

County of Saginaw
State of Michigan
Amended and Restated
Comprehensive Financial Plan for
Pension and Other Postemployment
Employment Benefits

February 19, 2013

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Executive Summary

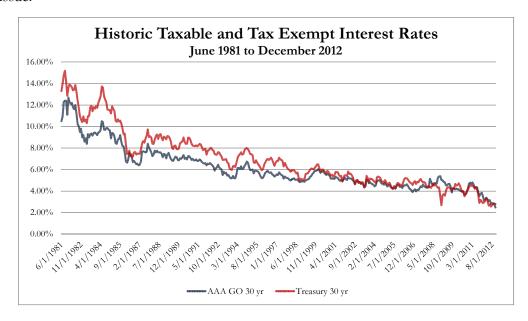
Saginaw County has a both a defined contribution and a defined benefit plan for both pension and post-employment healthcare benefits for eligible employees. The County closed its defined benefit plan requiring all employees hired after January 1, 1994 to participate in the defined contribution pension plan. As noted in the Summary of Unfunded Accrued Liability – Pension Report contained within Tab I of this Financial Plan, the County's defined benefit total accrued actuarial liability is \$138,842,567. The unfunded accrued liability, as shown on page one of the Michigan Employee Retirement System ("MERS") report dated February 8, 2013, based on the market value of assets as of December 31, 2012 was \$63,800,000. (For purposes of demonstrating that the Bond proceeds, coupled with other legally available funds, are sufficient to eliminate the unfunded accrued liability, the unfunded accrued liability of \$64,100,000, based upon December 31, 2011 valuation results and found on page four of the February 8, 2013 MERS Report, was used.) Although the unfunded accrued liability was updated to reflect the December 31, 2012 data, the detail regarding each plan was not updated. Accordingly, both the February 8, 2013 report and the Fall 2012 reports are included within Tab I.

The annual payment for the County's defined benefit pension plan has increased by 53% from 2010 to 2012 and is expected to continue to increase, as highlighted below, based upon the February 8, 2013 MERS Option B calculations sized for the market value of assets, as shown in Tab I.

	Defined Benefit Retirement
	Payments
2010 Actual	\$3,042,603
2011 Actual	\$3,957,850
2012 Actual	\$4,660,687
2013 Budget	\$5,288,550
2014 Estimate	\$6,242,445
2015 Estimate	\$6,300,000
2016 Estimate	\$6,600,000

In order to provide better budgetary certainty, the County would like to issue Pension Obligation Bonds, as authorized under Act 34, Public Acts of Michigan, 2001, as amended ("PA 34"). PA 34 allows the County to issue bonds and use the proceeds to pay all or part of the costs of the "unfunded pension liability" for the County's defined benefit pension plan and to pay costs of issuance of the bonds. "Unfunded pension liability" means the amount the defined benefit pension plan's liabilities exceed its assets according to the most recent governmental accounting standards board's applicable standards. It is the County's intent to issue Pension Obligation Bonds in an amount not to exceed the cost of its unfunded pension liability (plus costs of bond issuance), thereby funding the unfunded accrued liability described in the first paragraph of this Executive Summary. The County would then have an annual bond payment rather than the annual unfunded accrued liability payment. The County is aware that as the value of the assets and liabilities change, the liability could grow requiring additional contributions. Likewise, the County understands that the change in the value of the assets and liabilities could result in the plan becoming overfunded.

Given the historically low interest rates, as shown on the following page, the County anticipates receiving favorable interest rates for the Pension Obligation Bonds it intends to issue.



Assuming the Pension Obligation Bonds are issued for 20 years under current interest rates, the estimated annual bond payment is expected to be approximately \$4,599,000. Provided below is a comparison of the annual unfunded accrued liability amortization payment provided by MERS to the estimated annual bond payments.

	20 Year Bond Amortization			
Fiscal Year	Pension			
Ending	Payment			Present
September	Based on	Bond		Value @
30	MERS *	Payments **	Difference	3.60%
2014	\$6,242,445	\$4,596,998	\$1,645,447	\$1,564,498
2015	6,300,000	4,597,535	1,702,465	1,561,973
2016	6,600,000	4,600,308	1,999,693	1,770,366
2017	6,900,000	4,599,948	2,300,053	1,964,907
2018	7,200,000	4,601,233	2,598,768	2,142,280
2019	7,500,000	4,597,453	2,902,548	2,308,833
2020	7,900,000	4,599,598	3,300,403	2,533,288
2021	8,200,000	4,597,038	3,602,963	2,668,590
2022	8,600,000	4,600,718	3,999,283	2,858,305
2023	9,000,000	4,601,358	4,398,643	3,033,540
2024	9,400,000	4,596,963	4,803,038	3,196,329
2025	9,800,000	4,601,643	5,198,358	3,338,151
2026	10,300,000	4,601,483	5,698,518	3,531,069
2027	2,500,000	4,597,558	(2,097,558)	(1,254,188)
2028	600,000	4,599,353	(3,999,353)	(2,307,506)
2029	600,000	4,600,945	(4,000,945)	(2,227,513)
2030	0	4,601,545	(4,601,545)	(2,472,099)
2031	0	4,597,260	(4,597,260)	(2,383,228)
2032	0	4,599,500	(4,599,500)	(2,300,815)
2033	0	4,598,820	(4,598,820)	(2,219,841)
	\$107,642,445	\$91,987,250	\$15,655,195	\$17,306,941

^{*} Assumes Option B calculation, sized for market value of assets

^{**} Estimate only based on market conditions on February 8, 2013.

Based on the preceding analysis, the County has determined that it is financially beneficial to pursue the issuance of Pension Obligation Bonds in an aggregate principal amount not exceed \$75,000,000.

As outlined in PA 34, the Amended and Restated Comprehensive Financial Plan contains the following elements:

- An analysis of the current and future obligations with respect to each retirement program of the County. The County has both a defined benefit and a defined contribution pension plan. Information regarding the defined benefit plan was obtained by MERS while information regarding the defined contribution pension plan was provided by the County. Information for both plans is contained within Tab I.
- An analysis of the current and future obligations with respect to each postemployment health care plan of the County. The County has both a defined benefit and a defined contribution post-employment healthcare plan. Information regarding the defined benefit plan was obtained by the actuarial firm, Gabriel Roeder Smith & Company while information regarding the defined contribution postemployment healthcare plan was provided by the County. Information for both plans is contained within Tab II.
- Evidence that the issuance of Pension Obligation Bonds, coupled with any other legally available funds, is sufficient to eliminate the unfunded pension liability. The unfunded pension liability provided by MERS, assuming payment option B, is \$64,100,000. The Sources and Uses of Funds provided by Public Financial Management demonstrates that the bond proceeds will fully cover the liability of \$64,100,000 Both schedules are provided under Tab III. Note that the actual principal amount of Pension Obligation Bonds issued will be based upon the unfunded pension liability in existence on the date of issuance of the Pension Obligation Bonds.
- The debt service amortization schedule. The preliminary debt service amortization schedule for the Pension Obligation Bonds provided by Public Financial Management can be found under Tab IV.
- A description of actions required to satisfy the debt service amortization schedule. The Pension Obligation Bonds are a limited obligation of the County, paid from various County funds. A description of actions the County takes to allocate costs to its various funds, create the annual budget and obtain budget approval from the County Board of Commissioners is contained under Tab V.

• Certification that the Amended and Restated Comprehensive Financial Plan is complete and accurate. A certification from the County Controller / CAO attesting that the Plan is complete with information provided by reliable sources is contained under Tab VI.

PA 34 requires that Amended and Restated Comprehensive Financial Plan be prepared and made publically available. Accordingly, the County has prepared this Amended and Restated Comprehensive Financial Plan for Pension and Other Post-Employment Benefits, as required by PA 34.



Analysis of Current and Future Retirement Program Obligations for Saginaw County

February 8, 2013

Saginaw County

In care of: Municipal Employees' Retirement System of Michigan 1134 Municipal Way Lansing, Michigan 48917

Re: Saginaw County (7303) – Unfunded Accrued Liability Projections as of December 31, 2012

As requested by Saginaw County (7303), we prepared this letter to estimate the unfunded accrued liability (UAL) as of December 31, 2012. We understand that the purpose of this estimate is to satisfy certain provisions of Public Act 329 of 2012.

Please note this letter and the accompanying table and chart should be distributed to any interested parties only in its entirety.

These calculations were based on the results of the December 31, 2011 annual actuarial valuation, adjusted to December 31, 2012, to reflect the following:

- additional benefit accruals for active members.
- actual employer and member contributions made during calendar year 2012,
- actual benefit payments made during calendar year 2012,
- an interest rate assumption of 8% per annum (this is the interest rate assumption that was used by MERS to calculate accrued liabilities in the December 31, 2011 annual actuarial valuation),
- an estimated 2012 valuation asset adjustment factor of 1.16, and
- a preliminary market value of assets as of December 31, 2012 provided by the MERS Finance department.

For purposes of determining the annual funding contribution the UAL is calculated using an actuarial (smoothed) value of assets, which phases in investment gains and losses over a 10 year period. The actuarial value of assets as of December 31, 2012 reflects an implicit future investment return rate which includes both an 8% annual market return, plus making up of the 16% current difference between market value and the smoothed actuarial value of assets. Because the UAL based on the actuarial value of assets is particularly sensitive to the investment rate used, we have calculated the UAL in two ways:

- 1. Based on the preliminary December 31, 2012 actuarial value of assets, and
- 2. Based on the preliminary December 31, 2012 market value of assets.

The estimated total County UAL in MERS, based on the actuarial (smoothed) value of assets as of December 31, 2012, is \$51.5 million. The estimated total County UAL in MERS, based on the market value of assets as of December 31, 2012, is \$63.8 million.

At the County's request, we projected the annual amortization payments, starting in the fiscal year beginning October 1, 2013, under the Option B amortization policy. The results are shown in the attached table and chart. Because the County is considering funding the UAL in a lump sum using pension obligation bonds, the table and chart were developed using an amortization period decreasing (to zero) after reaching 5 years, instead of resetting at 5 years each subsequent year.

Note that the chart and the table only show the amortization payments of the UAL. Any normal cost payments are in addition to the amortization payment.

These results are for illustration purposes only. The actual amortization payments will depend on the results of future annual actuarial valuations.

A discussion of pension obligation bonds is beyond the scope of this letter. However, it is important to note that the calculated UAL and the projected amortization payments are based on estimates of future events. Actual experience will be different than assumed experience (except by coincidence), so the employer contribution requirements will differ from the projections.

Please note it is important for the County to understand and acknowledge the following implications of funding the UAL using pension obligation bonds:

- 1. The County will continue to be responsible for funding the employer normal cost as long as there are active members in the plan, and
- 2. If future financial or demographic experience is less favorable than assumed, additional UAL may emerge which would require additional County contributions.
- 3. Fully funding the current UAL does not guarantee that there will be no employer contribution requirements in the future.

The undersigned actuaries are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. Please see page 3 of this document for additional disclosures required by the Actuarial Standards of Practice.

If you have any questions or need additional information, do not hesitate to contact us.

Sincerely,

Cathy Nagy, FSA, MAAA

W. James Koss, ASA, MAAA

Actuary

Actuary

Additional Disclosures Required by Actuarial Standards of Practice

Future actuarial measurements may differ significantly from the current measurements presented in this letter due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period, or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of the actuary's assignment, the actuary did not perform an analysis of the potential range of such future measurements.

This letter should not be relied on for any purpose other than the purpose described in the primary communication. Determination of the financial results associated with the benefits described in this letter in a manner other than the intended purpose may produce significantly different results.

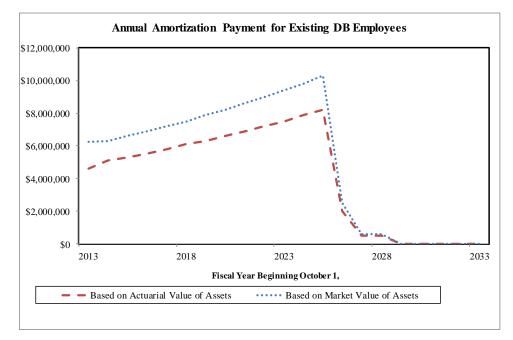
The signing actuaries are employees of MERS.

The calculation was based upon information furnished by the Municipality, concerning Retirement System benefits and member information. MERS is not responsible for the accuracy or completeness of the information provided to us for these calculations.

The developed findings included in this report consider data or other information through December 31, 2012.

Saginaw County (7303) - Total of All Divisions
Projected Amortization Payments Based on December 31, 2012 Estimated Valuation Results
Closed Amortization Policy Option B - Modified After Reaching 5-Year Amortization Period

	Base	Based on the		
	Actuarial Va	Actuarial Value of Assets		
Fiscal	Beginning		Beginning	
Year	of Year		of Year	
Beginning	UAL	Amortization	UAL	Amortization
October 1	Balance	Payment	Balance	Payment
2013	51,000,000	4,590,114	64,100,000	6,242,445
2014	50,300,000	5,100,000	62,700,000	6,300,000
2015	49,100,000	5,300,000	61,100,000	6,600,000
2016	47,500,000	5,500,000	59,200,000	6,900,000
2017	45,500,000	5,800,000	56,700,000	7,200,000
2018	43,100,000	6,100,000	53,700,000	7,500,000
2019	40,300,000	6,300,000	50,200,000	7,900,000
2020	36,900,000	6,600,000	46,000,000	8,200,000
2021	33,000,000	6,900,000	41,100,000	8,600,000
2022	28,500,000	7,200,000	35,500,000	9,000,000
2023	23,300,000	7,500,000	29,000,000	9,400,000
2024	17,300,000	7,900,000	21,500,000	9,800,000
2025	10,500,000	8,200,000	13,100,000	10,300,000
2026	2,700,000	2,000,000	3,400,000	2,500,000
2027	900,000	500,000	1,100,000	600,000
2028	500,000	500,000	600,000	600,000
2029	-	-	-	-
2030	-	-	-	-
2031	-	-	-	-
2032	-	-	-	-
2033	-	-	-	-



Note: Amortization payment for fiscal year beginning October 1, 2013 is based on 2011 valuation results. All other figures are based on estimated December 31, 2012 results reported as of February 8, 2013.

