%	79%	-13%
	Average					-17%

MI Retirement System Funding Ratio Distribution

	All Plans
Average	78.2%
25th Percentile	87.9%
Median	78.3%
75th Percentile	67.1%
Response Count	97

Monroe County = 79.3% funded

Data as of 2012 MAPERs Plan Survey, most recent survey data available.

Assumed Rate of Return = Long Term Focus

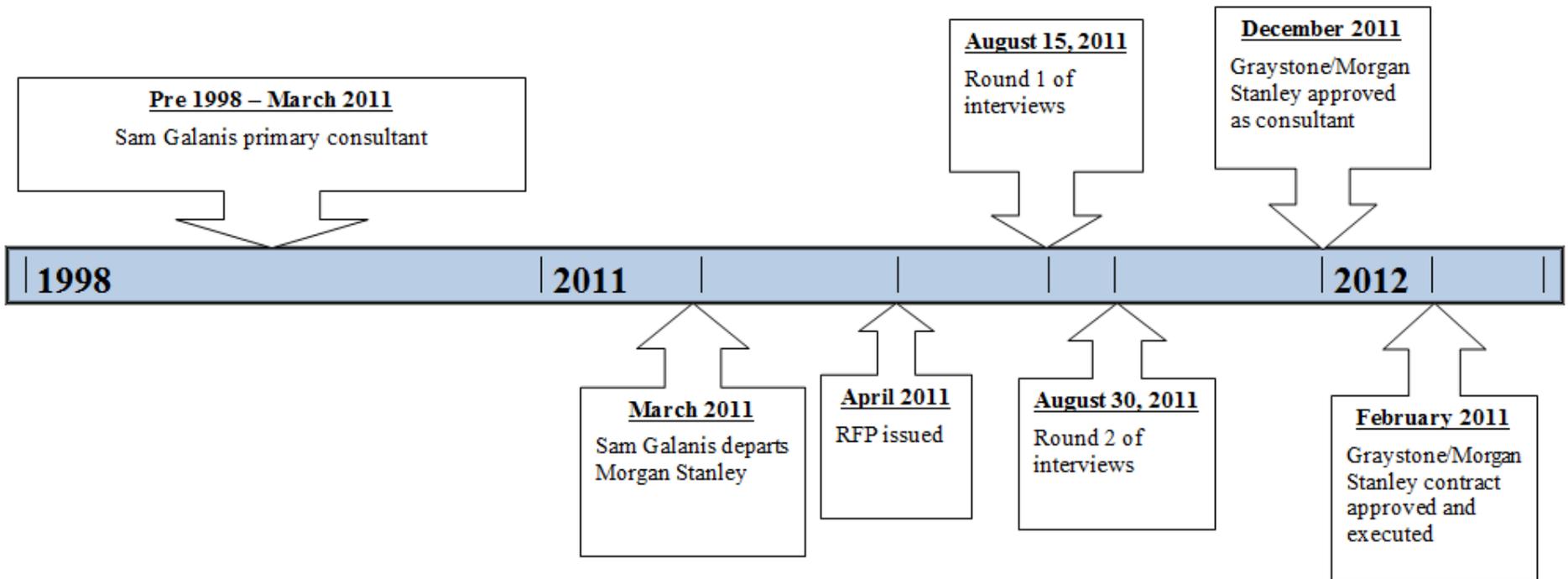
	# of Occurrences	Greater than 7.0%		Greater than 7.5%		Greater than 8.0%	
		#	%	#	%	#	%
Rolling 1 Year Time Periods	144	99	69%	98	68%	98	68%
Rolling 5 Year Time Periods	128	92	72%	90	70%	86	67%
Rolling 10 Year Time Periods	108	91	84%	86	80%	76	70%
Rolling 15 Year Time Periods	88	74	84%	67	76%	64	73%
Rolling 20 Year Time Periods	68	68	100%	67	99%	58	85%

Funds needed for employee pensions are contributed over the employees working career, often 25+ years. Pensions are then paid over an employees life span, hopefully in excess of another 25+ years. The actuarial assumed rate of return (7.0%, 7.5%, 8.0%, etc) is to be earned over the lifetime of that employee, not every single year. Market dynamics make the assumed rate of return easy to achieve in some years (think 2013), difficult in others (think 2008).

