

CITY OF FRASER CONSOLIDATED RETIREMENT SYSTEM
THIRTEENTH ANNUAL ACTUARIAL VALUATION REPORT
JUNE 30, 2012



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January 28, 2013

Board of Trustees
City of Fraser Consolidated Retirement System
33000 Garfield
Fraser, Michigan 48026

Dear Board Members:

The results of the June 30, 2012 annual actuarial valuation of the City of Fraser Consolidated Retirement System pension benefits are presented in this report. The purpose of the valuation was to measure the System's funding progress to determine the employer contribution for the 2013-2014 fiscal year, and provide actuarial information in connection with the applicable Governmental Accounting Standards Board Statements. The report should not be relied upon for any other purpose. This report may be provided to parties other than the Retirement Board only in its entirety and only with the permission of the Board.

The valuation was based upon information, furnished by the Retirement System administrator, concerning Retirement System benefits, financial transactions, and active members, terminated members, retirees and beneficiaries. Data was checked for internal and year-to-year consistency, but was not otherwise audited by us. As a result, we are unable to assume responsibility for the accuracy or completeness of the data provided.

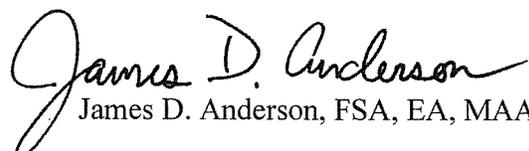
Future actuarial measurements may differ significantly from those presented in this report due to such factors as experience differing from that anticipated by actuarial assumptions, changes in plan provisions, actuarial assumptions/methods or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements.

To the best of our knowledge, this report is accurate and fairly presents the actuarial position of the Retirement System. The valuation was conducted in accordance with standards of practice prescribed by the Actuarial Standards Board and in compliance with the applicable state statutes. The undersigned are independent of the plan sponsor and are members of the American Academy of Actuaries (MAAA) who meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. It is our opinion that the actuarial assumptions used for the valuation produce results which are reasonable.

Respectfully submitted,



Louise M. Gates, ASA, MAAA



James D. Anderson, FSA, EA, MAAA

LMG/JDA:bd



SECTION A
VALUATION RESULTS



**COMPUTED CONTRIBUTIONS FOR FISCAL YEAR BEGINNING JULY 1, 2013
BASED ON THE ACTUARIAL VALUATION AS OF JUNE 30, 2012**

| Contributions for | Contributions Expressed as Percents of Active Member Payroll | | | | | Total |
|------------------------------------|--------------------------------------------------------------|--------------------------|-------------|--------------------------|----------------------------|-------------|
| | Public Safety | Management & Supervisors | Dispatchers | Office, Clerical & Court | Department of Public Works | |
| Number Active | 40 | 1 | 4 | 10 | 9 | 64 |
| Total Payroll | \$3,708,431 | \$57,315 | \$222,128 | \$452,400 | \$ 579,296 | \$5,019,570 |
| Normal Cost % | 16.88 % | 17.31 % | 16.44 % | 14.16 % | 13.85 % | 16.29 % |
| Payment on UAL* | 20.55 | 551.22 | 3.02 | 4.25 | 13.10 | 23.52 |
| Total | 37.43 % | 568.53 % | 19.46 % | 18.41 % | 26.95 % | 39.81 % |
| Employee Contribution % | 5.00 % | 5.00 % | 5.00 % | 5.00 % | 5.00 % | 5.00 % |
| Net City Contribution % | 32.43 % | 563.53 % | 14.46 % | 13.41 % | 21.95 % | 34.81 % |
| Net City Contribution \$ | \$1,325,915 | \$356,095 | \$ 35,412 | \$ 65,617 | \$ 140,189 | \$1,923,228 |
| Projected Pay for Fiscal Year 2013 | \$4,088,546 | \$63,190 | \$244,896 | \$489,316 | \$638,674 | \$5,524,622 |

* 27-year amortization of Unfunded Accrued Liability (UAL).

Total contribution percent shown above is a weighted average of contribution rates for each division.

DEVELOPMENT OF FUNDING VALUE OF ASSETS AS OF JUNE 30, 2012

| | Public Safety | Supervisors | Dispatchers | Office, Clerical & Court Workers | Dept. of Public Works | Management | Total |
|------------------------------------------|---------------|-------------|-------------|----------------------------------|-----------------------|-------------|--------------|
| Beginning of Year Values | | | | | | | |
| (1) Market Value, June 30, 2011 | \$14,706,823 | \$2,085,709 | \$676,401 | \$1,922,952 | \$3,326,620 | \$1,330,893 | \$24,049,398 |
| (2) Funding Value, June 30, 2011 | 15,490,938 | 2,201,231 | 695,728 | 2,009,875 | 3,492,046 | 1,464,373 | 25,354,191 |
| (3) Non-Investment Net Cashflow | (424,918) | (367,702) | 71,076 | 114,177 | (22,006) | (388,268) | (1,017,641) |
| (4) Net Expected Return (8.0)% | 1,222,605 | 161,673 | 58,447 | 165,269 | 278,500 | 101,918 | 1,988,412 |
| (5) Net Reported Income | 70,403 | (4,549) | 6,351 | 14,063 | 17,459 | (9,359) | 94,368 |
| (6) Gain (Loss) | (1,152,202) | (166,222) | (52,096) | (151,206) | (261,041) | (111,277) | (1,894,044) |
| (7) Recognized Return | | | | | | | |
| (a) Expected | 1,222,605 | 161,673 | 58,447 | 165,269 | 278,500 | 101,918 | 1,988,412 |
| (b) Current Year's Amount: :20 x (6) | (230,440) | (33,244) | (10,419) | (30,241) | (52,208) | (22,255) | (378,807) |
| (c) 1 year ago | 251,754 | 40,767 | 11,756 | 33,337 | 56,676 | 27,142 | 421,432 |
| (d) 2 years ago | (39,683) | (7,951) | (2,033) | (5,349) | (8,642) | (5,977) | (69,635) |
| (e) 3 years ago | (716,495) | (108,868) | (25,743) | (87,232) | (156,678) | (94,631) | (1,189,647) |
| (f) 4 years ago | (239,095) | (37,003) | (8,771) | (29,763) | (52,846) | (34,860) | (402,338) |
| (g) Total Return Recognized | 248,646 | 15,374 | 23,237 | 46,021 | 64,802 | (28,663) | 369,417 |
| End of Year Values | | | | | | | |
| (8) Market Value, June 30, 2012 | 14,352,308 | 1,713,458 | 753,828 | 2,051,192 | 3,322,073 | 933,266 | 23,126,125 |
| (9) Funding Value, June 30, 2012 | 15,314,666 | 1,848,903 | 790,041 | 2,170,073 | 3,534,842 | 1,047,442 | 24,705,967 |
| (2) + (3) + (7g) | | | | | | | |
| (10) Funding Value as a % of MV | 106.7% | 107.9% | 104.8% | 105.8% | 106.4% | 112.2% | 106.8% |
| (11) Net Rate of Return on Funding Value | 1.63% | 0.76% | 3.18% | 2.23% | 1.86% | (2.26)% | 1.49% |

