

THE TORONTO CIVIC EMPLOYEES' PENSION PLAN

Actuarial Valuation Report as of December 31, 2011

Registration #0351593

March 2012

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1. Introduction

This report has been prepared for and at the request of the Toronto Civic Employees' Pension Committee and presents the key results of the actuarial valuation of the Toronto Civic Employees' Pension Plan (the "Plan") as of December 31, 2011. The previous valuation of the Plan was prepared by Buck Consultants as of December 31, 2010.

1.1 Primary purpose

The primary purpose of this actuarial valuation report is to comply with regulatory filing requirements and more specifically:

- To determine the financial position of the Plan on a going concern basis using the unit credit actuarial cost method;
- To compare actual and expected experience on a going concern basis;
- To determine the financial position of the Plan on a solvency basis using the present value of accrued benefits;
- To determine the financial position of the Plan on a windup basis using the present value of accrued benefits;
- To provide the range of permissible contributions; and
- 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.

These tasks are conducted in accordance with the Canadian Institute of Actuaries Standards of Practice for Pension Plans ("Standards of Practice") and all relevant regulations.

1.2 Highlights

New guidelines for Assumptions for Solvency Valuations with effective dates from December 31, 2011 to December 30, 2012 were provided by the Canadian Institute of Actuaries during February 2012. In determining the solvency liabilities as of December 31, 2011, the mortality table used was the Uninsured Pensioner 1994 table, projected dynamically on a generational basis.

1.3 Terms of engagement

The terms of engagement that are material are as follows:

- To consider all benefits of which we are aware, including contingent benefits, payable under the pension plan;
- To use a smoothed value of assets on a going concern basis to moderate the volatility of contribution rates;
- To use the market value of assets on both solvency and windup bases;
- To include considerations such as the security of benefits and related provisions for adverse deviations.

The terms of our engagement are in accordance with the Standards of Practice and all relevant regulations.

1.4 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 Pension Committee. Those assumptions lie within a reasonable range of potential outcomes.

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

1.5 Third party disclaimer

This report is intended for the Toronto Civic Employees' Pension Committee 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.

1.6 Subsequent events

After confirming with the Toronto Civic Employees' Pension Committee, we are unaware of any significant events since the valuation date that would, in our opinion, have a material impact on the results of this report.

1.7 Cost of living increases

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

Based on the foregoing, pensions in payment to pensioners and spouses that commenced prior to January 1, 2010 were increased by 1.84% effective January 1, 2011 through decision by the Council. This cost is \$4,468,000 as of January 1, 2011.

For information purposes only, the estimated cost at December 31, 2011 to provide anticipated future ad hoc pension increases based on 100% of the increase in the CPI is \$37,541,000 based on the current valuation data and going concern valuation assumptions.

In respect of 2011, 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 2.87%. Therefore, an automatic cost of living adjustment is not warranted in respect of 2011; however, at City Council's discretion, an increase may be granted if sufficient surpluses are available. The cost as at January 1, 2012 to provide a cost of living adjustment equal to 100% CPI is approximately \$7.2 million on a going concern basis and \$8.3 million on a solvency basis.

1.8 Confirmation

We confirm that this report complies with the Canadian Institute of Actuaries 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 pension fund financial statements for 2011 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, 2011.

Asset reconciliation	2011
Market value of assets at beginning of period	\$ 369,607,913
Adjustment from unaudited to draft audited statements	1,358,929
Employer contributions	-
Benefit payments	(33,658,656)
Investment earnings net of investment expenses	6,070,133
Fees and expenses	<u>(1,072,444)</u>
Market value of assets at end of period	\$ 342,305,875

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2.3 Asset allocation (mix)

The asset mix of the Plan as of December 31, 2011 was allocated between the following major investment categories:

Asset class	Amount	Actual asset mix	Investment policy target
Canadian equity	\$ 58,938,251	17 %	20 %
U.S equity	55,321,806	16 %	15 %
International equity	42,679,036	13 %	15 %
Fixed Income	167,638,392	50 %	48 %
Short-term and Cash	15,069,823	4 %	2 %
Total Invested Assets as of December 31, 2011	\$ 339,647,308	100%	100 %