Only once you reach 20+ year time periods does 7.0% become a consistently reachable target. Higher return assumptions are still difficult to achieve on a 20 year basis.

Assumptions: 40% US Equity, 20% Int'l Equity, 40% Fixed Income portfolio. Data from 1976 to present.

Timeline of Consulting Changes



Investment Results

Investment Results

Observations

- MCERS' investment results consistently underperform the investment objective ('Policy Index') established by the consultant.
- Longer-term results fail to meet the 7.0% actuarial rate of return assumption



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To better assist the trustees in evaluation of performance, when Graystone was retained in February of 2012, we added a “Manager Allocation Index” to the performance report. Unlike the Policy Index, which is a static blend, the Manager Allocation Index is re-weighted every month, based upon the live asset allocation at the beginning of each month. By example, Fixed Income may have a long term target of 30.0%, but if the fixed income allocation were 25% at the beginning of June, the Manager Allocation Index would reflect a weighting of 25% fixed income for performance for the month of June. The same would be true if Fixed Income were 35% of the total portfolio.

The Manager Allocation Index is designed to most closely replicate the passive performance of the total portfolio. Any asset allocation over or underweights would be reflected, and would all drive performance to be different than that of the policy index.

While the policy index is a long term proxy for a blend to generate the 7.0% assumed rate of return, the Manager Allocation Index is a better measure of short and intermediate term performance for the total fund.

Since Graystone Consulting began working in early 2012, performance has been well in excess of the assumed rate of return. More accurately, the portfolio has also outperformed the Manager Allocation Index, which is an apples to apples comparison of the equivalent of the Total fund in a passive (indexed) format. Detail is included below.

The “Manager Allocation Index” is best benchmark of how you are actually invested.

It is designed to mirror your actual investment allocation stocks, bonds and cash.

	Calendar Year 2013	Calendar Year 2012	Trailing 2 Years
Combined Account	12.54%	9.29%	10.91%
<i>Manager Allocation Index</i>	<i>11.64%</i>	<i>9.37%</i>	<i>10.50%</i>
<i>Difference</i>	<i>0.90%</i>	<i>-0.08%</i>	<i>0.41%</i>

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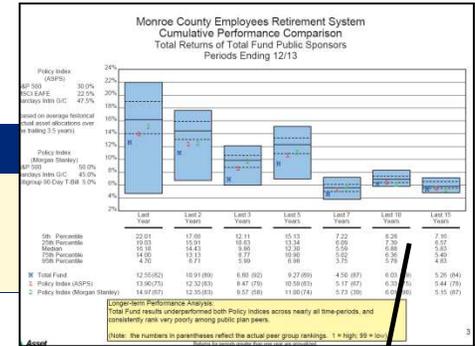
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- ❑ Total Fund returns have consistently outperformed Policy and Manager Allocation Index over the long term.
- ❑ True long term returns (greater than 20 years) well exceeds the 7.0% assumed rate of return by a margin of 1.15%
- ❑ Interim returns (last 10 and 15 years) are a product of a market environment that did not provide opportunity for returns greater than 7.0%. By example – US Stocks (S&P 500) only returned +4.65% in the last 15 years.

	As of 12/31/2013			
	<u>Trailing 10 Years</u>	<u>Trailing 15 Years</u>	<u>Since Inception</u>	<u>Inception Date</u>
Combined Account	6.02%	5.26%	8.15%	Jun-90
Manager Allocation Index	5.52%	4.80%	8.07%	
<i>Diff vs. Mgr Alloc Index</i>	<i>0.50%</i>	<i>0.46%</i>	<i>0.08%</i>	
Policy Index	5.90%	5.15%	8.14%	
<i>Diff vs. Policy Index</i>	<i>0.12%</i>	<i>0.11%</i>	<i>0.01%</i>	
S&P 500 Index	7.41%	4.65%	9.52%	
MSCI EAFE Index	7.39%	4.96%	5.78%	
BC Government / Credit	4.52%	5.22%	6.59%	

Investment Results



Investment Results

Observations

➤ MCERS' investment results consistently underperform the investment objective ('Policy Index') established by the consultant.