REPORTED MARKET VALUE OF ASSETS

| | Public Safety | Supervisors | Dispatchers | Office, Clerical & Court Workers | Dept. of Public Works | Management | Total |
|-------------------------------------------|---------------|-------------|-------------|----------------------------------|-----------------------|-------------|--------------|
| (1) Asset Value, June 30, 2011 | \$14,706,823 | \$2,085,709 | \$676,401 | \$1,922,952 | \$3,326,620 | \$1,330,893 | \$24,049,398 |
| (a) Net adjustment | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| (2) Contributions: | | | | | | | |
| (a) City | 1,181,088 | 26,442 | 100,649 | 250,447 | 243,466 | 25,558 | 1,827,650 |
| (b) Employee | 185,058 | 2,858 | 10,468 | 22,104 | 30,402 | 3,149 | 254,039 |
| (c) Total | 1,366,146 | 29,300 | 111,117 | 272,551 | 273,868 | 28,707 | 2,081,689 |
| (3) Deductions: | | | | | | | |
| (a) Benefit Payments | 1,791,064 | 397,002 | 40,041 | 158,374 | 295,874 | 416,975 | 3,099,330 |
| (b) Total | 1,791,064 | 397,002 | 40,041 | 158,374 | 295,874 | 416,975 | 3,099,330 |
| (4) Non-Investment Net Cash Flow | (424,918) | (367,702) | 71,076 | 114,177 | (22,006) | (388,268) | (1,017,641) |
| = 1(a) + 2(c) - 3(a) | | | | | | | |
| (5) Investment Return: | | | | | | | |
| (a) Interest Income & Dividends | 344,084 | 45,177 | 16,434 | 45,778 | 77,978 | 27,120 | 556,571 |
| (b) Realized/Unrealized Gain (Loss)* | (273,681) | (49,726) | (10,083) | (31,715) | (60,519) | (36,479) | (462,203) |
| (c) Other | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| (d) Total | 70,403 | (4,549) | 6,351 | 14,063 | 17,459 | (9,359) | 94,368 |
| (6) Asset Value, June 30, 2012 | \$14,352,308 | \$1,713,458 | \$753,828 | \$2,051,192 | \$3,322,073 | \$933,266 | \$23,126,125 |
| = (1) + (4) + (5d) | | | | | | | |
| Net Rate of Return on Market Value | 0.49% | (0.24)% | 0.89% | 0.71% | 0.53% | (0.82)% | 0.40% |

* Net of investment and administrative expenses.

**DERIVATION OF ACTUARIAL GAIN (LOSS)
ALL GROUPS COMBINED
YEAR ENDED JUNE 30, 2012**

The actuarial gains or losses realized in the operation of the Pension Fund provide an experience test. Gains and losses are expected to cancel each other over a period of years (in the absence of double-digit inflation) and sizable year to year fluctuations are common. Detail on the derivation of the actuarial gain (loss) is shown below, along with a year by year comparative schedule.

| | |
|------------------------------------------------------------------------------------|--------------|
| (1) UAL* at start of year | \$21,312,888 |
| (2) Employer normal cost | 563,216 |
| (3) Actual employer contributions | 1,827,650 |
| (4) Interest accrual | 1,654,454 |
| (5) Expected UAL before changes | 21,702,908 |
| (6) Other changes | 0 |
| (7) Change from revised benefits | 0 |
| (8) Expected UAL after changes | 21,702,908 |
| (9) Actual UAL at end of year | 23,959,841 |
| (10) Gain (loss): (8) - (9) | (2,256,933) |
| (11) Gain (loss) as a percent of actuarial accrued liabilities at start of year | (4.8)% |

* *Unfunded accrued liability.*

| Valuation Date June 30 | Actuarial Gain (Loss) As % of Beginning of Year Accrued Liabilities |
|---------------------------------------|------------------------------------------------------------------------------------|
| 2009 | (4.5)% |
| 2010 | (4.5)% |
| 2011 | (2.2)% |
| 2012 | (4.8)% |

COMMENTS

Comment A: The aggregate experience of the System was unfavorable during the year ended June 30, 2012. During this period, System assets earned less than the long-term assumed rate (8.0% net of expenses). The market smoothing techniques used for your actuarial valuation recognize only a part of the current and prior year investment gains and losses. As a result, the rate of return recognized in this valuation of the System was 1.49% for all divisions combined. In addition, this valuation recognizes additional liabilities due to retirement incentives offered to certain members of the System.

