

SAGINAW COUNTY OTHER POSTEMPLOYMENT BENEFITS
ACTUARIAL VALUATION REPORT
DECEMBER 31, 2007 - REVISED

### TABLE OF CONTENTS

Section	Page Number	
		Cover Letter
	1-2	EXECUTIVE SUMMARY Executive Summary
A	1-2 3 4-5 6 7	OVERVIEW GASB Background GASB Standards OPEB Specific Assumptions Actuarial Cost Method OPEB Pre-Funding
В	1 2 3-4	VALUATION RESULTS Development of the Annual Required Contribution Determination of Unfunded Actuarial Accrued Liability Comments and Recommendations
C	1	BENEFITS PROJECTION Employer Financed Postemployment Benefits Projections
D	1	RETIREE PREMIUM RATE DEVELOPMENT Retiree Premium Rate Development
E		SUMMARY OF BENEFIT PROVISIONS AND VALUATION DATA
	1-5 6 7	Summary of Benefits Active Members by Attained Age and Years of Service Retired Members by Attained Age
F	1 2-7 8 9	ACTUARIAL COST METHOD AND ACTUARIAL ASSUMPTIONS Valuation Methods Actuarial Assumptions Required Supplementary Information Miscellaneous and Technical Assumptions
Appendix	1-2	Glossary
	1-2	Clobball



May 30, 2008

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 care and life insurance provided by Saginaw County. The date of the valuation was December 31, 2007, effective for the fiscal year October 1, 2008 through September 30, 2009. 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 (see Comment A and page F-7 regarding certain assumptions used in this valuation) 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 Saginaw County.

The valuation was based upon information, furnished by the County, concerning retiree health care and life insurance 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. Both the interest rate assumption (8%) and the health care cost increase (trend) assumption were selected by the plan sponsor based upon plan-specific information to which we are not privy. We recommend the auditors review these assumptions to ensure compliance with GASB Statement No.45 and other accounting standards.

Both of the undersigned are members of the American Academy of Actuaries and together meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Respectfully submitted,

Curtis Powell, EA, MAAA

W. James Koss, ASA, EA, MAAA

CP/HZ:mrb

## **EXECUTIVE SUMMARY**

#### **EXECUTIVE SUMMARY**

#### **Annual Required Contribution**

This report presents the annual required contribution calculated in compliance (see Comment F and page F-7 regarding certain assumptions used in this valuation) with the accounting requirements of Governmental Accounting Standards Board (GASB) Statements No. 43 and No. 45. Statement No. 43 applies to the plan itself, and Statement No. 45 applies to the employer sponsoring the plan.

The Annual Required Contribution (ARC) for the fiscal year beginning October 1, 2008 was determined to be \$7,684,606. In the first year GASB Statement No. 45 is adopted, the annual OPEB cost required to be disclosed on the employer's financial statements is equal to the ARC. The expected employer portion of the health care claims and premium amounts paid is estimated to be \$3,978,938 for the fiscal year beginning October 1, 2008.

For additional details, please see Section B of the report.

#### **Additional OPEB Reporting Requirements**

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

#### **EXECUTIVE SUMMARY (CONCLUDED)**

#### Liabilities and Assets

The present value of all benefits expected to be paid to current plan members as of December 31, 2007 is \$91,909,841. The actuarial accrued liability, which is the portion of the above amounts attributable to service accrued by plan members as of December 31, 2007, is \$85,005,983. The assets currently set aside for GASB OPEB purposes as of December 31, 2007 are assumed to be \$13,027,218.

The funded status of this plan, which is the ratio of plan assets to actuarial accrued liability, as of December 31, 2007 is 15.3%.

**SECTION 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. 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 when they terminate employment at a future date.

The rising cost of health care has been a cause of concern to both individuals and employers who sponsor health care plans. The accounting community became concerned that many sponsors of public plans were accounting for the cost of their OPEB plans solely on the basis of benefits paid and that this method did not accurately reflect the ultimate cost of benefits promised to current and former employees. In 1988, the Governmental Accounting Standards Board (GASB) began working on a project to develop comprehensive standards for financial reporting of OPEB plans.

