

**Actuarial Valuation Report as of December 31, 2010** 

Registration #0351601

March 2011



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## 1. Introduction

This report has been prepared for and at the request of the Benefit Fund Committee of the Toronto Fire Department Superannuation and Benefit Fund and presents the key results of the actuarial valuation of the Toronto Fire Department Superannuation and Benefit Plan (the "Plan") as of December 31, 2010. The previous valuation of the Plan was prepared by Buck Consultants as of December 31, 2009.

### 1.1 Terms of Engagement

The terms of engagement that are material are as follows:

- To prepare an actuarial valuation report on the basis of applicable law and the Canadian Institute of Actuaries Standards of Practice for Pension Plans ("Standards of Practice") and relevant regulations;
- To determine the financial position of the Plan on going concern, solvency and windup basis;
- To compare actual and expected experience on a going concern basis;
- To provide the range of permissible contributions in accordance with all relevant regulations;
- To use a smoothed asset value on a going concern basis to moderate the volatility of contribution rates consistent with the Standards of Practice and relevant regulations;
- To use a smoothed market value of assets on a solvency basis to moderate the volatility of contribution rates consistent with the Standards of Practice and relevant regulations;
- To use the market value of assets on a windup basis consistent with the Standards of Practice and relevant regulations;
- To include considerations such as the security of benefits and related provisions for adverse deviations consistent with the Standards of Practice:
- To form part of the government filings, as required by the Financial Services Commission of Ontario ("FSCO") and Canada Revenue Agency ("CRA") for statutory and tax purposes.

#### 1.2 Limitations

It should be noted that the results of this valuation are presented at a single point in time. Both the going concern and solvency funded positions of the Plan can change with time and the reader should bear that in mind when using this report as a guide for the current funded positions, now or in the future.

The solvency valuation is for the most part based on prescribed assumptions, whereas the going concern valuation is based on assumptions made by the Plan actuary, subject to discussions with the Plan sponsor. Those assumptions lie within a reasonable range of potential outcomes.

By necessity, we make a single estimate and that should not be taken to imply it is the only possible outcome.

### 1.3 Third Party Disclaimer

This report is intended for the Benefit Fund Committee of the Toronto Fire Department Superannuation and Benefit Fund and the City of Toronto and it should not be shared with others (unless required by pension legislation) without our consent. Please note that we take no responsibility for any actions that may be taken by third parties based upon the contents of this report.

### 1.4 Subsequent Events

We are unaware of any significant events other than the market volatility since the completion of this valuation that would have a material impact on the results of this report.

### 1.5 Cost of Living Increases

Commencing 1986, City Council adopted a policy of providing ad hoc increases in pension to pensioners based on excess interest indexing methodology. The policy provided for and subject to City Council approval, each year, ad hoc increases subject to a minimum of 50% increase in the Consumer Price Index (the "CPI"), year over year, December to December, and a maximum increase equal to the lesser of the increase form "excess interest" and 100% CPI.

Commencing 1997, the Plan by-laws were amended to provide for future increases to pensioners including spouses of deceased retired members, based on the lesser of:

- (a) the investment rate of return of Fund assets (using a 5-year smoothing technique) in excess of the rate of return required to maintain the actuarial solvency of the Benefit Fund as determined by the Actuary, and
- (b) the increase in the year over year level of the average CPI, to the extent that actuarial surplus is available.

Pensions in payment to pensioners and spouses that commenced prior to January 1, 2010 were increased by 0.29% effective January 1, 2010.

For information purposes only, the estimated cost at December 31, 2010 to provide anticipated future ad hoc pension increases based on 100% of the increase in the CPI is \$41,098,000, based on the current valuation data and valuation assumptions.

In respect of 2010, there was no excess investment return as outlined in (a) above, and the increase in the year over year level of the average CPI outlined in (b) above was 1.84%. Therefore, an automatic cost of living adjustment is not warranted in respect of 2010; however, at City Council's discretion, an increase may be granted if sufficient surpluses are available. The cost as at January 1, 2011 to provide a cost of living adjustment equal to 100% CPI is approximately \$4.4 million on a going concern basis and \$5.0 million on a solvency basis.

