April 2009

Metropolitan Toronto Police Benefit Fund

Report on the Actuarial Valuation for Funding Purposes as at December 31, 2008

MERCER

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Consulting. Outsourcing. Investments.

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Summary of Results

Asset Values	**31.12.2008**	**31.12.2007**
Market value of assets	$ 522,040,000	$ 673,066,000
Rate of return during the year, based on market values (gross)	-14.26%	1.77%
Actuarial value of assets	$ 624,022,000	$ 665,248,000
Rate of return during the year, based on actuarial values (net of investment expenses)	2.56%	8.71%
Going-Concern Financial Position	**31.12.2008**	**31.12.2007**
Actuarial value of assets	$ 624,022,000	$ 665,248,000
Actuarial liability	(597,908,000)	(626,225,000)
Prior year credit balance	(0)	(4,923,000)
Funding Excess (Unfunded Liability)	$ 26,116,000	$ 34,100,000
Wind-Up Financial Position	**31.12.2008**	**31.12.2007**
Market value of assets (adjusted to reflect estimated Plan termination expenses)	$ 521,718,000	$ 672,738,000
Wind-Up liability	(627,718,000)	(678,967,000)
Wind-Up excess (deficiency)	$ (106,000,000)	$ (6,229,000)
Transfer Ratio	83.2%	98.4%

Solvency Financial Position	**31.12.2008**	**31.12.2007**
Solvency assets	$ 521,718,000	$ 672,738,000
Solvency asset adjustment	97,160,000	(3,313,000)
Adjusted solvency assets	$ 618,878,000	$ 669,420,000
Solvency liability	$ 627,718,000	$ 678,967,000
Solvency liability adjustment	11,987,000	14,470,000
Adjusted solvency liability	$ 639,705,000	$ 664,497,000
Prior year credit balance	0	4,923,000
Solvency excess (deficiency)	$ (20,827,000)	$ 0
Solvency position without asset adjustment for funding and solvency special payments and prior year credit balance	$ (21,579,000)	$ (2,971,000)
Indexation Reserve Account (lesser of funding excess and solvency excess)	$ 0	$ 0

Plan Membership	**31.12.2008**	**31.12.2007**
Active`	10	12
Suspended or disabled	0	0
Retired members in receipt of pensions	1,445	1,496
Surviving spouses in receipt of pensions	684	671
Total membership	2,139	2,179

Funding Requirements (annualized)	**2009**	**2008**
Estimated minimum Employer contribution	$ 5,425,800	$ 2,416,200
Estimated maximum Employer contribution	$ 106,000,000	$ 6,229,000

Schedule of Employer Contributions	**2009**	**2010**	**2011-2013**
Current Service Cost	$ 0	$ 0	$ 0
Unfunded Liability	0	0	0
Solvency Deficiency	5,425,800	4,653,600	4,653,600
Total	$ 5,425,800	$ 4,653,600	$ 4,653,600

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Introduction and Executive Summary

Introduction

To: Trustees, Metropolitan Toronto Police Benefit Fund

At your request, we have conducted an actuarial valuation of the Metropolitan Toronto Police Benefit Fund (the "Plan") as at December 31, 2008. The previous actuarial valuation was prepared as at December 31, 2007.

The purpose of this valuation is to determine:

- the funded status of the Plan as at December 31, 2008 on going-concern and solvency bases, and
- the minimum funding requirements by the City of Toronto (the "Employer") and the Plan members during the period from January 1, 2009 through December 31, 2009.

The Report sets out full details of the Plan's financial position on the valuation date, makes recommendations as to the utilization of the experience gains and illustrates the effect of these recommendations on the Plan's funded position.

Executive Summary

Summary of Results

a) Plan Assets

For purposes of the going-concern valuation, the assets are valued on a smoothed market value basis.

A description of the asset valuation method is provided in Section 3. There were no changes to the method used to value the Plan's assets.

The assets of the Plan, as reported on financial statements obtained from the custodian, have changed as follows during 2008.