Comment B: The Actuarial Standards of Practice with regard to the mortality assumption have recently been revised. ASOP No. 35 Disclosure Section 4.1.1 now states *“The disclosure of the mortality assumption should contain sufficient detail to permit another qualified actuary to understand the provision made for future mortality improvement. If the actuary assumes zero mortality improvement after the measurement date, the actuary should state that no provision was made for future mortality improvement.”* Currently, there is no margin for future mortality improvement in the mortality assumption used for the annual valuation of the System. We recommend that the Board update the mortality assumption based on the June 5, 2012 study for use in the June 30, 2013 and future valuations.

Comment C: Given the current state of economy, prior unrecognized investment losses, new retirement incentive liabilities, contribution increases are likely in the near term. Given the funded status of the System (51%), we believe that the System is better off with higher contributions. We recommend that the Board adopt the assumptions recommended in our recent assumption study report, including the updated mortality table for fiscal year 2014-2015 and beyond.

COMMENTS

Comment D: In financing the actuarial accrued liabilities of the System, valuation assets were allocated between retirees and other members as shown in the chart below.

Valuation Assets Applied to Retiree Liabilities as of June 30th of the Indicated Valuation Year

| | <u>2012</u> | <u>2011</u> |
|------------------------|---------------|--------------|
| Retiree Liabilities | \$ 30,142,923 | \$27,446,489 |
| Total Valuation Assets | 24,705,967 | 25,354,191 |
| Member Contributions | 1,622,288 | 1,654,633 |
| Net Valuation Assets | 23,083,679 | 23,699,558 |
| Funded % | 76.6% | 86.3% |

Based on the current and prior valuations of the System, valuation assets are insufficient to cover liabilities for individuals currently receiving pension benefits. Given the decline in funded percent we believe that the System is better off with higher contributions.

Comment E: This year total System assets represent 51% of total System liabilities. Last year the ratio was 54%. The decrease in funded percent is due primarily to System experience and the retirement incentives granted during the 2011-2012 plan year.

SECTION B

**SUMMARY OF BENEFIT PROVISIONS
AND VALUATION DATA**



**SUMMARY OF BENEFIT PROVISIONS EVALUATED OR CONSIDERED
AS OF JUNE 30, 2012**

| Plan/Group | GRS Division Code | Normal Retirement | | | Termination Benefits | | | Employee Contributions (% of Pay) |
|-----------------------------------------------------------------------|-------------------|-----------------------------------------------------|-----------------------|--------------|----------------------|---------------------------------|----------|-----------------------------------|
| | | Eligibility | Benefit Formula * | FAC Period # | Vesting Eligibility | Deferred To | | |
| Public Safety Officers | 22 | 55/10 or 50/25 | 2.50% x FAC x service | 5 years | 10 years | Earliest Normal Retirement Date | 5.00%*** | |
| Public Safety Command | 23 | 55/10 or 50/25 | 2.50% x FAC x service | 3 years | 10 years | Earliest Normal Retirement Date | 5.00% | |
| Management | 13 | 55/10 or 50/25 | 2.50% x FAC x service | 5 years | 3 years@ | Earliest Normal Retirement Date | 5.00%*** | |
| Office & Clerical Workers and 39 th District Court Workers | 12 10 | 50/25 55/15 hired ≥ 1990 50/25 55/6 hired < 1990 | 2.50% x FAC x service | 5 years | 6 years | Earliest Normal Retirement Date | 5.00% | |
| Supervisors | 15 | 55/10 or 50/25 | 2.50% x FAC x service | 5 years | 6 years | Earliest Normal Retirement Date | 5.00%*** | |
| Dispatchers | 14 | 55/10 or 50/25 | 2.50% x FAC x service | 5 years | 6 years | Earliest Normal Retirement Date | & 5.00%^ | |
| Department of Public Works | 11 | 55/25 or 65/10 50/25 or 55/10 | 2.75% x FAC x service | 5 years | 6 years | Earliest Normal Retirement Date | 5.00% | |

@ 50% vesting after 3 years grading up to 100% after 10 years of service.

* Maximum annual benefit for all groups equals 80% of Final Average Compensation (FAC).

*** Effective July 1, 2011.

Final Average Compensation may include lump sum payments for unused sick leave and vacation time.

& Members hired before June 27, 2007 contribute 4.71%; members hired after June 27, 2007 contribute 5.00%.

^ Effective June 30, 2012 for All Employees.

SUMMARY OF BENEFIT PROVISIONS EVALUATED OR CONSIDERED AS OF JUNE 30, 2012

NORMAL RETIREMENT (no reduction factor)

Eligibility – varies by Plan.

Eligibility requirements are summarized on the prior page.

Annual Amount – varies by Plan.

Benefit formulas are summarized on the prior page.

LATE RETIREMENT

Eligibility – membership in the Management group and retirement after the individual's Normal Retirement Date.

Annual Amount – Benefit based on Management Plan Normal Retirement benefit formula with FAC and years of service as of the member's Late Retirement Date. Plus an additional benefit based on FAC at Late Retirement and service rendered after the member's Normal Retirement date (additional months of service) and the following benefit multiplier:

| Additional Months of Service | Benefit Multiplier |
|---------------------------------|--------------------|
| 0-11 | 1.06% |
| 12-23 | 1.12 |
| 24-35 | 1.19 |
| 36-47 | 1.26 |
| 48-59 | 1.34 |
| 60-71 | 1.42 |
| 72-83 | 1.50 |
| 84-95 | 1.58 |
| 96-107 | 1.58 |
| 108 or more | 1.76 |

DEFERRED RETIREMENT (Vested Termination)

Eligibility – varies by Plan. A terminated employee may apply for a pension upon meeting the applicable age requirement for deferred retirement benefits. A terminated employee may elect a refund of employee contributions in lieu of a deferred retirement benefit.

Annual Amount – An amount computed as for normal retirement, based on Final Average Compensation (FAC) and service at the time of termination.