The GASB determined that an OPEB plan was similar to a pension plan in that benefits are earned during an active employee's working lifetime but paid out at a future date. In the GASB's view, accounting for OPEB should follow the same basic principle as accounting for public plan pension costs. These benefits are compensation for employees' services and should be accounted for during the period of time that services are performed.

### GASB BACKGROUND (CONCLUDED)

The GASB worked on comprehensive standards for OPEB accounting for more than a decade, culminating with the release of GASB Statements No. 43 and No. 45 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. The effective dates of the Statements are based on the implementation of GASB Statement No. 34, based on the sponsor's annual revenue for the first fiscal year ending on or after June 15, 1999, and follow the schedule below:

Total Annual Revenue in the First Fiscal Year Ending After June 15, 1999	GASB Statement No. 43 OPEB Standards for the Plan's Financial Statements will be Effective for Periods Beginning After	GASB Statement No. 45 OPEB Standards for the Employer's Financial Statements will be Effective for Periods Beginning After
Phase 1 Govts \$100 million or more	December 15, 2005	December 15, 2006
Phase 2 Govts \$10 million or more, but less than \$100 million  Phase 3 Govts Less than \$10 million	December 15, 2006 December 15, 2007	December 15, 2007 December 15, 2008

#### **GASB STANDARDS**

Unlike pension plans, OPEB plans often do not have a formal document detailing the specific terms of the plan. Under GASB Statements No. 43 and No. 45 the benefits to be accounted for are those provided by the *substantive plan* – loosely defined as the benefits covered by the plan as understood by the employer and plan members at the time of each actuarial valuation. The substantive plan provisions used in this valuation are summarized in Section F.

GASB also requires that the calculations assume the terms of the substantive plan continue indefinitely. It has been argued that there is a likelihood future OPEB plan provisions would be different than the current substantive plan (due to rising health care costs or social changes) and therefore liabilities based on the current substantive plan may overstate what will actually occur. However, the GASB Statement is designed to measure liabilities for the plan as it currently exists. While it may be reasonable to assume future changes in the OPEB plan for other purposes, recognition of anticipated changes is not allowed for purposes of accounting for OPEB.

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. In general terms, though, the plan sponsor is required to disclose an annual OPEB cost, the funded status of the plan and the funding progress on the valuation date.

Although GASB does not require OPEB contributions, it has chosen to call the base component of the annual OPEB cost, the Annual Required Contribution, or ARC. The ARC consists of the cost of benefits accruing in a year plus an amount calculated to amortize any unfunded actuarial accrued liability over a period of not more than 30 years.

The funded status of the plan is a ratio of the plan's assets (if any) to the actuarial accrued liability on the valuation date. The plan is also required to disclose the cumulative difference between the ARC and the employer's actual contribution to the plan. This amount is known as the Net OPEB Obligation (NOO). Each year, the NOO accumulates with interest, plus the difference between the ARC and actual contributions for the year, plus some technical adjustments. For most plans the NOO is set to zero as of the effective date of the GASB OPEB standard. It is the NOO, and not the actuarial accrued liability, that will be disclosed on the employers' Statement of Net Assets.

#### **OPEB SPECIFIC ASSUMPTIONS**

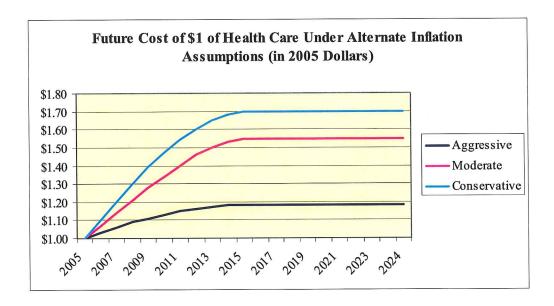
In any long-term actuarial valuation (such as for pensions and OPEB), certain demographic, economic and behavioral assumptions must be made concerning the population, investment discount rates, and the benefits provided. These actuarial assumptions form the basis for the actuarial model which is used to project the future population, benefits to be provided, and contributions to be collected. The investment return rate assumption is used to discount the future benefits to a present value on the valuation date. While assumptions such as future rates of retirement and mortality are similar for both OPEB and pension plans, there are some additional assumptions required when projecting benefits for a health care plan.

