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milliman.com

August 25, 2014

Mr. Michael Bosanac
Administrator/Chief Financial Officer
County of Monroe
125 East Second Street
Monroe, Michigan 48161

Re: Retiree Medical Expense and Liability Calculations Under GASB Statement 45

Dear Mr. Bosanac:

Enclosed is our report which presents the results of our calculations under Statement No. 45 of the Governmental Accounting Standards Board, "Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions", as of the December 31, 2013 valuation date for the Monroe County Retiree Medical Benefit Program.

The GASB 45 accounting standard does not require that these benefits be pre-funded. Consequently, the Annual Required Contribution shown in the enclosed report does not need to be paid. However, this cost and the cumulative deficiency (if the full cost is not paid) will be disclosed on the County's financial statements.

Please feel free to call if you have any questions regarding this report.

Sincerely,

Timothy J. Herman, FSA, EA, MAAA
Principal and Consulting Actuary

Gerald R. Bernstein, FSA, MAAA
Principal and Consulting Actuary

TJH/GRB/cmw

Enclosure

MONROE COUNTY

Actuarial Valuation of Retiree Medical Benefits as of December 31, 2013

Revised

Prepared by:

Milliman, Inc.

Timothy J. Herman, FSA, EA, MAAA
Principal and Consulting Actuary

Gerald R. Bernstein, FSA, MAAA
Principal and Consulting Actuary

August 25, 2014

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MONROE COUNTY

Actuarial Valuation of Retiree Medical Benefits
as of December 31, 2013

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August 25, 2014

Mr. Michael Bosanac
Administrator/Chief Financial Officer
County of Monroe
125 East Second Street
Monroe, Michigan 48161

Re: Actuarial Valuation of Retiree Medical Benefits for Monroe County

Dear Mr. Bosanac:

Pursuant to your request, we have completed a revised actuarial determination of the benefit cost and funded status relating to the future retiree medical benefits of Monroe County as of December 31, 2013. This report has been revised to reflect an updated allocation of the actuarial value of assets by division. Please see the Appendix for the revised results. The results of our calculations are set forth in the following report, as are the actuarial assumptions and methods on which our calculations have been made. Our determinations reflect the procedures and methods as prescribed in Statement No. 43 of the Governmental Accounting Standards Board, "Financial Reporting for Postemployment Benefit Plans Other Than Pensions." and Statement No. 45, "Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions."

Actuarial computations under Statement No. 45 are for purposes of fulfilling certain employer accounting requirements and under Statement No. 43 are for purposes of fulfilling certain plan accounting requirements. The calculations reported herein have been made on a basis consistent with our understanding of the Statements. Determinations for purposes other than meeting the plan or employer financial accounting requirements of the Statements may differ significantly from the results reported herein.

In preparing this report, we have relied without audit on the employee data, plan provisions, and the value of the plan assets and other plan financial information as provided by your office. If any of this information as summarized in this report is inaccurate or incomplete, the results shown could be materially affected and this report may need to be revised.

The Patient Protection and Affordable Care Act of 2010 (ACA) has been reflected to the extent that the plan has been amended to reflect required changes (such as the coverage of dependents to age 26, the elimination of any prohibited benefit maximums, and the potential impact of the excise tax on high cost health plans). Future potential changes under ACA have not been reflected in this analysis as the specific impact cannot be determined at this time.

Milliman's work is prepared solely for the internal business use of the County and the Plan's Trustees. Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exception:

> *The County may provide a copy of Milliman's work, in its entirety, to the County's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit the Plan.*

The consultants who worked on this assignment are retirement and health actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

It is our understanding that a separate, irrevocable trust has been established to partially pre-fund these benefits. The discount rate used in our calculations reflects this understanding.

This report and its use are subject to the terms of our Consulting Services Agreement with Monroe County dated January 22, 2014.

Actuarial cost methods for GASB 45 reporting are prescribed by Monroe County. The County is responsible for selecting the plan's funding policy, actuarial valuation methods, and asset valuation methods. The policies and methods used are those that have been so prescribed and are described in the Actuarial Basis of the report. The County is solely responsible for communicating to Milliman any changes required thereto.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the applicable Actuarial Standards of Practice. We further certify that, in our opinion, each actuarial assumption, method and technique used is reasonable taking into account the experience of the Plan and reasonable expectations. Nevertheless, the emerging liabilities and costs of the plan will vary from those presented in this report to the extent that actual experience differs from that projected by the actuarial assumptions.

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 our assignment, we did not perform an analysis of the potential range of future measurements.

We, Timothy J. Herman and Gerald R. Bernstein, are actuaries for Milliman, Inc. We are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. This report uses the expertise of Milliman healthcare and retirement actuaries. Gerald R. Bernstein is responsible for the work related to the current expected healthcare benefit costs and trend rates. Timothy J. Herman is responsible for projecting the current costs into future years using the valuation assumptions and methodology and then calculating the accounting costs and liabilities reported herein.

Respectfully submitted,

Milliman, Inc.