#### 1.6 Confirmation

We confirm that this report complies with the Standards of Practice, the Pension Benefits Act (Ontario), and the Income Tax Act (Canada).

# 2. Asset Information

#### 2.1 Source of Information

The custodian of the Plan assets is CIBC Mellon. For the purposes of this valuation, we have relied on the draft financial statements for 2010 as provided by the City of Toronto.

## 2.2 Asset Reconciliation (Market Value)

The table below reconciles the change in the market value of assets from the last valuation of the Plan to the market value of assets as of December 31, 2010.

Asset Reconciliation	2010
Market Value as of January 1 <sup>st</sup>	\$ 275,464,204
Benefit Payments	(26,297,402)
Investment Earnings	24,725,879
Investment and Administrative Expenses	(1,303,020)
Market Value as of December 31 <sup>st</sup>	\$ 272,589,661
less Outstanding Pension Payments	1,116,092
Adjusted Market Value as of December 31 <sup>st</sup>	\$ 271,473,569

## 2.3 Asset Allocation (Mix)

The asset mix of the Plan as of December 31, 2010 was allocated between the following major investment categories:

Asset Class	Actual Asset Mix	Investment policy Target
Canadian Equities	20%	20%
U.S. Equity	13%	15%
International Equity	15%	15%
Canadian Bonds	47%	48%
Short-Term	5%	2%
Total Invested Assets as of December 31, 2010	100%	100%

#### 2.4 Value of Assets

The smoothed value of assets is a 4-year moving-average market value. This method recognizes realized and unrealized investment gains and losses over a period of 4 years based on the expected investment return assumption.

There has been no change in the asset valuation method since the last actuarial valuation.

#### 2.5 Performance of the Fund

The annual net rates of return (investment income and capital appreciation) earned on the market value of the assets in the past four years were as follows:

Year	Net Return on Market Value	Net Return on Smoothed Value
2010	8.9%	1.0%
2009	14.4%	2.5%
2008	(12.4%)	2.6%
2007	1.1%	8.0%
Four-Year Average	2.5%	3.5%

The rates of return shown above are net of investment and administrative expenses. The rate of return calculation assumes that all cash flow items are uniformly distributed throughout the year.

### 2.6 Development of Smoothed Value of Assets

The following information shows the development of the adjusted (smoothed) net assets.

Market Value Experience		As of December 31 <sup>st</sup>				
		2008		2009	2010	
Market Value of Assets	\$	267,276,022	\$	275,464,204	\$	272,589,661
Discount Rate		6.50% 6.25%			6.00%	
Expected Gross Investment Income		20,933,896		15,834,574		15,750,422
Actual Gross Investment Income		(39,856,124)		36,462,347		23,422,859
Market Value Investment Gain/(Loss)		(60,790,020)	\$	20,627,773	\$	7,672,437

Year End		Investment Gain/(Loss)	% of Gain/(Loss)		Deferred Gain/(Loss)
Tear End		\$	Deferred		\$
2010	\$	7,672,437	75%	\$	5,754,328
2009		20,627,773	50%		10,313,887
2008		(60,790,020)	25%		(15,197,505)
Smoothed Value Adjustment					870,710

Smoothed Value of Assets	D	December 31, 2010		
Market Value of Assets	\$	272,589,661		
Smoothed Value Adjustment		(870,710)		
Preliminary Smoothed Value of Assets	\$	271,718,951		
less Outstanding Pension Payments		1,116,092		
Smoothed Value of Assets	\$	270,602,859		

### 2.7 Plan Asset Data Tests

The tests done in review of the plan asset data include the following:

- Comparison of market value at the opening of financial statements with values from the last actuarial valuation:
- Comparison of pension payments made out of the fund with the total monthly pensions found on the retiree data, taking into account deaths during the valuation period; and
- Consideration of all important changes in the composition of the funds invested.