The cost of providing medical services has been increasing more rapidly than prices in general for many years. During the period from 1955 to 2005 general inflation averaged 4.0%, while health expenditures increased by an average of about 10% per year. If this trend is projected to continue for years to come, it implies that years from now virtually all our expenditures will be for health care. The seemingly more reasonable alternative is that in the not too distant future medical expense inflation will stabilize at a level at or near general inflation. It is on this basis that we project that retiree health care costs will continue to exceed general inflation in the near term, but by less each year until leveling off at an ultimate rate that is similar to general price increases.

Health care trend rates used in this valuation are described on page F-7 of this report. The health care increase rate assumption has a major effect on the calculation of plan liabilities. To illustrate the effect of differing future medical inflation rates, the chart on the next page projects the growth of \$1 of health care benefits under three sets of assumptions.

In this illustration, each set of assumptions trends smoothly to an assumed long term rate of inflation over the next ten years: The assumption set labeled "Conservative" begins at a rate of 10% in excess of general inflation, the "Moderate" assumption begins at a rate of 7% in excess of general inflation, while the "Aggressive" assumption begins at a rate of 3% in excess of general inflation.

#### **OPEB SPECIFIC ASSUMPTIONS (CONCLUDED)**



The chart above shows that the cost of providing health care is expected to increase over 50% in inflation-adjusted dollars over the next 20 years, using the "Moderate" health care increase assumption set. To put this in perspective, assuming health care increases are brought under control almost immediately, as in the "Aggressive" assumption set, implies future per capita health care costs will be expected to increase less than 20% over current levels. In addition to the per capita health care inflation, costs are expected to rise as the retiree population increases.

The selection of an investment return rate also has a major impact on the calculation of the reported GASB OPEB expense.

It is important to note that GASB Statements No. 43 and No. 45 require the selection of an interest rate assumption to be based on the expected long-term rate of return on the assets expected to pay the OPEB when due. GASB states that the return should be based on expected returns of:

- Plan assets if the sponsor has been contributing the ARC on a regular basis;
- The employer's general assets where no OPEB assets have been accumulated;
- A blend of plan and employer assets in cases where OPEB assets exist but the plan is contributing amounts less than the ARC.

#### **ACTUARIAL COST METHOD**

GASB Statement No. 45 provides some flexibility to governmental employers (and their actuaries) in the use of various actuarial cost methods. It should be noted that an actuarial cost method determines a contribution or expense by assigning portions of the present value of projected benefits to various years with the general goal of accruing the cost of benefits over the working lifetime of the employees. The choice of a particular method does not change the ultimate cost of the promised benefits.

The Entry Age Normal actuarial cost method has been used to calculate the GASB ARC for this valuation. Using the plan benefits, the present health premiums and a set of actuarial assumptions, the anticipated future payments are projected. The entry age method then provides for a systematic funding for these anticipated payments. The yearly ARC is computed to cover the cost of benefits being earned by covered members as well as to amortize a portion of the unfunded accrued liability. The normal cost and amortization of the unfunded accrued liability were calculated as level dollar amounts. This is both an acceptable and reasonable cost method. The use of another actuarial cost method would produce different results.

#### **OPEB PRE-FUNDING**

Many employers fund retiree heath care benefits using the pay-as-you-go (or cash disbursement) method. The employer's annual contribution for these benefits is equal to the actual disbursements during the year for health care benefits for retired employees. This method of funding will result in increasing contributions over time. 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 increase.

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 annual amounts to a fund which will i) remain level as a percentage of active member payroll, and ii) when combined with present assets and future investment return will be sufficient to meet the financial obligations of the Plan to current and future retirees.

The ultimate determination as to the level of pre-funding will be the result of decisions made in an attempt to reconcile the often conflicting needs of benefit security for members and fiscal responsibility for the County. The GASB accounting standards noted in the previous section of the report can factor into decisions concerning the level of pre-funding.