Timothy J. Herman, FSA, EA, MAAA
Principal and Consulting Actuary

Gerald R. Bernstein, FSA, MAAA
Principal and Consulting Actuary

TJH/GRB/cmw

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Sent electronically - no hard copy mailed

MONROE COUNTY

Actuarial Valuation of Retiree Medical Benefits as of December 31, 2013

I. INTRODUCTION AND PURPOSE

Milliman, Inc. prepared this report at the request of Monroe County's management to estimate the cost of Monroe County's current retiree health benefit program. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. The report should only be used in its entirety to ensure complete understanding of the estimates and the methodology and assumptions underlying the estimates.

In preparing this report, we relied on the overall employee census, premium rates, claims experience, and benefit information provided by Monroe County. We checked the information for reasonableness, but we did not audit the information. To the extent that any of this data or information is incorrect, the results of this report may need to be revised.

A number of assumptions have been made in projecting retiree health costs that should be reviewed prior to interpreting the results shown in this report. These assumptions and methodology are described in this report. The projections in this report are estimates and, as such, Monroe County's actual liability will vary from these estimates. The actual liability will not be known until such time that all eligibility is exhausted and all benefits are paid. The projections and assumptions should be updated as actual costs under this program develop.

II. COST PROJECTION RESULTS

The actuarial balance sheet is a demonstration of the basic actuarial equation that the actuarial present value of total projected benefits to be paid to the active, retired, and vested terminated participants must equal the assets on hand plus the actuarial present value of future contributions to be received. Accordingly, the status of the plan in balance sheet form as of December 31, 2012 and December 31, 2013 is shown below:

TABLE 1

		December 31, 2012[1]	December 31, 2013
I.	**Actuarial Present Value of Total Projected Benefits**		
	315[2] Active Participants	$N/A	$72,091,127
	450[2] Retired Participants	N/A	102,172,014
	Grand Total Actuarial Present Value of Total Projected Benefits	$ N/A	$174,263,141
II.	**Assets and Future Contributions**		
	Valuation Assets	$32,472,863	$36,782,374
	Unfunded Actuarial Accrued Liability	78,126,257	122,196,912
	Present Value of Future Normal Costs (including the current year)	N/A	15,283,855
	Total Assets and Future Contributions	$N/A	$174,263,141

(1) December 31, 2012 results as per prior actuary's report
(2) Participant data as of December 31, 2013 is summarized in Section VI.2 of this report.

Liabilities and contributions shown in this report are computed using the Entry Age Normal Method of funding. The objective under this method is to expense each participant's benefit under the plan as they accrue as a level percentage of pay. At the time the Funding Method is introduced, there will be a liability which represents the contributions which would have been accumulated if this method of funding had always been used. The difference between this liability and the assets (if any) is the unfunded liability, which is typically funded over a chosen period in accordance with an amortization schedule. These calculations for the 2014 and 2015 fiscal years are shown below:

TABLE 2

		2014 Fiscal Year[1]	2015 Fiscal Year
A.	**Employer Normal Costs** (Entry Age Normal Actuarial Cost Method)		
	(1) Current Year Normal Cost – Beginning of Year	$N/A	$1,574,856
	(2) Assumed Interest to the End of the Year	N/A	86,617
	(3) Current Year Normal Cost – End of Year: [(1) + (2)]	$1,447,248	$1,661,473
B.	**Determination of Current Year Amortization Payment**		
	(1) Unfunded Actuarial Liability (see Table 1)	$78,126,257	$122,196,912
	(2) Amortization Period	19 Years	18 Years
	(3) Level Percent Amortization Factor	10.6933	11.5553
	(4) Amortization Amount – Beginning of Year: [(1) / (3)]	7,306,094	10,574,967
	(5) Assumed Interest to the End of the Year	511,455	581,623
	(6) Amortization Amount – End of Year: [(4) + (5)]	$7,817,549	$11,156,590

(1) 2014 Fiscal Year results as per prior actuary's report

II. COST PROJECTION RESULTS *(continued)*

DISCLOSURES

TABLE 3

Fiscal Year-Beginning	January 1, 2014[1]	January 1, 2015
I. Determination of Annual Required Contribution[2]		
(1) Discount Rate at Beginning of Fiscal Year	7.00%	5.50%
(2) Normal Cost for Benefits Attributable to Service in the Year	$1,447,248	$1,661,473
(3) Amortization of Unfunded Actuarial Accrued Liability	7,817,549	11,156,590
(4) Annual Required Contribution (ARC): (2) + (3)	$9,264,797	$12,818,063

[1] As per prior actuary report.
[2] Please note these are the total contributions before adjustment for member contributions. The member contributions need to be subtracted to obtain the net employer contribution. Based on the information provided by the County, the expected member contributions will be $531,376 for the fiscal year beginning January 1, 2015.