Any anomalies or discrepancies discovered through testing, if any, have been resolved. The asset data was reviewed for reasonableness and consistency and found to be sufficient and reliable for the purposes of the valuation.

# 3. Going Concern Valuation

The financial position of the Plan on a going concern basis is determined by comparing the smoothed value of assets to the going concern liabilities, in respect of accrued benefits, assuming the Plan will continue indefinitely.

To determine the value of liabilities, we build a model of all future expected cash flows to be paid from the Plan, adjusted for the likelihood of payment, and discounted to the valuation date in accordance with the assumptions made.

Details of the actuarial methods and assumptions are set out in Appendix A to this Report.

If the going concern liabilities exceed the smoothed value of assets, the shortfall, known as the going concern unfunded liability, must be amortized and paid for over no more than 15 years.

### 3.1 Financial Position

The financial positions of the Plan on a going concern basis as of December 31, 2009 and December 31, 2010 are:

Financial Position	December 31, 2010	December 31, 2009
Smoothed Value of Assets	\$ 270,603,000	\$ 295,119,000
Going Concern Liabilities		
Pensioners	182,104,000	192,569,000
Beneficiaries	56,625,000	56,195,000
Total Going Concern Liabilities	\$ 238,729,000	\$ 248,764,000
Going Concern Surplus/(Unfunded Liability)	\$ 31,874,000	\$ 46,355,000

### 3.2 Reconciliation of the Going Concern Surplus/(Unfunded Liability)

The following table is a reconciliation of the Going Concern Surplus/(Unfunded Liability) from the last valuation to this valuation. An explanation of the major items is provided in Section 3.3.

Reconciliation of Financial Position From Previous Valuation					
Going Concern Surplus/(Unfunded Liability) as of December 31, 2009		\$ 46,355,000			
Interest on Surplus/(Unfunded Liability)	2,781,000				
Experience Gains/(Losses) due to:	Experience Gains/(Losses) due to:				
Investment Loss on Smoothed Value of Assets	\$ (14,021,000)				
2010 Cost of Living Adjustment	(742,000)				
Mortality	1,581,000				
Other Experience	(110,000)				
Total Experience Gains/(Losses)		(13,292,000)			
Impact of Assumption Changes		(3,970,000)			
Going Conern Surplus/(Unfunded Liability) as of December 31, 2010	\$ 31,874,000				

# 3.3 Explanation of Reconciliation of Going Concern Surplus/(Unfunded Liability) Items

The following section briefly describes the major gain/loss items that occurred since the prior valuation.

### a. Investment Experience

The Plan's actual return on the smoothed value of assets of 1.0% was significantly less than the expected investment return assumption of 6.0% for the valuation period. This resulted in a loss of \$14,021,000.

### b. Change in Actuarial Assumptions

Since the last valuation, the discount rate assumption was changed from 6.0% per annum to 5.75% per annum (net of all expenses) to better reflect long term expectations. This resulted in an increase in going concern liabilities of \$3,970,000.

### c. 2010 Cost of Living Adjustment

As a result of operation of the provision for future increases in the by-law, there was an ad-hoc increase in post-retirement pensions of 0.29% per annum granted effective January 1, 2010 to eligible retirees and beneficiaries. The actual cost of this increase was \$742,000.

### 3.4 Normal Cost

Since there are no longer any active members accruing service, there is no Normal Cost under the Plan.

# 3.5 Schedule of Going Concern Special Payments

As the Plan has a going concern surplus, there are no special payments required.

# 4. Solvency Valuation

The Pension Benefits Act (Ontario) requires a measure of solvency based on assumptions, which are prescribed by the Act, to assess the financial status of the Plan under a worst case scenario of Plan termination and wind up.