2.4 Value of assets

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

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

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2.5 Performance of the Fund

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

Year	Net return on market value	Net return on smoothed value
2011	1.4 %	0.7 %
2010	7.6 %	0.2 %
2009	13.4 %	2.5 %
2008	(14.1)%	2.4 %
2007	0.9 %	8.3 %
Five-Year Average	1.4%	2.8%

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 smoothed value of assets

Market value experience	2011	2010	2009
Discount rates	5.75 %	6.00 %	6.25 %
Expected gross investment income	\$ 20,376,431	\$ 21,592,254	\$ 21,798,715
Actual gross investment income	4,997,689	27,319,640	46,608,220
Market value investment gain/(loss)	\$ (15,378,742)	\$ 5,727,386	\$ 24,809,505

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Year end	Investment gain/(loss) \$	% of gain/(loss) deferred	Deferred gain/(loss) \$
2011	\$ (15,378,742)	75%	\$ (11,534,057)
2010	5,727,386	50%	2,863,693
2009	24,809,505	25%	6,202,377
Smoothed value of assets adjustment			\$ (2,467,987)

Smoothed value of assets	December 31, 2011
Market value of assets	\$ 342,305,875
Smoothed value of assets adjustment	<u>2,467,987</u>
Smoothed value of assets	\$ 344,773,862

2.7 Plan asset data tests

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

- ✓ Comparison of the opening market value of assets disclosed in the financial statements with the ending values disclosed in the most recent actuarial valuation report;
- ✓ Comparison of pension payments made out of the fund with the total monthly pensions found in the retiree data, taking into account new retirees and deaths during the inter-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.

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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, 2010 and December 31, 2011 are:

Financial position	December 31, 2011	December 31, 2010
Smoothed value of assets	\$ 344,774,000 ⁽¹⁾	\$ 375,990,000
Going concern liabilities		
Active members	\$ 627,000	\$ 582,000
Pensioners	180,895,000	192,225,000
Beneficiaries	68,676,000	70,646,000
Deferred vested members	<u>7,000</u>	<u>6,000</u>
Total going concern liabilities	\$ 250,205,000	\$ 263,459,000
Going concern surplus/(unfunded liability)	\$ 94,569,000	\$ 112,531,000

⁽¹⁾ The smoothed value of assets is developed in Section 2.6.

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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) at beginning of period	\$ 112,531,000
Interest on going concern surplus/(unfunded liability)	6,471,000
Expected going concern surplus/(unfunded liability)	\$ 119,002,000
Experience gains/(losses) due to:	
Investment return	\$ (18,222,000)
2011 Cost of Living Adjustment	(4,468,000)
Mortality	(1,883,000)
Other experience	(12,000)
Total experience gains/(losses)	\$ (24,585,000)
Impact of assumption changes	152,000
Going concern surplus/(unfunded liability) at end of period	\$ 94,569,000

3.3 Explanation of administration 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 0.7% was significantly lower than the expected investment return assumption of 5.75% for the inter-valuation period. This resulted in a loss of \$18,222,000.

b. Change in actuarial assumptions

Since the last valuation, the discount rate assumption was changed from 5.75% per annum to 5.50% per annum (net of all expenses) to better reflect long term expectations. The marriage assumption was also changed from 70% for male retirees and 30% for female retirees to 60% for male retirees and 20% for female retirees. This resulted in a net decrease in going concern liabilities of \$152,000.

c. 2011 Cost of living adjustment

As a result of the Council's decision, there was an ad-hoc increase in post-retirement pensions of 1.84% per annum granted effective January 1, 2011 to eligible retirees and beneficiaries. The actual cost of this increase was \$4,468,000.

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 in the event of Plan termination and windup.