	December 31, 2007	December 31, 2008	Rate of Return in 2008 *
Market Value	$ 673,066,000	$ 522,040,000	-14.47%
Actuarial Value	$ 665,248,000	$ 624,022,000	2.56%

** The rate of return is net of investment expenses.*

The rate of return to be credited to employee contribution balances in 2009 is 2.56%, compared with the rate of 8.71% credited in 2008.

b) Going-Concern Financial Position as at December 31, 2008

On a going-concern basis, the actuarial value of assets of $ 624,022,000 is greater than the actuarial liabilities of $ 597,906,000, producing a funding excess of $ 26,116,000. The funded position has reduced from a funding excess of $ 34,100,000 as at December 31, 2007 to a funding excess of $ 26,116,000 as at December 31, 2008. This is primarily the result of net experience losses due to the worse than expected performance of the assets on the actuarial value basis, partially offset by Employer contributions to fund the solvency deficiency. Further details can be found in Section 4.

c) Solvency/Wind-Up Position as at December 31, 2008

On a solvency basis, the value of the assets of $ 618,126,000 (market value adjusted to reflect estimated termination expenses and the solvency asset adjustment) is less than the actuarial liabilities of $ 639,705,000, producing a total solvency shortfall of $ 21,579,000. The previous valuation at December 31, 2007 indicated a total solvency shortfall of $ 7,894,000 (or a shortfall of $ 2,971,000, if we exclude the prior year credit balance).

The deterioration in the solvency position since the previous valuation is primarily the result of losses from the worse than expected performance of the assets on the actuarial value basis, partially offset by Employer contributions to fund the solvency deficiency. Further details can be found in Section 6.

On a wind-up basis, the actuarial liabilities of $ 627,718,000 exceed the value of assets of $ 521,718,000 (market value adjusted to reflect estimated termination expenses), producing a windup deficiency of $ 106,000,000. The previous valuation at December 31, 2007 indicated a wind-up deficiency of $ 6,229,000.

d) Funding Requirements

In 2009, it is recommended that the Employer make contributions at least equal to the minimum required contributions of $ 5,425,800 ($458,000 per month to November 2009 and $387,800 per month thereafter) in respect of the solvency deficiency. Note that Employer contributions for 2009 cannot exceed a maximum of $ 106,000,000.

Since all active officers had completed 35 years of credited service at December 31, 2004, current service contributions for 2005, and thereafter, are nil.

The minimum required and maximum allowable Employer contributions for 2009 are as follows:

Employer Contributions	Minimum Required	Maximum Allowable
▪ in respect of current service	$ 0	$ 0
▪ in respect of the funding deficiency	0	0
▪ in respect of the solvency deficiency	5,425,800	106,000,000
Total Employer contributions	$ 5,425,800	$ 106,000,000

e) Plan Membership

The membership data received from the Employer for purposes of this valuation include:

- 10 active officers, having an average age of 62.2 years and 2008 pensionable earnings totalling $ 1,101,000.
- 1,445 retired members having an average age of 71.4 years, in receipt of annual pensions totalling $ 46,429,000.
- 684 surviving spouses having an average age of 76.5 years, in receipt of annual pensions totalling $ 11,822,000.

- During 2008, the active membership declined from 12 at the start of the year to 10 at the current valuation date. The number of retired members and surviving beneficiaries receiving pensions from the Plan decreased from 2,167 to 2,129.

- During the inter-valuation period, there were 2 new retirements at an average age of 64.1 years.

Reconciliation of these membership changes and further details are included in Appendix B.

Changes in Actuarial Assumptions and Methods

The actuarial liabilities for active members were adjusted to include a reserve for estimated section 24 contribution refunds due to be paid at retirement. This change increased the going-concern actuarial liabilities by $250,000 at December 31, 2008.

There were no other changes made to the going-concern actuarial assumptions and methods from the assumptions used in the previous valuation at December 31, 2007.

A complete description of the going-concern actuarial methods and assumptions is provided in Appendix C.

Changes in By-law Provisions

There have been no changes to the By-law provisions since the previous valuation as at December 31, 2007.

A summary of the main By-law provisions in effect on the valuation date is provided in Appendix A.