# **SECTION B**VALUATION RESULTS

## DEVELOPMENT OF THE ANNUAL REQUIRED CONTRIBUTION FOR THE FISCAL YEAR BEGINNING OCTOBER 1, 2008

Contributions for	Development of the Annual Required Contribution for Fiscal Year Beginning			
	2008	2007*		
Total Normal Cost	\$ 1,168,307	\$ 1,317,033		
Amortization of Unfunded Actuarial Accrued Liabilities (Amortized over 30 years)	\$ 6,516,299	\$ 6,768,743		
Annual Required Contribution (ARC)	\$ 7,684,606	\$ 8,085,776		

<sup>\*</sup> The ARC shown for 2007 is based on the 2006 valuation report, which was calculated for the period from January 1, 2007 to December 31, 2007. The ARC for the period from October 1, 2007 to September 30, 2008 is shown in Comment E on page B-4.

The results on this page are based on an 8.0% investment return assumption and the trend assumption described on page F-7. Given the requirements of GASB Statements No. 43 and No. 45, use of an 8.0% investment return assumption is consistent with a funding policy to regularly contribute an amount at least equal to the ARC.

The unfunded actuarial accrued liabilities were amortized as level dollar amounts. A 30-year amortization period for unfunded actuarial accrued liabilities is the maximum period that complies with GASB requirements.

## DETERMINATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY AS OF DECEMBER 31, 2007

	<b>December 31, 2007</b>	<b>December 31, 2006</b>
<ul> <li>A. Present Value of Future Benefits</li> <li>1. Retirees and Beneficiaries</li> <li>2. Vested Terminated Members</li> <li>3. Active Members</li> <li>Total Present Value of Future Benefits</li> </ul>	\$ 46,875,577 0 <u>45,034,264</u> \$91,909,841	\$ 49,142,833 0 <u>50,989,095</u> \$100,131,928
B. Present Value of Future Employer Normal Costs	\$ 6,903,858	\$ 8,417,045
C. Actuarial Accrued Liability (AB.)	\$ 85,005,983	\$ 91,714,883
D. Actuarial Value of Assets	\$ 13,027,218	\$ 12,504,891
E. Unfunded Actuarial Accrued Liability (CD.)	\$ 71,978,765	\$ 79,209,992
F. Funded Ratio (D./C.)	15.3%	13.6%

$$2009$$
 10.000 11.06 = 110,600  
 $2008$  6,972 11.06 = 77,110 = 3  
 $31028$  43% per emplace

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 an 8.0% investment return assumption and the trend assumption described on page F-7.

#### **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. The rate of return assumption used in this valuation is 8.0% per year. The Governmental Accounting Standards Board (GASB) requires the rate of return assumptions to be representative of the rate of return actually expected on the assets used to pay benefits. 8.0% may be appropriate in the case that benefits will be pre-funded into a Trust invested in a mix of equities and fixed income assets, with annual contributions at least equal to the ARC. If Saginaw County chooses to pre-fund with contributions less than the ARC, GASB requires the assumed investment return on assets to be lower to reflect that some portion of future benefits will be paid from the County's general assets. Lowering the assumed investment return would considerably increase the Net OPEB Obligation (NOO) that is disclosed on the employers' financial statement.

**COMMENT B:** Based on the number of plan members as of this valuation, the plan sponsor is required by GASB to perform actuarial valuations at least biennially. This will permit fluctuations and trends in experience to be reflected in the contribution rate on a regular basis.

**COMMENT C:** The contribution rates shown include amortization of the unfunded actuarial accrued liability over 30 years. This is the maximum time period permitted by the GASB Statement No. 45. If pre-funding of benefits is the financing goal, since the covered group is closed to new entrants, it may be appropriate to close the amortization period so that it decreases by one each year. Had the amortization period been 29 years this valuation, it would have resulted in an ARC of \$7,742,639.

COMMENT D: If paid from outside of the fund established for OPEB, actual claims and/or premiums paid on behalf of retirees may be treated as employer contributions in relation to the ARC and act to reduce the NOO. For the fiscal year ending September 30, 2009, the amount of estimated claims and/or premiums paid by the employer on behalf of retirees including the effect of the implicit rate subsidy under GASB is \$3,978,938.

#### **COMMENTS**

**COMMENT E:** The December 31, 2006 valuation provided an ARC for the period from January 1, 2007 to December 31, 2007. This year, the ARC is shown for the fiscal year from October 1, 2008 to September 30, 2009. The ARC for the fiscal year from October 1, 2007 to September 30, 2008 using the December 31, 2007 valuation is \$7,115,376.