➤ Longer-term results fail to meet the 7.0% actuarial rate of return assumption

- ❑ Universe comparisons are only one tool. Plans included in universe have return assumptions ranging from 6.0% to 8.5%. This results in drastically different underlying asset allocations.
- ❑ Long term results on a 10 year and 15 year basis have not met the 7.0% long term return assumption.
- ❑ This isn't a problem specific to Monroe County, but rather a systemic issue across ALL public pension funds have struggled to meet their return assumptions.
- ❑ In the last 15 years, median return was only 5.83%.



	Last 10 Years	Last 15 Years
5th Percentile	8.28	7.16
25th Percentile	7.39	6.57
Median	6.88	5.83
75th Percentile	6.36	5.49
95th Percentile	5.78	4.83

M Total Fund	6.03 (89)	5.26 (84)
1 Policy Index (ASPS)	6.33 (75)	5.44 (78)
2 Policy Index (Morgan Stanley)	6.01 (90)	5.15 (87)

Plan Peer Group Rankings

Plan Peer Group Rankings

Observations

- 1) MCERS' investment results consistently rank in the bottom quartile (lowest 25%) among the peer group of public employee pension plans.
- 2) The low peer group rankings might be explained by the asset allocation of MCERS versus the typical public pension plans' allocation.



Market performance over the last 5 years has been beyond expectations. The performance difference between equity and fixed income was at historic levels.

As of 12/31/13	1 Year	3 Years	5 Years
S&P 500 Index	32.39%	16.18%	17.94%
BC Interm Gov't Credit Index	-0.86%	2.91%	3.96%
Difference	33.25%	13.27%	13.98%

- ❑ This huge dispersion in returns between the equity and fixed income markets has been the largest driver of return differences between Pension Systems. Those with lower assumed rates of return (and thus, lower equity allocations) have poorer peer group rankings than their peers with higher assumed rates of return. This is noted on page 5, paragraph 4 of the Asset Strategies report. “The low peer group rankings can be explained by the more conservative asset allocation of the MCERS plan versus to the allocation of other public pension plans.”.
- ❑ Just what is the impact? Every extra 5% allocation to fixed income vs. equities in the last 5 years meant a difference in total fund return of 0.70%. On a trailing 3 year basis, a 5% difference in equity vs. fixed meant a 0.66% difference in total fund return. On a trailing 1 year basis, the figures are even more extreme – every 5% difference in allocation meant a 1.66% difference in total fund return.
- ❑ A plan with a 7.0% return target vs. a 8.0% return target focused solely on Equities and Fixed Income would result in two different allocation targets. To get the extra 1.0% long term return, the 8.0% return target would be a 70/25/5 Equity / Fixed / Cash allocation vs. a 50/45/5 equity/fixed/cash allocation for the 7.0% return (identical to Monroe County’s target). Additional 20% in allocation directed towards the equity markets makes a meaningful impact on returns and universe comparisons.

Impact of Allocation Change to Overall Returns and Rankings

As of 12/31/13	1 Year	2 Years	3 Years	5 Years
S&P 500 Index	32.39%	23.93%	16.18%	17.94%
BC Intermediate Gov't Credit Index	-0.86%	1.49%	2.91%	3.96%
Difference	33.25%	22.44%	13.27%	13.98%

	1 Year	2 Years	3 Years	5 Years
Monroe County ERS Return	12.55%	10.90%	6.80%	9.27%
Rank vs. Peers	82	89	92	89
Return impact of 20% additional Equity	6.65%	4.49%	2.65%	2.80%

Likely Return w/ 20% change in Allocation	19.20%	15.39%	9.45%	12.07%
Likely Peer Group Ranking	22	38	67	55

Assumes change from 50/45/5 Equity/Fixed/Cash allocation to 70/25/5 Equity / Fixed Cash allocation.