## 4.1 Solvency Financial Position

The financial position of the Plan on a solvency basis is determined by comparing the solvency assets to the solvency liabilities (the actuarial present value of benefits, as determined by the Act, earned for service prior to the valuation date, calculated as if the pension plan were wound up on that date).

The financial positions of the Plan on a solvency basis as of December 31, 2009 and December 31, 2010 are:

Solvency Financial Position	December 31, 2010	December 31, 2009
Solvency Assets		
Market Value of Assets	\$ 271,474,000	\$275,464,000
Wind-Up Expenses	(100,000)	(100,000)
Total Solvency Assets	\$ 271,374,000	\$275,364,000
Solvency Liabilities		
Pensioners & Beneficiaries	269,593,000	285,969,000
Total Solvency Liabilities	\$ 269,593,000	\$285,969,000
Solvency Surplus/(Unfunded Liability)	\$ 1,781,000	\$ (10,605,000)

If the Plan were to be wound up on the valuation date, the windup liabilities would be equal to the solvency liabilities.

### 4.2 Incremental Cost

The following table shows the Incremental Cost for the Plan on a solvency basis for the period until the next required valuation which is December 31, 2011. In summary, this incremental cost represents the present value of the estimated expected change in the solvency liability until the next valuation excluding the effect of any change in discount rate.

	2011
Incremental Cost	\$ (209,000)

The incremental cost is negative due to the inactive demographics of the Plan.

#### 4.3 Transfer Ratio

The Plan's transfer ratio is determined by dividing the market value of assets by the solvency liabilities. As of December 31, 2010 the Plan has a solvency transfer ratio of 1.0. The Plan does not have a "solvency concern" as defined under the pension Benefits Act, R.S.O. 1990 (Ontario) as the above ratio is greater than 0.80. As a result, the next required actuarial valuation to be filed with the authorities is a valuation dated not later than December 31, 2013.

### 4.4 Statutory Solvency Excess/(Deficiency)

The minimum funding requirements under the Regulation to the Pension Benefits Act (Ontario) are based on the statutory solvency deficiency as of the valuation date. In calculating the statutory solvency deficiency, various adjustments can be made to the solvency financial position, including:

- Recognition of the present value of existing special payments, including any going concern special payments established at the valuation date, due to be paid within the periods prescribed by the Regulation (in this case, five years);
- Smoothing of the asset value by use of an averaging technique;
- Adjustment to the solvency liability by use of an averaging technique in determining the discount rate used to value the liabilities; and
- Removal of any prepaid contributions from the asset value.

To the extent that there exists a statutory solvency deficiency, after taking account of these adjustments, additional special payments must be made over a period of not more than five years. If there is no statutory solvency deficiency, the solvency excess may be used to reduce the period of any existing solvency special payments or may be used to offset any statutory solvency deficiency created by benefit improvements.

Statutory Solvency Excess/(Deficiency)	December 31, 2010	December 31, 2009		
Solvency Surplus/(Unfunded Liability)	\$ 1,781,000	\$(10,605,000)		
Solvency Adjustments:				
Present Value of Special Payments	\$ 0	\$ 0		
Solvency Liability Adjustment	3,576,000	4,940,000		
Solvency Asset Averaging Adjustment	(871,000)	19,655,000		
Total Solvency Adjustments	\$ 2,705,000	\$24,595,000		
Statutory Solvency Excess/(Deficiency)	\$ 4,486,000	\$13,990,000		

### 4.5 Schedule of Solvency Special Payments

As the Plan has a statutory solvency surplus, there are no special payments required.

# 4.6 Pension Benefits Guarantee Fund (PBGF) Assessment

Under Section 47(1) of Regulation 909 of the Pension Benefits Act, R.S.O. 1990, the pension benefits provided by this Plan are not guaranteed by the Pension Benefits Guarantee Fund and this Plan is exempt from any Guarantee Fund assessment.

