

**SAGINAW COUNTY OTHER POSTEMPLOYMENT BENEFITS  
ACTUARIAL VALUATION REPORT  
DECEMBER 31, 2010**

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September 8, 2011

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 benefit values associated with the employer financed retiree health benefits provided by Saginaw County. The date of the valuation was December 31, 2010, effective for the fiscal years beginning October 1, 2011. This report was prepared at the request of Saginaw County.

The actuarial calculations were prepared for purposes of complying with the requirements of Statements No. 43 and No. 45 of the Governmental Accounting Standards Board (GASB). The calculations reported herein have been made on a basis consistent with our understanding of these accounting standards. Determinations of the liability associated with the benefits described in this report for purposes other than satisfying the County's financial reporting requirements may produce significantly different results. This report may be provided to parties other than Saginaw County only in its entirety and only with the permission of the County.

The valuation was based upon information, furnished by the County, concerning retiree health benefits, individual members, and financial data. Data was checked for internal consistency, but was not otherwise audited.

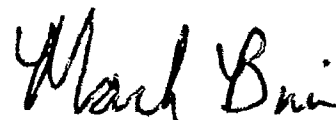
To the best of our knowledge, this report is complete and accurate and was made in accordance with generally recognized actuarial methods.

All of 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.

Respectfully submitted,



Curtis Powell, EA, MAAA



Mark Buis, EA, FSA, MAAA

CP/MB:bd

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## **EXECUTIVE SUMMARY**

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## EXECUTIVE SUMMARY

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### 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, 2011, 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."

<b>Annual Required Contribution</b>	<b>6.00% Interest</b>	<b>Estimated Claims and Premiums Paid for Retirees</b>
Fiscal Year Beginning 2011	\$10,901,234	\$6,156,086

## EXECUTIVE SUMMARY (CONCLUDED)

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### 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

	<b>6.00% Interest</b>
1. Present Value of Future Benefit Payments	\$144,060,425
2. Actuarial Accrued Liability	131,957,659
3. Plan Assets	13,065,654
4. Unfunded Actuarial Accrued Liability (2) – (3)	118,892,005
5. Funded Ratio (3)/(2)	9.9%

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").

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**SECTION A**  
VALUATION RESULTS

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**DEVELOPMENT OF THE ANNUAL REQUIRED CONTRIBUTION  
FOR THE FISCAL YEAR BEGINNING OCTOBER 1, 2011**

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Contributions for	Development of the Annual Required Contribution for Fiscal Year Beginning	
	2011	2010
Total Normal Cost	\$ 1,770,677	\$ 1,055,462
Amortization of Unfunded Actuarial Accrued Liabilities (Amortized over 27 years in 2010)	\$ 9,130,557	\$ 8,019,527
<b>Annual Required Contribution (ARC)</b>	<b>\$ 10,901,234</b>	<b>\$ 9,074,989</b>

The unfunded actuarial accrued liabilities were amortized as level dollar amounts over a 27 year period for the fiscal year beginning in 2011 and over a 28 year period for the fiscal year beginning in 2010. The discount rate is 6.00% (8.00% for prior year).



**DETERMINATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY  
AS OF DECEMBER 31, 2010**

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	December 31, 2010	December 31, 2009
A. Present Value of Future Benefits		
1. Retirees and Beneficiaries	\$ 88,277,033	\$ 65,355,053
2. Vested Terminated Members	0	0
3. Active Members	<u>55,783,392</u>	<u>39,517,215</u>
Total Present Value of Future Benefits	\$144,060,425	\$104,872,268
B. Present Value of Future Employer Normal Costs	\$ 12,102,766	\$ 6,370,839
C. Actuarial Accrued Liability (A.-B.)	√\$131,957,659	\$ 98,501,429
D. Actuarial Value of Assets	√\$ 13,065,654	\$ 11,544,398
E. Unfunded Actuarial Accrued Liability (C.-D.)	√\$118,892,005	\$ 86,957,031
F. Funded Ratio (D./C.)	9.9%	11.7%

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% (8.00% for prior year) investment return assumption and the trend assumption described on page E-8.