Fiscal Year-End	12/31/2013	12/31/2014
II. Net OPEB Obligation		
(1) Total Annual Required Contributions	$8,868,718	$9,264,797
(2) Employee Contributions	(402,398)	(410,664)
(3) Net Employer Annual Required Contributions	8,868,718[1]	8,854,133
(4) Interest on Net OPEB Obligation	769,041	951,713
(5) Adjustment to ARC[2]	(1,002,345)	(1,271,441)
(6) Net OPEB Cost (Expense)	$8,635,414	$8,534,405
(7) Employer Contributions Made	(6,025,812)	(8,854,133)
(8) Increase in Net OPEB Obligation	$2,609,602	$(319,728)
(9) Net OPEB Obligation – Beginning of Year	10,986,300	13,595,902
(10) Net OPEB Obligation – End of Year	$13,595,902	$13,276,174

III. OPEB History

Fiscal Year Ended	Annual OPEB Cost	Employer Contributions	Percentage of Annual OPEB Cost Contributed	Net OPEB Obligation
12/31/11	$ 6,687,916	$ 5,714,954	85.5%	$ 8,461,205
12/31/12	8,924,933	6,399,838	71.7	10,986,300
12/31/13	8,635,414	6,025,812	69.8	13,595,902

[1] As reported in 12/31/2013 financial statements.
[2] Adjustment to ARC is to offset, approximately, the amortization of the net experience losses (or gains) from past contribution deficiencies (or excess contributions) in relation to the ARC.

Funded Status and Funding Progress. As of December 31, 2013, the most recent actuarial valuation date, the plan was 23.1% funded. The actuarial accrued liability for benefits was $158,979,286, and the actuarial value of assets was $36,782,374, resulting in an unfunded actuarial accrued liability (UAAL) of $122,196,912.

II. COST PROJECTION RESULTS *(continued)*

REQUIRED SUPPLEMENTARY INFORMATION

TABLE 4

Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
12/31/11	$29,756,300	$106,191,863	$76,435,563	28.0%	N/A	N/A
12/31/12[1]	32,472,863	110,599,120	78,126,257	29.4	N/A	N/A
12/31/13	36,782,374	158,979,286	122,196,912	23.1	N/A	N/A

[1] As per prior actuary report.

TABLE 5

Cash Flow Projections
Annual Undiscounted Cost of Retiree Medical Benefits,
Net of Retiree Premium Contributions
Current Retiree Plus Current Active Employees

Year	General County Billable	General County Non-Billable	County Agency	Sheriff's Office Billable	Sheriff's Office Non-Billable	Dispatchers	Total
2014	$652,000	$2,519,000	$375,000	$266,000	$1,532,000	$129,000	$5,473,000
2015	719,000	2,596,000	367,000	293,000	1,588,000	130,000	5,693,000
2016	748,000	2,594,000	380,000	323,000	1,697,000	130,000	5,872,000
2017	786,000	2,687,000	367,000	317,000	1,716,000	132,000	6,005,000
2018	782,000	2,770,000	392,000	336,000	1,699,000	119,000	6,098,000
2019	781,000	2,811,000	421,000	332,000	1,764,000	118,000	6,227,000
2020	866,000	2,905,000	445,000	337,000	1,807,000	131,000	6,491,000
2021	955,000	2,996,000	479,000	363,000	1,935,000	143,000	6,871,000
2022	1,025,000	2,949,000	535,000	366,000	1,935,000	143,000	6,953,000
2023	1,056,000	3,034,000	580,000	412,000	2,075,000	161,000	7,318,000

MONROE COUNTY

Actuarial Valuation of Retiree Medical Benefits
as of December 31, 2013

III. FINANCIAL INFORMATION

TABLE 6

Reported Financial Information at Market Value
Year Ended December 31, 2013

REVENUES AND DISBURSEMENTS		
Revenues		
a.	Employer Contributions	$ 6,025,812
b.	Member Contributions	457,635
c.	Medicare Part D Reimbursements	0
d.	Interest and Dividends	978,376
e.	Investment Gain	3,760,448
f.	Other Investment Income	181,700
g.	Total	$11,403,971
Disbursements		
a.	Health Care Benefits	$ 4,858,864
b.	Refunds of Member Contributions	83,171
c.	Administrative Expenses	24,000
d.	Investment Expenses	267,575
e.	Total	$ 5,233,610
Reserve Increase		
Total revenues minus total disbursements		$ 6,170,361

REPORTED ASSETS		
Securities		
a.	Cash and Short Term Investments	$3,576,380
b.	Bonds	10,287,895
c.	Stocks	24,481,921
d.	Less: Accounts Payables	100
e.	Net assets	$38,346,096