Investment Manager Results

Investment Manager Results

Observations

- 1) Performance of existing plan managers (as of 12/31/2013) is summarized in the MCERS 2013 Performance Report.
- 2) All current U.S. equity managers underperformed their benchmark index for the trailing 5-year period.
- 3) Two of the four U.S. equity managers, both retained for more than 10 years, underperformed their benchmark for the trailing 5-year period and rank poorly among their peer group.
- 4) Two of the four international equity managers, underperformed for the trailing 5-year period and rank poorly among their peer group.
- 5) Manager turnover (firing then replacing) is high. 15 managers in 15 years.

Asset Strategies 13 PURE MICHIGAN

	<u>Trailing</u> <u>5 years</u>	<u>Since</u> <u>MCERS Hired</u>	<u>MCERS</u> <u>Hire Date</u>
NWQ Large Value	15.28%	11.66%	Jun-03
<i>Russell 1000 Value Index</i>	16.67%	8.78%	
<i>Difference</i>	-1.39%	2.88%	
Anchor Capital Mid Value	14.58%	11.20%	Nov-01
<i>Russell Mid Cap Value Index</i>	21.16%	10.49%	
<i>Difference</i>	-6.58%	0.71%	

- ❑ 2/2 Domestic Equity managers with 5 year track records outperforming since MCERS hired.
- ❑ NWQ Large Value replaced in 2014.
- ❑ Anchor Capital reduced and under consideration for elimination in 2014.

Cumulative Performance above the benchmark of **34.7%** since MCERs hired results in an **additional \$4.8 million** in value on the original \$14 million investment.

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	<u>Trailing</u> <u>5 years</u>	<u>Since</u> <u>MCERS Hired</u>	<u>MCERS</u> <u>Hire Date</u>
Templeton Int'l Equity	12.00%	6.29%	Sep-97
<i>MSCI EAFE Index (Net)</i>	<i>12.96%</i>	<i>4.97%</i>	
<i>Difference</i>	<i>-0.96%</i>	<i>1.32%</i>	
Renaissance Int'l Equity	14.45%	16.07%	Nov-08
<i>MSCI EAFE Index (Net)</i>	<i>12.96%</i>	<i>13.52%</i>	
<i>Difference</i>	<i>1.49%</i>	<i>2.55%</i>	
Eagle Global Int'l Equity	10.70%	11.89%	Nov-08
<i>MSCI EAFE Index (Net)</i>	<i>12.96%</i>	<i>13.52%</i>	
<i>Difference</i>	<i>-2.26%</i>	<i>-1.63%</i>	
Lazard Emerging Markets	N/A	2.59%	Dec-10
<i>MSCI Emerging Markets Index</i>	<i>15.15%</i>	<i>-2.06%</i>	
<i>Difference</i>	<i>N/A</i>	<i>4.65%</i>	

3/4 International Equity managers outperforming since MCERS hired.

Eagle Global eliminated in 2014.

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- Manager terminations can occur for a number of reasons – including but not limited to underperformance, qualitative changes (such as a portfolio manager departure), allocation changes, or investment strategy changes.
- Since Graystone Consulting began working with Monroe County in 2012, manager terminations have been focused on reducing the roster of managers, eliminating underperforming managers and concentrating in an areas of opportunity. Traditional manager roster has been reduced from 14 to 10.
- While we cannot speak to the rationale behind manager changes prior to 2012, 15 changes over 15 years equates to an average of 1 manager change per year.
- With 15 managers in the overall roster, 1 change per year equals 6.7% annual turnover.

Consultant Fees Comparison

Consultant Fees

▶ Consulting fees, at 12 basis points (0.12% times \$189.4 million = \$227,280), are the highest among the 11 Counties responding. The Board should address this significant disparity.

Consultant's response to the Committee's request for fee disclosures was 7 basis points for advisory-only services. This causes confusion because Morgan Stanley charged the plan 15 basis points (25% more) through September 2012, and then suddenly reduced the fee to 10 basis points for a period of 8 months. Then the fee jumped (20%), back to the 12 basis points of today.

▶ The consultant states the fee includes "other services", which is the 5 basis points higher cost between their current 12 basis points and the advisory-only fee of 7 basis points. It appears the Plan might be due a refund from Morgan Stanley because it was charged for services they did not deliver.