## COMMENTS

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**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. The rate of return assumption used in this valuation is 6.00% per year as compared to 8.00% in the prior year. GASB requires use of a rate that reflects the expected return on the assets which will be used to pay benefits. 6.00% is reflective 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, 2012, the total projected amount of claims paid by the employer on behalf of retirees is \$6,156,086.

**COMMENT C:** The ARC for 2011 of \$10,901,234 is higher than was projected. This is primary because the discount rate was decreased to 6.00% from 8.00% which had been used in the prior year. In addition the standard health care cost trend assumption was used this year. A reduced trend assumption had been used (per the County's request) in the past few years. The effect of these changes was offset, in part by decreases in the underlying rates due to benefit changes (reduced claims).

**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.

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**SECTION B**  
FINANCIAL PROJECTION

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

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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.

<b>Year Ending September 30,</b>	<b>Projected Covered Member Payroll</b>	<b>Asset Value BOY</b>	<b>Annual Required Contribution</b>	<b>Expected Health Care Benefits</b>	<b>Investment Income</b>	<b>Asset Value EOY</b>
2012	\$13,945,583	\$16,043,699	\$10,901,234	\$6,156,086	\$1,102,903	\$21,891,750
2013	13,183,223	21,891,750	10,771,362	6,819,844	1,430,324	27,273,592
2014	12,489,012	27,273,592	10,662,291	7,435,190	1,731,818	32,232,512
2015	11,810,021	32,232,512	10,567,424	8,018,090	2,009,317	36,791,163
2016	11,121,113	36,791,163	10,478,861	8,536,695	2,264,886	40,998,216
2017	10,461,931	40,998,216	10,392,344	8,934,390	2,502,994	44,959,164
2018	9,796,664	44,959,164	10,307,038	9,253,053	2,728,709	48,741,858
2019	9,103,774	48,741,858	10,223,699	9,491,908	2,946,145	52,419,794
2020	8,389,035	52,419,794	10,138,750	9,704,446	3,158,027	56,012,125
2021	7,606,049	56,012,125	10,052,135	9,889,028	3,365,549	59,540,781
2022	6,774,750	59,540,781	9,960,419	10,085,184	3,568,758	62,984,774
2023	5,949,878	62,984,774	9,863,587	10,243,008	3,767,870	66,373,223
2024	5,217,868	66,373,223	9,766,805	10,432,447	3,962,715	69,670,296
2025	4,522,472	69,670,296	9,678,778	10,617,955	4,152,453	72,883,572
2026	3,886,247	72,883,572	9,601,455	10,728,110	4,339,707	76,096,625
2027	3,317,802	76,096,625	9,531,774	10,862,463	4,526,458	79,292,394

This projection assumes the County will contribute an amount equal to the ARC each year. In addition, the payment to reduce the unfunded liability is based on an amortization period of 27 years the first year, decreasing by 1 each year. This is consistent with a financing policy aimed at eventually fully-funding the plan's liabilities.

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**SECTION C**

RETIREE PREMIUM RATE DEVELOPMENT

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## RETIREE PREMIUM RATE DEVELOPMENT

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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 2008 to December 2010, 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.

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.

We were told by the County that most future retirees get a Community Blue Plan with a \$5/40, drug benefit, \$20 office visit co pay and \$50 ER co pay. We developed different rates for future retirees based on this information.

## RETIREE PREMIUM RATE DEVELOPMENT (CONCLUDED)

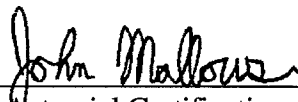
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The tables below show the resulting medical and prescription drug one-person monthly premiums at select ages. The premium (or per capita costs) rates shown below reflect the use of age grading.