Saginaw County Summary of Unfunded Accrued Liability - Pension Based on MERS Fall 2012 Report Information as of December 31, 2011

	Total Actuarial Accrued
Group	Liability
General (01)	\$20,294,019
Sheriff POAM (02)	\$18,461,481
UAW Managers (09)	\$34,545,933
UAW Professional (10)	\$11,280,242
General Local 486 (11)	\$3,067,062
Sheriff / Cooks (13)	\$1,226,506
Nurses (14)	\$2,928,508
Health Department (15)	\$8,636,783
Elected Commissioners (16)	\$1,520,974
Animal Control (17)	\$982,208
Judges (18)	\$879,354
District Judges (19)	\$1,192,004
Sheriff FOP (20)	\$7,424,929
Sheriff / Lieutenants / Captains (21)	\$5,020,206
P.O.A.M. Non 312 (23)	\$8,097,500
Juvenile Probation (91)	\$1,310,998
District Court Probate (92)	\$1,262,745
Prosecuting Attorneys Union (93)	\$2,720,200
Upper Management (94)	\$6,173,163
NonUnion Management (95)	\$653,894
UAW Para Prf (96)	\$1,163,858
	\$138,842,567



Fall 2012

Saginaw Co

In care of: Municipal Employees' Retirement System of Michigan 1134 Municipal Way Lansing, Michigan 48917

Subject: Saginaw Co (7303) – December 31, 2011 Annual Actuarial Valuation Results Summary

This letter includes the determination of liabilities and contribution rates resulting from participation by the above-named municipality in the Municipal Employees' Retirement System of Michigan ("MERS").

Please note this letter is a summary of the final December 31, 2011 valuation results.

Our calculations were based on the following information:

- Demographic information, financial information and benefit provisions provided to us by MERS administrative staff for the December 31, 2011 annual valuation. Data was checked for internal consistency with the prior year, but was not otherwise audited by us.
- The actuarial assumptions and methods adopted by the Retirement Board for use in the December 31, 2011 annual valuation. Please refer to the division-specific assumptions described in table(s) in this letter, and to the Appendix on the MERS website at: http://www.mersofmich.com/Appendix.

The results of our calculations are shown in the table(s) beginning on page 3 of this letter. These are the final results of the December 31, 2011 annual actuarial valuation.

The undersigned actuaries are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. Please see the following page for additional disclosures required by the Actuarial Standards of Practice.

If you have questions, please contact your MERS representative.

Sincerely,

Alan Sonnanstine, MAAA, ASA Cathy Nagy, MAAA, FSA Jim Koss, MAAA, ASA



Additional Disclosures Required by Actuarial Standards of Practice

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period, or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of the actuary's assignment, the actuary did not perform an analysis of the potential range of such future measurements.

This report should not be relied on for any purpose other than the purpose described in the primary communication. Determination of the financial results associated with the benefits described in this report in a manner other than the intended purpose may produce significantly different results.

The signing actuaries are employees of MERS.

The calculation was based upon information furnished by the employer and MERS administrative staff, concerning Retirement System benefits and member information. The MERS of Michigan Actuarial Services Department is not responsible for the accuracy or completeness of the information provided to us for these calculations.

The developed findings included in this report consider data or other information through December 31, 2011.



Saginaw Co (7303) - General (01) December 31, 2011 Actuarial Valuation Results

Division Status Division Link Status Benefit Provisions Benefit Multiplier Benefit B-4 (80% max)	Closed Not Linked	Actuarial Accrued Liability Active Members \$ 4,715,535 Retirees and Beneficiaries 15,091,077 Vested Former Members 479,295 Pending Refunds 8,112 Total \$ 20,294,019
Normal Retirement Age Vesting	60 6 years	Valuation Assets ¹ \$ <u>12,758,515</u>
Early Retirement (Unreduced)	50/25	Unfunded Accrued Liability (UAL) \$ 7,535,504
	55/20	Percent Funded 62.9%
Early Retirement (Reduced) Final Average Compensation	55/15 - 5 years	Amortization Period For Positive UAL For Negative UAL 10 years
COLA for Future Retirees None COLA for Current Retirees		Employer Contribution For Fiscal Year Beginning 10/1/2013
None Member Contributions 3.88%		Percentage of Payroll Normal Cost - Amortization of UAL -
RS50% Percentage D-2	-	Total Employer Contribution -
DC Plan for New Hires	1/1/2000	Estimated Monthly Contribution ² Normal Cost \$ 4,050 Amortization of UAL 74,186 Total Employer Contribution \$ 78,236
		Annual GASB ARC \$ 938,832
		Trimual Crieb ritte
Active Members Number Annual Payroll Retirees and Beneficiaries	25 \$ 939,216	Division-Specific Assumptions Withdrawal Rate Scaling Factor 80% FAC Increase Factor 1%
Number Annual Benefits Vested Former Members	168 \$ 1,680,340	
Number Annual Deferred Benefits	17 \$ 95,179	

¹ Valuation assets are equal to 1.205815 times the reported market value of assets.

² For divisions that are open to new hires, estimated contributions are based on valuation payroll. Actual contributions will be based on actual reported monthly pays, and will be different from the above amounts (usually higher). For divisions that will have no new hires, invoices will be based on the above dollar amounts which are based on projected fiscal year payroll.



Saginaw Co (7303) - Sheriff POAM (02) December 31, 2011 Actuarial Valuation Results

Division Status Division Link Status Benefit Provisions Benefit Multiplier Benefit B-4 (80% max)	Closed Not Linked	Actuarial Accrued Liability Active Members \$ 2,893,859 Retirees and Beneficiaries 15,084,005 Vested Former Members 483,058 Pending Refunds 559 Total \$ 18,461,481
Normal Datirament Age	60	
Normal Retirement Age Vesting	6 years	
Early Retirement (Unreduced)	25 and Out	Unfunded Accrued Liability (UAL) \$ 6,853,872
	-	Percent Funded 62.9%
Early Retirement (Reduced)	- 55/15 -	Amortization Period For Positive UAL 10 years
Final Average Compensation	5 years	For Negative UAL 10 years
COLA for Future Retirees 2.50% (Non-Compound) COLA for Current Retirees		Employer Contribution For Fiscal Year Beginning 10/1/2013
None Member Contributions 4% RS50% Percentage	_	Percentage of Payroll Normal Cost - Amortization of UAL - Total Employer Contribution -
D-2 DC Plan for New Hires	9/30/2000	Estimated Monthly Contribution ² Normal Cost \$ 5,389 Amortization of UAL 67,017 Total Employer Contribution \$ 72,406
		Annual GASB ARC \$ 868,872
Active Members Number Annual Payroll Retirees and Beneficiaries	9 \$ 575,442	Division-Specific Assumptions Withdrawal Rate Scaling Factor 80% FAC Increase Factor 1%
Number Annual Benefits Vested Former Members	62 \$ 1,369,276	
Number Annual Deferred Benefits	7 \$ 61,239	

¹ Valuation assets are equal to 1.205815 times the reported market value of assets.

² For divisions that are open to new hires, estimated contributions are based on valuation payroll. Actual contributions will be based on actual reported monthly pays, and will be different from the above amounts (usually higher). For divisions that will have no new hires, invoices will be based on the above dollar amounts which are based on projected fiscal year payroll.



Saginaw Co (7303) - UAW Managers (09) December 31, 2011 Actuarial Valuation Results

			1
Division Status Division Link Status	Closed Not Linked	Actuarial Accrued Liability Active Members Retirees and Beneficiaries	\$ 7,479,208 26,746,555
Benefit Provisions		Vested Former Members	320,170
Benefit Multiplier		Pending Refunds	0
Benefit B-4 (80% max)		Total	\$ 34,545,933
Normal Retirement Age	60	Valuation Assets ¹	\$ <u>21,684,388</u>
Vesting Early Retirement (Unreduced)	6 years 55/15	Unfunded Accrued Liability (UAL)	\$ 12,861,545
	25 and Out	Percent Funded	62.8%
Early Retirement (Reduced)	-	Amortization Period	
Larry Retirement (Reduced)	-	For Positive UAL	10 years
Final Average Compensation	5 years	For Negative UAL	10 years
COLA for Future Retirees	•	Employer Contribution	
2.50% (Non-Compound)		For Fiscal Year Beginning	10/1/2013
COLA for Current Retirees None		Percentage of Payroll	
Member Contributions		Normal Cost	-
3.20%		Amortization of UAL	-
RS50% Percentage	-	Total Employer Contribution	-
D-2	-	Estimated Monthly Contribution ²	
DC Plan for New Hires	3/1/1998	Normal Cost	\$ 6,779
		Amortization of UAL	124,629
		Total Employer Contribution	\$ 131,408
		Annual GASB ARC	\$ 1,576,896
Active Members		Division-Specific Assumptions	
Number	17	Withdrawal Rate Scaling Factor	80%
Annual Payroll	\$ 1,055,648	FAC Increase Factor	1%
Retirees and Beneficiaries	70		
Number Annual Benefits	76 \$ 2,374,688		
Vested Former Members	Ψ 2,374,000		
Number	4		
Annual Deferred Benefits	\$ 68,155		

¹ Valuation assets are equal to 1.205815 times the reported market value of assets.

² For divisions that are open to new hires, estimated contributions are based on valuation payroll. Actual contributions will be based on actual reported monthly pays, and will be different from the above amounts (usually higher). For divisions that will have no new hires, invoices will be based on the above dollar amounts which are based on projected fiscal year payroll.



Saginaw Co (7303) - UAWProfessional (10) December 31, 2011 Actuarial Valuation Results

Division Status Division Link Status Benefit Provisions Benefit Multiplier Benefit B-3 (80% max)	Closed Not Linked	Actuarial Accrued Liability Active Members \$ 2,714,579 Retirees and Beneficiaries 7,886,317 Vested Former Members 679,346 Pending Refunds 0 Total \$ 11,280,242
Normal Retirement Age	60	Valuation Assets ¹ \$ 7,230,548
Vesting Early Retirement (Unreduced)	6 years 50/25	Unfunded Accrued Liability (UAL) \$ 4,049,694
	55/15	Percent Funded 64.1%
Early Retirement (Reduced) Final Average Compensation	- - - 5 years	Amortization Period For Positive UAL 10 years For Negative UAL 10 years
COLA for Future Retirees None COLA for Current Retirees		Employer Contribution For Fiscal Year Beginning 10/1/2013
None Member Contributions 0%		Percentage of Payroll Normal Cost - Amortization of UAL -
RS50% Percentage D-2	-	Total Employer Contribution -
DC Plan for New Hires	3/1/1998	Estimated Monthly Contribution ² Normal Cost \$ 3,347 Amortization of UAL 39,856 Total Employer Contribution \$ 43,203
		Annual GASB ARC \$ 518,436
Active Members Number Annual Payroll Retirees and Beneficiaries	9 \$ 526,168	Division-Specific Assumptions Withdrawal Rate Scaling Factor 80% FAC Increase Factor 1%
Number Annual Benefits Vested Former Members	\$ 826,842	
Number Annual Deferred Benefits	18 \$ 95,623	

¹ Valuation assets are equal to 1.205815 times the reported market value of assets.

² For divisions that are open to new hires, estimated contributions are based on valuation payroll. Actual contributions will be based on actual reported monthly pays, and will be different from the above amounts (usually higher). For divisions that will have no new hires, invoices will be based on the above dollar amounts which are based on projected fiscal year payroll.



Saginaw Co (7303) - Gnrl Local486 (11) December 31, 2011 Actuarial Valuation Results

			-
Division Status Division Link Status Benefit Provisions Benefit Multiplier Benefit B-3 (80% max)	Closed Not Linked	Actuarial Accrued Liability Active Members Retirees and Beneficiaries Vested Former Members Pending Refunds Total	\$ 826,675 2,154,864 85,523 0 \$ 3,067,062
Normal Retirement Age	60	Valuation Assets ¹	\$ <u>1,884,508</u>
Vesting Early Retirement (Unreduced)	6 years 55/20	Unfunded Accrued Liability (UAL)	\$ 1,182,554
	-	Percent Funded	61.4%
Early Retirement (Reduced) Final Average Compensation	50/25 55/15 5 years	Amortization Period For Positive UAL For Negative UAL	12 years 10 years
COLA for Future Retirees None COLA for Current Retirees		Employer Contribution For Fiscal Year Beginning	10/1/2013
None Member Contributions 0% RS50% Percentage	-	Percentage of Payroll Normal Cost Amortization of UAL Total Employer Contribution	-
D-2 DC Plan for New Hires	- 9/30/2000	Estimated Monthly Contribution ² Normal Cost Amortization of UAL Total Employer Contribution	\$ 1,467
		Annual GASB ARC	\$ 138,840
Active Members Number Annual Payroll Retirees and Beneficiaries	5 \$ 198,723	Division-Specific Assumptions Withdrawal Rate Scaling Factor FAC Increase Factor	80% 1%
Number Annual Benefits Vested Former Members	11 \$ 212,709		
Number Annual Deferred Benefits	\$ 19,561		

¹ Valuation assets are equal to 1.205815 times the reported market value of assets.

² For divisions that are open to new hires, estimated contributions are based on valuation payroll. Actual contributions will be based on actual reported monthly pays, and will be different from the above amounts (usually higher). For divisions that will have no new hires, invoices will be based on the above dollar amounts which are based on projected fiscal year payroll.



Saginaw Co (7303) - Sheriff/Cooks (13) December 31, 2011 Actuarial Valuation Results

Division Status Division Link Status Benefit Provisions Benefit Multiplier Benefit B-4 (80% max)	Closed Not Linked	Actuarial Accrued Liability Active Members \$ 183,435 Retirees and Beneficiaries 1,043,071 Vested Former Members 0 Pending Refunds 0 Total \$ 1,226,506
Normal Retirement Age	60	Valuation Assets ¹ \$ <u>630,201</u>
Vesting Early Retirement (Unreduced)	6 years 50/25	Unfunded Accrued Liability (UAL) \$ 596,305
	55/20	Percent Funded 51.4%
Early Retirement (Reduced) Final Average Compensation	- 55/15 - 5 years	Amortization Period For Positive UAL 12 years For Negative UAL 10 years
COLA for Future Retirees None COLA for Current Retirees	·	Employer Contribution For Fiscal Year Beginning 10/1/2013
None Member Contributions 1%		Percentage of Payroll Normal Cost Amortization of UAL Total Employer Contribution -
RS50% Percentage D-2 DC Plan for New Hires	- - 9/30/2000	Estimated Monthly Contribution ² Normal Cost \$ 196 Amortization of UAL 4,948 Total Employer Contribution \$ 5,144
		Annual GASB ARC \$ 61,728
Active Members		Division-Specific Assumptions
Number Annual Payroll Retirees and Beneficiaries	1 \$ 36,711	Withdrawal Rate Scaling Factor 80% FAC Increase Factor 1%
Number Annual Benefits Vested Former Members	6 \$ 99,333	
Number Annual Deferred Benefits	\$ 0	

¹ Valuation assets are equal to 1.205815 times the reported market value of assets.