Due to the solvency position of the Plan, the next actuarial valuation of the Plan will be required as at a date not later than December 31, 2009.

This report will be filed with the Financial Services Commission of Ontario ("FSCO") and with the Canada Revenue Agency ("CRA").

Respectfully submitted,

Anil Narale
Fellow of the Canadian Institute of Actuaries
Fellow of the Society of Actuaries

13 April 2009

Date

Frank Dekeyser
Associate of the Society of Actuaries

13 April 2009

Date

Metropolitan Toronto Police Benefit Fund
Registration number with the FSCO and with the CRA: 0351585

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Plan Assets

The going-concern assets are recorded at an "Actuarial Value" which is determined as follows:

(1) The market value of total assets at the previous year-end is accumulated, together with the current year's cash flow, with interest at the valuation rate of 5.50%; and

(2) The difference between the accumulation in (1) and the market value of total assets at the valuation date is spread over the current year and the three succeeding years in four equal amounts.

The value determined in accordance with the above method is $625,553,000 at December 31, 2008. This amount is further adjusted with net payments in-transit of $1,531,000, producing an **Actuarial Value of $624,022,000** at December 31, 2008.

Amounts in-transit (i.e. contributions and payments made in 2009 in respect of 2008) at December 31, 2008 include:

- $ 398,000, in respect of Employer contributions to fund the solvency deficiency;
- $ 1,411,000, in respect of the estimated payment assumed to be owed to the Police Services Board from the pension fund in respect of MPBF contributions by officers which should have ceased in January, 1999 but continued until September, 1999 and which the Police Services Board has already refunded to officers from outside of the pension fund;
- $ 518,000, in respect of investment management fees.

The effect of the foregoing is shown below (in $ 000).

Assets of the Pension Fund at December 31, 2007		Market Value	Actuarial Value
I.	Cash and Equivalents		
	Cash and short-term investments	11,779	11,779
II.	Active Management		
	Bonds	295,838	295,838
	Canadian equities	110,246	110,246
	Foreign equities	105,708	105,708
	Subtotal	511,792	511,792
III.	Smoothing Adjustment		101,982
Total (before in-transit amounts)		**523,571**	**625,553**
Net amount in-transit		(1,531)	(1,531)
Total (after in-transit amounts)		**522,040**	**624,022**

Under this adopted asset valuation system, the Plan's investment rate of return in 2008 was equal to 2.56% (net of investment expenses). After netting out a 3.40% Consumer Price Index increase (based on a ratio of the index at September, 2008 over September, 2007), the real rate earned was -0.84%.

The currently unrecognized portion of the market value of assets will be taken into account in future years in the following amounts ($ 000).

2007	25% of 2006 gain	8,896	
	25% of 2007 loss	(6,941)	
	25% of 2008 loss	(32,332)	(30,377)
2008	25% of 2007 loss	(6,942)	
	25% of 2008 loss	(32,332)	(39,274)
2009	25% of 2008 loss	(32,331)	(32,331)
Total			**(101,982)**

The pension fund custodian is CIBC Mellon and the assets are invested in accordance with the investment policy by the following investment managers as at December 31, 2008:

Manager	Investments
Addenda	Bonds
Fiera	Bonds
Phillips, Hager & North	Foreign Equities
Scheer Rowland	Canadian Equities
Aurion	Canadian Equities
TD Asset Mgmt	U.S. Equities

Reconciliation of Fund Assets ($ 000)

			Market Value	Actuarial Value
Value at 31.12.2007			**673,066**	**665,248**
Net amount in-transit		1,097	1,097	1,097
Adjusted Value at 31.12.2007			674,163	666,345
I.	Contributions			
	Employee Contributions	0		
	Employer Contributions	2,881	2,881	2,881
II.	Adjusted Investment Income		(91,976)	17,826
III.	Pensions & Other Benefits			
	Pensions for Members	48,149		
	Pensions for Widows & Others	11,515		
	Lump sum payments	0	(59,664)	(59,664)
IV.	Actuarial, Legal and Other Fees			
	Actuarial Fees	193		
	Custodial Fees	119		
	Investment Management Fees	1,470		
	Other Fees (audit, legal, etc.)	53	(1,835)	(1,835)
Value at 31.12.2008 (before in-transits)			**523,571**	**625,553**
Net amount in-transit		(1,531)	(1,531)	(1,531)
Value at 31.12.2008 (after in-transits)			**522,040**	**624,022**

Historical Fund Performance

Annual rates of return, net of investment expenses, for the last 11 years are provided below on both a market value and actuarial value bases.