SUMMARY OF BENEFIT PROVISIONS EVALUATED OR CONSIDERED AS OF JUNE 30, 2012

DEFERRED RETIREMENT OPTION PLAN (DROP)

Eligibility – Each Management Plan member must be eligible to retire under the Plan’s normal age and service requirements and elect to participate in DROP. The City Manager and City Council must also approve each application for DROP enrollment.

Amount – Benefit computed based on years of service and final average salary as of DROP election date. Benefit is paid into member's DROP account during the deferral period. Member contributions cease during the deferral period. Five percent (5%) annual non-compound interest is credited to the DROP account. Account balance is payable upon actual termination of employment.

DISABILITY

No disability benefits are provided through the Retirement System.

PRE-RETIREMENT SURVIVOR BENEFITS

Annual Amount – The greater of (i) the deceased member’s account balance, or (ii) the deceased members accrued benefit at the time of death using the normal retirement benefit formula with service and FAC at the time of death.

EMPLOYEE CONTRIBUTIONS – Varies by Plan.

POST RETIREMENT BENEFIT INCREASES

For Public Safety Officers (individuals who are not Command Officers) retiring on or after January 1, 2003, post retirement increases would be granted on the fifth and tenth anniversaries of the benefit commencement date. No increases will occur after the tenth anniversary. For Public Safety officers retiring before January 1, 2003, no post retirement increases will be paid.

No other employment division provides post retirement benefit increases to retirees.

**PUBLIC SAFETY MEMBERS AS OF JUNE 30, 2012
BY ATTAINED AGE AND YEARS OF SERVICE**

| Attained Age | Years of Service on Valuation Date | | | | | | | Totals | |
|-----------------|------------------------------------|----------|-----------|-----------|----------|----------|---------|-----------|----------------------|
| | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30 Plus | No. | Valuation Payroll |
| 25-29 | 1 | | | | | | | 1 | \$ 52,828 |
| 30-34 | 1 | 1 | 2 | | | | | 4 | 403,163 |
| 35-39 | 2 | 2 | 6 | | | | | 10 | 895,699 |
| 40-44 | | | 5 | 7 | | | | 12 | 1,084,134 |
| 45-49 | | | | 4 | 6 | 1 | | 11 | 1,094,648 |
| 50-54 | | | | | 1 | | | 1 | 112,104 |
| 55-59 | | 1 | | | | | | 1 | 65,855 |
| Totals | 4 | 4 | 13 | 11 | 7 | 1 | | 40 | \$3,708,431 |

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

Age: 41.2 years

Service: 14.8 years

Annual Pay: \$92,711

**SUPERVISOR MEMBERS AS OF JUNE 30, 2012
BY ATTAINED AGE AND YEARS OF SERVICE**

| Attained Age | Years of Service on Valuation Date | | | | | | | Totals | |
|-----------------|------------------------------------|-----|-------|----------|-------|-------|---------|----------|----------------------|
| | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30 Plus | No. | Valuation Payroll |
| 55-59 | | | | 1 | | | | 1 | \$ 57,315 |
| Totals | | | | 1 | | | | 1 | \$ 57,315 |

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

Age: 55.1 years
 Service: 18.8 years
 Annual Pay: \$57,315

**DISPATCHER MEMBERS AS OF JUNE 30, 2012
BY ATTAINED AGE AND YEARS OF SERVICE**

| Attained Age | Years of Service on Valuation Date | | | | | | | Totals | |
|-----------------|------------------------------------|----------|----------|----------|-------|-------|---------|----------|----------------------|
| | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30 Plus | No. | Valuation Payroll |
| 40-44 | 1 | 1 | | | | | | 2 | \$ 107,290 |
| 45-49 | | | 1 | 1 | | | | 2 | 114,838 |
| Totals | 1 | 1 | 1 | 1 | | | | 4 | \$222,128 |

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

Age: 43.9 years

Service: 9.2 years

Annual Pay: \$55,532

**OFFICE, CLERICAL & COURT WORKER MEMBERS
AS OF JUNE 30, 2012
BY ATTAINED AGE AND YEARS OF SERVICE**

| Attained Age | Years of Service on Valuation Date | | | | | | Totals | | |
|-----------------|------------------------------------|----------|----------|----------|-------|-------|----------|-----------|----------------------|
| | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30 Plus | No. | Valuation Payroll |
| 20-24 | 1 | | | | | | | 1 | \$ 43,449 |
| 25-29 | | 1 | | | | | | 1 | 44,064 |
| 30-34 | | | 2 | | | | | 2 | 85,400 |
| 35-39 | | | | | | | | | - |
| 40-44 | | | | 1 | | | | 1 | 49,616 |
| 45-49 | | 1 | | | | | | 1 | 45,635 |
| 50-54 | | 1 | | | | | | 1 | 46,967 |
| 55-59 | | | 2 | | | | | 2 | 89,885 |
| 75 | | | | | | | 1 | 1 | 47,384 |
| Totals | 1 | 3 | 4 | 1 | | | 1 | 10 | \$452,400 |

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

Age: 44.2 years

Service: 12.0 years

Annual Pay: \$45,240

**DEPARTMENT OF PUBLIC WORKS MEMBERS
AS OF JUNE 30, 2012
BY ATTAINED AGE AND YEARS OF SERVICE**

| Attained Age | Years of Service on Valuation Date | | | | | | Totals | | |
|-----------------|------------------------------------|----------|----------|----------|----------|-------|---------|----------|----------------------|
| | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30 Plus | No. | Valuation Payroll |
| 30-34 | | 1 | 1 | | | | | 2 | \$ 130,447 |
| 35-39 | | | 1 | | | | | 1 | 64,970 |
| 40-44 | | | 2 | 1 | 1 | | | 4 | 248,048 |
| 45-49 | | | | 1 | 1 | | | 2 | 135,831 |
| Totals | | 1 | 4 | 2 | 2 | | | 9 | \$579,296 |