MONROE COUNTY

Actuarial Valuation of Retiree Medical Benefits
as of December 31, 2013

III. FINANCIAL INFORMATION *(continued)*

TABLE 7

Development of Valuation Assets

Valuation Date December 31:	2009	2010	2011	2012	2013
1. Beginning of Year Assets					
a) Market Value	$21,032,303	$24,548,981	$25,159,436	$27,322,398	$32,175,735
b) Valuation Assets	26,350,668	27,766,030	26,954,468	29,756,300	32,472,863
2. End of Year Market Value of Assets	24,548,981	25,159,436	27,322,398	32,175,735	38,346,096
3. Net Additions to Market Value					
a) Net Contributions	5,275,262	3,031,752	6,117,352	6,811,316	6,483,447
b) Net Investment Income = (3d)-(3a)-(3c)	2,815,242	2,329,699	(262,772)	2,992,851	4,652,949
c) Benefit Payments, Refunds, and Admin. Expenses	(4,573,826)	(4,750,996)	(3,691,618)	(4,950,830)	(4,966,035)
d) Total Additions to Market Value = (2)-(1a)	3,516,678	610,455	2,162,962	4,853,337	6,170,361
4. Average Valuation Assets = (1b) + .5*[(3a)+(3c)]	26,701,386	26,906,408	28,167,335	30,686,543	33,231,569
5. Expected Income at Valuation Date = 7%*(4)	1,869,097	1,883,449	1,971,713	2,148,058	2,326,210
6. Gain (Loss) = (3b)-(5)	946,145	446,250	(2,234,485)	844,793	2,326,739
7. Phased-In Recognition of Investment Return					
a) Current Year: 0.2*(6)	189,229	89,250	(446,897)	168,959	465,348
b) First Prior Year	(1,292,524)	189,229	89,250	(446,897)	168,959
c) Second Prior Year	(134,675)	(1,292,524)	189,229	89,250	(446,897)
d) Third Prior Year	172,955	(134,675)	(1,292,524)	189,229	89,250
e) Fourth Prior Year	(90,156)	172,953	(134,673)	(1,292,522)	189,229
f) Total Recognized Investment Gain	(1,155,171)	(975,767)	(1,595,615)	(1,291,981)	465,889
8. Change in Valuation Assets (3a)+(3c)+(5)+(7f)	1,415,362	(811,562)	2,801,832	2,716,563	4,309,511
9. End of Year Assets					
a) Market Value = (2)	24,548,981	25,159,436	27,322,398	32,175,735	38,346,096
b) Valuation Assets = (1b) + (8)	27,766,030	26,954,468	29,756,300	32,472,863	36,782,374
c) Difference Between Market & Valuation Assets	(3,217,049)	(1,795,032)	(2,433,902)	(297,128)	1,563,722
10. Recognized Rate of Return = [(5)+(7f)]/(4)	2.67%	3.37%	1.34%	2.79%	8.40%
11. Market Rate of Return = 2*(3b)/[(1a)+(2)-(3b)]	13.17%	9.83%	(1.00)%	10.59%	14.13%

IV. METHODOLOGY

Our general methodology to calculate the net present value consisted of the following steps:

(1) Estimate the number of current active employees that will be employed at Monroe County each year after December 31, 2013 until all current employees are either retired or no longer employed by Monroe County.

(2) Project the number of retired participants that will be alive each year after December 31, 2013 until all participants are presumed to have exhausted their benefit eligibility.

(3) Project the net retiree claim costs and death benefits (and net administrative expenses) per participant for each year and for each age category using the December 31, 2013 claim costs as a starting point and increasing the claim costs each year by the assumed annual rates of medical inflation.

(4) Estimate the total net medical costs for each year as follows: (2) x (3)

(5) Determine the total present value of the net medical costs by discounting (4) for each year back to December 31, 2013 at the assumed discount rate.

We calculated the liability estimates using actuarial assumptions summarized in Section V. We prepared assumptions as to claim costs, premium rates, annual trends in the utilization and cost of medical care, participation rates, termination rates, retirement rates, disability rates, and mortality based on information provided by Monroe County, and our judgment.

We based our calculations on the detailed census data provided. This data provided the age and gender for retirees and actives. For future retirees, we assumed husbands/wives are the same age as participants.

V. ACTUARIAL COST METHOD

Entry Age Normal Actuarial Cost Method

The actuarial cost method determines, in a systematic way, the incidence of plan sponsor contributions required to provide plan benefits. It also determines how actuarial gains and losses are recognized in post-employment costs. These gains and losses result from the difference between the actual experience under the plan and the experience expected based on the actuarial assumptions.

The cost of the Plan is derived by making certain specific assumptions as to rates of interest, mortality, turnover, etc. which are assumed to hold for many years into the future. Since actual experience may differ somewhat from the assumptions, the costs determined by the valuation must be regarded as estimates of the true costs of the Plan.

Actuarial liabilities and comparative costs shown in this Report were computed using the **Entry Age Normal Actuarial Cost Method**, which is described below:

The objective under this method is to fund each member's benefits under the Plan as payments which are level as a percentage of salary, starting at original participation date (or employment date), and continuing until the assumed date of retirement termination, disability or death.

At any given date, a liability is calculated equal to the contributions which would have been accumulated if this method of funding had always been used, the current plan provisions had always been in place, and all assumptions had been met. The difference between this liability and the assets (if any) which are held in the fund is the unfunded actuarial accrued liability. The unfunded actuarial accrued liability is typically funded over a chosen period in accordance with the amortization schedule.

A detailed description of the calculation follows: The normal cost for each active member under the assumed retirement age is determined by applying to earnings the level percentage of salary which, if contributed each year from date of entry into the Plan until the assumed retirement (termination, disability or death) date, is sufficient to provide the full value of the benefits expected to be payable.

1. The present value of future normal costs is the total of the discounted values of all active members' normal cost, assuming these to be paid in each case from the valuation date until retirement (termination, disability or death) date.

2. The present value of projected benefits is calculated as the value of all benefit payments expected to be paid to the Plan's current members, including active and retired members, beneficiaries, and terminated members with vested rights.

3. The actuarial accrued liability is the excess of the present value of projected benefits over the present value of future normal costs.

4. Valuation Assets are equal to the previous year's valuation assets increased by contributions and investment income and reduced by refunds, and benefit payments. The difference between the actual investment return and the expected return is phased-in over a 5-year period.

5. The unfunded actuarial accrued liability is the excess of the actuarial accrued liability over the assets of the fund, and represents that part of the actuarial accrued liability which has not been funded by accumulated past contributions.