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, 2010 and December 31, 2011 are:

Solvency financial position	December 31, 2011	December 31, 2010
Solvency assets		
Market value of assets	\$342,306,000	\$ 369,608,000
Wind-Up expenses	<u>(150,000)</u>	<u>(100,000)</u>
Total solvency assets	\$342,156,000	\$ 369,508,000
Solvency liabilities		
Active members	\$ 782,000	\$ 657,000
Pensioners	209,488,000	210,024,000
Beneficiaries	78,342,000	76,536,000
Deferred vested members	<u>8,000</u>	<u>7,000</u>
Total Solvency Liabilities	\$288,620,000	\$ 287,224,000
Surplus/(deficiency)	\$ 53,536,000	\$ 82,284,000

If the Plan were to be wound up on the valuation date, the windup liabilities would be equal to the solvency liabilities. For the purpose of the solvency and windup financial position, no potential post retirement ad hoc adjustments have been included in the liabilities.

4.2 Incremental cost

The Plan currently has no members accruing additional service for benefits or eligibility to early retirement subsidies and essentially all liabilities are inactive. As a result, the incremental cost for the Plan on a solvency basis for the period until the next required valuation which is December 31, 2014 is nil.

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, 2011 the Plan has a solvency transfer ratio of 1.0. As a result, the next required actuarial valuation to be filed with the authorities is a valuation dated not later than December 31, 2014 should this report be filed.

4.4 Minimum funding requirements

The minimum funding requirements under the Regulation to the Pension Benefits Act (Ontario) are based on the solvency deficiency as of the valuation date. In calculating the 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.

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To the extent that there exists a 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 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 solvency deficiency created by benefit improvements.

Solvency excess/(deficiency)	December 31, 2011	December 31, 2010
Surplus/(deficiency) ⁽¹⁾	\$ 53,536,000	\$ 82,284,000
Solvency adjustments:		
Present value of special payments	-	-
Solvency liability adjustment	-	-
Smoothed Value of assets adjustment	-	-
Total solvency adjustments		
Solvency excess/(deficiency)	\$ 53,536,000	\$ 82,284,000

⁽¹⁾ The development of the surplus/(deficiency) is shown in Section 4.1.

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 three years. 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 (normal cost plus going concern special payments);
- going concern maximum or "excess surplus"; and
- minimum solvency funding (solvency special payments).

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 Going concern maximum or "excess surplus"

The income tax rules require that employer contributions be suspended once the amount of the going concern surplus in the Plan exceeds a specified level and provided there are no solvency funding requirements. The amount of excess surplus in the Plan as of December 31, 2011 is determined below.

Excess Surplus	December 31, 2011	
Going concern surplus (a)	\$	71,968,000
25% of actuarial accrued liability (b)		71,937,000
Excess surplus [minimum of 0 and (a) - (b)]	\$	31,000

Note: Excess surplus is based on going concern actuarial liabilities of \$287,746,000, which reflect pension increases at 100% CPI as per Section 8516 of the regulations under the Income Tax Act.

5.3 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 and solvency 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 5.50% per annum, the going concern surplus would decrease by \$15,963,000.

If the prescribed solvency annuity purchase rate dropped by 1.00% below current levels, the solvency surplus would decrease by \$18,791,000.

6.2 Market correction

If the market value of assets at December 31, 2011 experience a one-time drop of 10% due to a market correction, the going concern surplus would decrease by \$8,588,000 and the solvency surplus would decrease by \$34,231,000.

7. Actuarial cost certificate and opinion

The Toronto Civic Employees' Pension Plan
Registration #00351590

In our 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 valuation are appropriate.

This report has been prepared, and our 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, 2011, we certify that in our 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 \$94,569,000 in the Plan on a going concern basis.
4. There is no solvency deficiency under the Plan.
5. If the Plan had been wound up on the valuation date, the market value of Plan assets (net of windup expenses) would have been \$53,536,000 more than the windup liabilities of the Plan.
6. There is an excess actuarial surplus, pursuant to Section 147.2(2) of the Income Tax Act, of \$31,000.
7. The transfer ratio, as defined in the Regulation to the Pension Benefits Act (Ontario), is 1.0.
8. 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.
9. 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, 2014 should this report be filed.
10. We are unaware of any significant events since the valuation date 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.



