

October 16, 2011

Ms. Dee Ann Irby  
Treasurer/Comptroller  
City of Grosse Pointe Woods  
20025 Mack Plaza Drive  
Grosse Pointe Woods, MI 48236

Dear Ms. Irby:

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

***The date of the valuation*** was June 30, 2010.

***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 valuation has been prepared under the supervision of a Member of the American Academy of Actuaries qualified to render the actuarial opinions contained herein.

Respectfully submitted,



Denise M. Jones  
Senior Consultant



Sandra W. Rodwan  
Member, American Academy of Actuaries

***City of Grosse Pointe Woods  
Retiree Health Plan***

*Actuarial Valuation as of June 30, 2010*

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***Section One:***  
***Valuation Summary***



## **Purpose of Valuation**

The purpose of the annual actuarial valuation of the City of Grosse Pointe Woods Retiree Health Plan as of June 30, 2010 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.

## **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 an 8.5% annual increase for medical care inflation in the first year, decreasing in increments of 0.5% over the next 8 years to the ultimate 4.5% assumption. The assumed investment return rate was 3.50%. Please refer to Comments 2 and 3 on pages 4 and 5. 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, 2010, were computed to be \$27,816,723 for General members. Of this amount, \$13,649,027 was attributable to current active employees, \$12,767,170 was attributable to current retirees and \$1,400,526 for vested deferred members. Accrued liabilities were computed to be \$29,216,427 for Public Safety members. Of this amount, \$9,407,922 was attributable to current active employees and \$19,808,505 to current retirees.

## **Funding Value of Assets**

As of June 30, 2010 there were no assets reported for this actuarial valuation.

### Computed Annual Required Contribution Rate

The total employer contribution rate computed to pre-fund the benefits of active employee was computed to be \$2,229,216 for General members and \$1,802,143 for Public Safety. There are two components of this rate, the normal cost and an amortization payment for unfunded actuarial accrued liability. The normal cost contribution rate was computed to be \$1,264,903 for General members and \$789,307 for Public Safety. The amortization payment was computed to be \$964,313 for General members and \$1,012,836 for Public Safety. The amortization period used was 30 years. The 30 year period is the maximum permitted for reporting purposes under Statements 43 and 45 of the Governmental Accounting Standards Board.

### Participants

	<b>General</b>	<b>Public Safety</b>
Active Employees	58	32
Active Participant Payroll	\$3,085,293	\$2,460,275
Retirees	47	47
Inactive Vested Participants	4	--

### Post-Retirement Health Care Rates

The City submitted data concerning the illustrative premium rates and claims costs. For purposes of the valuation, the premiums were adjusted to reflect the older age characteristics of the retiree group. Examples of the total premium rates reported to us, including medical, prescription drugs and dental, are as follows:

	<b>To 65 – Plan 903</b>	<b>To 65 – Plan 904</b>	<b>Post 65</b>
Single	\$607.37	\$673.06	\$632.86
2 Person	1,280.59	1,438.24	1,259.00



***Section Two:***

***Actuarial Calculations –  
Funding***



**Actuarial Accrued Liabilities**

The actuarial accrued liabilities as of June 30, 2010 were computed to be the following:

	<u>General</u>	<u>Public Safety</u>	<u>Total</u>
Active participants	\$13,649,027	\$9,407,922	\$23,056,949
Vested inactive participants	1,400,526	0	1,400,526
Retirees and beneficiaries	<u>12,767,170</u>	<u>19,808,505</u>	<u>32,575,674</u>
Total	27,816,723	29,216,427	57,033,150
Less: Valuation Assets	<u>0</u>	<u>0</u>	<u>0</u>
Unfunded Actuarial Accrued Liabilities	\$27,816,723	\$29,216,427	\$57,033,150
Funded Ratio			00.0%

**Computed Annual Required Contribution (ARC)—Fiscal Year Beginning July 1, 2011**

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 normal cost can be considered to be the ongoing cost of the Plan.

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. The amortization payments were computed to remain level as percents of payroll.

