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City of Marine City
Retiree Health Care Plan

Actuarial Valuation as of June 30, 2012

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August 16, 2013

City of Marine City
Marine City, Michigan 48039

Attention: Ms. Mary Ellen McDonald, CPFA/MICPT, Finance Director

This report contains the results of an actuarial valuation of the liabilities associated with retiree health benefits provided by the City of Marine City Retiree Health Care Plan, together with computed contributions to systematically finance these benefits.

The date of the valuation was June 30, 2012.

The purpose of the actuarial valuation is to:

- Compute the liabilities associated with post- employment health benefits likely to be paid on behalf of current retired, inactive vested and active employees, and

- Compute a pre-funding contribution rate to finance post-employment health benefits as they accrue.

This valuation has been conducted in accordance with generally accepted actuarial principles and practices. Data concerning active members, retirees and beneficiaries was provided by the City. This data has been reviewed for reasonableness, but no attempt has been made to audit such information. This report was prepared under the direction of a member of the American Academy of actuaries who meets the qualification standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Respectfully submitted,

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Section One:

Valuation Summary

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Purpose of Valuation

The purpose of the annual actuarial valuation of the City of Marine City Retiree Health Care Plan as of June 30, 2012 is to:

- Compute the liabilities associated with post-employment health benefits likely to be paid on behalf of current retired, inactive vested and active participants,

- Compute a pre-funding contribution rate to finance the benefits as they accrue.

The valuation provides information for the reporting requirements concerning Other Postemployment Benefits (OPEB) pursuant to Governmental Accounting Standards Board Statements 43 and 45.

Assumptions Used in the Valuation

The liabilities and pre-funding contribution rate are very sensitive to the long-term assumptions used in making the valuation. The assumptions used in making this valuation, summarized in Section Four, are only one reasonable set out of a large number of possibilities. To the extent that actual experience differs from the long-term assumptions, the liabilities and contribution rates will be greater or less than those indicated in this report. The assumptions having the greatest impact are the rate of medical care inflation and the investment return rate. We have assumed a 9.0% annual increase for medical care inflation in the first year, decreasing in increments of 0.5% over the next 10 years to 4.0%, then 3.75% thereafter. The assumed investment return rate was 4.0%. Please refer to Comments 2 and 3 on pages 4. Liabilities and computed contributions can change significantly in future years depending upon the actual and assumed rates of medical care inflation, investment return, benefit provisions and demographics of the participant group.

Actuarial Accrued Liabilities

Accrued liabilities of the post-employment health benefits as of June 30, 2012, were computed to be $7,803,622. Of this amount, $2,757,940 was attributable to current active employees, $399,161 was attributable to inactive vested participants and $4,646,521 was attributable to current retirees.

Funding Value of Assets

As of June 30, 2012 the asset balance (market value) was reported to be $238,512. This amount was used as the funding value of assets for the purpose of this actuarial valuation.

Participants

	Police	Non-Union	Teamsters	IUOE	Total
Active Employees	3	4	4	1	12
Active Participant Payroll	$184,183	$206,496	$202,240	$51,334	$644,253
Retirees	2	5	3	4	14
Inactive Vested Participants	0	2	0	0	2

Post-Retirement Health Care Rates

Monthly premium rates were submitted concerning medical/prescription/vision and dental benefits for pre and post age 65 retirees. The following is a sample of the rates:

	Pre 65			Post 65	
	1 P	2P	Family	1 P	2 P
Medical/Prescription/Vision	$407.66	$978.38	$1,222.97	$284.14	$568.28
Dental	46.48	94.80	178.60	46.48	94.80

In addition, the employer contributes the following annual employer amounts to an HSA or HRA:

Pre 65 HSA*		Post 65 HRA
1 P	2 P	
$2,250	$4,500	Up to $3,000 deductible

*Based on 75% of $3,000 annual deductible.

These Pre-65 insured rates apply to both active employees and retirees. The amounts used for valuation purposes were adjusted to reflect the implicit rate subsidy for retirees under age 65.

Section Two:

Actuarial Calculations – Funding

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Actuarial Accrued Liabilities

The actuarial accrued liabilities as of June 30, 2012 were computed to be the following:

	Police	Non-Union	Teamsters	IUOE	Total
Active participants	$581,567	$949,403	$1,001,173	$225,797	$2,757,940
Vested inactive participants	0	399,161	0	0	399,161
Retirees and beneficiaries	1,334,762	1,366,703	663,763	1,281,293	4,646,521
Total	1,916,329	2,715,267	1,664,936	1,507,090	7,803,622
Less: Valuation Assets*	58,571	82,990	50,888	46,063	238,512
Unfunded Actuarial Accrued Liabilities	$1,857,758	$2,632,277	$1,614,048	$1,461,027	$7,565,110
Funded Ratio	3.2%	3.2%	3.2%	3.2%	3.2%

*Total assets of $238,512 were allocated to each group based on actuarial accrued liabilities.