# 5. Employer Contributions

In this section we set out the range of permissible employer contributions to the Plan for the next year. The range of permissible employer contributions is based on the minimum that the employer must pay each year as prescribed by provincial pension regulations and the maximum permissible as prescribed by the Income Tax Act.

#### 5.1 General

The permissible range of employer contributions is based on the following different measures:

- minimum going concern funding;
- going concern maximum or "excess surplus"; and
- minimum solvency funding.

If the Plan has a solvency funding requirement (i.e., a solvency funded position less than 100%), then the going concern maximum or "excess surplus" measure is not applicable. In addition, the calculation of any solvency special payments recognizes any going concern special payments that are required to be made.

Sections 5.2 and 5.3 below show the range of permissible employer contributions after considering the different measures mentioned above.

### 5.2 Employer Contributions

The Plan is fully funded on a going concern and a solvency basis and therefore contributions are not required or permitted.

# 6. Sensitivity Analysis

It should be noted that the results of this valuation are presented at a single point in time. Both the going concern and solvency funded positions of the Plan can change with time and the potential for such variations must be borne in mind when using this report as a guide for the funded positions, now or in the future.

This section provides details on the sensitivity of the going concern valuation results to two key situations:

- a. Investment Return (future long-term returns on the assets in the pension plan)
- b. Market Correction (a one-time drop in assets in the pension plan)

#### 6.1 Investment Return

If the future long-term annual rate of return on pension plan assets is on average 1.0% (i.e., 100 basis points) below our current assumption of 5.75% per annum, the going concern surplus would decrease from \$31,874,000 to \$15,547,000.

Should the prescribed solvency annuity purchase rate drop by 1.0% below the current level, the statutory solvency surplus would change from \$4,486,000 to a statutory solvency deficiency of \$15,664,000.

#### 6.2 Market Correction

If the pension plan assets experienced a one-time drop of 10% due to a market correction, the going concern surplus would decrease from \$31,874,000 to \$25,059,000.

# 7. Actuarial Cost Certificate and Opinion

### Toronto Fire Department Superannuation and Benefit Plan Registration #0351601

In my opinion, for the purposes of this actuarial valuation report, the membership data on which the valuation is based are sufficient and reliable, the assumptions are appropriate and the methods employed in the valuations are appropriate.

This report has been prepared, and my opinions given, in accordance with accepted actuarial practice in Canada. This actuarial valuation report has been conducted in accordance with the funding and solvency standards prescribed by the Pension Benefits Act (Ontario) and Regulation, and in conformity with the requirements of the Income Tax Act (Canada) and Regulation. This actuarial opinion forms an integral part of the report.

Based on the results of this actuarial valuation report as of December 31, 2010, I certify that in my opinion:

- 1. The Plan does not have a prior year credit balance or prepaid contribution balance.
- 2. There are no employer or employee contributions required under the Plan.
- 3. There is an actuarial surplus of \$31,874,000 in the Plan on a going concern basis.
- 4. There is no solvency deficiency under the Plan.
- 5. This valuation revealed a statutory solvency excess of \$4,486,000.
- 6. If the Plan had been wound up on the valuation date, the market value of Plan assets (net of windup expenses) would have been \$1,781,000 more than the windup liabilities of the Plan.
- 7. There is no excess actuarial surplus, pursuant to Section 147.2(2) of the Income Tax Act.
- 8. The transfer ratio, as defined in the Regulation to the Pension Benefits Act (Ontario), is 1.0.
- 9. Under Section 47(1) of Regulation 909 of the Pension Benefits Act, R.S.O. 1990, the pension benefits provided by this Plan are not guaranteed by the Pension Benefits Guarantee Fund and this Plan is exempt from any Guarantee Fund assessment.

- 10. In accordance with the Regulation to the Pension Benefits Act (Ontario), the next actuarial valuation report should be prepared with a valuation date not later than December 31, 2013.
- 11. We are unaware of any subsequent events since the completion of this valuation that would have a material impact on the results of this report.

The undersigned is available to answer any questions with respect to this valuation report.