² For divisions that are open to new hires, estimated contributions are based on valuation payroll. Actual contributions will be based on actual reported monthly pays, and will be different from the above amounts (usually higher). For divisions that will have no new hires, invoices will be based on the above dollar amounts which are based on projected fiscal year payroll.



Saginaw Co (7303) - Nurses (14) December 31, 2011 Actuarial Valuation Results

Division Status Division Link Status Benefit Provisions Benefit Multiplier Benefit B-3 (80% max)	Closed Not Linked	Actuarial Accrued Liability Active Members \$ 421,236 Retirees and Beneficiaries 2,360,514 Vested Former Members 146,758 Pending Refunds 0 Total \$ 2,928,508
Normal Retirement Age	60	Valuation Assets ¹ \$ 2,091,845
Vesting Early Retirement (Unreduced)	6 years 50/25	Unfunded Accrued Liability (UAL) \$ 836,663
	55/20	Percent Funded 71.4%
Early Retirement (Reduced) Final Average Compensation	55/15 - 5 years	Amortization Period For Positive UAL 10 years For Negative UAL 10 years
COLA for Future Retirees None COLA for Current Retirees	·	Employer Contribution For Fiscal Year Beginning 10/1/2013
None Member Contributions 0%		Percentage of Payroll Normal Cost - Amortization of UAL -
RS50% Percentage D-2	-	Total Employer Contribution -
DC Plan for New Hires	1/1/1999	Estimated Monthly Contribution ² Normal Cost \$ 631 Amortization of UAL 8,354 Total Employer Contribution \$ 8,985
		Annual GASB ARC \$ 107,820
		Division of the state of the st
Active Members Number Annual Payroll Retirees and Beneficiaries	2 \$ 102,584	Division-Specific Assumptions Withdrawal Rate Scaling Factor 80% FAC Increase Factor 1%
Number Annual Benefits Vested Former Members	17 \$ 278,255	
Number Annual Deferred Benefits	3 \$ 31,248	

¹ Valuation assets are equal to 1.205815 times the reported market value of assets.

² For divisions that are open to new hires, estimated contributions are based on valuation payroll. Actual contributions will be based on actual reported monthly pays, and will be different from the above amounts (usually higher). For divisions that will have no new hires, invoices will be based on the above dollar amounts which are based on projected fiscal year payroll.



Saginaw Co (7303) - Hith Dept (15) December 31, 2011 Actuarial Valuation Results

Division Status Division Link Status Benefit Provisions Benefit Multiplier Benefit B-3 (80% max)	Closed Not Linked	Actuarial Accrued Liability Active Members \$ 2,616,389 Retirees and Beneficiaries 5,723,360 Vested Former Members 297,034 Pending Refunds 0 Total \$ 8,636,783
Normal Retirement Age	60	Valuation Assets ¹ \$ 5,571,562
Vesting Early Retirement (Unreduced)	6 years 50/25	Unfunded Accrued Liability (UAL) \$ 3,065,221
Larry Retirement (Officuacea)	55/20	Percent Funded 64.5%
Early Retirement (Reduced) Final Average Compensation	- 55/15 - 5 years	Amortization Period For Positive UAL For Negative UAL 10 years 10 years
COLA for Future Retirees None COLA for Current Retirees	·	Employer Contribution For Fiscal Year Beginning 10/1/2013
None Member Contributions 0% RS50% Percentage	-	Percentage of Payroll Normal Cost - Amortization of UAL - Total Employer Contribution -
D-2 DC Plan for New Hires	- 1/1/1999	Estimated Monthly Contribution ² Normal Cost \$ 2,735 Amortization of UAL 29,913 Total Employer Contribution \$ 32,648
		Annual GASB ARC \$ 391,776
Active Members Number Annual Payroll Retirees and Beneficiaries	14 \$ 499,392	Division-Specific Assumptions Withdrawal Rate Scaling Factor 80% FAC Increase Factor 1%
Number Annual Benefits Vested Former Members	60 \$ 635,923	
Number Annual Deferred Benefits	11 \$ 58,820	

¹ Valuation assets are equal to 1.205815 times the reported market value of assets.

² For divisions that are open to new hires, estimated contributions are based on valuation payroll. Actual contributions will be based on actual reported monthly pays, and will be different from the above amounts (usually higher). For divisions that will have no new hires, invoices will be based on the above dollar amounts which are based on projected fiscal year payroll.



Saginaw Co (7303) - Elctd Commsnrs (16) December 31, 2011 Actuarial Valuation Results

Division Status Division Link Status Benefit Provisions Benefit Multiplier Benefit B-4 (80% max)	Closed Not Linked	Actuarial Accrued Liability Active Members \$ 58,801 Retirees and Beneficiaries 1,340,843 Vested Former Members 121,330 Pending Refunds 0 Total \$ 1,520,974
Normal Retirement Age	60	Valuation Assets ¹ \$ 876,994
Vesting Early Retirement (Unreduced)	6 years 55/15	Unfunded Accrued Liability (UAL) \$ 643,980
	25 and Out	Percent Funded 57.7%
Early Retirement (Reduced) Final Average Compensation	- - - 3 years	Amortization Period For Positive UAL For Negative UAL 10 years 10 years
COLA for Future Retirees 2.50% (Non-Compound) COLA for Current Retirees		Employer Contribution For Fiscal Year Beginning 10/1/2013
None Member Contributions 0%		Percentage of Payroll Normal Cost - Amortization of UAL -
RS50% Percentage D-2 DC Plan for New Hires	- - 3/1/1998	Total Employer Contribution - Estimated Monthly Contribution ² Normal Cost \$ 0 Amortization of UAL 6,318 Total Employer Contribution \$ 6,318
		Annual GASB ARC \$ 75,816
Active Members Number Annual Payroll	1 \$ 15,884	Division-Specific Assumptions Withdrawal Rate Scaling Factor 80% FAC Increase Factor 1%
Retirees and Beneficiaries Number Annual Benefits Vested Former Members	13 \$ 140,091	
Number Annual Deferred Benefits	\$ 14,039	

¹ Valuation assets are equal to 1.205815 times the reported market value of assets.

² For divisions that are open to new hires, estimated contributions are based on valuation payroll. Actual contributions will be based on actual reported monthly pays, and will be different from the above amounts (usually higher). For divisions that will have no new hires, invoices will be based on the above dollar amounts which are based on projected fiscal year payroll.



Saginaw Co (7303) - Animal Control (17) December 31, 2011 Actuarial Valuation Results

Division Status Division Link Status Benefit Provisions Benefit Multiplier Benefit B-3 (80% max)	Closed Not Linked	Actuarial Accrued Liability Active Members \$ 378,867 Retirees and Beneficiaries 603,341 Vested Former Members 0 Pending Refunds 0 Total \$ 982,208
Normal Retirement Age	60	Valuation Assets ¹ \$ 761,323
Vesting	6 years	Unfunded Accrued Liability (UAL) \$ 220,885
Early Retirement (Unreduced)	50/25 55/20	Percent Funded 77.5%
	-	
Early Retirement (Reduced)	55/15	Amortization Period For Positive UAL 10 years
Final Average Compensation	5 years	For Negative UAL 10 years
COLA for Future Retirees None COLA for Current Retirees	•	Employer Contribution For Fiscal Year Beginning 10/1/2013
None Member Contributions 0%		Percentage of Payroll Normal Cost - Amortization of UAL -
RS50% Percentage	-	Total Employer Contribution -
D-2 DC Plan for New Hires	- 1/1/2000	Estimated Monthly Contribution ² Normal Cost \$ 591 Amortization of UAL 2,170 Total Employer Contribution \$ 2,761
		Annual GASB ARC \$ 33,132
Active Members Number Annual Payroll Retirees and Beneficiaries	\$ 86,834	Division-Specific Assumptions Withdrawal Rate Scaling Factor 80% FAC Increase Factor 1%
Number	3	
Annual Benefits Vested Former Members	\$ 55,050	
Number Annual Deferred Benefits	\$ 0	

¹ Valuation assets are equal to 1.205815 times the reported market value of assets.

² For divisions that are open to new hires, estimated contributions are based on valuation payroll. Actual contributions will be based on actual reported monthly pays, and will be different from the above amounts (usually higher). For divisions that will have no new hires, invoices will be based on the above dollar amounts which are based on projected fiscal year payroll.



Saginaw Co (7303) - Judges (18) December 31, 2011 Actuarial Valuation Results

Division Status Division Link Status Benefit Provisions Benefit Multiplier Benefit B-4 (80% max)	Closed Not Linked	Actuarial Accrued Liability Active Members \$ 332,738 Retirees and Beneficiaries 546,616 Vested Former Members 0 Pending Refunds 0 Total \$ 879,354
Normal Retirement Age	60	Valuation Assets ¹ \$ <u>637,313</u>
Vesting Early Retirement (Unreduced)	6 years 55/15	Unfunded Accrued Liability (UAL) \$ 242,041
	25 and Out	Percent Funded 72.5%
Early Retirement (Reduced) Final Average Compensation	- - - 5 years	Amortization Period For Positive UAL For Negative UAL 10 years
COLA for Future Retirees 2.50% (Non-Compound) COLA for Current Retirees		Employer Contribution For Fiscal Year Beginning 10/1/2013
None Member Contributions 0% RS50% Percentage	_	Percentage of Payroll Normal Cost Amortization of UAL Total Employer Contribution -
D-2 DC Plan for New Hires	- 1/1/1999	Estimated Monthly Contribution ² Normal Cost \$ 64 Amortization of UAL 2,071 Total Employer Contribution \$ 2,135
		Annual GASB ARC \$ 25,620
A stire Marshaus		Division Specific Assumptions
Active Members Number Annual Payroll	1 \$ 27,538	Division-Specific Assumptions Withdrawal Rate Scaling Factor 80% FAC Increase Factor 1%
Retirees and Beneficiaries Number Annual Benefits Vested Former Members	6 \$ 66,111	
Number Annual Deferred Benefits	\$ 0	

¹ Valuation assets are equal to 1.205815 times the reported market value of assets.

² For divisions that are open to new hires, estimated contributions are based on valuation payroll. Actual contributions will be based on actual reported monthly pays, and will be different from the above amounts (usually higher). For divisions that will have no new hires, invoices will be based on the above dollar amounts which are based on projected fiscal year payroll.



Saginaw Co (7303) - Dist Judges (19) December 31, 2011 Actuarial Valuation Results

Division Status Division Link Status Benefit Provisions Benefit Multiplier Benefit B-4 (80% max)	Closed Not Linked	Actuarial Accrued Liability Active Members \$ 799,590 Retirees and Beneficiaries 392,414 Vested Former Members 0 Pending Refunds 0 Total \$ 1,192,004
Normal Retirement Age	60	Valuation Assets ¹ \$ 906,515
Vesting Early Retirement (Unreduced)	6 years 55/15	Unfunded Accrued Liability (UAL) \$ 285,489
	25 and Out	Percent Funded 76.0%
Early Retirement (Reduced) Final Average Compensation	- - - 5 years	Amortization Period For Positive UAL 12 years For Negative UAL 10 years
COLA for Future Retirees 2.50% (Non-Compound) COLA for Current Retirees		Employer Contribution For Fiscal Year Beginning 10/1/2013
None Member Contributions 0% RS50% Percentage	-	Percentage of Payroll Normal Cost - Amortization of UAL - Total Employer Contribution -
D-2 DC Plan for New Hires	- 1/1/1999	Estimated Monthly Contribution ² Normal Cost \$ 391 Amortization of UAL 2,411 Total Employer Contribution \$ 2,802
		Annual GASB ARC \$ 33,624
Active Members Number Annual Payroll Retirees and Beneficiaries	3 \$ 82,614	Division-Specific Assumptions Withdrawal Rate Scaling Factor 80% FAC Increase Factor 1%
Number Annual Benefits Vested Former Members	\$ 50,451	
Number Annual Deferred Benefits	\$ 0	

¹ Valuation assets are equal to 1.205815 times the reported market value of assets.

² For divisions that are open to new hires, estimated contributions are based on valuation payroll. Actual contributions will be based on actual reported monthly pays, and will be different from the above amounts (usually higher). For divisions that will have no new hires, invoices will be based on the above dollar amounts which are based on projected fiscal year payroll.



Saginaw Co (7303) - Sheriff FOP (20) December 31, 2011 Actuarial Valuation Results

Division Status Division Link Status Benefit Provisions Benefit Multiplier Benefit B-4 (80% max)	Closed Not Linked	Actuarial Accrued Liability Active Members \$ 1,856,820 Retirees and Beneficiaries 5,568,109 Vested Former Members 0 Pending Refunds 0 Total \$ 7,424,929
Normal Retirement Age	60	Valuation Assets ¹ \$ 5,643,842
Vesting Early Retirement (Unreduced)	6 years 55/15	Unfunded Accrued Liability (UAL) \$ 1,781,087
	25 and Out	Percent Funded 76.0%
Early Retirement (Reduced) Final Average Compensation	- - - 5 years	Amortization Period For Positive UAL 12 years For Negative UAL 10 years
COLA for Future Retirees None COLA for Current Retirees		Employer Contribution For Fiscal Year Beginning 10/1/2013
None Member Contributions 0% RS50% Percentage	_	Percentage of Payroll Normal Cost - Amortization of UAL - Total Employer Contribution -
D-2 DC Plan for New Hires	- 1/1/2000	Estimated Monthly Contribution ² Normal Cost \$ 3,351 Amortization of UAL 14,349 Total Employer Contribution \$ 17,700
		Annual GASB ARC \$ 212,400
Active Members		Division-Specific Assumptions
Number Annual Payroll Retirees and Beneficiaries	5 \$ 367,338	Withdrawal Rate Scaling Factor 80% FAC Increase Factor 1%
Number Annual Benefits Vested Former Members	14 \$ 522,197	
Number Annual Deferred Benefits	\$ 0	

¹ Valuation assets are equal to 1.205815 times the reported market value of assets.