Cynthia L. Rynne
Fellow, Society of Actuaries
Fellow, Canadian Institute of Actuaries

March 23, 2012

Date

Max H. Bazile
Fellow, Society of Actuaries
Fellow, Canadian Institute of Actuaries

March 23, 2012

Date

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 in future valuations.

A.1 Economic assumptions

Investment return ⁽¹⁾ :	5.50% per annum, net of investment and administrative expenses.
Post-retirement indexation:	No provision has been made for future post-retirement ad hoc adjustments in the liabilities based on the cost-of-living provisions of the Plan by-laws. 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 with dynamic generational mortality projection using Scale AA.
Marital status ⁽²⁾ :	Active Members – 85% of members are assumed to have a spouse at retirement. Retirees and Deferred Vested Members – 60% of males and 20% of females are assumed to have a spouse at retirement, based on recent Plan retiree experience.
Spouse's age:	Females three years younger than males.

⁽¹⁾ 5.75% per annum net of investment and administrative expenses at prior valuation.

⁽²⁾ Retirees and Deferred Vested Members – 70% of males and 30% of females are assumed to have a spouse at retirement at prior valuation date.

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.

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 assumptions

The expected future benefit payments have been discounted using the expected investment return on the fund. The discount rate of 5.50% per annum was selected and the components of which are as follows:

Assumed Gross investment return	5.7%
Plus: Additional return due to active management	0.5%
Less: Provision for investment and administration fees paid from the fund	(0.5%)
Less: Margins for adverse deviation	<u>(0.2%)</u>
Discount rate	5.5%

The above items are supported as follows:

- 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 Section 2.3. It is assumed that the Plan's long term 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 4.35% per annum.
- Expenses represent the expected administration and investment expenses charged to the fund.
- To account for volatility in future investment returns given the Plan's investment mix, a margin for adverse deviation of 0.20% per annum was included.

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 on a dynamic generational basis provides allowance for improvements in mortality after 1994.

This table is used since the mortality experience of the membership of a plan is insufficient to assess plan-specific experience and where there is no reason to expect the mortality experience of the plan to differ significantly from that of other pension plans. Both of these are true for this Plan and, therefore, the use of this mortality table is considered reasonable. This table contains some margin for adverse deviation in that it assumes that there is some improvement in future mortality.

However, we would mention that there is uncertainty in this area in the absence of a specifically appropriate table. The Canadian Institute of Actuaries is working towards developing a mortality table which is both up to date and based on Canadian experience. At this stage we have no feel for how any new table would impact on the Plan's liabilities.

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 ⁽¹⁾ :	UP 1994 table with dynamic generational mortality projection using Scale AA.
Annuity purchase rate ⁽²⁾ :	For pensions-in-pay and members eligible to retire 3.31% per annum (as per guidance from the Canadian Institute of Actuaries (CIA) and recent annuity quote experience).
Election experience	100% of members assumed to have annuities purchased on their behalf.
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:	Market value of assets.
Provision for windup expenses ⁽³⁾ :	\$150,000
Marital status ⁽⁴⁾ :	Active Members – 85% of members are assumed to have a spouse at retirement. Retirees and Deferred Vested Members – 60% of males and 20% of females are assumed to have a spouse at retirement, based on recent Plan retiree experience.
Spouse's Age	Females three years younger than males

(1) UP 1994 projected to year 2020, Scale AA at prior valuation date.

(2) 4.48% per annum at prior valuation date.

(3) \$100,000 at prior valuation date.

(4) Retirees and Deferred Vested Members – 70% of males and 30% of females are assumed to have a spouse at retirement at prior valuation date.

C.2 Provisions for windup expenses:

The assumed windup expenses have been increased to \$150,000 at December 31, 2011, from \$100,000 in the prior valuation.