	Year-end Market Value	Market Value Rate of Return	Year-end Actuarial Value	Actuarial Value Rate of Return
2008	$ 522,040,000	-14.47%	$ 624,022,000	2.56%
2007	673,066,000	1.54%	665,248,000	8.71%
2006	719,666,000	10.86%	666,841,000	10.78%
2005	698,384,000	11.78%	651,137,000	5.28%
2004	675,192,000	8.53%	670,341,000	2.73%
2003	686,160,000	9.89%	718,335,000	2.56%
2002	689,130,000	-4.84%	767,318,000	2.30%
2001	793,752,000	0.97%	817,167,000	8.72%
2000	855,847,000	6.02%	818,830,000	13.30%
1999	875,285,000	7.10%	788,636,000	16.22%
1998	876,995,000	13.31%	736,078,000	11.15%

Historical Updates to Pensions In-Payment

Annual cost-of-living adjustments (COLA) for the last 22 years, applicable to pensions that have been in payment for at least one year on the effective date, are provided below.

Effective Date	COLA Update	Effective Date	COLA Update
July 1, 1987	4.75%	January 1, 1999	0.90%
July 1, 1988	3.00%	January 1, 2000	2.58%
July 1, 1989	5.21%	January 1, 2001	2.69%
July 1, 1990	5.10%	January 1, 2002	2.62%
July 1, 1991	5.00%	January 1, 2003	2.30%
July 1, 1992	3.80%	January 1, 2004	0.00%
July 1, 1993	2.10%	January 1, 2005	0.00%
July 1, 1994	1.70%	January 1, 2006	0.00%
July 1, 1995	0.20%	January 1, 2007	0.00%
July 1, 1996	1.80%	January 1, 2008	0.00%
July 1, 1997	2.20%		
July 1, 1998	0.70%		

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Valuation Results – Going-Concern Basis

On the basis of the foregoing, the financial position of the Plan on the going-concern basis as at December 31, 2008, with comparable results from the previous valuation, is summarized below:

Financial Position – Going-Concern Basis

	Dec. 31, 2008 ($ 000)	Dec. 31, 2007 ($ 000)
Assets		
▪ Value of Pension Fund	625,553	666,345
▪ Net amount in-transit	(1,531)	(1,097)
Actuarial value of assets	624,022	665,248
Liabilities		
▪ Active and disabled officers	10,061	11,338
▪ Retired members' pensions	486,942	515,589
▪ Spouses and other survivor pensions	100,903	99,298
Total actuarial liabilities	597,906	626,225
Prior year credit balance adjustment	0	4,923
Funding Excess (Unfunded Liability) *	26,116	34,100

* *Determined as the value of assets less total actuarial liabilities less any prior year credit balance*

It should be noted that all figures are net of Government Annuity pensions credited to certain members under predecessor pension plans.

Current Service Cost

The estimated value of the benefits that will accrue on behalf of the active members during 2009, and a comparison with the corresponding value for 2008 determined in the prior valuation, is summarized below:

	2009	2008
Estimated Employer current service cost	$ 0	$ 0
Estimated Member required contributions	$ 0	$ 0
Employer current service cost as a percentage of member earnings		
▪ Officers	7.3% up to YMPE, 9.8% in excess	7.3% up to YMPE, 9.8% in excess

As at December 31, 2008 all active members had completed 35.0 years of credited service. Therefore, no further contributions for current service are required by the Employer and the Plan members.

Special Payments for Unfunded Liabilities

There is a going-concern funding excess at December 31, 2008, therefore no unfunded liability special payments are required.