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

Age: 41.4 years

Service: 14.7 years

Annual Pay: \$64,366

**ACTIVE MEMBERS REPORTED FOR VALUATION
COMPARATIVE SCHEDULE**

| Census Date | Active Members | | | | | | Valuation Payroll | |
|-------------|----------------|-------------|-------------|----------------------------------|-----------------------|------------|-------------------|-------------|
| | Public Safety | Supervisors | Dispatchers | Office, Clerical & Court Workers | Dept. of Public Works | Management | | Total |
| 6/30/2007 | 44 | 8 | 5 | 14 | 16 | 4 | 91 | \$5,995,408 |
| 6/30/2008 | 46 | 7 | 5 | 14 | 16 | 3 | 91 | 6,369,746 |
| 6/30/2009 | 43 | 5 | 5 | 14 | 15 | 3 | 85 | 5,966,282 |
| 6/30/2010 | 42 | 2 | 5 | 12 | 12 | 1 | 74 | 5,488,321 |
| 6/30/2011 | 43 | 1 | 4 | 10 | 11 | 1 | 70 | 5,359,314 |
| 6/30/2012 | 40 | 1 | 4 | 10 | 9 | 0 | 64 | 5,019,570 |

**INACTIVE MEMBERS AS OF JUNE 30, 2012
TABULATED BY ATTAINED AGE**

Inactive members as of June 30, 2012 totaled 18, involving estimated deferred annual retirement allowances of \$181,450. An inactive member is a person who has left City employment with entitlement to a retirement allowance upon meeting the conditions for deferred retirement. The schedule below shows the inactive members by age.

| Attained Age | No. | Estimated Deferred Allowance |
|-------------------------|------------|---------------------------------------------|
| 34 | 1 | \$ 10,819 |
| 35 | 1 | 7,978 |
| 37 | 1 | 10,474 |
| 41 | 2 | 29,291 |
| 42 | 1 | 6,703 |
| 45 | 2 | 19,481 |
| 46 | 2 | 20,747 |
| 48 | 2 | 22,763 |
| 50 | 1 | 18,505 |
| 51 | 2 | 12,836 |
| 52 | 1 | 1,663 |
| 53 | 1 | 17,983 |
| 65 | 1 | 2,207 |
| Totals | 18 | \$181,450 |

RETIREES AND BENEFICIARIES - JUNE 30, 2012
TABULATED BY ATTAINED AGE

| Attained Age | No. | Annual Allowances |
|-----------------|-----------|----------------------|
| 49 | 1 | \$ 116,466 |
| 50 | 2 | 91,509 |
| 51 | 1 | 75,138 |
| 53 | 3 | 95,731 |
| 54 | 4 | 201,225 |
| 55 | 2 | 60,650 |
| 56 | 7 | 333,249 |
| 57 | 4 | 98,031 |
| 58 | 2 | 77,098 |
| 60 | 6 | 121,122 |
| 61 | 5 | 235,507 |
| 62 | 5 | 204,122 |
| 63 | 8 | 278,082 |
| 64 | 3 | 113,762 |
| 65 | 5 | 170,889 |
| 66 | 2 | 41,005 |
| 67 | 7 | 193,263 |
| 68 | 6 | 141,000 |
| 69 | 2 | 48,070 |
| 70 | 1 | 25,689 |
| 71 | 1 | 26,369 |
| 72 | 1 | 34,818 |
| 73 | 1 | 14,119 |
| 74 | 3 | 113,691 |
| 75 | 1 | 26,969 |
| 76 | 2 | 25,384 |
| 77 | 2 | 17,940 |
| 78 | 1 | 18,434 |
| 79 | 3 | 62,952 |
| 81 | 1 | 20,739 |
| 85 | 1 | 14,473 |
| 87 | 1 | 4,566 |
| Totals | 94 | \$3,102,062 |

Average Age at Retirement: 54.7 years

Average Age as of June 30, 2012: 64.6 years



SECTION C

ASSUMPTIONS AND METHODS



ACTUARIAL ASSUMPTIONS

The rate of investment return (net of expenses) used was 8.0% a year, compounded annually. This assumption has been used since the June 30, 1999 valuation. This assumption is used to discount the value of future payments.

The rates of salary increase used are in accordance with the following table. This assumption was used by the prior actuary in the June 30, 1999 valuation.

This assumption is used to project a member's current salary over his or her future working lifetime.

| Sample Ages | Annual Rate of Salary Increase | |
|----------------|--------------------------------|----------------------|
| | Inflation# | Merit & Longevity |
| 20 | 5.0 % | 0.0 % |
| 25 | 5.0 | 0.0 |
| 30 | 5.0 | 0.0 |
| 35 | 5.0 | 0.0 |
| 40 | 5.0 | 0.0 |
| 45 | 5.0 | 0.0 |
| 50 | 5.0 | 0.0 |
| 55 | 5.0 | 0.0 |
| 60 | 5.0 | 0.0 |

4.0% was used for Office, Clerical and 35th District Court Workers.

Loading Factor

The effect of lump sum distributions on final average compensation was assumed to increase retirement benefits and liabilities by the indicated percentages:

DPW: No factor used

All other employment groups: 10%

Payroll was assumed to grow by 4% per year for the Office, Clerical and 35th District Court group and by 5% per year, for all other groups.