² For divisions that are open to new hires, estimated contributions are based on valuation payroll. Actual contributions will be based on actual reported monthly pays, and will be different from the above amounts (usually higher). For divisions that will have no new hires, invoices will be based on the above dollar amounts which are based on projected fiscal year payroll.



Saginaw Co (7303) - Shrff/Lts/Capts (21) December 31, 2011 Actuarial Valuation Results

Division Status Division Link Status Benefit Provisions Benefit Multiplier Benefit B-4 (80% max)	Closed Not Linked	Actuarial Accrued Liability Active Members \$ 1,273,605 Retirees and Beneficiaries 3,746,601 Vested Former Members 0 Pending Refunds 0 Total \$ 5,020,206
Normal Retirement Age	60	Valuation Assets ¹ \$ 3,121,737
Vesting Early Retirement (Unreduced)	6 years 55/15	Unfunded Accrued Liability (UAL) \$ 1,898,469
	25 and Out	Percent Funded 62.2%
Early Retirement (Reduced) Final Average Compensation	- - - 5 years	Amortization Period For Positive UAL 12 years For Negative UAL 10 years
COLA for Future Retirees 2.50% (Non-Compound) COLA for Current Retirees		Employer Contribution For Fiscal Year Beginning 10/1/2013
None Member Contributions 0% RS50% Percentage	-	Percentage of Payroll Normal Cost - Amortization of UAL - Total Employer Contribution -
D-2 DC Plan for New Hires	- 1/1/1999	Estimated Monthly Contribution ² Normal Cost \$ 2,181 Amortization of UAL 17,023 Total Employer Contribution \$ 19,204
		Annual GASB ARC \$ 230,448
Active Members Number Annual Payroll Retirees and Beneficiaries	3 \$ 222,991	Division-Specific Assumptions Withdrawal Rate Scaling Factor 80% FAC Increase Factor 1%
Number Annual Benefits Vested Former Members	8 \$ 304,333	
Number Annual Deferred Benefits	\$ 0	

¹ Valuation assets are equal to 1.205815 times the reported market value of assets.

² For divisions that are open to new hires, estimated contributions are based on valuation payroll. Actual contributions will be based on actual reported monthly pays, and will be different from the above amounts (usually higher). For divisions that will have no new hires, invoices will be based on the above dollar amounts which are based on projected fiscal year payroll.



Saginaw Co (7303) - P.O.A.M. Non 312 (23) December 31, 2011 Actuarial Valuation Results

Division Status Division Link Status Benefit Provisions Benefit Multiplier Benefit B-4 (80% max)	Closed Not Linked	Actuarial Accrued Liability Active Members \$ 1,621,996 Retirees and Beneficiaries 6,441,405 Vested Former Members 34,099 Pending Refunds 0 Total \$ 8,097,500
Normal Retirement Age	60	Valuation Assets ¹ \$ 4,756,597
Vesting Early Retirement (Unreduced)	6 years 25 and Out	Unfunded Accrued Liability (UAL) \$ 3,340,903
	-	Percent Funded 58.7%
Early Retirement (Reduced) Final Average Compensation	- 55/15 - 5 years	Amortization Period For Positive UAL For Negative UAL 10 years
COLA for Future Retirees 2.50% (Non-Compound) COLA for Current Retirees		Employer Contribution For Fiscal Year Beginning 10/1/2013
None Member Contributions 4%		Percentage of Payroll Normal Cost - Amortization of UAL -
RS50% Percentage D-2 DC Plan for New Hires	- - 9/30/2000	Total Employer Contribution - Estimated Monthly Contribution ² Normal Cost \$ 2,081 Amortization of UAL 28,631 Total Employer Contribution \$ 30,712
		Annual GASB ARC \$ 368,544
Active Members Number Annual Payroll Retirees and Beneficiaries	5 \$ 306,129	Division-Specific Assumptions Withdrawal Rate Scaling Factor 80% FAC Increase Factor 1%
Number	17 \$ 515,719 1	
	\$ 9,062	

¹ Valuation assets are equal to 1.205815 times the reported market value of assets.

² For divisions that are open to new hires, estimated contributions are based on valuation payroll. Actual contributions will be based on actual reported monthly pays, and will be different from the above amounts (usually higher). For divisions that will have no new hires, invoices will be based on the above dollar amounts which are based on projected fiscal year payroll.



Saginaw Co (7303) - Juvenile Probtn (91) December 31, 2011 Actuarial Valuation Results

Division Status Division Link Status Benefit Provisions Benefit Multiplier Benefit B-4 (80% max)	Closed Not Linked	Actuarial Accrued Liability Active Members \$ 313,760 Retirees and Beneficiaries 997,238 Vested Former Members 0 Pending Refunds 0 Total \$ 1,310,998
Normal Retirement Age	60	Valuation Assets ¹ \$ 865,255
Vesting Early Retirement (Unreduced)	6 years 55/20	Unfunded Accrued Liability (UAL) \$ 445,743
	25 and Out	Percent Funded 66.0%
Early Retirement (Reduced) Final Average Compensation	- 55/15 - 5 years	Amortization Period For Positive UAL 10 years For Negative UAL 10 years
COLA for Future Retirees None COLA for Current Retirees	·	Employer Contribution For Fiscal Year Beginning 10/1/2013
None Member Contributions 3.45% RS50% Percentage	_	Percentage of Payroll Normal Cost Amortization of UAL Total Employer Contribution -
D-2 DC Plan for New Hires	9/30/2000	Estimated Monthly Contribution ² Normal Cost \$ 203 Amortization of UAL 4,370 Total Employer Contribution \$ 4,573
		Annual GASB ARC \$ 54,876
Active Members		Division-Specific Assumptions
Number Annual Payroll Retirees and Beneficiaries	1 \$ 51,702	Withdrawal Rate Scaling Factor 80% FAC Increase Factor 1%
Number Annual Benefits Vested Former Members	\$ 104,311	
Number Annual Deferred Benefits	\$ 0	

¹ Valuation assets are equal to 1.205815 times the reported market value of assets.

² For divisions that are open to new hires, estimated contributions are based on valuation payroll. Actual contributions will be based on actual reported monthly pays, and will be different from the above amounts (usually higher). For divisions that will have no new hires, invoices will be based on the above dollar amounts which are based on projected fiscal year payroll.



Saginaw Co (7303) - Dist Court Prob (92) December 31, 2011 Actuarial Valuation Results

Division Status Division Link Status Benefit Provisions Benefit Multiplier Benefit B-4 (80% max)	Closed Not Linked	Actuarial Accrued Liability Active Members \$ 550,447 Retirees and Beneficiaries 692,088 Vested Former Members 20,210 Pending Refunds 0 Total \$ 1,262,745
Normal Retirement Age	60	Valuation Assets ¹ \$ 947,183
Vesting Early Retirement (Unreduced)	6 years 55/20	Unfunded Accrued Liability (UAL) \$ 315,562
Larry Romornion (Ormodassa)	25 and Out	Percent Funded 75.0%
Early Retirement (Reduced) Final Average Compensation	- 55/15 - 5 years	Amortization Period For Positive UAL For Negative UAL 10 years
COLA for Future Retirees None COLA for Current Retirees		Employer Contribution For Fiscal Year Beginning 10/1/2013
None Member Contributions 3.84% RS50% Percentage		Percentage of Payroll Normal Cost - Amortization of UAL - Total Employer Contribution -
D-2 DC Plan for New Hires	1/1/2000	Estimated Monthly Contribution ² Normal Cost \$ 630 Amortization of UAL 3,123 Total Employer Contribution \$ 3,753
		Annual GASB ARC \$ 45,036
Active Members		Division Specific Assumptions
Number Annual Payroll Retirees and Beneficiaries	2 \$ 105,580	Division-Specific Assumptions Withdrawal Rate Scaling Factor 80% FAC Increase Factor 1%
Number Annual Benefits Vested Former Members	\$ 66,722	
Number Annual Deferred Benefits	\$ 4,713	

¹ Valuation assets are equal to 1.205815 times the reported market value of assets.

² For divisions that are open to new hires, estimated contributions are based on valuation payroll. Actual contributions will be based on actual reported monthly pays, and will be different from the above amounts (usually higher). For divisions that will have no new hires, invoices will be based on the above dollar amounts which are based on projected fiscal year payroll.



Saginaw Co (7303) - Pros Attys Union (93) December 31, 2011 Actuarial Valuation Results

Division Status Division Link Status Benefit Provisions Benefit Multiplier Benefit B-3 (80% max)	Closed Not Linked	Actuarial Accrued Liability Active Members \$ 2,097,772 Retirees and Beneficiaries 622,428 Vested Former Members 0 Pending Refunds 0 Total \$ 2,720,200
Normal Retirement Age	60	Valuation Assets ¹ \$ 2,235,267
Vesting Early Retirement (Unreduced)	6 years 50/25	Unfunded Accrued Liability (UAL) \$ 484,933
Larry Nethernerit (Officuaced)	55/20	Percent Funded 82.2%
Early Retirement (Reduced) Final Average Compensation	- 55/15 - 5 years	Amortization Period For Positive UAL 10 years For Negative UAL 10 years
COLA for Future Retirees None COLA for Current Retirees	·	Employer Contribution For Fiscal Year Beginning 10/1/2013
None Member Contributions 0% RS50% Percentage	_	Percentage of Payroll Normal Cost - Amortization of UAL - Total Employer Contribution -
D-2 DC Plan for New Hires	- 1/1/1999	Estimated Monthly Contribution ² Normal Cost \$ 2,168 Amortization of UAL 4,655 Total Employer Contribution \$ 6,823
		Annual GASB ARC \$ 81,876
Active Members Number Annual Payroll Retirees and Beneficiaries	5 \$ 412,512	Division-Specific Assumptions Withdrawal Rate Scaling Factor 80% FAC Increase Factor 1%
Number Annual Benefits Vested Former Members	3 \$ 72,873	
Number Annual Deferred Benefits	\$ 0	

¹ Valuation assets are equal to 1.205815 times the reported market value of assets.

² For divisions that are open to new hires, estimated contributions are based on valuation payroll. Actual contributions will be based on actual reported monthly pays, and will be different from the above amounts (usually higher). For divisions that will have no new hires, invoices will be based on the above dollar amounts which are based on projected fiscal year payroll.



Saginaw Co (7303) - Upper Management (94) December 31, 2011 Actuarial Valuation Results

Division Status Division Link Status Benefit Provisions Benefit Multiplier Benefit B-4 (80% max)	Closed Not Linked	Actuarial Accrued Liability Active Members \$ 2,801,942 Retirees and Beneficiaries 3,371,221 Vested Former Members 0 Pending Refunds 0 Total \$ 6,173,163
Normal Retirement Age	60	Valuation Assets ¹ \$ 4,072,092
Vesting Early Retirement (Unreduced)	6 years 55/15	Unfunded Accrued Liability (UAL) \$ 2,101,071
,,	25 and Out	Percent Funded 66.0%
Early Retirement (Reduced) Final Average Compensation	- - - 3 years	Amortization Period For Positive UAL 17 years For Negative UAL 10 years
COLA for Future Retirees 2.50% (Non-Compound) COLA for Current Retirees		Employer Contribution For Fiscal Year Beginning 10/1/2013
None Member Contributions 0%		Percentage of Payroll Normal Cost - Amortization of UAL -
RS50% Percentage	50%	Total Employer Contribution -
D-2 DC Plan for New Hires	6/20/2006	Estimated Monthly Contribution ² Normal Cost \$ 3,596 Amortization of UAL 14,589 Total Employer Contribution \$ 18,185
		Annual GASB ARC \$ 233,688
		Division Consider Assumentions
Active Members Number Annual Payroll Retirees and Beneficiaries	\$ 436,254	Division-Specific Assumptions Withdrawal Rate Scaling Factor 80% FAC Increase Factor 1%
Number Annual Benefits Vested Former Members	6 \$ 277,988	
Number Annual Deferred Benefits	\$ 0	

¹ Valuation assets are equal to 1.205815 times the reported market value of assets.

² For divisions that are open to new hires, estimated contributions are based on valuation payroll. Actual contributions will be based on actual reported monthly pays, and will be different from the above amounts (usually higher). For divisions that will have no new hires, invoices will be based on the above dollar amounts which are based on projected fiscal year payroll.



Saginaw Co (7303) - NonUnion Mgmnt (95) December 31, 2011 Actuarial Valuation Results

Division Status Division Link Status Benefit Provisions Benefit Multiplier Benefit B-4 (80% max)	Closed Not Linked	Actuarial Accrued Liability Active Members \$ 0 Retirees and Beneficiaries 653,894 Vested Former Members 0 Pending Refunds 0 Total \$ 653,894
Normal Retirement Age	60	Valuation Assets ¹ \$ <u>289,480</u>
Vesting Early Retirement (Unreduced)	6 years 55/15	Unfunded Accrued Liability (UAL) \$ 364,414
Larry Remoment (Ormedacea)	25 and Out	Percent Funded 44.3%
Early Retirement (Reduced) Final Average Compensation	- - - 5 years	Amortization Period For Positive UAL 17 years For Negative UAL 10 years
COLA for Future Retirees 2.50% (Non-Compound) COLA for Current Retirees	·	Employer Contribution For Fiscal Year Beginning 10/1/2013
None Member Contributions 0% RS50% Percentage	_	Percentage of Payroll Normal Cost Amortization of UAL Total Employer Contribution -
D-2 DC Plan for New Hires	- 6/20/2006	Estimated Monthly Contribution ² Normal Cost \$ 0 Amortization of UAL 2,436 Total Employer Contribution \$ 2,436
		Annual GASB ARC \$ 31,824
Active Members		Division Specific Assumptions
Number Annual Payroll Retirees and Beneficiaries	\$ 0	Division-Specific Assumptions Withdrawal Rate Scaling Factor 0% FAC Increase Factor 0%
Number Annual Benefits Vested Former Members	50,157	
Number Annual Deferred Benefits	\$ 0	

¹ Valuation assets are equal to 1.205815 times the reported market value of assets.