V. ACTUARIAL COST METHOD *(continued)*

Amortization Method

Unfunded Actuarial Accrued Liability is amortized in level dollar payments to a fixed amortization date of December 31, 2030.

County Budgeting/Reporting Method

Contributions calculated using the results of the December 31, 2013 actuarial valuation are paid in the fiscal year beginning January 1, 2015.

County Asset Allocation Method

The total actuarial value of assets at the valuation date is allocated based on each division's proportionate share of an "Allocation Base" where the allocation base is calculated as the allocated actuarial value of assets by division at the prior valuation date, plus contributions, and less benefit payments during the year.

VI. ACTUARIAL ASSUMPTIONS

The following actuarial assumptions were used in the development of Monroe County's retiree health cost projections. Where consistent with the terms of the plan, actuarial assumptions have utilized the assumptions for the Monroe County Employees Retirement System (MCERS) as provided in the December 31, 2012 Actuarial Valuation reports.

1. **Interest Discount Rate:** 5.50% compounded annually.

2. **Mortality**: RP2000 Combined Healthy Mortality for males and females as appropriate, with generational mortality improvements using Projection Scale BB.

3. **Employee Turnover/Withdrawal:** MCERS for all employees. Rates are shown in the table below.

		% of Active Members Separating within Next Year	
Sample Ages	Years of Service	Sheriff's Office & Dispatchers	General County & County Agency
ALL	0	15.00%	15.00%
	1	9.00	13.00
	2	7.00	12.00
	3	7.00	8.00
	4	7.00	8.00
25	5 & Over	3.00	7.65
30		3.00	7.65
35		2.00	6.80
40		2.00	5.10
45		1.75	3.40
50		1.00	3.40
55		0.50	0.85
60		0.00	0.85

4. **Disablement:** MCERS disability rates for all employees. Rates are shown in the table below.

	Number of Disabilities Per 100 Eligible Members	
Sample Ages	Men	Women
20	0.09%	0.08%
25	0.09	0.08
30	0.09	0.08
35	0.09	0.08
40	0.24	0.28
45	0.32	0.32
50	0.59	0.45
55	1.07	0.61
60	1.70	0.81

5. **Retirement:** MCERS retirement rates for all employees. Rates are shown in the table below.

	Percent of Active Members Retiring Within Next Year	
Age	General County & County Agency	Sheriff's Office & Dispatchers
50		18.8%
51		18.8
52		18.8
53		25.0
54		25.0
55	37.5%	25.0
56	12.5	25.0
57	12.5	12.5
58	12.5	6.3
59	12.5	6.3
60	18.8	6.3
61	18.8	6.3
62	18.8	6.3
63	18.8	6.3
64	6.3	6.3
65	6.3	100.0
66	6.3	
67	6.3	
68	6.3	
69	6.3	
70	100.0	

6. **Salary Increase:** MCERS merit and longevity for all employees. Rates are shown in the table below.

		Annual Rate of Pay Increases for Sample Ages	
		Merit and Longevity	Total
Years of Service	Base (Economic)	General County, County Agency, Sheriff's Office & Dispatchers	General County, County Agency, Sheriff's Office & Dispatchers
1	2.5%	2.8%	5.3%
2	2.5	2.8	5.3
3	2.5	2.8	5.3
4	2.5	2.8	5.3
5	2.5	2.8	5.3
6	2.5	2.8	5.3
7	2.5	2.8	5.3
8	2.5	2.8	5.3
9+	2.5	0.5	3.0

7. **Percentage of Retirees Participating In Retiree Medical Coverage:**

   Future retirees: 100% of current eligible employees are expected to participate in Monroe County's retiree health insurance plan.

   Current retirees: Actual retiree participation.

8. **Percentage of Retirees Electing Family Coverage:**

   Future retirees: 85% of male and 30% of female General and County Agency employees and 90% of male and 50% of female Sheriff's Office employees and Dispatchers were assumed to have 2 person coverage at retirement.

   Current retirees: Actual family coverage election.

9. **Age Difference of Active Employees and Spouses:** Spouses same age as participants.

10. **Annual Medical Trend Rate Assumptions:** Based on recent experience, the experience of medical insurers, Milliman's future trend expectations, and judgment. The trend rates reflect the anticipated impact of the excise tax on high cost health plans beginning in 2018. The ultimate annual trend rate shown in the table below is the last year in which retiree medical benefits are projected to be paid.

Annual Trend Rate—Pre-65		
Year	Medical	Dental/Vision
2014	5.90%	5.00%
2015	5.50	5.00
2016	5.20	5.00
2017-2025	5.50	5.00
2026-2027	5.40	5.00
2028	5.50	5.00
2029	5.60	5.00
2030	6.10	5.00
2031-2032	6.50	5.00
2033-2034	6.40	5.00
2035	6.30	5.00
2036	6.10	5.00
2037	6.00	5.00
2038	5.90	5.00
Ultimate (2096)	4.40	4.40%

Annual Trend Rate—Post-65		
Year	Medical	Dental/Vision
2014	6.90%	5.00%
2015	5.60	5.00
2016	6.00	5.00
2017-2025	5.50	5.00
2026-2029	5.40	5.00
2030	6.40	5.00
2031-2032	6.50	5.00
2033	6.30	5.00
2034	6.40	5.00
2035	6.30	5.00
2036	6.10	5.00
2037-2038	5.90	5.00
2039-2040	5.80	5.00
2041	5.70	5.00
Ultimate (2091)	4.50%	4.50%

11. **Expected 2014 Monthly Medical Costs per Retiree:** We developed estimates of the 2014 monthly medical costs per retiree by age based on the County's current claim cost experience and actual administrative costs per capita, adjusted for demographic differences between retirees and all participants (actives and retirees combined) and adjusted for plan benefit differences.