March 25, 2011

Date

Cynthia L. Rynne

Fellow, Society of Actuaries

Fellow, Canadian Institute of Actuaries

# **Appendix A** Going Concern Assumptions and Methods

The assumptions and methods used in the going concern valuation are described below. If actual Plan experience differs from the assumptions below, gains and losses will arise.

### A.1 Economic Assumptions

Investment Return<sup>(1)</sup>: 5.75% per annum, net of investment and

administrative expenses.

Post-Retirement Indexation<sup>(2)</sup>: No provision has been made for future post-

retirement adjustments in the liabilities.

Future post-retirement adjustments based on 100% CPI (Consumer Price Index) indexation were projected and valued to increase actuarial liabilities for the purpose of determining excess surplus and eligible contributions under Section 147.2(2) of the Income Tax Act. The increase in CPI is assumed to

be 2.25% per annum.

### A.2 Non-Economic Assumptions

**Mortality:** UP 1994 table projected to 2005 using Scale AA.

**Marital Status:** 80% have a spouse at retirement.

**Spouse's Age:** Females three years younger than males.

A3. Methods

Actuarial Cost: Unit Credit

The accrued liability for pensioners and beneficiaries is the present value of their respective benefits.

Smoothed Value of Assets: The smoothed value of assets is a 4-year moving-

average market value. This method recognizes realized and unrealized investment gains and losses over a period of 4 years based on the expected

investment return assumption.

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<sup>(1) 6.0%</sup> per annum at prior valuation date, net of investment and administrative expenses

<sup>(2) 2.5%</sup> per annum at prior valuation date

# **Appendix B** Rationale for Going Concern Assumptions

The following rationale is provided to support the most significant going concern actuarial assumptions used in this report:

### **B.1** Investment Return (Discount Rate)

The investment return assumption is 5.75% per annum and reflects a best-estimate gross rate of return of 5.95% per annum plus 0.5% for added manager value less 0.5% for investment management and administrative fees and less 0.2% as a provision for adverse deviations.

The best-estimate gross rate of return was developed by establishing expected returns for each major asset class in which the pension fund is invested and then using a building block approach based on the Plan's target asset allocation presented in 2.3. It is assumed that the Plan's asset allocation will not change over time.

In determining a return on equity investments, we have assumed an equity risk premium (i.e. the difference between expected return on Canadian equities and Canadian bonds) of 3.8% per annum.

### **B.2** Mortality

The 1994 Uninsured Pensioner Mortality Table reflects the mortality experience as of 1994 for a large sample of North American pension plans. Applying projection scale AA to 2005 provides allowance for improvements in mortality after 1994. Given the age of the membership group, the nature of the occupation of the members and the mortality gains currently being experienced under the Plan, projection to 2005 is appropriate.

# **Appendix C** Solvency Assumptions and Method

The assumptions and methods used in the solvency valuation are prescribed by regulation and are described below. Any changes to assumptions from the previous valuation are referenced by footnote.

### C.1 Assumptions and Method

Mortality: UP 1994 projected to year 2020, Scale AA.

**Annuity Purchase Rate**<sup>(1)</sup>: 4.48% per annum.

Smoothed Annuity Purchase Rate<sup>(2)</sup>: The following table shows the smoothed annuity

purchase rate based on a four-year smoothing

method.

Valuation Dates	Rate
December 31, 2010	4.48%
December 31, 2009	4.50%
December 31, 2008	5.00%
December 31, 2007	4.65%
Average Rate	4.66%

Note: Rates prior to 2009 were adjusted to reflect change in mortality table.

Benefits Excluded: No future potential post-retirement ad-hoc

adjustments have been included in the solvency

liabilities.

Actuarial Cost Method: Present value of accrued benefits. No benefits

payable on plan windup were excluded from the

valuation.

**Value of Assets:** Four-year moving average market value.

**Provision for Windup Expenses:** \$100,000

<sup>&</sup>lt;sup>1</sup> 4.50% per annum at prior valuation date.