The annual dollar amounts of contributions are assumed to increase at the same rate as the assumed increase in active member payroll, 4.0% per year. Actual benefits paid on behalf of retirees may be treated as employer contributions for purposes of the Annual Required Contribution.

	<b>Annual Required Contribution</b>		
	<b>General</b>	<b>Public Safety</b>	<b>Total</b>
Normal Cost	\$1,264,903	\$789,307	\$2,054,210
Unfunded Actuarial Accrued Liability	<u>964,313</u>	<u>1,012,836</u>	<u>1,977,149</u>
Annual Required Contribution	\$2,229,216	\$1,802,143	\$4,031,359



## Comments

**Comment 1:** The Governmental Accounting Standards Board (GASB) has issued Statements 43 and 45 concerning 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 an assumed rate of investment return, reflecting the rate of return on the City’s General Fund, be used to compute the liabilities and Annual Required Contribution. 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 (3.50%) based upon the assumption that the employer will not contribute the actuarially determined annual required contribution. If a higher rate of investment return is assumed, the liabilities and ARC would be less. If a lower rate of investment return is assumed the liabilities and ARC would be higher.

**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 3.50% investment return rate and an 8.5% annual medical care inflation rate in the first year, decreasing in 0.5% increments over the following 8 years to the ultimate assumed rate of 4.5%. 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.



***Section Three:***  
***Benefit Provisions***



## **Benefit Provision Summary**

### **Eligibility**

Retirees are eligible upon retirement.

Spouses of retirees are eligible.

Surviving spouses of deceased retirees are eligible.

Surviving spouses of deceased active Retirement System members who qualify for a survivor benefit from the Retirement System are eligible.

Vested employees who terminate with 10 or more years of service with the City are eligible upon commencement of deferred retirement benefits.

### **Benefits**

Medical, prescription drug, dental and vision benefits are payable for life to eligible participants subject to plan documents and collective bargaining agreements.

**Note:** This summary of eligibility conditions and benefits is a brief outline. In case of any differences between this summary and actual eligibility conditions and benefits, the applicable contract or legal document would take precedence.



***Section Four:***

***Actuarial Assumptions  
And Methods***



**Actuarial Assumptions**

**Economic Assumptions**

- (i) Interest Rate 3.5% (net of expenses)
- (ii) Medical Inflation Rate 8.5%, graded down to 4.5% in 0.5% increments over 8 years
- (iii) Salary Increases
  - Wage Inflation 4.0%
  - Merit and Longevity Age related rates

**Sample Annual Rates of Salary Increase**

Sample Ages	Inflation	Merit and Longevity	
		General	Public Safety
20	4.0%	3.8%	3.0%
25	4.0	3.1	3.0
30	4.0	2.7	2.6
35	4.0	2.4	1.1
40	4.0	2.1	0.2
45	4.0	1.7	0.2
50	4.0	1.1	0.2
55	4.0	0.7	0.1
60	4.0	0.2	0.0

**Demographic Assumptions**

**(i) Mortality**

1994 Group Annuity Mortality Table

Sample Ages	Value of \$1 Monthly for Life		Future Life Expectancy (Years)	
	Men	Women	Men	Women
50	\$134.63	\$140,32	30.7	34.9
55	127.16	134.40	26.2	30.2
60	117.78	126.60	21.8	25.6
65	106.80	117.13	17.8	21.3
70	94.73	106.11	14.3	17.3
75	81.36	92.79	11.1	13.6
80	67.17	77.98	8.4	10.3

**(ii) Disability**

Sample Ages	Percent Becoming Disabled Within Next Year	
	General	Public Safety
20	0.08%	0.11%
25	0.08	0.18
30	0.08	0.37
35	0.08	0.61
40	0.20	0.85
45	0.26	1.09
50	0.49	1.33
55	0.89	1.58
60	1.41	1.83

**(iii) Termination of Employment**

Service related rates for first 5 years of employment. Age related rates for after first 5 years of employment