	Male		Female	
Age	Single	Family	Single	Family
55	$ 851	$1,846	$ 941	$1,846
60	1,108	2,274	1,112	2,274
64	1,409	2,754	1,290	2,754
65	430	862	432	862
70	489	974	485	974

The pre-65 medical costs shown in the table above are multiplied by a factor of 0.95 for each of the next seven years to reflect the phase-in of the health benefit plan available to future retirees.

12. **Expected 2014 Monthly Dental Costs per Retiree:** We developed estimates of the 2014 monthly dental costs per retiree by age based on the County's current claim cost experience and actual administrative costs per capita, adjusted for demographic differences between retirees and all participants (actives and retirees combined) and adjusted for plan benefit differences.

	Male		Female	
Age	Single	Family	Single	Family
55	$19	$41	$21	$41
60	21	44	22	44
64	23	46	22	46
65	23	46	22	46
70	23	47	22	47

VII. DATA

1. **Monthly 2014 Retiree Premiums:** The current employee premium rates for plan members are shown in the following table.

Monthly 2014 Pre-Medicare Health Insurance Premiums				
Description	**Single**	**Employee & Spouse**	**Employee & Child(ren)**	**Family**
BCBSM PPO 1, $10 Rx	$802.39	$2,005.98	$1,604.78	$2,407.19
BCBSM PPO 1, $10/$20/$30 Rx	$727.41	$1,818.53	$1,454.82	$2,182.25
BCBSM PPO 1, $10/$40 Rx	$695.50	$1,738.74	$1,390.99	$2,086.50
BCBSM PPO 2, $10/$20/$30 Rx	$681.96	$1,704.91	$1,363.92	$2,045.90
BCBSM PPO 2, $10/$40 Rx	$650.05	$1,625.12	$1,300.09	$1,950.15
BCBSM PPO 3, $10/$40 Rx	$579.35	$1,448.37	$1,158.70	$1,738.05
BCBSM PPO 3, $10/$20/$30 Rx	$610.68	$1,526.70	$1,221.37	$1,832.05
BCBSM PPO 4, $10/$40 Rx	$536.64	$1,341.59	$1,073.27	$1,609.91
BCBSM PPO 5, $10/$40 Rx	$521.23	$1,303.08	$1,042.46	$1,563.69
BCBSM PPO 6, $10/$40 Rx	$494.52	$1,236.29	$989.02	$1,483.55
BCBSM PPO 3R, 50% ($5/$50) Rx	$537.78	$1,344.44	$1,075.55	$1,613.32
BCBSM PPO 6R, 50% ($5/$50) Rx	$475.36	$1,188.40	$950.73	$1,426.07
BCBSM FB3 w/H.S.A., Integrated Rx	$393.61	$984.02	$787.23	$1,180.84
BCBSM EPO 1, $2 Rx (Formerly Paramount & Blue Care Network)	$849.50	$2,123.73	$1,698.98	$2,548.47
BCBSM EPO 2, $10/$20/$30 Rx (Formerly Blue Care Network)	$745.11	$1,862.77	$1,490.21	$2,235.32
BCBSM EPO 1, $10/$20 Rx (Formerly Paramount)	$820.09	$2,148.55	$1,640.17	$2,460.26
BCBSM EPO 3, $10/$20/$30 Rx (Formerly Paramount)	$734.88	$1,837.22	$1,469.76	$2,204.66
BCBSM CMM 1, $5 Rx	$945.75	$2,364.39	$1,891.51	$2,837.26
BCBSM CMM 2, $2 Rx	$945.75	$2,364.39	$1,891.51	$2,837.26
BCBSM CMM 3, $2 Rx	$952.86	$2,382.17	$1,905.73	$2,858.60
BCBSM CMM 4, $10 Rx	$907.00	$2,267.52	$1,814.01	$2,721.02

Monthly 2014 Post-Medicare Health Insurance Premiums		
Description	**Single**	**Employee & Spouse**
Plan F $100 Deductible, $10 Rx	$470.00	$940.00
Plan F $100 Deductible, $10/$20/$30 Rx	$450.00	$900.00
Plan F, $100 Deductible, $10/$40 Rx	$387.00	$774.00
Plan F, $100 Deductible, 50% ($5/$50) Rx	$359.00	$718.00
Plan F, $0 Deductible, $2 Rx	$522.00	$1,044.00
Plan F, $0 Deductible, $10/$20/$30 Rx	$460.00	$920.00
Plan F, $100 Deductible, $5 Rx	$493.00	$986.00
Plan F, $50 Deductible, $2 Rx	$516.00	$1,032.00
Plan F, $100 Deductible, $2 Rx	$512.00	$1,024.00