<sup>&</sup>lt;sup>2</sup> 4.73% per annum at prior valuation date.

### C.2 Adjustments to Solvency Position

In order to minimize the impact of fluctuations in the discount rate used to value the solvency liabilities from year-to-year, the Pension Benefits Act permits smoothing techniques to be employed on both the solvency assets and the solvency liabilities. For the purpose of this valuation, a smoothing adjustment over a four-year period has been used.

### C.3 Asset Smoothing Adjustment

The development of the asset smoothing adjustment is shown in Section 2.

### C.4 Liability Smoothing Adjustment

The solvency liability smoothing adjustment is obtained by taking the difference between the solvency liabilities calculated using the solvency discount rate in effect as of the valuation date and the solvency liabilities using an average discount rate over a period of four years. Development of the average rate is provided in Section C.1 above.

# **Appendix D** Summary of Membership Data

The membership data was provided and maintained by the City of Toronto. The membership data was compiled on December 31, 2010 and reviewed for reasonableness and consistency and found to be sufficient and reliable for the purposes of the valuation. These data tests are, by nature, high level and will not capture all possible deficiencies in the data. Therefore, reliance is also placed on the certification of the Benefit Fund Committee of the Toronto Fire Department Superannuation and Benefit Fund as to the quality of data.

#### D.1 Data Tests

The tests done in review of the data include the following:

- High level review of the data to determine that an appropriate number of records was obtained, the appropriate data fields were provided and that the data fields contained valid information:
- ✓ A membership reconciliation was prepared to ensure the complete membership of the pension plan was accounted for;
- ✓ For active members, review of age, service, and date of entry for reasonableness;
- ✓ For terminated vested members, dates of birth and deferred pension amounts were reviewed against the prior valuation data for consistency;
- For retired members and beneficiaries, dates of birth and pension amounts were reviewed against the prior valuation data for consistency; and
- ✓ Aggregate pension payments in the data were compared to actual payments shown in the trust statement.

Since the form of pension and spouse date of birth for inactive vested and retired members are not readily available for valuation purposes, the assumptions shown in Appendix A2 have been adopted. The form of pension for members assumed to be married is life with 66-2/3% of the member's pension continuing to the spouse following the member's death. The form of pension for members not assumed married is life only.

# D.2 Summary of Plan Participants Included in the Valuation

	December 31, 2010	December 31, 2009
Retired Members		
Number	558	585
Average Age (years)	75.60	74.80
Annual Benefit	\$19,723,343	\$20,779,008
Average Annual Benefit	\$35,346	\$35,520
Beneficiaries		
Number	339	339
Average Age (years)	78.24	77.60
Annual Benefit	\$7,032,771	\$6,935,895
Average Annual Benefit	\$20,746	\$20,460

# **D.3** Data Reconciliation

	Retired Members	Beneficiaries	Total
Number at December 31, 2009	585	339	924
Changes due to:			
New Entrants	-	-	-
Vested termination	-	-	-
Non-vested termination	-	-	-
Paid out	-	-	-
Retirements	-	-	-
Deaths w/ survivor	(19)	19	-
Deaths w/o survivor	(8)	(19)	(27)
Data Corrections	-	-	-
Total Changes	(27)	-	(27)
Number at December 31, 2010	558	339	897

# **Appendix E** Summary of Plan Provisions

The following is a summary the main features of the plan which are of financial significance to valuing the plan benefits. This summary is based on the most recent document and amendments up to and including the valuation date. For a detailed description of the benefits, please refer to the plan document. Any changes to the plan provisions since the prior valuation are referenced by footnote.

who became members after May 8, 1961, at an age

in excess of 26 years, or after July 1, 1968.

**Normal Retirement Benefit** 

Eligibility: The first of the month coincident with or next

following attainment of age 65.