COMMENT F: Two assumptions were modified in this valuation. The pattern of future projected health care cost increases (trend) was revised to reflect the current outlook. In addition, the formerly used 10% opt-out assumption has been changed to 5% to reflect the fact that approximately half of the expected opt-out elections have occurred. Both the interest rate assumption (8%) and the health care cost increase (trend) assumption were selected by the plan sponsor based upon plan-specific information to which we are not privy. We recommend the auditors review these assumptions to ensure compliance with GASB Statement No. 45 and other accounting standards.

Plan experience during 2007 was favorable overall, primarily due to the fact that post-65 premiums increased less than expected.

# **SECTION C**BENEFITS PROJECTION

## EMPLOYER FINANCED OTHER POSTEMPLOYMENT BENEFITS PROJECTION

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 F-7.

Year	Projected	Asset	Annual	Expected			
Ending	Covered	Value	Required	Health Care	Investment	Asset Value	
September 30,	Member Payroll	BOY	Contribution	Benefits	Income	EOY	
2009	\$19,369,833	\$17,270,599	\$7,684,606	\$3,978,938	\$1,527,023	\$22,503,291	
2010	18,239,784	22,503,291	7,457,472	4,519,534	1,915,520	27,356,749	
2011	17,191,466	27,356,749	7,403,379	5,097,846	2,278,987	31,941,269	
2012	16,138,706	31,941,269	7,349,056	5,655,136	2,621,755	36,256,944	
2013	15,102,675	36,256,944	7,295,597	6,213,300	2,943,015	40,282,256	
2014	14,144,252	40,282,256	7,246,142	6,655,994	3,245,732	44,118,136	
2015	13,190,226	44,118,136	7,196,915	7,076,132	3,534,189	47,773,108	
2016	12,236,597	47,773,108	7,147,707	7,471,034	3,809,164	51,258,945	
2017	11,347,860	51,258,945	7,101,849	7,810,637	4,072,909	54,623,066	
2018	10,461,578	54,623,066	7,056,116	8,030,328	4,331,626	57,980,480	
2019	9,572,969	57,980,480	7,010,264	8,261,769	4,589,341	61,318,316	
2020	8,690,664	61,318,316	6,964,737	8,463,156	4,846,682	64,666,579	
2021	7,765,565	64,666,579	6,917,002	8,693,768	5,103,623	67,993,436	
2022	6,817,440	67,993,436	6,868,079	8,928,690	5,358,636	71,291,461	
2023	5,909,524	71,291,461	6,821,230	9,165,207	5,611,362	74,558,846	
2024	5,091,681	74,558,846	6,779,030	9,326,419	5,864,772	77,876,229	

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 30 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.

### **SECTION D**

RETIREE PREMIUM RATE DEVELOPMENT

#### RETIREE PREMIUM RATE DEVELOPMENT

Initial premium rates were developed for two classes of retirees (pre-65 and post-65). The rates were calculated by using actual claims and exposure data for the period of January 2005 through December 2007 to the valuation period (i.e., January 1, 2008 — December 31, 2008), adjusted for catastrophic claims, plus the load for administration, network access fee, and stop loss premiums. The self-funded and prescription drug data were provided by Blue Cross Blue Shield of Michigan. The 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. 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.

Pre-65 Participan
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Age	Male	Female
45	\$412.76	\$540.38
50	558.43	632.74
55	729.86	750.23
60	916.91	881.35

Post-65 Participants

Age	Male	Female
65	\$443.34	\$408.25
70	511.38	459.84
75	567.72	503.84

Based on the guidance provided by GASB on issues related to Medicare Part D payments to State and Local Governments effective as of June 30, 2006, an employer should apply the measurement requirements of GASB Statement No. 45 to determine the actuarial accrued liabilities, the annual required contribution of the employer, and the annual OPEB cost without reduction for Retiree Drug Subsidy (RDS) payments. Therefore the impact of the RDS that is part of the Medicare Prescription Drug Improvement and Modernization Act of 2003 is not reflected in this report.

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.