Monthly 2014 Dental and Vision Insurance Premiums				
Description	Single	Employee & Spouse	Employee & Child(ren)	Family
BCBSM Dental 1 (75%/25% w/ $800 Max Benefit)	$19.06	$48.61	$38.12	$59.09
BCBSM Dental 2 (100%/75%/50% w/ $1000 Max Benefit)	$17.03	$43.43	$34.06	$52.80
BCBSM Vision 1 (24 Month Exam, Lenses & Frames)	$2.65	$6.63	$5.30	$7.96
BCBSM Vision 2 (12 Month Exam, Lenses & Frames)	$3.56	$8.89	$7.12	$10.67
BCBSM Vision 3 (12 Month Exam & Lenses, 24 Month Frames)	$4.63	$11.56	$9.26	$13.87

2. **Participant Data:** We relied on the following medical plan participant data as of April 2, 2014. We have assumed no material changes in the participant data between December 31, 2013 and April 2, 2014.

	Participant Count	Average Age	Average Service
Active Employees	315	46.2	15.9
Retirees	450	65.6	

VIII. PLAN PROVISIONS

Group	Eligibility Condition [1]	Medical Benefits [2,7]	Prescription Drug	Spouse Coverage	Cost Sharing	Employee Contributions
General County [6]	Age 55 with 30 years or age 60 with 8 years of service. New hires are no longer eligible for County-paid retiree health care (the effective dates vary by unit).	Yes	Yes	County pays 50% plus 2.27% for each year in excess of 8 years of service at retirement.[4]	[3]	3% of Pay
County Agency	Age 55 with 30 years or age 60 with 8 years of service. Effective 1/1/2008, new hires are no longer eligible for retiree health care.	Yes	Yes	County pays 50% plus 2.27% for each year in excess of 8 years of service at retirement.[4]	[3]	3% of Pay
Sheriff's Office	Age 50 with 25 years or age 60 with 8 years of service. New hires are no longer eligible for County-paid retiree health care (the effective dates vary by unit).	Yes	Yes	County pays 50% plus 2.94% for each year of service in excess of 8 years at retirement.[5]	[3]	3% of Pay
Dispatchers [6]	Age 50 with 25 years or age 60 with 8 years of service. Effective 10/1/2007, new hires are no longer eligible for County-paid retiree health care.	Yes	Yes	County pays 50% plus 2.94% for each year of service in excess of 8 years at retirement.[5]	[3]	3% of Pay

1 *Disabled retirees and survivors of deceased employees receive coverage. Deferred vested members do not receive retiree health care coverage.*

2 *Retirees are covered by various plans with different deductibles and co-pays.*

3 *All eligible groups mirror Active Employee Cost Sharing.*

4 *For members who retire on or after 12/31/1996. Coverage to the spouse continues upon the retiree's death, provided the spouse is receiving the deceased retiree's retirement allowance.*

5 *For members who retire on or after 1/1/2001. Coverage to the spouse continues upon the retiree's death, provided the spouse is receiving the deceased retiree's retirement allowance.*

6 *General County & Dispatch employees who retired prior to a date defined in their CBA will receive retiree health care benefits upon attainment of the age and service requirements listed.*

7 *Retirees are also provided Life Insurance in the amount of $10,000 for Department Heads, and $4,000 for all other Retirees.*

MONROE COUNTY

Actuarial Valuation of Retiree Medical Benefits
as of December 31, 2013

Valuation Group	Union Name	Not Elligible for Retiree Health Care if Hired on or After	Not Eligible for Retiree Life Insurance if Hired on or After
General County	Non-Union Other	10/28/2003	1/1/2003
	Non-Union Management	10/28/2003	1/1/2003
	Elected Officials-Non-Union	10/28/2003	1/1/2003
	Michigan Nurses Association Unit I	10/28/2003	8/28/2007
	UAW/Friend of the Court	10/28/2003	3/23/2004
	UAW/Probate Court	10/28/2003	8/24/2004
	United Steelworkers/Youth Center	6/14/2005	1/1/2011
	POAM/District Court Unit I	9/2/2005	1/1/2011
	POAM/District Court Unit II	9/2/2005	1/1/2011
	POAM/Assistant Prosecutors	9/13/2005	9/13/2005
	AFSCME General	7/25/2006	7/25/2006
	AFSCME District Court	7/25/2006	7/25/2006
	AFSCME Youth Center	7/25/2006	7/25/2006
	UAW/Youth Center	8/28/2007	8/28/2007
	County (Non-Union) Part-time	N/A	N/A
County Agency	Utility Workers of America/County Agency	1/1/2008	Available
	Non-Union/County Agency	10/28/2003	1/1/2003
Sheriff's Office	POAM/Sheriff Deputies	7/1/2013	7/1/2013
	POLC/Command Officers	7/1/2013	7/1/2013
	POAM/Correctional Officers Unit I	1/1/2011	12/11/2007
	POAM/Correctional Officers Unit II	1/1/2011	2/12/2008
Dispatchers	POLC/Communication Officers	10/1/2007	10/1/2007
	POLC/Communication Supervisors	10/1/2007	10/1/2007

IX. GLOSSARY

The following is an explanation of many of the terms referenced by the Statement of the Governmental Accounting Standards Board, “Accounting and Financial Reporting by Employers for Postemployment Benefits Other than Pensions”.