<b>For Those Not Eligible for Medicare (Pre-65)</b>				
<b>Age</b>	<b>Future Retirees</b>		<b>Current Retirees</b>	
	<b>Male</b>	<b>Female</b>	<b>Male</b>	<b>Female</b>
45	\$478.56	\$626.52	\$505.68	\$662.02
50	647.45	733.60	684.13	775.16
55	846.20	869.82	894.15	919.10
60	1,063.07	1,021.85	1,123.31	1,079.75

<b>For Those Eligible for Medicare (Post-65)</b>				
<b>Age</b>	<b>Future Retirees</b>		<b>Current Retirees</b>	
	<b>Male</b>	<b>Female</b>	<b>Male</b>	<b>Female</b>
65	\$425.38	\$391.72	\$489.04	\$450.34
70	490.67	441.21	564.10	507.24
75	544.73	483.43	626.25	555.78

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.

  
 \_\_\_\_\_  
 Actuarial Certification  
 John Mallows

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**SECTION D**

SUMMARY OF BENEFIT PROVISIONS  
AND VALUATION DATA

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**SAGINAW COUNTY OTHER POSTEMPLOYMENT BENEFITS**  
**SUMMARY OF BENEFITS AS OF DECEMBER 31, 2010**

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**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, 2010 (CONTINUED)**

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**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.

<b>Date of Change</b>	<b>Division</b>
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 ( <i>blank</i> ), Upper Mgmt ( <i>blank</i> ), Elec ( <i>blank</i> ), and Judges ( <i>blank</i> )

**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, 2010 (CONTINUED)**

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**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, 2010 (CONTINUED)**

Years of Service	A	C	D	E	E	F	G	I & T	J	O
	OPEIU	POLC Unit II Sgt's.	SCDPH COA	Pub. H. Nurses ret bf 10/1/04	Pub. H. Nurses ret aft 10/1/04	COAM Unit III Cpt & Lt's	POAM Unit I	Juv., Dent. & 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

Years of Service	P	Q	R	U	V	W	Y	Non-Union	Upper Mgmt	Elec.	Judges
	Juv. Prob.	Dist. Ct. Prob. Office	Pros.	UAW Mgr's	UAW Prof.	UAW Tech's	POAM				
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, 2010 (CONCLUDED)**

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**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, 2010**  
**BY ATTAINED AGE AND YEARS OF SERVICE**

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Attained Age	Years of Service to Valuation Date							Total	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
25-29		3						3	\$ 118,081
30-34		9	6					15	734,772
35-39		5	22	5				32	1,546,845
40-44		5	17	17	3			42	2,030,273
45-49		10	19	19	13	3	1	65	2,989,093
50-54		6	15	12	16	9	4	62	3,100,600
55-59		4	13	17	9	8	8	59	2,748,007
60-64		3	9	5	8	4	6	35	1,624,226
65 & Over		1	4	4	2	1	4	16	786,862
<b>Totals</b>		<b>46</b>	<b>105</b>	<b>79</b>	<b>51</b>	<b>25</b>	<b>23</b>	<b>329</b>	<b>\$15,678,759</b>

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

**Age:** 50.0 years  
**Service:** 17.0 years

584 Active members were valued with the life insurance benefit.

**RETIRED MEMBERS AS OF DECEMBER 31, 2010**  
**BY ATTAINED AGE**

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**RETIRED MEMBERS**

Attained Age	Number of Retirees		
	Female	Male	Total
Under 50	7	4	11
50-54	24	12	36
55-59	38	31	69
60-64	31	37	68
65-69	42	21	63
70-74	32	18	50
75-79	35	14	49
80-84	34	6	40
85-89	18	11	29
90 & Over	11	2	13
<b>Totals</b>	<b>272</b>	<b>156</b>	<b>428</b>

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

353 Retiree members were valued with the life insurance benefit.

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**SECTION E**

**ACTUARIAL COST METHOD  
AND ACTUARIAL ASSUMPTIONS**

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**ACTUARIAL METHODS FOR  
SAGINAW COUNTY  
AS OF DECEMBER 31, 2010**

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**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:

<b>6.00% Interest</b>	<b>Fiscal Year Beginning October 01,</b>
	<b>2011</b>
Total (Level Dollar)	13.6030

**ACTUARIAL ASSUMPTIONS FOR  
SAGINAW COUNTY  
AS OF DECEMBER 31, 2010 (CONTINUED)**

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*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.