ACTUARIAL ASSUMPTIONS

Annual valuation payroll has increased at the following rates.

| | Year Ended June 30 | | Increase/ (Decrease) |
|---------------|--------------------|-------------|-------------------------|
| | 2012 | 2011 | |
| Total Payroll | \$5,019,570 | \$5,359,314 | (6.3) % |
| Average Pay | 78,431 | 76,562 | 2.4 |

The mortality table used was the 1971 Group Annuity Mortality Table projected to 2000, set back 0 years for men and 6 years for women. This table was first used in the June 30, 2000 valuation. Sample values follow:

RATES OF MORTALITY EXPRESSED AS THE NUMBER OF OCCURRENCES PER 10,000

| Age | Male | Female |
|-----|-------|--------|
| 20 | 4 | 3 |
| 25 | 5 | 4 |
| 30 | 7 | 5 |
| 35 | 9 | 6 |
| 40 | 14 | 9 |
| 45 | 24 | 12 |
| 50 | 44 | 21 |
| 55 | 71 | 39 |
| 60 | 109 | 65 |
| 65 | 177 | 99 |
| 70 | 307 | 159 |
| 75 | 484 | 274 |
| 80 | 787 | 446 |
| 85 | 1,206 | 714 |
| 90 | 1,713 | 1,117 |

The mortality assumption is used to measure the probabilities of members dying before retirement and the probabilities of each pension payment being made after retirement. Membership size in this group is not sufficiently large to determine if there is a margin for mortality improvement. However based on our experience with a broad cross section of public plans similar in nature to this plan, it is our opinion that there is no provision for future mortality improvement in the current mortality assumption.

ACTUARIAL ASSUMPTIONS

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

| Age | General Dispatchers, Management, & Supervisors | General All Others* | Public Safety |
|-----|---------------------------------------------------------|---------------------------|------------------|
| 50 | 30 % | 30 % | 40 % |
| 51 | 20 | 30 | 30 |
| 52 | 15 | 20 | 30 |
| 53 | 15 | 20 | 20 |
| 54 | 15 | 20 | 20 |
| 55 | 25 | 15 | 50 |
| 56 | 10 | 15 | 35 |
| 57 | 10 | 10 | 35 |
| 58 | 10 | 10 | 35 |
| 59 | 10 | 10 | 35 |
| 60 | 10 | 10 | 100 |
| 61 | 10 | 10 | 100 |
| 62 | 20 | 20 | 100 |
| 63 | 10 | 10 | 100 |
| 64 | 10 | 10 | 100 |
| 65 | 100 | 100 | 100 |

* *These rates were first used in the June 30, 2003 valuation.
Other rates were first used in the June 30, 2000 valuation.*

Members of the Public Safety group (including Command Officers) are eligible to retire based on the conditions shown in Section B of this report.

The General member group includes members of the Dispatchers, Management, and Supervisors groups and those classified as all other members. Other members include members of the following groups: Office, Clerical and 39th District Court Workers, and Public Works. The retirement eligibility conditions for these employment groups are summarized in Section B of this report.

ACTUARIAL ASSUMPTIONS

Rates of separation from active membership are used to measure the probabilities of members remaining in employment. These rates do not apply to members eligible to retire and do not include separation on account of death or disability. These rates were first used in the June 30, 2000 valuation.

| Sample Ages | Percent of Active Members Separating Within Next Year All Members |
|------------------------|----------------------------------------------------------------------------------|
| 20 | 5.44 % |
| 25 | 4.89 |
| 30 | 3.70 |
| 35 | 2.35 |
| 40 | 1.13 |
| 45 | 0.27 |
| 50 | 0.00 |
| 55 | 0.00 |
| 60 | 0.00 |
| 65 | 0.00 |

Since disability benefits are provided outside of the Retirement System, additional rates of termination from active employment are used in this valuation of the System for active Public Safety members in recognition of a higher incidence of termination due to the hazardous nature of their work. These rates were first used in the June 30, 2000 valuation of the System.

| Age | Additional Termination Rates |
|------------|-------------------------------------|
| 20 | 0.03 % |
| 25 | 0.03 |
| 30 | 0.03 |
| 35 | 0.04 |
| 40 | 0.05 |
| 45 | 0.11 |
| 50 | 0.24 |
| 55 | 0.51 |
| 60 | 1.04 |

ACTUARIAL COST METHOD

An actuarial cost method is a procedure for allocating the actuarial present value of pension plan benefits to time periods. The method used for this valuation is known as the individual entry-age actuarial cost method and has the following characteristics.

- (i) The annual normal costs for each individual active member, payable from the date of employment to the date of retirement, are sufficient to accumulate to the value of the member's pension at time of retirement.
- (ii) Each annual normal cost is a constant percentage of the member's year by year projected compensation.

The entry-age actuarial cost method allocates the actuarial present value of each member's projected benefits on a level basis over the member's compensation between the entry age of the member and the assumed exit ages.

The portion of the actuarial present value allocated to the valuation year is called the normal cost. The portion of the actuarial present value not provided for by the actuarial present value of future normal costs is called the actuarial accrued liability. Deducting accrued assets from the actuarial accrued liability determines the unfunded actuarial accrued liability.

ASSET VALUATION METHOD

The actuarial value (i.e., Funding Value) of assets is equal to the market value of assets adjusted for investment gains and losses over a closed five-year period. This method smoothes asset values and moderates fluctuations in contribution rates. This method was first used in the June 30, 2009 actuarial valuation. Any adjustments to asset values are treated as adjustments to investment income.

MISCELLANEOUS AND TECHNICAL ASSUMPTIONS

| | |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Marriage Assumption: | 100% of participants are assumed to be married for purposes of death benefits. In each case the male was assumed to be 3 years older than the female. |
| Pay Increase Timing: | Beginning of year. |
| Decrement Timing: | Mid-year. |
| Eligibility Testing: | Eligibility for benefits is determined based upon the age of nearest birthday and service nearest whole year on the date the decrement is assumed to occur. |
| Benefit Service: | Exact fractional service is used to determine the amount of the benefit payable. |
| Active Member Group Size: | The number of active members was assumed to remain constant. |
| DROP Utilization: | No current active management member is assumed to use the DROP. |

SECTION D

DISCLOSURE MATERIAL IN CONFORMANCE WITH STATEMENT NO. 25 OF THE GOVERNMENTAL ACCOUNTING STANDARDS BOARD

This information is presented in draft form for review by the System's auditor. Please let us know if there are any items that the auditor changes so that we may maintain consistency with the System's financial statements.