Hu Zhi, FSA, MAAA Actuarial Certification

hughi

SECTION E
SUMMARY OF BENEFIT PROVISIONS
AND VALUATION DATA

## SAGINAW COUNTY OTHER POSTEMPLOYMENT BENEFITS SUMMARY OF BENEFITS AS OF DECEMBER 31, 2007

#### 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 15 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 55 with 15 years of service, or at 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 15 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, 2007 (CONTINUED)

#### **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 four.

#### **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, 2007 (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 (RHS plan). The County will contribute 1% of employee's gross wages to the RHS Plan, while the employee has an option of not contributing or contributing 1% - 7% of their salary, this decision shall be irrevocable.

#### 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 RHS 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 the RHS Plan, while the employee has an option of not contributing or contributing 1% - 7% of their salary, this decision shall be irrevocable.

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, 2007 (CONTINUED)

	A	С	D	E	E	F	G	I&T	J	0
Years of Service	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.		ТРОАМ
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 Service	Juv. Prob.	Dist. Ct. Prob. Office	Pros.	UAW Mgr's	UAW Prof.	UAW Tech's	POAM	Non-Union	Upper 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

## SAGINAW COUNTY OTHER POSTEMPLOYMENT BENEFITS SUMMARY OF BENEFITS AS OF DECEMBER 31, 2007 (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, 1992 are eligible for coverage of \$2,000. Members retiring on or after January 1, 1992 are eligible for coverage of \$4,000. Retirees hired after March 15, 2005 and members who have taken the payment in lieu of retiree health insurance are not eligible.

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, 2007 BY ATTAINED AGE AND YEARS OF SERVICE

		Yea	rs of Serv	vice to Va	luation I	Date			Total
Attained Age	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
20-24									
25-29	12	2						14	\$ 545,949
30-34	2	18	4					24	1,110,461
35-39	5	12	34	3				54	2,458,519
40-44	3	21	18	18	7			67	3,042,088
45-49	9	22	13	19	15	12		90	4,023,631
50-54	2	16	11	13	20	18	11	91	4,027,098
55-59	3	15	20	9	13	13	12	85	3,914,918
60-64	2	6	6	8	4	1	7	34	1,626,805
65 & Over	_	3	5	5	2		4	19	669,418
Totals	38	115	111	75	61	44	34	478	\$21,418,887

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

Age:

48.4 years

Service:

15.6 years

### RETIRED MEMBERS AS OF DECEMBER 31, 2007 BY ATTAINED AGE

#### **RETIRED MEMBERS**

Attained	Number of Retirees		
Age	Female	Male	Total
Under 50	4	2	6
50-54	16	10	26
55-59	24	31	55
60-64	31	27	58
65-69	36	16	52
70-74	31	11	42
75-79	43	13	56
80-84	25	16	41
85-89	18	7	25
90 & Over	9	2	11
Totals	237	135	372

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

### **SECTION F**

ACTUARIAL COST METHOD AND ACTUARIAL ASSUMPTIONS

#### **VALUATION METHODS**

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 individual's 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 Liability (UAAL) was amortized by a level (principal and interest combined) dollar amount. The UAAL was determined using the funding value of assets and actuarial accrued liability calculated as of the valuation date and anticipated employer contributions between the valuation date and beginning of the fiscal year. The UAAL amortization payment is the amount required to fully amortize the UAAL over a 30-year period beginning on the valuation date.

Rates of Investment Return. 8.0% per year, compounded annually, net of expenses. This rate consists of a real rate of return of 3.5% a year plus a long-term rate of inflation of 4.5% a year. This assumption is used to equate the value of payments due at different points in time.

#### **ACTUARIAL ASSUMPTIONS**

The salary increase assumption used in this actuarial valuation projects annual salary increases of 4.5% plus a percentage based on an age-related scale to reflect merit, longevity and promotional salary increases.

	Salary Increase Assumptions			
Age	For an Individual Member			
at Beginning	Merit &	Base	Increase	
of Year	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	
60	0.00	4.50	4.50	
Ref	214			

The mortality table used to project the mortality experience of plan members is a 50% Male – 50% Female blend of the 1994 Groups Annuity Mortality Table. For disabled retirees, the regular mortality tables are used with a 10-year set forward in ages to reflect the higher expected mortality rates of disabled members. 90% of active member deaths are assumed to be non-duty deaths and 10% are assumed to be duty related.