Computed Annual Required Contribution (ARC)

The computed contribution rate consists of two components: normal cost and amortization of unfunded actuarial accrued liability. Normal cost was computed to be a level percent of payroll from date of hire to date of termination.

The portion of the total present value of future benefits allocated to service already rendered is the actuarial accrued liability. Deducting the valuation assets produces the unfunded actuarial accrued liability. We have amortized the unfunded actuarial accrued liability (UAAL) over 30 years, the maximum period for reporting purposes pursuant to GASB Statements 43 and 45. Since the Plan is closed to new hires, the amortization payments for unfunded actuarial accrued liability were computed to be level dollar amounts.

Actual benefits paid on behalf of retirees may be treated as employer contributions for purposes of the Annual Required Contribution.

	Annual Required Contribution				
	Police	Non-Union	Teamsters	IUOE	Totals
Normal Cost	$19,863	$29,583	$29,931	$7,499	$86,876
Unfunded Actuarial Accrued Liability	104,621	148,200	90,433	82,574	425,828
Total Computed Contribution					
FY 2012/2013	$124,484	$177,783	$120,364	$90,073	$512,704
FY 2013/2014	$129,152	$184,450	$124,877	$93,451	$531,930
FY 2014/2015	$133,995	$191,367	$129,560	$96,955	$551,877

Comments

Comment 1: Governmental Accounting Standards Board (GASB) Statements 43 and 45 concern financial reporting for "other post employment benefits" (OPEB), which are non-pension benefits including retiree health benefits. The standards apply to the plan (Statement 43) and the plan sponsor (Statement 45). Among the required disclosures are the annual OPEB expense, liabilities, funded status and funding progress. Actuarial valuations to determine these disclosures are required at least every 3 years for plans with fewer than 200 participants and at least every 2 years for Plans with 200 participants or more.

Comment 2: The GASB statements do not mandate that the plan sponsor pre-fund OPEB liabilities. However, if the plan sponsor's funding policy is to contribute less than the Annual Required Contribution (ARC), the GASB standards require that a lower assumed rate of investment return be used to compute the liabilities and Annual Required Contribution. This increases the liabilities, ARC, and the OPEB obligation that must be reported in the financial statements. The OPEB obligation represents the cumulative difference between the annual OPEB cost and the employer's actual contribution.

For purposes of this valuation we have assumed a rate of investment return (4.0%) based upon the assumption that the employer does not contribute the actuarially determined annual required contribution. If a higher rate of investment return is assumed the liabilities and ARC would be lower.

Comment 3: Liabilities for health benefits are highly dependent upon the underlying assumptions concerning medical care inflation and the investment return rate. For the purposes of this valuation, we assumed a 4.0% investment return rate and a 9.00% annual medical care inflation rate in the first year, decreasing in 0.5% increments over the following 10 years to the ultimate assumed rate of 3.75%. Liabilities and computed contributions would be greater if a higher medical care inflation rate is assumed or a lower investment return rate. Liabilities and computed contributions would be less if a lower medical care inflation rate is assumed or a higher investment return rate.

Comment 4: The unfunded actuarial accrued liabilities were amortized as level dollar payments over the maximum 30 year period permitted for reporting purposes under the GASB standards. Level dollar payments were computed because the Plan is closed to new hires. If unfunded actuarial accrued liabilities were amortized as level percents of active participant payroll as in the prior valuation, the computed ARC would be $345,119. This amount would be assumed to increase 3.75% per year compounded over the 30 year amortization period.

Comment 5: In order for assets to be considered in determining the unfunded actuarial accrued liability, the assets must be a) irrevocably held in a trust or equivalent arrangement, b) dedicated to providing benefits to retirees and their beneficiaries in accordance with the terms of the plan, and c) legally protected from creditors of the employer or plan.

Section Three:

Benefit Provisions

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Benefit Provision Summary

Eligibility -
Normal retirement eligibility is age 55 with 25 or more years of service or age 60 with 10 or more years of service.

Benefits -
Police members hired prior to 12/31/2007: the City pays 100% of pre and post-Medicare insurance premium.

Teamsters, IUOE and Non-Union hired prior to 12/31/2007: the City pays 100% of the pre-Medicare insurance premiums.

Post-Medicare insurance premiums are provided as follows:

- For members with 20 years of service or more on 12/31/2007, 100% of the post-Medicare insurance premium is provided.
- For member with 10 to 20 years of service on 12/31/2007, the member contributes 10% of the post-65 health insurance premium.
- For members with less than 10 years of service on 12/31/2007, the member contributes 20% of the post-65 health insurance premium.