Actuarial expense reasonably expected to windup the plan have been included in the expense assumption. These expenses are assumed to be charged to the Plan. These windup expenses do not include other expenses assumed to occur post valuation date up to the time of actual settlement. These additional expenses can include trustee, investment management, legal, administration and consulting expenses that may be incurred up until the time of final settlement. In addition any legal or actuarial expenses related to surplus ownership and or distribution, if any, are not included in these expense provisions.

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, 2011 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 Toronto Civic Employees' Pension Committee 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, average pensionable earnings, and employee contribution account balances are reviewed for reasonableness in relation to the prior valuation data;
- ✓ 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 with 120 payments guaranteed. The form of pension for members not assumed married is life with 120 months of payments guaranteed.

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D.2 Summary of plan participants included in the valuation

	December 31, 2011	December 31, 2010
Active Members ⁽¹⁾		
Number	1	1
Deferred Vested Members ⁽¹⁾		
Number	1	1
Pensioners		
Number	725	772
Average Age (years)	80.9	80.3
Annual Benefit	\$22,886,955	\$23,808,850
Average Annual Benefit	\$31,764	\$30,840
Beneficiaries		
Number	611	643
Average Age (years)	82.8	82.5
Annual Benefit	\$9,867,736	\$10,120,404
Average Annual Benefit	\$16,150	\$15,739

⁽¹⁾ Information suppressed for confidentiality purposes.

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D.3 Data reconciliation

	Actives	Deferred vesteds	Pensioners	Beneficiaries	Total
Number at Dec 31, 2010	1	1	772	643	1417
Changes due to:					
New entrants	-	-	-	-	-
Vested termination	-	-	-	-	-
Non-vested termination	-	-	-	-	-
Paid out	-	-	-	-	-
Retirements	-	-	-	-	-
Deaths with survivor	-	-	(19)	19	-
Deaths without survivor	-	-	(28)	(51)	(79)
Data corrections	-	-	-	-	-
Total changes	-	-	(47)	(32)	(79)
Number at Dec 31, 2011	1	1	725	611	1,338

Appendix E Summary of plan provisions

The following summary describes the main features of the Plan which are of financial significance to the actuarial valuation and does not encompass all details required to properly administer the Plan. This summary is based on the most recent Plan document and Plan amendments. For a detailed description of the benefits, please refer to the Plan document.

Plan members:	All employees hired before July 1, 1968 including former employees transferred to Metro Toronto who elected to continue in the Civic Fund, but excluding Firemen, employees on a local board participating in OMERS and any employee hired after age 50 (male), 45 (female), unless such employee elected within 60 days after September 16, 1970 to become a member.
Normal retirement benefit	
Eligibility:	The first of the month coincident with or next following attainment of age 65.
Amount:	An annual pension of 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 0.675% of the lesser of such average earnings and the average of the YMPE at retirement and the 4 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 \$9,400.
Normal form of pension:	<p><u>No Spouse</u></p> <p>Pension payable for life with 120 monthly payments guaranteed.</p> <p><u>With a Spouse</u></p> <p>Pension guaranteed for 60 months at the initial amount, with a spousal lifetime pension of 66-2/3% of the initial amount following the later of the member's death and the end of the guarantee period of 10 years.</p>

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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
- c) Age 60 & 25 years – unreduced
- d) Age plus years of service equal to 85 – unreduced.

Death Benefit:

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 \$150 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.

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Deferred annuity benefit:

Eligibility:	Two years of Plan membership.
Amount:	<p><i>For Benefits Accrued Prior to January 1, 1987</i></p> <p>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.</p> <p><i>For Benefits Accrued After January 1, 1987</i></p> <p>After 2 years of credited service, equal to Normal Retirement Benefit but based on service after December 31, 1986.</p>

Employer contributions:

Effective January 1, 1998, members with less than 35 years of service contribute to the Plan at the rate of 5% of their salary less their contributions to the Canada Pension Plan. Prior to January 1, 1999, the contribution rate was 7% 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.

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I hereby certify that to the best of my knowledge and belief,

- 1. 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.

City of Toronto

Celine Chiu
Name

[Signature]
Signature

Acting Actuary
Title

March 2013
Date

[Handwritten initials]