Using 12/31/2013 market value for calculations, coupled with actual trading activity for calendar year 2013, the below detail provides the net impact to the Graystone Consulting / Morgan Stanley fee after consideration for cost savings provided in trading, custody and manager fee reductions.

Our fees are bundled, meaning we do not price trading, custody, manager fee negotiation, consulting fees, etc separately. The 0.12% is an all inclusive fee for all services. We are able to provide cost savings in three key areas – custody, trading (zero commissions) and manager fee negotiations. The net effect of those three cost savings areas result in a POSITIVE impact to the Retirement System.

12/31/2013 Market Value	\$189,403,012	
Morgan Stanley Consulting Fee	0.12%	\$227,284
Less Trading Cost Savings	-0.03%	-\$57,891
Less Custody Cost Savings	-0.02%	-\$39,554
Less Manager Fee Savings	-0.10%	-\$195,176
Total Fee Savings	-0.15%	-\$292,622

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- ▶ The consultant states the fee includes "other services", which is the 5 basis points higher cost between their current 12 basis points and the advisory-only fee of 7 basis points. It appears the Plan might be due a refund from Morgan Stanley because it was charged for services they did not deliver.



Taking the comparison a step further, again using 12/31/2013 values and manager roster. Comparing our 0.12% fee vs. other consulting fees is not an apples to apples comparison. Our 0.12% includes trading, custody and manager fee negotiations, items not always included in an independent consultants fee. The below comparison uses the current manager roster, custody fee schedule prior to Morgan Stanley custodying assets, and the known bid from a local consulting firm that responded to the 2011 RFP for investment consulting services issued by Monroe County.

When accounting for the true total cost of investing, the total annual cost for all investment related services under Graystone / Morgan Stanley is \$1,076,513 per year. Under an Independent Consultant, while the consulting fees are less, the total cost is \$1,274,433 This is an increase of 0.10% or \$197,920 per year.

Absent Graystone's ability to reduce costs on custody, trading and investment management, Monroe County would be paying \$197,920 more per year for similar services.

	Graystone / Morgan Stanley		Independent Consultant		Difference	
Investment Management	0.45%	\$849,230	0.55%	\$1,044,406	-0.10%	-\$195,176
Custody	0.00%	\$0	0.02%	\$39,554	-0.02%	-\$39,554
Trading	0.00%	\$0	0.03%	\$57,891	-0.03%	-\$57,891
Investment Consulting	0.12%	\$227,284	0.07%	\$132,582	0.05%	\$94,702
Total Cost	0.57%	\$1,076,513	0.67%	\$1,274,433	-0.10%	-\$197,920

Concluding Observations

Concluding Observations

- 1) Investment results, demographics, and benefit promises, are some key drivers of the deterioration in funded status, which has fallen from 116.9% in 2003 to 76.6% at the end of 2013.
- 2) A reduction in the actuarial return assumption in 2003, from 7.5% to 7.0%, contributed to a reduction in the funded status from 116.9% to 108.1% and increased employer contributions from \$191,979 in 2003, to \$1,411, 037 in 2004.
- 3) Plan liquidity needs (benefit payments and expenses) are over \$14 million per year, and expected to increase each year. Funded status continued to drop due to poor investment results, especially in the last five years.



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- ❑ The decline in funding ratio is a result of a multitude of items, including lackluster equity market returns, early retirement incentives and a reduced return assumption.
- ❑ The 2003 reduction in assumed rate of return (from 7.5% to 7.0%) helped reduce funded ratio by 8.8% in 2003.
- ❑ Early retirement program in 2010 helped contribute to a 6.8% decline in the funding ratio. ***It's important to note that an Early Retirement Program isn't a cost savings, it's a cost shift from general fund to the retirement system.***
- ❑ Increasing benefit payments are inherent in a maturing pension system. Investment results in the last 5 years FAR exceed the 7.0% return assumption. The 7 year smoothing will result in a slower recognition of these gains, meaning a more modest pace of improvement in funding ratio vs. peers.

Concluding Observations

Concluding Observations (cont.)

- 4) The County continues to fund the annual required contribution, however, poor investment results and changing demographics continue to impact the Plan's financial health.
- 5) Employer contributions continued to increase and rose to \$7.2 million in 2012.