SCHEDULE OF FUNDING PROGRESS BY EMPLOYMENT DIVISION

| Actuarial Valuation Date | Actuarial Value of Assets (1) | Actuarial Accrued Liability (AAL) (2) | Unfunded AAL (UAAL) (2 - 1) | Funded Ratio (Percent) (1)/(2) | Covered Payroll (3) | UAAL as a Percentage of Covered Payroll |
|------------------------------------------------|----------------------------------------|---------------------------------------------------|--------------------------------------|-----------------------------------------|---------------------------|--------------------------------------------------|
| Public Safety Retirement System | | | | | | |
| <i>June 30:</i> | | | | | | |
| 2003 | \$13,014,477 | \$19,182,822 | \$ 6,168,345 | 68% | \$3,416,100 | 181% |
| 2004 | 12,747,123 | 21,145,951 | 8,398,828 | 60 | 3,500,286 | 240 |
| 2005 | 12,455,054 | 22,417,422 | 9,962,368 | 56 | 3,660,309 | 272 |
| 2006 | 13,482,313 | 23,797,270 | 10,314,957 | 57 | 3,611,462 | 286 |
| 2007 | 14,644,683 | 24,377,221 | 9,732,538 | 60 | 3,528,233 | 276 |
| 2008 | 15,478,663 | 25,904,357 | 10,425,694 | 60 | 3,924,628 | 266 |
| 2009 | 15,466,525 | 27,004,150 | 11,537,625 | 57 | 3,668,066 | 315 |
| 2010 | 15,353,426 | 28,375,350 | 13,021,924 | 54 | 3,815,559 | 341 |
| 2011 | 15,490,938 | 29,189,305 | 13,698,367 | 53 | 3,889,877 | 352 |
| 2012 | 15,314,666 | 30,819,654 | 15,504,988 | 50 | 3,708,431 | 418 |
| Management Employees' Retirement System | | | | | | |
| <i>June 30:</i> | | | | | | |
| 2003 | \$2,283,058 | \$3,530,586 | \$ 1,247,528 | 65% | \$389,903 | 320% |
| 2004 | 2,103,563 | 3,790,858 | 1,687,295 | 55 | 467,912 | 361 |
| 2005 | 2,027,983 | 4,052,211 | 2,024,228 | 50 | 460,382 | 440 |
| 2006 | 2,133,994 | 4,151,333 | 2,017,339 | 51 | 480,444 | 420 |
| 2007 | 2,208,367 | 4,333,245 | 2,124,878 | 51 | 276,422 | 769 |
| 2008 | 2,084,926 | 4,339,356 | 2,254,430 | 48 | 228,112 | 988 |
| 2009 | 1,892,803 | 4,376,686 | 2,483,883 | 43 | 233,684 | 1,063 |
| 2010 | 1,796,564 | 4,603,416 | 2,806,852 | 39 | 60,949 | 4,605 |
| 2011 | 1,464,373 | 4,566,031 | 3,101,658 | 32 | 61,917 | 5,009 |
| 2012 | 1,047,442 | 4,399,831 | 3,352,389 | 24 | 0 | N/A |
| Department of Public Works | | | | | | |
| <i>June 30:</i> | | | | | | |
| 2003 | \$2,397,995 | \$2,677,546 | \$279,551 | 90% | \$899,817 | 31% |
| 2004 | 2,490,777 | 3,006,530 | 515,753 | 83 | 805,720 | 64 |
| 2005 | 2,536,999 | 3,469,042 | 932,043 | 73 | 764,067 | 122 |
| 2006 | 2,804,035 | 3,419,046 | 615,011 | 82 | 796,840 | 77 |
| 2007 | 3,137,677 | 3,604,917 | 467,240 | 87 | 870,724 | 54 |
| 2008 | 3,388,205 | 3,846,464 | 458,259 | 88 | 908,883 | 50 |
| 2009 | 3,424,034 | 4,276,213 | 852,179 | 80 | 897,661 | 95 |
| 2010 | 3,432,832 | 4,342,073 | 909,241 | 79 | 714,757 | 127 |
| 2011 | 3,492,046 | 4,671,903 | 1,179,857 | 75 | 706,994 | 167 |
| 2012 | 3,534,842 | 5,079,147 | 1,544,305 | 70 | 579,296 | 267 |