Sample Ages	Years of Service	% Separating Within One Year	
		General Members	Public Safety
ALL	0	20.00%	15.00%
	1	15.00	10.00
	2	12.00	9.00
	3	10.00	8.00
	4	7.00	7.00
25	5 & Over	6.00	4.50
30		5.50	3.90
35		4.40	2.30
40		1.85	0.90
45		1.25	0.50
50		1.25	0.50
55		1.25	0.50
60		1.25	0.50

**(iv) Retirement Rates**

Age-related rates

**Active Members Retiring within Year  
Following Attainment of Indicated Retirement Age**

Age Retiring	% Retiring Within One Year	
	General	Public Safety
50	15%	20%
51	10	10
52	10	10
53	10	10
54	10	10
55	10	20
56	10	10
57	10	10
58	10	10
59	10	10
60	15	25
61	15	15
62	30	30
63	15	15
64	15	15
65	60	60
66	30	30
67	40	40
68	50	50
69	90	90
70	100	100

Members were assumed to be eligible for retirement after attaining age 50 with 25 years of service or age 55 with 20 years of service, or age 60 with 10 or more years of service.



### **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;

**Financing of Unfunded Actuarial Accrued Liability.** Unfunded actuarial accrued liability was amortized 30 years.



***Section Five:***  
***Valuation Data***



**Financial Information**

There were no assets reported for this valuation.

**Participant Summary****Retirees and Beneficiaries**

As of June 30, 2010, there were 94 retirees included in the valuation, 44 General, 47 Public Safety and 3 Fire Specialist retirees and beneficiaries.

**Retirees and Beneficiaries**

<b>Attained Age</b>	<b>General</b>	<b>Public Safety</b>	<b>Fire Specialist</b>	<b>Totals</b>
30-34		1		1
35-39		1		1
40-44			1	1
45-49		1		1
50-54	2	6		8
55-59	3	3	2	8
60-64	6	12		18
65-69	5	7		12
70-74	8	6		14
75-79	5	5		10
80-84	6	1		7
85-89	5	3		8
90-94	3	1		4
95-99	1			1
<b>Totals</b>	<b>44</b>	<b>47</b>	<b>3</b>	<b>94</b>

**Active Participants**

As of June 30, 2010, there were 58 General and 32 Public Safety active employees.

	<b>General</b>	<b>Public Safety</b>
Number	58	32
Payroll	\$3,085,293	\$2,460,275
Averages		
Age	44.8	40.3
Service	11.4	12.7
Salary	\$53,195	\$76,884

**General Active Employees - June 30, 2010  
Age and Service Distribution**

<b>Attained Age</b>	<b>Service</b>						<b>Totals</b>	
	<b>0-4</b>	<b>5-9</b>	<b>10-14</b>	<b>15-19</b>	<b>20-24</b>	<b>25-29</b>	<b>No.</b>	<b>Payroll</b>
25-29	5						5	\$231,656
30-34	1	3	2				6	296,854
35-39	2		6				8	430,061
40-44	2	6	3	1			12	687,140
45-49		2	3	2	2	1	10	523,626
50-54		2		2	1	1	6	346,042
55-59		1	1	1	1	1	5	294,208
60-64		3	2				5	219,956
65-69				1			1	55,750
<b>Total</b>	<b>10</b>	<b>17</b>	<b>17</b>	<b>7</b>	<b>4</b>	<b>3</b>	<b>58</b>	<b>\$3,085,293</b>

**Group Averages:**

Age: 44.8 years  
Service: 11.4 years  
Annual Pay: \$53,195

**Public Safety Active Employees - June 30, 2010  
Age and Service Distribution**

Attained Age	Service							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	Over 30	No.	Payroll
25-29	1	5						6	\$435,024
30-34		4	1					5	369,463
35-39	1	5						6	436,194
40-44			2	2				4	321,269
45-49			2	1	2	1		6	493,550
50-54	1				2			3	229,902
55-59						1	1	2	174,873
<b>Total</b>	<b>3</b>	<b>14</b>	<b>5</b>	<b>3</b>	<b>4</b>	<b>2</b>	<b>1</b>	<b>32</b>	<b>\$2,460,275</b>

**Group Averages:**

Age: 40.3 years  
Service: 12.7 years  
Annual Pay: \$76,884