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- ❑ Roughly 40% of the decline in funding ratio over the last 10 years is attributable to plan demographics – decreased assumed rate of return, early retirements, longer lifespans.
- ❑ The remaining cause is related to the capital markets failing to deliver market returns at or above the 7.0% return assumption. This is a systemic issue across all public funds. Most plans did not achieve their actuary assumptions in the last 10 years.
- ❑ Performance under the actuarial assumed rate of return has been a common occurrence across a variety of public plans over the last 10 years. Of the 9 counties with 10 year returns shown in Exhibit 11 of the ASPS report, only 1 generated a return in excess of the assumed rate of return. All others trailed, some to a larger degree than Monroe County.
- ❑ Projected future contributions should be discussed with the actuary, as they will allow the Board of Trustees and the County to better understand future costs.

	10 Year Return as of 12/31/13	Assumed Rate of Return	Difference
Monroe	6.0%	7.0%	-1.0%
Bay	7.4%	7.5%	-0.1%
Genesee	6.2%	8.0%	-1.8%
Jackson	6.8%	7.5%	-0.7%
Kent	7.4%	7.0%	0.4%
Macomb	7.2%	7.5%	-0.3%
Midland	7.4%	7.5%	-0.1%
St Clair	6.5%	7.5%	-1.0%
Washtenaw	6.1%	7.3%	-1.1%

Investment Policy / Asset Allocation / Cash Flow

Investment Policy/Asset Allocation

- ✓ The Investment Policy must be re-worked for long-term, consistent, risk-adjusted results. The Board of Trustees is responsible, in conjunction with the actuary and investment consultant.
- ✓ Review the investment policy and objectives with your Actuary. Discuss their assumptions, concerns, future contributions, other sources of funding risk, liquidity needs, and expected change in funded status, if investment results don't improve.
- ✓ Determine the risk tolerance of the Board relative to the required rate-of-return. While some regard 'risk' as losing investment principal/capital, there is also the risk of not attaining the asset growth necessary to meet the Plan's growing liabilities. The appropriate trade-off can be measured and addressed.



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- ❑ Investment Policy Statement reviewed on an annual basis, more often as needed. Reviewed in August 2012, August 2013, and currently undergoing review in 2014 as exposure to equities was increased, along with new additions to Hedge Funds and Real Estate to position the portfolio for best opportunities in years ahead.
- ❑ Asset allocation discussed in 2011, 2012, 2013 and 2014 with a focus on intelligently adding risk to the portfolio, focusing on increasing returns while protecting against losses.

Cash Flow and Liquidity Needs

- ✓ Ask your consultant to evaluate the asset allocation policy relative to the Plan's financial condition, liability horizon, asset growth and liquidity needs, and recommend investment policy changes.



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Manager Roles & Performance

Manager Roles & Performance

- ✓ Have the consultant justify the high turnover of investment managers (15 changes) over the past 15 years.
- ✓ Have the consultant explain the 'disconnects' and inconsistency in their performance reporting.
- ✓ Have the consultant explain why investment management fees are lower than average. Then, ask them to explain why the managers' performance is also below average.



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- ❑ Turnover of managers is addressed on page 10. Recent terminations have been focused on reallocating portfolio to areas of future opportunity.
- ❑ Importing and verifying historical performance is a labor and time intensive task. We are pleased to note that calculated performance by Morgan Stanley and Asset Strategies differs by only 0.01% over the last 10 years.
- ❑ Addressed on pages 8 and 9. Long term performance for all investment managers remains strong. Changes have been implemented where needed, including terminations and focusing assets on areas of highest conviction.