1. **Actuarial Cost Method.** This is a procedure for determining the Actuarial Present Value of Benefits and allocating it to time periods to produce the Actuarial Accrued Liability and the Normal Cost. The Statement assumes a closed group of employees and other participants unless otherwise stated; that is, no new entrants are assumed. Six methods are permitted – Unit Credit, Entry Age Normal, Attained Age, Aggregate, Frozen Entry Age, and Frozen Attained Age.

2. **Actuarial Accrued Liability.** This is the portion of the Actuarial Present Value of Benefits attributable to periods prior to the valuation date by the Actuarial Cost Method (i.e., that portion not provided by future Normal Costs).

3. **Actuarial Present Value of Benefits.** This is the value, as of the applicable date, of future payments for benefits and expenses under the Plan, where each payment is:

   (a) Multiplied by the probability of the event occurring on which the payment is conditioned, such as the probability of survival, death, disability, termination of employment, etc.; and

   (b) Discounted at the assumed discount rate.

4. **Actuarial Value of Assets.** This is the value of cash, investments and other property belonging to the Plan, as used by the actuary for the purpose of an Actuarial Valuation.

5. **Amortization Payment.** This is the amount of the contribution required to pay interest on and to amortize over a given period the Unfunded Actuarial Accrued Liability or the Unfunded Frozen Actuarial Accrued Liability. A closed amortization period is a specific number of years counted from one date and reducing to zero with the passage of time; an open amortization period is one that begins again or is recalculated at each actuarial valuation date.

6. **Annual Required Contribution (“ARC”).** This is the employer’s periodic required contribution to a defined benefit OPEB plan, calculated in accordance with the set of requirements for calculating actuarially determined OPEB information included in financial reports.

7. **Attribution Period.** The period of an employee’s service to which the expected postretirement benefit obligation for that employee is assigned. The beginning of the attribution period is the employee’s date of hire. The end of the attribution period is the full retirement eligibility date. For disability retirement, the end of the attribution period is the date of disability.

8. **Benefit Payments.** The monetary or in-kind benefits or benefit coverage to which participants may be entitled under a postemployment benefit plan, including health care benefits and life insurance not provided through a pension plan.

9. **Funding Excess.** This is the excess of the Actuarial Value of Assets over the actuarial accrued liability.

VIII. GLOSSARY *(continued)*

10. **Normal Cost.** This is the portion of the Actuarial Present Value of Benefits allocated to a valuation year by the Actuarial Cost Method.

11. **Net OPEB Obligation.** This is the cumulative difference since the effective date of this statement between annual OPEB cost and the employer's contributions to the plan, including the OPEB liability (asset) at transition, if any, and excluding (a) short-term differences and (b) unpaid contributions that have been converted to OPEB-related debt.

12. **Other Postemployment Benefits ("OPEB").** This refers to postemployment benefits other than pension benefits, including healthcare benefits regardless of the type of plan that provides them, and all other postemployment benefits provided separately from a pension plan, excluding benefits defined as termination benefits or offers.

13. **Return on Plan Assets.** This is the actual investment return on plan assets during the fiscal year.

14. **Substantive Plan.** The terms of the postretirement benefit plan as understood by an employer that provides postretirement benefits and the employees who render services in exchange for those benefits. The substantive plan is the basis for the accounting for the plan.

15. **Unfunded Actuarial Accrued Liability.** This is the excess of the actuarial accrued liability over the Actuarial Value of Assets.

MONROE COUNTY

APPENDIX: DETERMINATION OF ANNUAL REQUIRED CONTRIBUTION BY DIVISION

	GASB 45 Liabilities						
	General County Billable	General County Non-Billable	County Agency	Sheriff's Office Billable	Sheriff's Office Non-Billable	Dispatchers	Total
December 31, 2013 Actuarial Present Value of Projected Benefits	$25,113,669	$60,584,411	$11,326,071	$20,721,169	$50,915,014	$5,602,807	$174,263,141
December 31, 2013 AAL	23,192,841	57,445,188	10,430,786	17,236,643	46,024,226	4,649,602	158,979,286
Allocated December 31, 2013 Actuarial Value of Assets	6,624,531	11,379,328	2,446,674	5,360,626	9,021,014	1,950,201	36,782,374
December 31, 2013 Unfunded AAL	16,568,310	46,065,860	7,984,112	11,876,017	37,003,212	2,699,401	122,196,912
Determination of Annual Required Contribution:							
December 31, 2013 Normal Cost	228,000	384,677	88,846	319,514	468,616	85,203	1,574,856
Interest on Normal Cost	12,540	21,157	4,887	17,573	25,774	4,686	86,617
December 31, 2014 Normal Cost	240,540	405,834	93,733	337,087	494,390	89,889	1,661,473
December 31, 2013 Amortization	1,433,828	3,986,557	690,948	1,027,755	3,202,272	233,607	10,574,967
Interest on Amortization	78,860	219,261	38,002	56,527	176,125	12,848	581,623
December 31, 2014 Amortization	1,512,688	4,205,818	728,950	1,084,282	3,378,397	246,455	11,156,590
Total ARC for 2015 fiscal year	1,753,228	4,611,652	822,683	1,421,369	3,872,787	336,344	12,818,063