SCHEDULE OF FUNDING PROGRESS BY EMPLOYMENT DIVISION

| Actuarial Valuation Date | Actuarial Value of Assets (1) | Actuarial Accrued Liability (AAL) (2) | Unfunded AAL (UAAL) (2 - 1) | Funded Ratio (Percent) (1)/(2) | Covered Payroll (3) | UAAL as a Percentage of Covered Payroll |
|------------------------------------------------|----------------------------------------|---------------------------------------------------|--------------------------------------|-----------------------------------------|---------------------------|--------------------------------------------------|
| Office, Clerical and Court Pension Plan | | | | | | |
| <i>June 30:</i> | | | | | | |
| 2003 | \$ 1,347,029 | \$1,803,862 | \$456,833 | 75% | \$626,530 | 73% |
| 2004 | 1,378,954 | 2,048,400 | 669,446 | 67 | 653,358 | 102 |
| 2005 | 1,413,472 | 1,922,183 | 508,711 | 74 | 531,787 | 96 |
| 2006 | 1,567,939 | 2,018,288 | 450,349 | 78 | 529,193 | 85 |
| 2007 | 1,759,717 | 1,905,800 | 146,083 | 92 | 554,517 | 26 |
| 2008 | 1,883,425 | 2,025,467 | 142,042 | 93 | 567,235 | 25 |
| 2009 | 1,943,306 | 2,166,004 | 222,698 | 90 | 587,216 | 38 |
| 2010 | 1,991,841 | 2,303,113 | 311,272 | 86 | 520,461 | 60 |
| 2011 | 2,009,875 | 2,435,145 | 425,270 | 83 | 438,770 | 97 |
| 2012 | 2,170,073 | 2,515,756 | 345,683 | 86 | 452,400 | 76 |
| Dispatchers' Pension Plan | | | | | | |
| <i>June 30:</i> | | | | | | |
| 2003 | \$219,059 | \$365,078 | \$146,019 | 60% | \$237,218 | 62% |
| 2004 | 269,651 | 441,556 | 171,905 | 61 | 245,358 | 70 |
| 2005 | 312,240 | 487,720 | 175,480 | 64 | 221,085 | 79 |
| 2006 | 387,630 | 481,068 | 93,438 | 81 | 200,166 | 47 |
| 2007 | 479,919 | 535,964 | 56,045 | 90 | 233,032 | 24 |
| 2008 | 549,483 | 614,450 | 64,967 | 89 | 255,538 | 25 |
| 2009 | 603,876 | 670,189 | 66,313 | 90 | 255,621 | 26 |
| 2010 | 662,460 | 753,104 | 90,644 | 88 | 264,399 | 34 |
| 2011 | 695,728 | 858,730 | 163,002 | 81 | 204,585 | 80 |
| 2012 | 790,041 | 926,659 | 136,618 | 85 | 222,128 | 62 |
| Supervisors' Pension Plan | | | | | | |
| <i>June 30:</i> | | | | | | |
| 2003 | \$1,838,344 | \$2,796,438 | \$ 958,094 | 66% | \$599,548 | 160% |
| 2004 | 1,908,654 | 3,000,245 | 1,091,591 | 64 | 554,253 | 197 |
| 2005 | 1,919,381 | 3,279,431 | 1,360,050 | 59 | 347,085 | 392 |
| 2006 | 2,028,932 | 3,558,611 | 1,529,679 | 57 | 402,880 | 380 |
| 2007 | 2,216,284 | 3,996,510 | 1,780,226 | 55 | 532,480 | 334 |
| 2008 | 2,353,893 | 4,084,140 | 1,730,247 | 58 | 485,350 | 356 |
| 2009 | 2,350,049 | 4,359,695 | 2,009,646 | 54 | 324,034 | 620 |
| 2010 | 2,422,351 | 4,818,529 | 2,396,178 | 50 | 112,196 | 2,136 |
| 2011 | 2,201,231 | 4,945,965 | 2,744,734 | 45 | 57,171 | 4,801 |
| 2012 | 1,848,903 | 4,924,761 | 3,075,858 | 38 | 57,315 | 5,367 |

The Dispatchers, Office Clerical and Court plans were established in 1995 and 1994 respectively.

CONSOLIDATED SCHEDULE OF FUNDING PROGRESS

| Actuarial Valuation Date | Actuarial Value of Assets (1) | Actuarial Accrued Liability (AAL) (2) | Unfunded AAL (UAAL) (2 - 1) | Funded Ratio (Percent) (1)/(2) | Covered Payroll (3) | UAAL as a Percentage of Covered Payroll |
|-----------------------------------------------|----------------------------------------|---------------------------------------------------|--------------------------------------|-----------------------------------------|---------------------------|--------------------------------------------------|
| City of Fraser's Pension Plan in Total | | | | | | |
| <i>June 30:</i> | | | | | | |
| 2003 | \$ 21,099,962 | \$30,356,332 | \$9,256,370 | 70% | \$6,169,116 | 150% |
| 2004 | 20,898,722 | 33,433,540 | 12,534,818 | 63 | 6,226,887 | 201 |
| 2005 | 20,665,129 | 35,628,009 | 14,962,880 | 58 | 5,984,715 | 250 |
| 2006 | 22,404,843 | 37,425,616 | 15,020,773 | 60 | 6,020,985 | 249 |
| 2007 | 24,446,647 | 38,753,657 | 14,307,010 | 63 | 5,995,408 | 239 |
| 2008 | 25,738,595 | 40,814,234 | 15,075,639 | 63 | 6,369,746 | 237 |
| 2009 | 25,680,593 | 42,852,937 | 17,172,344 | 60 | 5,966,282 | 288 |
| 2010 | 25,659,474 | 45,195,585 | 19,536,111 | 57 | 5,488,321 | 356 |
| 2011 | 25,354,191 | 46,667,079 | 21,312,888 | 54 | 5,359,314 | 398 |
| 2012 | 24,705,967 | 48,665,808 | 23,959,841 | 51 | 5,019,570 | 477 |

SCHEDULE OF EMPLOYER CONTRIBUTIONS

| Fiscal Year Beginning July 1, | Actuarial Valuation Date June 30, | Annual Required Contribution# | Percentage Contributed |
|-------------------------------------|--------------------------------------------|-------------------------------------|---------------------------|
| 2009 | 2008 | \$1,827,104 | 87.5% |
| 2010 | 2009 | 1,698,599 | 80.4% |
| 2011 | 2010 | 1,691,326 | 108.1% |
| 2012 | 2011 | 1,790,213 | |
| 2013 | 2012 | 1,923,228 | |

| | |
|----------------------------------|------------------------------------------------------------------------------------------------------------------|
| Valuation Date | June 30, 2012 |
| Actuarial Cost Method | Individual Entry Age |
| Amortization Method | Level Percent of Pay, Closed, 27 year period |
| Asset Valuation Method | 5 Year Smoothed Market Value |
| Principal Actuarial Assumptions: | |
| Net Investment Return | 8.0% |
| Projected Salary Increases | 4% to 5% |
| Payroll growth | 5% |
| Cost-of-Living Adjustments | 10% on 5 th and 10 th anniversaries after retirement Public Safety, non-command only |

Projected amount is shown. Actual required dollar contribution amount will be based on the established contribution rate and the actual payroll for the period.