Amount: On completion of 30 or more years of continuous

service, an annual pension equal to 2% of the member's average annual earnings during the 60 consecutive months which produce the highest average, multiplied by his credited service up to 35 years; less a CPP offset equal to 0.7% of the lesser of such average earnings and the average of the YMPE at retirement and the 2 preceding years multiplied by his credited service after January 1, 1966. The CPP offset commences when the

member attains age 65.

Creditable Service Limit: Maximum of 35 years.

Minimum Pension: Member's annual pension shall not be less than

\$13,600.

Normal Form of Pension: No Spouse

Pension payable for life.

With a Spouse

Pension with a spousal lifetime pension of 66-2/3% of the initial amount following the later of the member's

death.

### **Early Retirement Benefit**

**Eligibility:** Earlier of: a) Age 55 & 2 years of service, b) 30 years of service, Amount: Normal Retirement Benefit reduced as follows: a) 55 & 2 years of service - actuarial equivalent from earliest unreduced retirement age. b) Age 55 & 30 years of service - unreduced **Death Benefits Pre-Retirement:** Lump sum amount equal to the actuarial equivalent of the pension earned on and after January 1, 1987. **Post-Retirement:** If single at retirement - Beneficiary will receive greater of: a) the member's contributions with interest plus \$100 for each year of service, and b) the commuted value of the member's benefit accrued after December 31, 1986 plus the member's contributions made prior to January 1, 1987 with interest. If a Spouse at retirement - Pension equal to 66-2/3% of the pension accrued to the date of the member's death payable for the life of Spouse. **Termination Benefits** 

> For Benefits Accrued Prior to January 1, 1987 After age 45 and 10 years of service or after 20 years of service, equal to Normal Retirement Benefit but based on service before January 1, 1987.

Two years of Plan membership.

For Benefits Accrued After January 1, 1987 After 2 years of credited service, equal to Normal Retirement Benefit but based on service after December 31, 1986.

**Eligibility:** 

Amount:

### **Employee Contributions**

Effective January 1, 1998, members with less than 35 years of service contribute to the Plan at the rate of 5.5% of their salary less their contributions to the Canada Pension Plan. Prior to January 1, 1998, the contribution rate was 7.5% of salary less contributions to the Canada Pension Plan.

# Ad Hoc Post-Retirement Adjustments

Commencing 1986, City Council adopted a policy of providing ad hoc increases in pensions to pensioners based upon an excess interest indexing methodology. Subject to City Council approval, each year, ad hoc increases in pension were provided, with a minimum increase of 50% of the increase in the Consumer Price Index (CPI) on a year over year basis, and a maximum increase of the lesser of the excess investment return on the Benefit Fund and 100% CPI.

Commencing 1997, the Plan by-laws were amended to provide for future increases to pensioners including spouses of deceased retired members, based on the lesser of:

- (a) the investment rate of return of Fund assets (using a 5-year smoothing technique) in excess of the rate of return required to maintain the actuarial solvency of the Benefit Fund as determined by the Actuary, and
- (b) the increase in the year over year level of the average CPI,

to the extent that actuarial surplus is available.

### Toronto Fire Department Superannuation and Benefit Fund Registration #0351601

I hereby certify on behalf of the Toronto Fire Department Superannuation and Benefit Fund Committee, that to the best of my knowledge and belief:

- The Plan Provisions summarized in Appendix E are accurate and up-to-date for the purpose
  of representing member benefit entitlements that significantly affect the financial condition of
  the Plan:
- 2. The membership data summarized in Appendix D is complete and accurate for all persons who are entitled or will become entitled to benefits under the Plan in respect of service up to the date of the valuation;
- 3. The asset information summarized in Sections 2.2 and 2.3 is complete and accurate; and
- 4. There have been no subsequent events that would materially change the Plan's financial position since the valuation date.
- 5. There actuary has been provided with the official Plan text and all subsequent amendments pertaining to the Plan.

MM 11

Celine Chiovith	Callett
Name	Signature
Director	March 24, 2011
Title	Date