Plan Actuarial Valuation Data / Capital Markets Data

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Total
Investment Gain (Loss)	-\$6,931,958	-\$5,938,801	-\$1,069,906	\$3,756,621	-\$12,306,486	-\$4,654,501	-\$4,264,038	-\$6,671,341	-\$6,474,575	-\$5,457,005	-\$50,011,990
Non Investment Gain (Loss)	-\$1,847,389	-\$4,613,136	-\$1,200,808	-\$3,259,612	\$759,892	-\$1,975,953	-\$13,179,830	-\$2,178,112	\$4,462,799	-\$3,286,217	-\$26,318,366
Total Impact to Liability	-\$8,779,347	-\$10,551,937	-\$2,270,714	\$499,016	-\$11,544,586	-\$6,628,445	-\$17,441,858	-\$8,847,442	-\$2,009,764	-\$8,741,209	-\$76,330,356
Funded Ratio	108.1%	99.7%	97.3%	97.0%	92.5%	89.3%	83.2%	79.7%	79.3%	76.6%	
Contributions	\$1,721,323	\$2,363,369	\$3,529,751	\$5,269,167	\$5,609,406	\$5,743,482	\$7,774,958	\$6,657,763	\$7,954,023	\$7,971,085	\$54,594,327
Benefit Pays / Refunds / Admin Expenses	-\$6,384,505	-\$7,219,460	-\$7,605,614	-\$8,718,508	-\$8,691,886	-\$10,076,635	-\$12,480,662	-\$13,456,305	-\$13,640,339	-\$14,095,799	-\$102,369,713
Net Cash Flow	-\$4,663,182	-\$4,856,091	-\$4,075,863	-\$3,449,341	-\$3,082,480	-\$4,333,153	-\$4,705,704	-\$6,798,542	-\$5,686,316	-\$6,124,714	-\$47,775,386

Manager vs Benchmark: Return

Thru 12/31/2013	1 year	2 years	3 years	4 years	5 years	10 years	15 years	20 years
S&P 500	32.4%	23.9%	16.2%	15.9%	17.9%	7.4%	4.7%	9.2%
Dow Jones Industrial Average	29.7%	19.6%	15.7%	15.3%	16.7%	7.4%	6.5%	10.2%
Russell 2000	38.8%	27.1%	15.7%	18.4%	20.1%	9.1%	8.4%	9.3%
MSCI EAFE Index	23.3%	20.6%	8.7%	8.6%	13.0%	7.4%	5.0%	6.1%
MSCI EM (EMERGING MARKETS)	-2.3%	7.7%	-1.7%	3.1%	15.2%	11.5%	11.2%	5.7%
Citigroup 3-month T-bill	0.1%	0.1%	0.1%	0.1%	0.1%	1.6%	2.2%	2.9%
Barclays U.S. Aggregate	-2.0%	1.1%	3.3%	4.1%	4.4%	4.6%	5.2%	5.7%

	2009	2010
Investment Gain (Loss)	-\$4,654,501	-\$4,264,038
Non Investment Gain (Loss)	-\$1,975,953	-\$13,179,830
Total Impact to Liability	-\$6,628,445	-\$17,441,858
Funded Ratio	89.3%	83.2%

	2009	2010
Contributions	\$5,743,482	\$7,774,958
Benefit Pays / Refunds / Admin Expenses	-\$10,076,635	-\$12,480,662
Net Cash Flow	-\$4,333,153	-\$4,705,704

- ❑ Impact of Early Retirement program is seen in \$13,179,830 increase in unfunded actuarial accrued liability in 2010.
- ❑ Early Retirement also resulted in increase of \$2.0 million in Contributions and \$2.4 million in Benefit Pays from 2009 to 2010.

Timeline of Events

Monroe selected Graystone Consulting in December 2011, contracts signed February 2012

- 7/2011: Asset Allocation Study / Investment Policy Statement (IPS) Draft Updates
- 8/2011: Continued Asset Allocation Study / IPS Discussion
- 2/2012: **Terminated Alpine and Diamond Hill**
Presented Dividend Manager Search
- 3/2012: Reviewed IPS, proposed changes –Approved September 2012
Reviewed Alternative Investments – Interviewed January 2013, Chosen August 2013
Presented the Dividend Manager Search
- 4/2012: Dividend Manager Presentations –Manager chosen in August 2012
- 8/2012: Dividend Manager decision was made
- 9/2012: IPS was approved
- 10/2012: Started Alternative Investments education
- 1/2013: Hedge Fund of Fund manager presentations –approved in August 2013
- 2/2013: Recommended movement of Brandywine GFI to commingled fund
- 3/2013: **Terminated Tradewinds**
Terminated Pacific Income
- 4/2013: Custodial Fee analysis
- 7/2013: Brandywine GFI was approved to be moved to the commingled fund
- 8/2013: Updated Asset Allocation Study – Addition of Real Estate / Hedge Funds
Manager Search for Real Estate
Manager Search for Small Cap
Terminated Eagle International Equity
- 9/2013: Alt managers incepted
- 10/2013: Real Estate Manager hired
Small Cap Manager hired
- 11/2013: Morgan Stanley was approved to be the custodian
Hired Mid-grade Low Duration fund
- 1/2014: Morgan Stanley custodial services agreement approved
- 2/2014: Transfer of assets to Morgan Stanley