² For divisions that are open to new hires, estimated contributions are based on valuation payroll. Actual contributions will be based on actual reported monthly pays, and will be different from the above amounts (usually higher). For divisions that will have no new hires, invoices will be based on the above dollar amounts which are based on projected fiscal year payroll.



Saginaw Co (7303) - UAW Para prof. (96) December 31, 2011 Actuarial Valuation Results

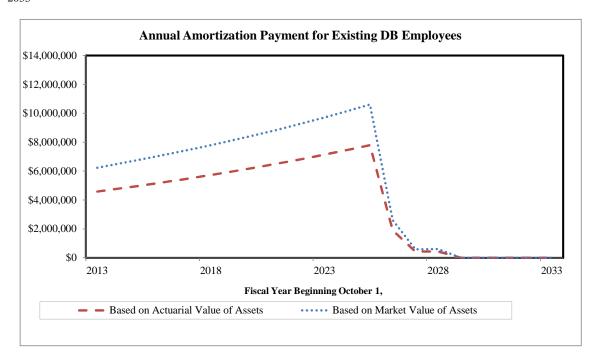
Division Status Division Link Status Benefit Provisions Benefit Multiplier Benefit B-4 (80% max)	Closed Not Linked	Actuarial Accrued Liability Active Members \$ 573,288 Retirees and Beneficiaries 590,570 Vested Former Members 0 Pending Refunds 0 Total \$ 1,163,858
Normal Retirement Age	60	Valuation Assets ¹ \$ 911,555
Vesting Early Retirement (Unreduced)	6 years 50/25 55/15	Unfunded Accrued Liability (UAL) \$ 252,303
Early Retirement (Gilleddocd)		Percent Funded 78.3%
Early Retirement (Reduced) Final Average Compensation	- - - 5 years	Amortization Period For Positive UAL 17 years For Negative UAL 10 years
COLA for Future Retirees None COLA for Current Retirees	·	Employer Contribution For Fiscal Year Beginning 10/1/2013
None Member Contributions 4.34% RS50% Percentage		Percentage of Payroll Normal Cost - Amortization of UAL - Total Employer Contribution -
D-2 DC Plan for New Hires	6/20/2006	Estimated Monthly Contribution ² Normal Cost \$ 435 Amortization of UAL 1,446 Total Employer Contribution \$ 1,881
		Annual GASB ARC \$ 24,108
Active Members		Division-Specific Assumptions
Number Annual Payroll Retirees and Beneficiaries	2 \$ 102,928	Withdrawal Rate Scaling Factor 80% FAC Increase Factor 1%
Number Annual Benefits Vested Former Members	3 \$ 53,288	
Number Annual Deferred Benefits	\$ 0	

¹ Valuation assets are equal to 1.205815 times the reported market value of assets.

² For divisions that are open to new hires, estimated contributions are based on valuation payroll. Actual contributions will be based on actual reported monthly pays, and will be different from the above amounts (usually higher). For divisions that will have no new hires, invoices will be based on the above dollar amounts which are based on projected fiscal year payroll.

Saginaw County (7303) - Total of All Divisions Projected Amortization Payments Based on December 31, 2011 Actuarial Valuation Closed Amortization Policy Option B - Modified After Reaching 5-Year Amortization Period

			Based	d on the	Based on the	
			Actuarial Value of Assets		Market Value of Assets	
Fiscal Year			Beginning of Year		Beginning of Year	
Beginning	Amortization	Amortization	UAL	Amortization	UAL	Amortization
October 1	Period	Factor	Balance	Payment	Balance	Payment
2013			48,549,726	4,590,114	66,035,016	6,242,445
2014			47,662,341	4,808,414	64,828,877	6,539,387
2015			46,477,044	5,024,793	63,217,580	6,833,659
2016			44,972,000	5,250,909	61,171,486	7,141,174
2017			43,111,509	5,487,200	58,642,048	7,462,527
2018			40,856,557	5,734,124	55,576,212	7,798,341
2019			38,164,535	5,992,159	51,916,035	8,149,266
2020			34,988,927	6,261,806	47,598,262	8,515,983
2021			31,278,975	6,543,588	42,553,870	8,899,202
2022			26,979,319	6,838,049	36,707,575	9,299,666
2023			22,029,601	7,145,761	29,977,299	9,718,151
2024			16,364,044	7,467,320	22,273,591	10,155,468
2025			9,910,985	7,803,350	13,499,001	10,612,464
2026			2,592,383	1,907,607	3,547,403	2,613,041
2027			816,841	431,327	1,114,973	588,754
2028			433,829	450,737	592,169	615,248
2029			0	-	0	-
2030			-	_	-	_
2031			_	_	_	_
2031				_	_	<u>-</u>
2032			-	-	-	-
2033			-	-	-	-



See the 11/2/2012 correspondence from Alan Sonnanstine titled "Saginaw County (7303) - Amortization Payment Projections" for information important to understanding the above results.



COUNTY OF SAGINAW

111 SOUTH MICHIGAN AVENUE SAGINAW, MICHIGAN 48602

MARC A. McGILL

Controller/Chief Administrative Officer

The County of Saginaw Employees Defined Contribution Pension Plan is a single employer defined contribution pension plan, established by the County and administered by an outside third-party administrator. All non-union County employees hired after June 1, 1994 are required to participate in the defined contribution pension plan. This requirement to participate in the defined contribution pension plan for new employees has also been negotiated into all contracts with all bargaining units. Employees vest in the County's contributions on a sliding scale based on the years of service in accordance with the following scale:

Service Time	Percent Vested
Up to 35 months	0%
36 months through 47 months	25%
48 months through 59 months	50%
60 months through 71 months	75%
72 months plus	100%

When the defined contribution pension plan was established, employees had the option of contributing either 0% or 3% of their annual salary. If the members contribute 0%, the County is required to contribute 6%; if the members contribute 3%, the County is required to contribute 9%. Beginning November 2004, the County began the process of negotiating lower contribution rates for new employees with union groups as their contracts expired. These newly hired employees may contribute either 0% or 6% of their annual salary; if the members contribute 0%, the County is required to contribute 3%; if the members contribute 6%, the County is required to contribute 6%. All newly hired County employees currently have these lower contribution rates.

The County has budgeted \$1,896,584 in 2013 to contribute towards employees defined contribution pension plans. We estimate this amount to increase by 1.5% per year over the next 5 years as follows:

2014	\$1,925,033
2015	\$1,953,908
2016	\$1,983,217
2017	\$2,012,966
2018	\$2,043,160



Analysis of Current and Future Post Employment Healthcare Benefit Obligations for Saginaw County



SAGINAW COUNTY OTHER POSTEMPLOYMENT BENEFITS
ACTUARIAL VALUATION REPORT
DECEMBER 31, 2011

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April 30, 2012

Ms. Amy Deford Retirement Administrator County of Saginaw 111 S. Michigan Saginaw, Michigan 48602

Dear Ms. Deford:

Submitted in this report are the results of an Actuarial Valuation of the assets and liabilities associated with the employer financed retiree health benefits provided by Saginaw County. The date of the valuation was December 31, 2011. The annual required contributions have been calculated for the fiscal year beginning October 1, 2012.

This report was prepared at the request of Saginaw County and is intended for use by Saginaw County and those designated or approved by the County. This report may be provided to parties other than Saginaw County only in its entirety and only with the permission of the County.

The actuarial calculations were prepared for purposes of complying with the requirements of Statement No. 45 of the Governmental Accounting Standards Board (GASB). In addition, we have included information which may be helpful if there is a trust requiring a GASB Statement No. 43 disclosure. The calculations reported herein have been made on a basis consistent with our understanding of these accounting standards. This report should not be relied on for any other purpose. Determinations of the liability associated with the benefits described in this report for purposes other than satisfying Saginaw County's financial reporting requirements may be significantly different than the values shown in this report.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law.

The valuation was based upon information furnished by Saginaw County, concerning Retiree Health benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal and year-to-year consistency with the last valuation, but did not otherwise audit the data. We are not responsible for the accuracy or completeness of the information provided by Saginaw County.

Ms. Amy Deford April 30, 2012 Page 2

To the best of our knowledge the information contained in this report is accurate and fairly presents the actuarial position of Saginaw County as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices and with the Actuarial Standards of Practice issued by the Actuarial Standards Board. The undersigned are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. The signing actuaries are independent of the plan sponsor.

Respectfully submitted,

Curtis Powell, EA, MAAA

Sheryl Wroblewski, EA, MAAA

There Woodlevshi

CP/MB:mrb



EXECUTIVE SUMMARY

Annual Required Contribution

This report presents the annual required contribution calculated in compliance with the accounting requirements of Governmental Accounting Standards Board (GASB) Statement No. 45.

Annual Required Contribution and OPEB Cost

This report presents the Annual Required Contribution (ARC), one component of the annual Other Postemployment Benefits (OPEB) cost required to be recognized by the plan sponsor for purposes of complying with the accounting requirements of the Governmental Accounting Standards Board (GASB) Statement No. 45. In addition, the plan may need to comply with GASB Statement No. 43. Please consult with legal counsel and your auditors to determine whether you have a plan for GASB Statement No. 43 purposes.

We have calculated the Annual Required Contribution (ARC) for the fiscal year beginning October 1, 2012, under a 6.00% discount rate. Below is a summary of the results. In the first year GASB Statement No. 45 is adopted, the annual OPEB cost is equal to the ARC. In subsequent years, if there is a Net OPEB Obligation (NOO, see below), the annual OPEB cost is equal to the ARC for the fiscal year plus one year's interest on the Net OPEB Obligation plus an adjustment to the ARC.

Employer contributions to an OPEB trust act to reduce the NOO. In addition, actual claims paid on behalf of retirees directly from the employer* might be employer contributions in relation to the ARC and act to reduce the NOO. The ARC and estimated retiree claims shown below include an adjustment for any implicit rate subsidy present in your pre-65 rates.

* Claims/Premiums passed through the trust in the same fiscal year might also be treated as contributions for that year. We recommend all such transactions be discussed with your accounting professional prior to their occurrence.

For additional details please see the Section titled "Valuation Results."

		Estimated Claims
		and Premiums Paid
Annual Required Contribution	6.00% Interest	for Retirees
Fiscal Year Beginning 2012	\$11,512,586	\$6,373,171

EXECUTIVE SUMMARY (CONCLUDED)

Additional OPEB Reporting Requirements - Net OPEB Obligation

In addition to the annual cost described above, employers will have to disclose a Net OPEB Obligation (or asset). The NOO is the cumulative difference between annual OPEB cost and annual employer contributions in relation to the ARC accumulated from the implementation of Statement No. 45. The NOO is zero as of the beginning of the fiscal year that Statement No. 45 is implemented unless the employer chooses to recognize a beginning balance. The requirements for determining the employer's contributions in relation to the ARC are described in paragraph 13 g. of Statement No. 45. Additional information required to be disclosed in the employer's financial statements is detailed in paragraphs 24 through 27 of Statement No. 45.

Liabilities and Assets

	6.00% Interest
1. Present Value of Future Benefit Payments	\$148,469,188
2. Actuarial Accrued Liability	136,884,482
3. Plan Assets	11,913,064
4. Unfunded Actuarial Accrued Liability (2) – (3)	124,971,418
5. Funded Ratio (3)/(2)	8.7%

The Present Value of Future Benefit Payments (PVFB) is the present value of all benefits projected to be paid from the plan for past and future service to current members. The Actuarial Accrued Liability is the portion of the PVFB allocated to past service by the Plan's funding method (see the Section titled "Actuarial Cost Method and Actuarial Assumptions").



DEVELOPMENT OF THE ANNUAL REQUIRED CONTRIBUTION FOR THE FISCAL YEAR BEGINNING OCTOBER 1, 2012

Contributions for	Development of the Annual Required Contribution for Fiscal Year Beginning			
	2012	2011		
Total Normal Cost	\$ 1,762,092	\$ 1,770,677		
Amortization of Unfunded Actuarial Accrued Liabilities*	\$ 9,750,494	\$ 9,130,557		
Annual Required Contribution (ARC)	\$ 11,512,586	\$ 10,901,234		

^{*} The unfunded actuarial accrued liabilities were amortized as level dollar amounts over a 26 year period for the fiscal year beginning in 2012 and over a 27 year period for the fiscal year beginning in 2011. The discount rate is 6.00%.

DETERMINATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY AS OF DECEMBER 31, 2011

	December 31, 2011	December 31, 2010
 A. Present Value of Future Benefits 1. Retirees and Beneficiaries 2. Vested Terminated Members 3. Active Members Total Present Value of Future Benefits 	\$ 90,539,560 0 <u>57,929,628</u> \$148,469,188	\$ 88,277,033 0 <u>55,783,392</u> \$144,060,425
B. Present Value of Future Employer Normal Costs	\$ 11,584,706	\$ 12,102,766
C. Actuarial Accrued Liability (AB.)	\$136,884,482	\$131,957,659
D. Actuarial Value of Assets	\$ 11,913,064	\$ 13,065,654
E. Unfunded Actuarial Accrued Liability (CD.)	\$124,971,418	\$118,892,005
F. Funded Ratio (D./C.)	8.7%	9.9%

The Unfunded Actuarial Accrued Liability (UAAL) is not booked as an expense all in one year and does not appear in the Employer's Statement of Net Assets. Nevertheless, it is reported in the Notes to the Financial Statements and in the Required Supplementary Information. These are information sections within the employer's financial statements.

The results on this page are based on a 6.00% investment return assumption and the trend assumption described on page E-8.

COMMENTS

COMMENT A: One of the key assumptions used in any valuation of the cost of postemployment benefits is the long-term rate of investment return on plan assets. Higher assumed investment returns will result in a lower Annual Required Contribution (ARC). Lower returns will result in a higher ARC. As requested by the plan sponsor, we have calculated the liability and the resulting ARC using an assumed annual investment return of 6.00% per year. GASB requires the use of a rate that reflects the expected return on the assets which will be used to pay benefits. 6.00% may appropriately reflect of the fact that some of the benefits will be paid from OPEB trust assets invested in a diversified portfolio (expected to return somewhat higher than 6.00%), and others will be paid from general county assets held in short-term devices.