Sample Attained Ages	Probability of Dying Next Year	Future Life Expectancy (years)
45	0.13 %	37.34
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

Ref #261x1sb0yrs0.5Unisex#262x1sb0yrs0.5Unisex

This estimate is used to measure the probabilities of members dying before retirement and the probabilities of each benefit payment being made after retirement.

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 withdrawal rates do not apply to members eligible to retire, and do not include separation on account of death or disability.

Sample rates of separation from active employment are shown below:

Sample Ages	Years of Service	% of Active Members Separating within Next Year
A T T	0	10.00 0/
ALL	0	18.00 %
	1	18.00
	2	16.00
	3	12.00
	4	10.00
25	5 & Over	9.00
30		9.00
35		7.00
40		5.00
45		4.00
50		4.00
55		3.00
60		3.00
65		2.00
70		0.00
Ref		263
		434

The rates of retirement used to measure the probability of eligible members retiring during the next year, were as follows:

#### **Age Based Retirement Tables**

#### Percent of Eligible Active Members Retiring within Next Year

	Keurii	g within Next 16	·1		
Retirement Ages	Without F50 or F55 or F(N)	With F55	With F50		
50			22 %		
51			22		
52			22		
53			22		
54			24		
55		18 %	18		
56		15	14		
57		10	16		
58		15	18		
59		20	18		
60	20 %	20	20		
61	24	24	24		
62	24	24	24		
. 63	24	24	24		
64	27	27	27		
65	30	30	30		
66	30	30	30		
67	30	30	30		
68	30	30	30		
69	30	30	30		
70	100	100	100		
Ref	782	765	766		

#### **Service Based Retirement Tables**

Service	F(N)	Years of Service	F(N)
20	22 %	36	14 %
21	22	37	16
22	22	38	18
23	22	39	18
24	22	40	20
25	22	41	24
26	22	42	24
27	22	43	24
28	22	44	27
29	22	45	30
30	22	46	30
31	22	47	30
32	22	48	30
33	22	49	30
34	24	50	100
35	18		
		Ref	782

#### **Early Retirement Tables**

Retirement Ages	Percent of Eligible Active Members Retiring Early within Next Year
50	2 %
51	2
52	3
53	5
54	8
55	4
56	4
57	4
58	6
59	8
Ref	946

Rates of disability among active members are used to estimate the incidence of member disability in future years. 85% of the disabilities are assumed to be non-duty and 15% of the disabilities are assumed to be duty related.

Sample Ages	Percent Becoming Disabled Within 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
Ref	#257x1

*Health care trend rates* used in the valuation were as shown below. These rates were selected by the plan sponsor based on plan specific information.

Year	Medical and Prescription Drugs	
2009	7.50 %	
2010	7.00	
2011	6.50	
2012	6.00	
2013	5.50	
2014	5.00	
2015	4.50	
2016	4.50	
2017 & Later	4.50	

## GASB STATEMENTS No. 43 AND No. 45 REQUIRED SUPPLEMENTARY INFORMATION

Valuation Date

**Actuarial Cost Method** 

Amortization Method

Remaining Amortization Period

Asset Valuation Method

**Actuarial Assumptions:** 

Discount Rate

Projected Salary Increases

Valuation Health Care Cost Trend Rate

December 31, 2007

Individual Entry Age

Level Dollar Open

30 Years

Market Value

8.0% Per Year

12.90% - 4.50%

7.5% in 2009, grading to 4.50% in 2015

#### MISCELLANEOUS AND TECHNICAL ASSUMPTIONS

**Decrement Timing:** 

Decrements of all types are assumed to occur mid-year.

**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.

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 twoperson coverage, it was assumed that coverage would continue to the spouse upon death of the retiree.

Non-Investment

**Administration Expenses:** 

None.

**Active Employee Group Size:** 

The number of active employees was assumed to decrease in future

years due to the plan being closed.

**Opt-Out Assumption:** 

It is assumed that 5% of the current active population will elect to opt-

out of retiree health coverage.

### **APPENDIX**

#### **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 (CONCLUDED)

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 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.

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 Employee Benefits (OPEB) - OPEB are postemployment benefits other than pensions. OPEB generally takes the form of health insurance and dental, vision, prescription drugs 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.

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

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