Investment Manager Fees – As of 12/31/2013

Manager	Market Value	Comerica Custody		Morgan Stanley Custody		Difference	
		Annual Fee %	Annual Fee \$	Annual Fee %	Annual Fee \$	Annual Fee %	Annual Fee \$
Anchor Mid Value	\$ 16,215,431	0.54%	\$ 87,077	0.47%	\$ 76,212.53	-0.07%	(\$10,865)
Boyd Watterson Fixed Income	\$ 44,053,331	0.32%	\$ 140,971	0.32%	\$ 140,970.66	0.00%	\$0
Brandywine Global Fixed Income	\$ 25,712,635	0.45%	\$ 115,707	0.45%	\$ 115,706.86	0.00%	\$0
Eagle International	\$ 9,237,194	0.75%	\$ 69,279	0.47%	\$ 43,414.81	-0.28%	(\$25,864)
Federated Strategic Dividend	\$ 8,821,983	0.50%	\$ 44,110	0.47%	\$ 41,463.32	-0.03%	(\$2,647)
Lazard Emerging Markets	\$ 9,746,845	0.75%	\$ 73,101	0.47%	\$ 45,810.17	-0.28%	(\$27,291)
NWQ Large Value	\$ 14,658,299	0.50%	\$ 73,291	0.47%	\$ 68,894.01	-0.03%	(\$4,397)
Renaissance International	\$ 11,782,601	0.75%	\$ 88,370	0.47%	\$ 55,378.23	-0.28%	(\$32,991)
Templeton International	\$ 13,764,977	0.75%	\$ 103,237	0.47%	\$ 64,695.39	-0.28%	(\$38,542)
Winslow Large Growth	\$ 24,422,633	0.60%	\$ 146,536	0.47%	\$ 114,786.37	-0.13%	(\$31,749)
Corbin - HFoF	\$ 3,118,386	1.50%	\$ 46,776	1.00%	\$ 31,183.86	-0.50%	(\$15,592)
Mesirow - HFoF	\$ 2,095,123	1.00%	\$ 20,951	0.75%	\$ 15,713.43	-0.25%	(\$5,238)
Intercontinental RE	\$ -	0.00%	\$ -	1.00%	\$ -	1.00%	\$0
Titanium GSA	\$ 3,500,000	1.00%	\$ 35,000	1.00%	\$ 35,000.00	0.00%	\$0
Cash Account	\$ 2,273,571	0.00%	\$ -	0.00%	\$ -	0.00%	\$0
Total	\$ 189,403,012	0.55%	\$ 1,044,406	0.45%	\$ 849,230	-0.10%	(\$195,176)

	Current	MS Custody	Difference
Comerica Bank Custody Fees			
0.03% on first \$100 million			
0.015% on balance.			
Estimated Annual Investment Manager Fees	\$1,044,406	\$849,230	(\$195,176)
2013 Annual Custody Costs	\$39,554	\$0	(\$39,554)
Total	\$1,083,960	\$849,230	(\$234,730)

Notes:

1. Estimated custody costs do NOT include costs associated with benefits administration. Morgan Stanley is not able to perform benefits administration, so the costs were not included to allow for a direct comparison.
2. Custody fees associated with Brandywine were not included, which are roughly \$7,800 per year. Brandywine could be moved to a commingled fund to alleviate the existing custody costs. Under MS custody, the Brandywine portfolio would be required to be in a commingled vehicle.

Disclosures

Important Disclosures

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