COMMENT B: If paid from outside of the fund established for OPEB, actual claims and/or premiums paid on behalf of retirees might be treatable as employer contributions in relation to the ARC and act to reduce the NOO. For the fiscal year ending September 30, 2013, the total projected amount of claims paid by the employer on behalf of retirees is \$6,373,171.

COMMENT C: The ARC for 2012 of \$11,512,586 is approximately equal to the \$11,500,000 projected. There is upward pressure due to assets being depleted instead of partially funding the ARC. The trend was re-set to 9.0% in the first year in order to reflect higher expected premium in the short-term; this is consistent with regional increase patterns. The change in trend assumption also increased the ARC from the prior year. Lower than anticipated starting premium amounts and data experience offset the investment and assumption losses.

COMMENT D: Legislative changes due to the Patient Protection and Affordable Care Act relating to retiree health care benefits have been reflected to the extent they have already been implemented in the plan.

COMMENTS

COMMENT E: The Actuarial Standards of Practice with regard to the mortality assumption has recently been revised. ASOP No. 35 Disclosure 4.1.1 now states "The disclosure of the mortality assumption should contain sufficient detail to permit another qualified actuary to understand the provision made for future mortality improvement. If the actuary assumes zero mortality improvement after the measurement date, the actuary should state that no provision was made for future mortality improvement." As such, there is currently no margin for future mortality improvement in the current mortality assumption. We anticipate updated mortality rates including a margin for mortality improvements will be recommended for the next valuation. This will likely put upward pressure on liabilities.

SECTION B

FINANCIAL PROJECTION

EMPLOYER FINANCED OTHER POSTEMPLOYMENT BENEFITS PROJECTION ASSUMING FULL PRE-FUNDING OF THE ARC

The column titled "Expected Health Care Benefits" is the amount that we estimate can be applied to the funding of retiree health insurance premiums in various years. At least in the first few years this amount will exceed the amount actually charged by your Health Care Provider for retirees because your Health Care Provider does not provide separate rates by age and sex. In our opinion, the difference can be applied to the normal active member portion of your Health Care Provider charges. This matter should be reviewed by the auditor and possibly legal counsel if a trust is involved. The projections are based on the health care cost trend increase rates shown on page E-8.

Year	Projected	Asset	Annual	Expected		
Ending	Covered	Value	Required	Health Care	Investment	Asset Value
September 30,	Member Payroll*	BOY	Contribution	Benefits	Income	EOY
2013	\$13,293,729	\$15,002,187	\$11,512,586	\$6,373,171	\$1,052,068	\$21,193,670
2014	12,503,359	21,193,670	11,375,273	7,020,857	1,400,350	26,948,436
2015	11,741,269	26,948,436	11,263,850	7,650,613	1,723,724	32,285,397
2016	11,000,259	32,285,397	11,161,876	8,249,053	2,023,236	37,221,456
2017	10,280,107	37,221,456	11,065,657	8,734,269	2,302,210	41,855,054
2018	9,565,872	41,855,054	10,970,809	9,136,736	2,565,524	46,254,651
2019	8,852,519	46,254,651	10,878,980	9,465,882	2,817,054	50,484,803
2020	8,107,722	50,484,803	10,788,173	9,757,708	3,059,552	54,574,820
2021	7,301,479	54,574,820	10,698,128	10,015,380	3,294,673	58,552,241
2022	6,465,115	58,552,241	10,604,242	10,272,409	3,522,944	62,407,018
2023	5,675,588	62,407,018	10,504,768	10,470,071	3,745,447	66,187,162
2024	4,952,323	66,187,162	10,405,108	10,677,625	3,963,173	69,877,818
2025	4,275,134	69,877,818	10,314,607	10,887,454	4,175,734	73,480,705
2026	3,661,060	73,480,705	10,235,026	11,032,514	4,385,266	77,068,483
2027	3,119,802	77,068,483	10,163,131	11,172,480	4,594,270	80,653,404
2028	2,632,505	80,653,404	10,099,977	11,307,023	4,803,520	84,249,878

^{*}This payroll is for the members included in the retiree health care plan and excludes member payroll for those only eligible for life insurance.

This projection assumes the County will contribute an amount equal to the ARC each year, assets will earn 6.00% annually, and all other assumptions are met. In addition, the payment to reduce the unfunded liability is based on an amortization period of 26 years the first year, decreasing by 1 each year, which is consistent with a financing policy aimed at eventually fully-funding the plan's liabilities.



RETIREE PREMIUM RATE DEVELOPMENT

Initial premium rates were developed separately for each class (pre-65 and post-65). The rates were calculated by using actual incurred retiree claims and exposure data for the period of January 2010 to December 2011, adjusted for catastrophic claims, plus the load for administration, network access fees, and stop loss premiums. The self-insured Medical and prescription drug retiree data were provided by Saginaw County. The Medical data was analyzed for the pre-65 and post-65 participants separately since Medicare is available for the post-65 participants and has a significant impact on the claim experience. We estimated the split between Medicare and Non-Medicare claims since they were not provided separately. Furthermore, since the prescription drug claims and the medical claims exhibit different trends and claim payment patterns, we analyzed these claims separately as well. The initial per capita costs are based on a weighted average of 2010 and 2011 claims. The 2011 retiree medical claims dropped by about 25% even though there were no plan changes or significant changes in enrollment. We gave more weight to the 2010 claims than we normally would due to the unexplained drop in 2011 medical claims in case 2011 was an anomaly.

Age graded and sex distinct premiums are utilized in this valuation. The premiums developed by the preceding process are appropriate for the unique age and sex distribution currently existing. Over the future years covered by this valuation, the age and sex distribution will most likely change. Therefore, our process "distributes" the average premium over all age/sex combinations and assigns a unique premium for each specific age/sex combination. The age/sex specific premiums more accurately reflect the health care utilization and cost at that age.

The County indicated that most future retirees get a Community Blue Plan with a \$5/40, drug benefit, \$20 office visit co pay and \$50 Emergency Room co-pay. We developed different rates for future retirees based on this information.

RETIREE PREMIUM RATE DEVELOPMENT (CONCLUDED)

The tables below show the resulting medical and prescription drug one-person monthly premiums at select ages. The premium (or per capita costs) rates shown below reflect the use of age grading.

For Those Not Eligible for Medicare (Pre-65)							
Future Retirees Current Retirees							
Age	Male	Female	Male	Female			
45	\$485.47	\$635.57	\$513.46	\$672.21			
50	656.80	744.19	694.66	787.09			
55	858.42	882.38	907.91	933.25			
60	1,078.42	1,036.60	1,140.59	1,096.36			

For Those Eligible for Medicare (Post-65)						
Future Retirees Current Retirees						
Age	Male	Female	Male	Female		
65	\$460.03	\$423.62	\$534.90	\$492.57		
70	530.64	477.15	617.00	554.81		
75	589.10	522.81	684.98	607.91		

The undersigned is a Member of the American Academy of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

ctuarial Certification
John Mallows

SECTION D

SUMMARY OF BENEFIT PROVISIONS AND VALUATION DATA

SAGINAW COUNTY OTHER POSTEMPLOYMENT BENEFITS SUMMARY OF BENEFITS AS OF DECEMBER 31, 2011

PLAN PARTICIPANTS

Members of the County of Saginaw Retirement System hired prior to March 1, 2005 who satisfy the following requirements are eligible to receive retiree health care.

RETIREMENT ELIGIBILITY

Eligibility conditions for health care benefits are:

OPEIU (A), SCDPH COA (D), Pub. H. Nurses (E), Animal (J), TPOAM (O), and Pros. (R):

Age 50 with 25 years of service, or at age 55 with 20 years of service, or at age 60 with 6 years of service.

POLC Unit II Sgt's (C), POAM Unit III Cpt & Lt's (F), UAW Mgr's (U), Non-Union (blank), Upper Mgmt. (blank), Elec. (blank), and Judges (blank):

Age 55 with 15 years of service, or at age 60 with 6 years of service, or at any age with 25 years of service.

POAM Unit I (G), and POAM Non-312(Y):

Age 60 with 6 years of service, or at any age with 25 years of service.

Juv. Dent. & Supr. (I & T):

Age 50 with 25 years of service, or at age 55 with 15 years of service, or at age 60 with 6 years of service.

Juv. Prob. (P), and Dist. Ct. Prob. Office (Q):

Age 55 with 20 years of service, or at age 60 with 6 years of service, or at any age with 25 years of service.

UAW Prof. (V), and UAW Tech's (W):

Age 50 with 25 years of service, or at age 55 with 15 years of service, or at age 60 with 6 years of service.

SAGINAW COUNTY OTHER POSTEMPLOYMENT BENEFITS SUMMARY OF BENEFITS AS OF DECEMBER 31, 2011 (CONTINUED)

EARLY RETIREMENT ELIGIBILITY

Members retiring with a reduced pension are not eligible for retiree health care coverage through Saginaw County.

DEFERRED RETIREMENT ELIGIBILITY

Members retiring under deferred retirement conditions are not eligible for retiree health care coverage through Saginaw County.

DISABILITY RETIREMENT ELIGIBILITY

Members retiring under a disability (duty or non-duty) with 6 or more years of service are immediately eligible for subsidized retiree health care coverage under the schedule on page D-4.

DEATH-IN-SERVICE RETIREMENT ELIGIBILITY

Surviving spouses of active members who die while in active employment with the County are not eligible for retiree health care coverage through Saginaw County.

SPOUSE COVERAGE ELIGIBILITY

Subsidized retiree health care coverage is provided to the beneficiary of retirees hired prior to the dates shown below. Beneficiaries of deceased retirees hired prior to the dates shown below are eligible for subsidized retiree health care. Spouses of retirees hired on or after the dates shown below are not eligible for retiree health care coverage.

Date of Change	Division
3/31/1996	OPEIU (A)
1/1/1999	POLC Unit II (C), Pub. H. Nurses (E), POAM Unit I (G), TPOAM (O), Dist. Ct. Prob. Office (Q), and POAM Non-312(Y)
1/1/1998	SCDPH COA (D)
1/1/2001	POAM Unit III Cpt & Lt's (F)
1/1/1996	Juv. Dent. & Supr. (I & T)
1/1/1997	Animal (J)
10/1/1999	Juv. Prob. (P), and Pros. (R)
1/1/1993	UAW Mgr's (U), UAW Prof. (V), UAW Tech's (W), Non-Union (blank), Upper Mgmt. (blank), Elec. (blank), and Judges (blank)

MEDICARE ENROLLMENT

The County of Saginaw provides complementary retiree health care benefits at age 65 when a member becomes Medicare eligible. Member and spouse are required to enroll in Medicare parts A and B when eligible. Member is responsible for payment of Medicare B premiums.

SAGINAW COUNTY OTHER POSTEMPLOYMENT BENEFITS SUMMARY OF BENEFITS AS OF DECEMBER 31, 2011 (CONTINUED)

RETIREE HEALTH SAVINGS PLAN

Employees hired on or after March 1, 2005 will not be eligible for retirement health insurance. They will be offered an employer sponsored health benefit savings plan. The County will contribute 1% of employee's gross wages to this Plan, while participants of the union enrolled in the plan have an option of not contributing or agreeing to a certain percentage. This decision is irrevocable and can only be changed at time of labor agreement negotiations.

PAYMENT IN LIEU OF RETIREE HEALTH INSURANCE

Employees hired prior to March 1, 2005 may make an irrevocable election to refuse retirement health insurance and choose the employer sponsored health benefit savings plan. They will be offered a one-time incentive of \$15,000 by the County, and will not be eligible for retiree health insurance or a stipend in lieu of retiree health insurance. Once opting out of retiree health insurance, the County will contribute 1% of the employee's gross wages to this Plan.

Members who retire are eligible to receive a monthly cash benefit in place of County subsidized retiree health care coverage (\$150 monthly for all divisions except POLC Unit II - C whom receive \$75 monthly). If a retiree chooses the cash dollar monthly benefit, they are not eligible to opt back into the County's retiree health care plan.

Cash benefits are not considered OPEB benefits and are not valued in this valuation.

SERVICE RELATED MEDICAL SUBSIDY

The tables on the next page illustrate the service-related medical subsidy for members retiring after January 1, 1991 in the retiree health care program depending on the group. The County provides fully subsidized retiree health care for members who retired prior to January 1, 1991. OPEIU (A) members hired prior to March 29, 1986 follow the chart on the following page except that members with over 20 years of service receive 100% County paid retiree health care coverage. Pub. H. Nurses (E) members follow slightly different service-related medical subsidy tables depending on their date of retirement.

SAGINAW COUNTY OTHER POSTEMPLOYMENT BENEFITS SUMMARY OF BENEFITS AS OF DECEMBER 31, 2011 (CONTINUED)

	A	С	D	E	E	F	G	I & T	J	0
Years of		POLC Unit II	SCDPH	Pub. H. Nurses	Pub. H. Nurses	COAM Unit III	POAM	Juv., Dent.		
Service	OPEIU	Sgt's.	COA	ret bf 10/1/04	ret aft 10/1/04	Cpt & Lt's	Unit I	& Supr.	Animal	TPOAM
0-5	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
6	25	25	25	25	20	20	20	20	20	20
7	30	30	30	30	25	25	25	25	25	25
8	35	35	35	35	30	30	30	30	30	30
9	40	40	40	40	35	35	35	35	35	35
10	45	45	45	45	40	40	40	40	40	40
11	50	50	50	50	45	45	45	45	45	45
12	55	55	55	55	50	50	50	50	50	50
13	60	60	60	60	55	55	55	55	55	55
14	65	65	65	65	60	60	60	60	60	60
15	70	70	70	70	65	65	65	65	65	65
16	75	75	75	75	70	70	70	70	70	70
17	80	80	80	80	75	75	75	75	75	75
18	85	85	85	85	80	80	80	80	80	80
19	90	90	90	90	85	85	85	85	85	85
20 +	95	95	95	95	90	90	90	90	90	90

	P	Q	R	U	V	W	Y				
Years of	Juv.	Dist. Ct.		UAW	UAW	UAW			Upper		
Service	Prob.	Prob. Office	Pros.	Mgr's	Prof.	Tech's	POAM	Non-Union	Mgmt	Elec.	Judges
0-5	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
6	20	20	25	25	25	25	20	25	25	25	25
7	25	25	30	30	30	30	25	30	30	30	30
8	30	30	35	35	35	35	30	35	35	35	35
9	35	35	40	40	40	40	35	40	40	40	40
10	40	40	45	45	45	45	40	45	45	45	45
11	45	45	50	50	50	50	45	50	50	50	50
12	50	50	55	55	55	55	50	55	55	55	55
13	55	55	60	60	60	60	55	60	60	60	60
14	60	60	65	65	65	65	60	65	65	65	65
15	65	65	70	70	70	70	65	70	70	70	70
16	70	70	75	75	75	75	70	75	75	75	75
17	75	75	80	80	80	80	75	80	80	80	80
18	80	80	85	85	85	85	80	85	85	85	85
19	85	85	90	90	90	90	85	90	90	90	90
20 +	90	90	95	95	95	95	90	95	95	95	95

Note: OPEIU hired before 1996 with 20+ years of service pay nothing for retiree coverage.