Sample Ages	% Increase in Salary at Sample Ages		
	Merit & Seniority	Base (Economic)	Increase 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, 2010 (CONTINUED)**

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*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.

**ACTUARIAL ASSUMPTIONS FOR  
SAGINAW COUNTY  
AS OF DECEMBER 31, 2010 (CONTINUED)**

**Retirement Rates**

A schedule of retirement rates is used to measure the probability of eligible members retiring during the next year. To reflect the impact plan design may have on retirement experience, separate retirement rates apply to valuation divisions with pension benefit multipliers less than or equal to 2.50% and greater than 2.50%. Certain Retirement ages may not apply, depending on the benefit age of first eligibility.

**Normal Retirement - Age Based Benefit Provisions**

Retirement Ages	Percent of Eligible Active Members Retiring Within Next Year*	
	Less than or equal to 2.50%	Greater than 2.50%
50	20%	23%
51	20	23
52	20	24
53	20	26
54	20	26
55	20	30
56	20	33
57	21	35
58	21	39
59	21	42
60	21	43
61	22	48
62	22	49
63	22	49
64	23	50
65	25	50
66	25	50
67	26	50
68	28	50
69	30	50
70	100	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, 2010 (CONTINUED)**

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**Early Retirement - Reduced Pension Benefit**

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

**ACTUARIAL ASSUMPTIONS FOR  
SAGINAW COUNTY  
AS OF DECEMBER 31, 2010 (CONTINUED)**

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*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.

<b>Group</b>	<b>Separation Rate Scaling Factor</b>
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.

<b>Sample Years of Service</b>	<b>% of Active Members Separating Within the Next Year</b>
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, 2010 (CONCLUDED)**

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**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. For those plans which have adopted disability provision on page D-2, for pension benefit purposes, 70% of the disabilities are assumed to be non-duty and 30% 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
2012	9.00 %
2013	8.50
2014	8.00
2015	7.50
2016	7.00
2017	6.50
2018	6.00
2019	5.50
2020	5.00
2021 & Later	4.50

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

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Valuation Date	December 31, 2010
Actuarial Cost Method	Individual Entry Age
Amortization Method	Level Dollar Closed
Remaining Amortization Period	27 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 2012, grading to 4.50% in 2021



## MISCELLANEOUS AND TECHNICAL ASSUMPTIONS

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<b>Administrative Expenses:</b>	No explicit assumption has been made for administrative expenses.
<b>Decrement Operation:</b>	Disability and withdrawal do not operate during retirement eligibility.
<b>Eligibility Testing:</b>	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.
<b>Marriage Assumption:</b>	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.
<b>Medicare Coverage:</b>	Assumed to be available for all covered employees on attainment of age 65.
<b>Election Percentage:</b>	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.
<b>Non-Investment Administration Expenses:</b>	None.
<b>Opt-Out Assumption:</b>	It is assumed that 0% of the current active population will elect to opt-out of retiree health coverage.

## **ADDITIONAL DISCLOSURES REQUIRED BY ACTUARIAL STANDARDS OF PRACTICE**

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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. 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. Determinations 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 independent of the plan sponsor.

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

The developed findings included in this report consider data or other information through December 31, 2010.

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**APPENDIX A**  
**OVERVIEW**

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## **GASB BACKGROUND**

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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)**

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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**

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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.

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**APPENDIX B**  
GLOSSARY

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## GLOSSARY

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**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

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**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

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**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.