For all members hired prior to 12/31/2007, the City also pays 75% of the annual deductible to an HSA for pre-65, and up to $3,000 of the annual deductible to an HRA for post-65.

All members hired after 12/31/2007: the members contribute 100% for both pre and post-Medicare insurance premiums. The member will contribute $1,500 on an annual basis to a retiree health savings plan. The City will match the member contribution to the established retiree health savings plan dollar for dollar, up to $1,500. The City match is not included in the OPEB liabilities.

Spouse Coverage –
Retiree health care coverage is provided to the spouse of retirees for the lifetime of the retiree. Beneficiaries of a deceased member will continue to be eligible for the same health insurance coverage if receiving a pension.

Medicare - Eligible

Upon attaining Medicare age, members and, their spouses, will receive subsidized "Medicare-complementary" coverage. Beneficiaries will receive the same health insurance coverage.

This is a brief summary of benefits. If any description in the summary is different from the actual eligibility or benefit provisions, the applicable contract or plan document will prevail.

Section Four:

Actuarial Assumptions And Methods

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Actuarial Assumptions

Economic Assumptions

(i) Interest Rate	4.0% (net of expenses)
(ii) Medical Inflation Rate	9.0%, graded down to 4.00% in 0.5% increments over 10 years, then 3.75% thereafter.
(iii) Salary Increases Across-the-Board	3.75%

Demographic Assumptions

(i) Mortality — RP-2000 Combined Healthy Projected to 2015

Sample Ages	Future Life Expectancy (Years)	
	Men	Women
55	27.59	29.64
60	23.05	25.08
65	18.79	20.80
70	14.89	16.86
75	11.34	13.29
80	8.26	10.09

(ii) Disability

Sample Ages	Percent Becoming Disabled Within Next Year
20	0.05%
25	0.07
30	0.08
35	0.10
40	0.16
45	0.24
50	0.39
55	0.69
60	1.15
65	1.15

(iii) Termination of Employment Service related rates for first 5 years of employment. Age related rates after first 5 years of employment

Sample Ages	Years of Service	Percent Separating Within Next Year
All	0	30.00%
	1	20.00
	2	15.00
	3	10.00
	4	7.00
25	5 & Over	6.00
30		5.50
35		4.40
40		1.85
45		1.25
50		1.25
55		1.25
60		1.25

(iv) Retirement Rates Age-related rates

Active Members Retiring within Year
Following Attainment of Indicated Retirement Age

Retirement Ages	Percent of Active Members Retiring Within Next Year
55	30.00%
56	25.00
57	20.00
58	15.00
59	20.00
60	20.00
61	40.00
62	70.00
63	50.00
64	50.00
65	80.00
66	70.00
67	60.00
68	60.00
69	70.00
70 and Over	100.00

Actuarial Method Used for the Valuation

Normal Cost. Normal cost and the allocation of actuarial present values between service rendered before and after the valuation date were determined using an individual entry age actuarial cost method having the following characteristics:

- The annual normal costs for each individual active participant, payable from date of hire to date of retirement, are sufficient to accumulate the value of the participant's benefit at the time of retirement;

- Each annual normal cost is a constant percentage of the participant's year-by-year projected covered pay.

Financing of Unfunded Actuarial Accrued Liability. Unfunded actuarial accrued liability was amortized as a level dollar amount over 30 years.

Section Five:

Valuation Data

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Financial Information

The net market value of assets was reported to be $238,512 as of June 30, 2012. This amount was used as the funding value of assets for the purpose of this actuarial valuation as of June 30, 2012.

Participant Summary

Retirees and Beneficiaries

As of June 30, 2012, there were 14 retirees included in the valuation.

Retirees and Beneficiaries
June 30, 2012

Attained Age	Total
55	1
56	1
58	2
59	1
60	1
62	1
64	1
65	1
66	1
69	1
70	1
74	2
Totals	14

Active Participants

As of June 30, 2012, there were 12 active employees.

Number	12
Payroll	$644,253
Averages	
Age	50.5
Service	21.3
Salary	$53,688

Active Members - June 30, 2012
Age and Service Distribution

Attained Age	10-14	15-19	20-24	25-29	No.	Payroll
35-39	1				1	$60,382
40-44		1	1		2	123,801
45-49	1			1	2	85,156
50-54		2	1	2	5	276,207
55-59			2		2	98,707
Totals	**2**	**3**	**4**	**3**	**12**	**$644,253**

Group Averages:

Age: 50.5 years
Service: 21.3 years
Annual Pay: $53,688