SAGINAW COUNTY OTHER POSTEMPLOYMENT BENEFITS SUMMARY OF BENEFITS AS OF DECEMBER 31, 2011 (CONCLUDED)

LIFE INSURANCE

Members retiring on or after January 1, 1986 and fulfilling the requirements for retiree health care benefits as indicated in the "Retirement Eligibility" are eligible to receive retiree life insurance benefits through Saginaw County. Members retiring on or after January 1, 1986 and prior to January 1, 1993 are eligible for coverage of \$2,000. Members retiring on or after January 1, 1993 are eligible for coverage of \$4,000.

This is a brief summary of the Saginaw County Retiree Health Care Plan provisions. In the event that any description contained herein differs from the actual eligibility or benefit, the appropriate employee contract or governing document will prevail.

ACTIVE MEMBERS AS OF DECEMBER 31, 2011 BY AGE AND YEARS OF SERVICE

	Years of Service to Valuation Date						Total		
									Valuation
Age	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Payroll
25-29		2						2	\$ 85,803
30-34		7	4					11	515,628
35-39		4	20	4				28	1,346,500
40-44		1	15	24	2			42	2,114,067
45-49		5	18	14	16	2		55	2,551,093
50-54		6	20	10	16	11	5	68	3,328,000
55-59		1	14	12	10	11	7	55	2,575,144
60-64		1	8	9	8	2	9	37	1,812,620
65 & Over		1	3	4	3	1	5	17	780,903
Totals		28	102	77	55	27	26	315	\$15,109,758

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 50.5 years **Service:** 18.1 years

569 Active members were valued with the life insurance benefit.

RETIRED MEMBERS AS OF DECEMBER 31, 2011 BY AGE

RETIRED MEMBERS

	Num	ber of Re	tirees
Age	Female	Male	Total
Under 50	5	3	8
50-54	22	10	32
55-59	29	29	58
60-64	44	33	77
65-69	41	30	71
70-74	30	17	47
75-79	34	9	43
80-84	36	13	49
85-89	14	9	23
90 & Over	15	4	19
Totals	270	157	427

The above totals include only those retirees and surviving spouses currently in the County's Retiree Health Care Plan.

355 Retiree members were valued with the life insurance benefit.

SECTION E

ACTUARIAL COST METHOD AND ACTUARIAL ASSUMPTIONS

ACTUARIAL METHODS FOR SAGINAW COUNTY AS OF DECEMBER 31, 2011

Actuarial Cost Method. Normal cost and the allocation of benefit values between service rendered before and after the valuation date was determined using an Individual Entry-Age Actuarial Cost Method having the following characteristics:

- (i) the annual normal cost for each individual active member, payable from the date of employment to the date of retirement, is sufficient to accumulate the value of the member's benefit at the time of retirement;
- (ii) each annual normal cost is a constant percentage of the member's year by year projected covered pay.

Actuarial gains (losses), as they occur, reduce (increase) the Unfunded Actuarial Accrued Liability.

Financing of Unfunded Actuarial Accrued Liabilities. Unfunded actuarial accrued liabilities (UAAL) (full funding credit if assets exceed liabilities) were amortized as a level dollar. The UAAL was determined using the actuarial value of assets and actuarial accrued liability calculated as of the valuation date and projected to the beginning of the fiscal year at the assumed rate of investment return.

Actuarial Value of Assets. The Actuarial Value of Assets is set equal to the reported market value of assets.

The following amortization factor was used in developing the Annual Required Contribution for the fiscal year shown:

	Fiscal Year Beginning October 01,		
6.00% Interest	2012		
Total (Level Dollar)	13.3895		

ACTUARIAL ASSUMPTIONS FOR SAGINAW COUNTY AS OF DECEMBER 31, 2011

The rate of investment return was 6.0% a year, compounded annually net after investment expenses.

The rates of salary increase used for individual members are in accordance with the following table. This assumption is used to project a member's current salary to the salaries upon which future contributions will be based.

	% Ir	crease in Salary at Sampl	le Ages
Sample	Merit &	Base	Increase
Ages	Seniority	(Economic)	Next Year
20	8.40 %	4.50 %	12.90 %
25	5.33	4.50	9.83
30	3.26	4.50	7.76
35	2.05	4.50	6.55
40	1.30	4.50	5.80
45	0.81	4.50	5.31
50	0.52	4.50	5.02
55	0.30	4.50	4.80

ACTUARIAL ASSUMPTIONS FOR SAGINAW COUNTY AS OF DECEMBER 31, 2011 (CONTINUED)

The rates of post retirement mortality used for individual members are in accordance with the following tables.

For healthy retirees, mortality rates are based on the 1994 Group Annuity Mortality Tables blended 50% male/50% female. Sample rates are as follows:

Sample Attained Ages	Probability of Dying Next Year (Healthy)	Future Life Expectancy (years)
50	0.20%	32.60
55	0.34	27.98
60	0.62	23.53
65	1.16	19.40
70	1.87	15.66
75	2.99	12.24
80	5.07	9.25

For disabled retirees, mortality rates are based on the healthy life table above, but set forward ten years. Sample rates are as follow:

Sample Attained Ages	Probability of Dying Next Year (Disabled)	Future Life Expectancy (years)
50	0.62%	23.53
55	1.16	19.40
60	1.87	15.66
65	2.99	12.24
70	5.07	9.25
75	8.25	6.81
80	13.46	4.85

These assumptions are used to measure the probabilities of each benefit payment being made after retirement.

The same mortality tables are used for active members with 90% of active deaths assumed non-duty and 10% assumed duty related.

There is currently no margin for future mortality improvements in the valuation.

ACTUARIAL ASSUMPTIONS FOR SAGINAW COUNTY AS OF DECEMBER 31, 2011 (CONTINUED)

Retirement Rates

A schedule of retirement rates is used to measure the probability of eligible members retiring during the next year. Certain Retirement ages may not apply, depending on the benefit age of first eligibility.

Normal Retirement - Age Based Benefit Provisions

The state of the s	Percent of Eligible Active Members Retiring Within Next
Retirement Ages	Year*
50	20%
51	20
52	20
53	20
54	20
55	20
56	20
57	21
58	21
59	21
60	21
61	22
62	22
63	22
64	23
65	25
66	25
67	26
68	28
69	30
70	100

^{*} For those eligible prior to age 50, the retirement rate is 22% per year. Members in a defined contribution plan follow the retirement pattern of those with a defined benefit of less than or equal 2.50% per year.

ACTUARIAL ASSUMPTIONS FOR SAGINAW COUNTY AS OF DECEMBER 31, 2011 (CONTINUED)

Early Retirement - Reduced Pension Benefit

Retirement Ages	Percent of Eligible Active Members Retiring Within Next Year
50	2%
51	2
52	3
53	5
54	8
55	4
56	4
57	4
58	6
59	8

In the case of a member's eligibility for pension retirement precedes eligibility for OPEB retirement, the percent of eligible active members retiring within the next year is as described in the table above or 4%, whichever is smaller.

ACTUARIAL ASSUMPTIONS FOR SAGINAW COUNTY AS OF DECEMBER 31, 2011 (CONTINUED)

Rates of separation from active membership are used to estimate the number of employees at each age that are expected to terminate employment before qualifying for retirement benefits. The rates of separation from active membership do not apply to members eligible to retire, and do not include separation on account of death or disability. The assumed rates of separation applied in the current valuation are based on years of service, and scaled up or down according to each group's experience.

Group	Separation Rate Scaling Factor
All Divisions	90%

The base separation rates (see the table below) are multiplied by the scaling factor to obtain the assumed withdrawal rates. Sample rates of separation from active employment, before application of the scaling factor, are shown below.

Sample Years of Service	% of Active Members Separating Within the Next Year
0	20.00%
1	17.00
2	14.00
3	11.00
4	9.00
5	6.50
10	5.00
15	3.70
20	3.00
25	2.70
30	2.60
34 and over	2.40

ACTUARIAL ASSUMPTIONS FOR SAGINAW COUNTY AS OF DECEMBER 31, 2011 (CONCLUDED)

Disability Rates

Disability rates are used in the valuation to estimate the incidence of member disability in future years.

The assumed rates of disablement at various ages are shown below.

Sample Ages	Percent Becoming Disabled Within the Next Year
20	0.02%
25	0.02
30	0.02
35	0.06
40	0.06
45	0.11
50	0.24
55	0.41
60	0.41
65	0.41

85% of the disabilities are assumed to be non-duty and 15% of the disabilities are assumed to be duty related.

Health care cost trend rates are displayed in the following table:

Year Beginning January 1,	Medical and Prescription Drugs
	•
2013	9.00 %
2014	8.50
2015	8.00
2016	7.50
2017	7.00
2018	6.50
2019	6.00
2020	5.50
2021	5.00
2022 & Later	4.50

GASB STATEMENTS NO. 43 AND NO. 45 REQUIRED SUPPLEMENTARY INFORMATION

Valuation Date

December 31, 2011

Actuarial Cost Method

Individual Entry Age

Amortization Method

Level Dollar Closed

Remaining Amortization Period

26 Years

Asset Valuation Method

Market Value

Actuarial Assumptions:

Discount Rate

6.00% Per Year

Projected Salary Increases

12.90% - 4.50%

Valuation Health Care Cost Trend Rate

9.00% in 2013, grading to 4.50% in 2022

MISCELLANEOUS AND TECHNICAL ASSUMPTIONS

Administrative Expenses: No explicit assumption has been made for administrative expenses.

Decrement Operation: Disability and withdrawal do not operate during retirement

eligibility.

Eligibility Testing: Eligibility for benefits is determined based upon the age nearest

birthday and service nearest whole year on the date the decrement is

assumed to occur.

Incidence of ContributionsContributions are assumed to be received continuously throughout

the year based upon the computed contribution rate shown in this

report.

Marriage Assumption: 70% of males and 70% of females are assumed to be married for

purposes of death-in-service benefits. Male spouses are assumed to be three years older than female spouses for active member

valuation purposes.

Medicare Coverage: Assumed to be available for all covered employees on attainment of

age 65.

Election Percentage: 60% of males and 60% of females were assumed to elect two-person

coverage, if eligible. 40% of males and 40% of females were assumed to elect one-person coverage. For those that elect two-person coverage, it was assumed that coverage would continue to

the spouse upon death of the retiree.

Non-Investment

Administration Expenses: None.

Opt-Out Assumption: It is assumed that 0% of the current active population will elect to opt-

out of retiree health coverage.

APPENDIX A

OVERVIEW

GASB BACKGROUND

The purpose of this valuation is to provide information on the cost associated with providing postemployment benefits other than pensions, or OPEB, to current and former employees. The information is designed to assist you in complying with Governmental Accounting Standards Board (GASB) Statements No. 43 and No. 45. OPEB benefits are most often associated with postemployment health care, but cover almost any benefit not provided through a pension plan, including life insurance, dental and vision benefits. It is important to note that OPEB benefits, by definition, do not include benefits *currently* being provided to active employees – however, this report includes the liabilities for benefits expected to be paid to current active employees in the future when they retire.

GASB Statements No. 43 and No. 45 were released in the spring of 2004. GASB Statement No. 43 covers the accounting rules for OPEB *plans* while GASB Statement No. 45 describes the rules for *employers* sponsoring OPEB plans. Your auditor can assist you in determining which statements apply to your particular situation.

The specific items required to be disclosed on an OPEB sponsor's financial statements are described in detail in GASB Statements No. 43 and No. 45.

GASB Statement No. 45

Among the requirements of Statement No. 45 are recognition each year of an expense called the Annual OPEB Cost, and the accumulation of a liability to be disclosed on the employer's Statement of Net Assets called the Net OPEB Obligation (NOO).

The fundamental items required to determine the Annual OPEB Cost and the NOO are:

- the Annual Required Contribution (ARC)
- the Employer's Contributions in relation to the ARC

Although GASB does not require OPEB contributions, it has chosen to call the base component of the annual OPEB cost the Annual Required Contribution. The ARC is provided in this report.

GASB BACKGROUND (CONCLUDED)

Paragraph 13g. of Statement No. 45 states:

"An employer has made a contribution in relation to the ARC if the employer has:

- 1. made payments of benefits directly to or on behalf of a retiree or beneficiary,
- 2. made premium payments to an insurer, or
- 3. irrevocably transferred assets to a trust, or equivalent arrangement in which Plan assets are dedicated to providing benefits to retirees and their beneficiaries in accordance with the terms of the Plan and are legally protected from creditors of the employer(s) or plan administrator.

For each fiscal year shown in this report, we have provided the ARC and the estimated benefits and/or premiums (based on valuation assumptions).

The NOO is the cumulative difference between the Annual OPEB Cost each year and the Employer's Contribution in relation to the ARC. The Annual OPEB Cost for a year is equal to:

- the ARC, plus
- interest on the prior year's NOO, plus
- amortization of the prior year's NOO.

The Annual OPEB Cost and NOO are generally developed by the Plan Sponsor's auditor based on information contained herein and elsewhere.

GASB Statement No. 43

If the Plan has assets for Statement No. 43 purposes, then certain additional information useful in complying with the Statement is contained in this report.

OPEB PRE-FUNDING

Many employers fund retiree health care benefits using the pay-as-you-go (or cash disbursement) method. Under this method, the employer's annual contribution is equal to the actual disbursements during the year for OPEB for retired employees. This method of funding will result in increasing contributions over time. First, per capita cash disbursements will tend to increase from year to year as the cost of health care services, or the utilization of these services, increases. Second, the number of retired members is likely to increase for years to come. The more retirees, the greater the disbursements as a percentage of employee payroll.

A retiree health care plan is similar to a defined benefit pension plan in that promises are made to employees to provide them with a benefit payable at some future date. For defined benefit pension plan sponsors, a common funding objective is to contribute to a fund, annual amounts which will i) remain level as a percentage of active member payroll, and ii) when combined with present assets and future investment return be sufficient to meet the financial obligations of the Plan to current and future retirees.

The GASB statements are not funding requirements. They are accounting standards that require plan sponsors to calculate the annual expense associated with OPEB using certain methods.

The ultimate determination as to the level of pre-funding will be the result of decisions made in an attempt to support benefit security for members and the fiscal management needs of the employer.

APPENDIX B

GLOSSARY

GLOSSARY

Accrued Service. The service credited under the plan which was rendered before the date of the actuarial valuation.

Actuarial Accrued Liability. The difference between (i) the actuarial present value of future plan benefits, and (ii) the actuarial present value of future normal cost. Sometimes referred to as "accrued liability" or "past service liability".

Actuarial Assumptions. Estimates of future plan experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.

Actuarial Cost Method. A mathematical budgeting procedure for allocating the dollar amount of the "actuarial present value of future plan benefits" between the actuarial present value of future normal cost and the actuarial accrued liability. Sometimes referred to as the "actuarial funding method".

Actuarial Equivalent. A single amount or series of amounts of equal value to another single amount or series of amounts, computed on the basis of the rate(s) of interest and mortality tables used by the plan.

Actuarial Present Value. The amount of funds presently required to provide a payment or series of payments in the future. It is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Amortization. Paying off an interest-bearing liability by means of periodic payments of interest and principal, as opposed to paying it off with a lump sum payment.

GLOSSARY

Annual Required Contribution (ARC). The ARC is the normal cost plus the portion of the unfunded actuarial accrued liability to be amortized in the current period. The ARC is an amount that is actuarially determined in accordance with the requirements so that, if paid on an ongoing basis, it would be expected to provide sufficient resources to fund both the normal cost for each year and the amortized unfunded actuarial accrued liability.

Governmental Accounting Standards Board (GASB). GASB is the private, nonpartisan, nonprofit organization that works to create and improve the rules U.S. state and local governments follow when accounting for their finances and reporting them to the public.

Implicit Rate Subsidy. It is common practice for employers to allow retirees to continue in the employer's group health insurance plan (which also covers active employees), often charging the retiree some portion of the premium charged for active employees. Under the theory that retirees have higher utilization of services, the difference between the true cost of providing retiree coverage and what the retiree is being charged is known as the implicit rate subsidy.

Medical Trend Rate (**Health Care Inflation**). The increase in the cost of providing health care benefits over time. Trend includes such elements as pure price inflation, changes in utilization, advances in medical technology, and cost shifting.

Normal Cost. The annual cost assigned, under the actuarial funding method, to current and subsequent plan years. Sometimes referred to as "current service cost." Any payment toward the unfunded actuarial accrued liability is not part of the normal cost.

Other Postemployment Benefits (OPEB). OPEB are postemployment benefits other than pensions. OPEB generally takes the form of health insurance, dental, vision, prescription drugs, life insurance or other health care benefits.

Reserve Account. An account used to indicate that funds have been set aside for a specific purpose and are not generally available for other uses.

GLOSSARY

Unfunded Actuarial Accrued Liability. The difference between the actuarial accrued liability and valuation assets. Sometimes referred to as "unfunded actuarial accrued liability."

Valuation Assets. The value of current plan assets recognized for valuation purposes.



April 30, 2012

Ms. Amy Deford Retirement Administrator County of Saginaw 111 S. Michigan Saginaw, Michigan 48602

Re: Saginaw County Other Postemployment Benefits Valuation

Dear Ms. Deford:

Enclosed are 6 copies of our report of the actuarial valuation of the Saginaw County Other Postemployment Benefits.

Respectfully submitted,

Curtis Powell, EA, MAAA

CP:mrb Enclosures



COUNTY OF SAGINAW

111 SOUTH MICHIGAN AVENUE SAGINAW, MICHIGAN 48602

MARC A. McGILL

Controller/Chief Administrative Officer

New employees hired after December 1, 2005 are not eligible for health insurance provided by the County upon retirement. In lieu of retiree health care, new employees will be offered an employer-sponsored Health Care Savings Program (HCSP) per the agreement with MERS or its equivalent. The County will contribute 1% of employees annual salary to the HCSP and those enrolled are mandated to contribute a percentage of their salary which varied depending upon union contracts.

The County has budgeted \$133,493 in 2013 to contribute towards employees HCSP's and we estimate this amount to increase by 1.5% per year over the next 5 years as follows:

2014	\$135,495
2015	\$137,527
2016	\$139,590
2017	\$141,684
2018	\$143.809



Evidence that the Pension Obligation Bonds will Eliminate the Unfunded Pension Liability



SOURCES AND USES OF FUNDS

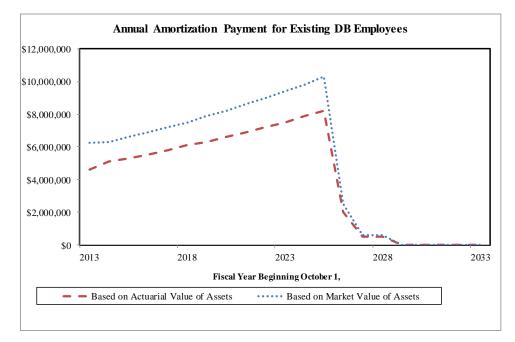
County of Saginaw
State of Michigan
Pension Obligation Bonds, Series 2013
(Limited Tax General Obligation)
Assumes UAL is Calculated Based Upon Current Market Value of Assets
Assumes Taxable Interest Rate as of February 8, 2013
Assumes Credit Rating of Aa3 by Moody's

Bond Proceeds:	
Par Amount	64,755,000.00
	64,755,000.00
Uses:	
Project Fund Deposits:	
UAL Funding Amount	64,100,000.00
Delivery Date Expenses:	
Cost of Issuance	451,342.35
Underwriter's Discount	201,076.50
	652,418.85
Other Uses of Funds:	
Additional Proceeds	2,581.15
	64,755,000.00

Note: All amounts in this Sources and Uses of Funds are estimates only.

Saginaw County (7303) - Total of All Divisions
Projected Amortization Payments Based on December 31, 2012 Estimated Valuation Results
Closed Amortization Policy Option B - Modified After Reaching 5-Year Amortization Period

	Base	Based on the			
	Actuarial V	Actuarial Value of Assets		Market Value of Assets	
Fiscal Year	Beginning of Year		Beginning of Year		
Beginning	UAL	Amortization	UAL	Amortization	
October 1	Balance	Payment	Balance	Payment	
2013	51,000,000	4,590,114	64,100,000	6,242,445	
2014	50,300,000	5,100,000	62,700,000	6,300,000	
2015	49,100,000	5,300,000	61,100,000	6,600,000	
2016	47,500,000	5,500,000	59,200,000	6,900,000	
2017	45,500,000	5,800,000	56,700,000	7,200,000	
2018	43,100,000	6,100,000	53,700,000	7,500,000	
2019	40,300,000	6,300,000	50,200,000	7,900,000	
2020	36,900,000	6,600,000	46,000,000	8,200,000	
2021	33,000,000	6,900,000	41,100,000	8,600,000	
2022	28,500,000	7,200,000	35,500,000	9,000,000	
2023	23,300,000	7,500,000	29,000,000	9,400,000	
2024	17,300,000	7,900,000	21,500,000	9,800,000	
2025	10,500,000	8,200,000	13,100,000	10,300,000	
2026	2,700,000	2,000,000	3,400,000	2,500,000	
2027	900,000	500,000	1,100,000	600,000	
2028	500,000	500,000	600,000	600,000	
2029	-	-	-	-	
2030	-	-	-	-	
2031	-	-	-	-	
2032	-	-	-	-	
2033	-	-	-	-	



Note: Amortization payment for fiscal year beginning October 1, 2013 is based on 2011 valuation results. All other figures are based on estimated December 31, 2012 results reported as of February 8, 2013.



Debt Service Amortization Schedule



BOND DEBT SERVICE

County of Saginaw State of Michigan Pension Obligation Bonds, Series 2013 (Limited Tax General Obligation)

Assumes UAL is Calculated Based Upon Current Market Value of Assets Assumes Taxable Interest Rate as of February 8, 2013 Assumes Credit Rating of Aa3 by Moody's

Period Ending	Principal	Coupon	Interest	Debt Service	Annual Debt Service
11/01/2013			1,000,998.75	1,000,998.75	
05/01/2014	2,595,000	0.750%	1,000,998.75	3,595,998.75	
09/30/2014	_,_,_,		-,,	-,,	4,596,997.50
11/01/2014			991,267.50	991,267.50	1,000,000
05/01/2015	2,615,000	0.850%	991,267.50	3,606,267.50	
09/30/2015	,,		,	-,,	4,597,535.00
11/01/2015			980,153.75	980,153.75	, ,
05/01/2016	2,640,000	1.150%	980,153.75	3,620,153.75	
09/30/2016	, ,		,	-,,	4,600,307.50
11/01/2016			964,973.75	964,973.75	, ,
05/01/2017	2,670,000	1.450%	964,973.75	3,634,973.75	
09/30/2017	, ,		,	, ,	4,599,947.50
11/01/2017			945,616.25	945,616.25	
05/01/2018	2,710,000	1.800%	945,616.25	3,655,616.25	
09/30/2018	, ,		,	, ,	4,601,232.50
11/01/2018			921,226.25	921,226.25	, ,
05/01/2019	2,755,000	2.100%	921,226.25	3,676,226.25	
09/30/2019	, ,		,		4,597,452.50
11/01/2019			892,298.75	892,298.75	
05/01/2020	2,815,000	2.400%	892,298.75	3,707,298.75	
09/30/2020					4,599,597.50
11/01/2020			858,518.75	858,518.75	
05/01/2021	2,880,000	2.650%	858,518.75	3,738,518.75	
09/30/2021					4,597,037.50
11/01/2021			820,358.75	820,358.75	
05/01/2022	2,960,000	2.850%	820,358.75	3,780,358.75	
09/30/2022					4,600,717.50
11/01/2022			778,178.75	778,178.75	
05/01/2023	3,045,000	3.100%	778,178.75	3,823,178.75	
09/30/2023					4,601,357.50
11/01/2023			730,981.25	730,981.25	
05/01/2024	3,135,000	3.200%	730,981.25	3,865,981.25	
09/30/2024					4,596,962.50
11/01/2024			680,821.25	680,821.25	
05/01/2025	3,240,000	3.400%	680,821.25	3,920,821.25	
09/30/2025					4,601,642.50
11/01/2025			625,741.25	625,741.25	
05/01/2026	3,350,000	3.550%	625,741.25	3,975,741.25	
09/30/2026					4,601,482.50
11/01/2026			566,278.75	566,278.75	
05/01/2027	3,465,000	3.700%	566,278.75	4,031,278.75	
09/30/2027					4,597,557.50
11/01/2027			502,176.25	502,176.25	
05/01/2028	3,595,000	3.850%	502,176.25	4,097,176.25	
09/30/2028					4,599,352.50
11/01/2028			432,972.50	432,972.50	



BOND DEBT SERVICE

County of Saginaw
State of Michigan
Pension Obligation Bonds, Series 2013
(Limited Tax General Obligation)
Assumes UAL is Calculated Based Upon Current Market Value of Assets
Assumes Taxable Interest Rate as of February 8, 2013
Assumes Credit Rating of Aa3 by Moody's

Period Ending	Principal	Coupon	Interest	Debt Service	Annual Debt Service
05/01/2029	3,735,000	4.000%	432,972.50	4,167,972.50	
09/30/2029					4,600,945.00
11/01/2029			358,272.50	358,272.50	
05/01/2030	3,885,000	4.100%	358,272.50	4,243,272.50	
09/30/2030					4,601,545.00
11/01/2030			278,630.00	278,630.00	
05/01/2031	4,040,000	4.400%	278,630.00	4,318,630.00	
09/30/2031					4,597,260.00
11/01/2031			189,750.00	189,750.00	
05/01/2032	4,220,000	4.400%	189,750.00	4,409,750.00	
09/30/2032					4,599,500.00
11/01/2032			96,910.00	96,910.00	
05/01/2033	4,405,000	4.400%	96,910.00	4,501,910.00	
09/30/2033					4,598,820.00
	64,755,000		27,232,250.00	91,987,250.00	91,987,250.00



Description of Actions Required to Satisfy the Debt Service Requirements



Description of Actions Required to Satisfy Debt Service Requirements

Saginaw County allocates pension costs to the various funds that receive pension benefits. Similarly, the annual debt service for the Pension Obligation Bonds will be allocated proportionately to the funds receiving pension benefits. The County has 15 funds which are allocated pension costs and will be allocated proportionate amounts of annual debt service for the Pension Obligation Bonds. Revenue sources for the funds that will be allocated portions of the annual Pension Obligation Bond debt service include annual operating levies, special millages, grants, and other sources of annual revenue.

Saginaw County's Administration completes an annual budget for each fund and presents it the County Board of Commissioners for approval. The annual debt service amounts for each fund within the budget will be included in the annual budget process to be presented and approved by the Board of Commissioners annually. The Pension Obligation Bonds will carry the County's full faith and credit pledge; therefore, the annual debt service will be legally required to be part of the County's total budget.



Certification



COUNTY OF SAGINAW

111 SOUTH MICHIGAN AVENUE SAGINAW, MICHIGAN 48602

MARC A. McGILL

Controller/Chief Administrative Officer

CERTIFICATION

The County has prepared this Amended and Restated Comprehensive Financial Plan for Pension and Other Post-Employment Benefits as required under Act 34, Public Acts of Michigan, 2001, as amended, for the issuance of Pension Obligation Bonds. In preparing this plan, information has been obtained from the Michigan Employees Retirement System, Gabriel Roeder Smith & Company, and Public Financial Managment. The County believes the information provided by these firms to be reliable.

I certify that this Amended and Restated Comprehensive Financial Plan is complete and accurate.

/S/

Marc McGill Controller / CAO Saginaw County

Dated: Feburary 19, 2013