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Reconciliation of Going-Concern Financial Position

As the foregoing actuarial balance sheet indicates, the Plan has a funding excess of $ 26,116,000 on the valuation date. The analysis of change in the financial position during 2008 is as follows.

	($ 000)	($ 000)
Funding Excess (Deficiency) at December 31, 2007		34,100
Prior year credit balance adjustment at 31.12.2007		4,923
▪ Interest on reserve account at 5.50% per year	2,146	
▪ Change in actuarial assumptions (sec.24 reserve)	(250)	
▪ Employer special payments made in 2008, with interest	2,483	4,379
Experience gains (losses)		
▪ Investment experience	(18,993)	
▪ Retirement experience	346	
▪ Mortality experience	1,281	
▪ Wage & Ympe increases lower than expected	16	
▪ Miscellaneous	64	(17,286)
Prior year credit balance adjustment at 31.12.2008		0
Funding Excess (Deficiency) at December 31, 2008		26,116

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Valuation Results – Solvency Basis

When conducting a solvency valuation, we determine the relationship between the respective values of the Plan's assets and its liabilities on a solvency basis, determined in accordance with the *Pension Benefits Act (Ontario)*. The value of the Plan's assets and liabilities on a solvency basis are related to the corresponding values calculated as though the Plan were wound up and settled on the valuation date. A four year smoothing method (similar to the going-concern smoothing method) has been applied to determine the solvency assets and liabilities. Further details are provided in Appendix D.

Pre-Existing Special Payments

The present value at December 31, 2008 of the pre-existing special payments established in the prior valuation to eliminate the solvency deficiencies over the prescribed periods is determined as follows:

Present Value of Pre-Existing Solvency Special Payments

Effective Date	Monthly Special Payment	Last Payment	Present Value of Remaining Payments as at 31.12.2008
31.12.2003	$ 57,600	12.2008	$ 0
31.12.2004	411,700	12.2008	0
31.12.2005	72,100	12.2008	0
31.12.2006	70,200	11.2009	752,000
Total	$ 611,600		$ 752,000

As indicated above, the solvency deficiencies established in 2003 to 2005 have been fully amortized as at December 31, 2008. As a result, the pre-existing solvency special payments of $611,600 per month from the previous valuation have reduced to $70,200 per month with a present value of $ 752,000 at the current valuation date.

Financial Position on a Solvency Basis

The Plan's solvency position as at December 31, 2008, in comparison with that of the previous valuation as at December 31, 2007, is determined as follows:

Financial Position – Solvency Basis

	Dec. 31, 2008 ($ 000)	Dec. 31, 2007 ($ 000)
Assets		
Market value of assets (before in-transit amounts)	523,571	674,163
▪ Net amount in-transit	(1,531)	(1,097)
Market value of assets (after in-transit amounts)	522,040	673,066
▪ Termination expenses	(322)	(328)
Solvency assets	521,718	672,738
Solvency asset adjustment:		
▪ Averaging method adjustment	96,408 *	(11,212)
▪ Present value of special payments for previously determined solvency deficiencies	752	7,894
Adjusted solvency assets	618,878	669,420
Actuarial liability		
Present value of accrued benefits for:		
Active and disabled officers	10,588	12,290
Retired officers	511,704	560,063
Survivors	105,426	106,614
Solvency liabilities	627,718	678,967
Solvency liability adjustment	11,987	(14,470)
Adjusted solvency liability	639,705	664,497
Prior year credit balance adjustment	0	4,923
Solvency excess (deficiency) created at the valuation date**	(20,827)	0
Total solvency surplus (shortfall), excluding asset adjustment for funding and solvency deficiency payments and prior year credit balance adjustment	(21,579)	(2,971)
Market value less prior year credit balance	522,040	668,143
Solvency liability, excluding adjustments	627,718	678,967
Transfer ratio	83.2%	98.4%

* *Averaging method adjustment = 75% of investment losses (i.e. below the 4.75% expected) of $(93,363,000) from 2007 plus 50% of investment losses of $12,151,000 from 2007 plus 25% of investment gains of $9,106,000 from 2006.*

** *Determined as value of assets less total actuarial liability less prior year credit balance adjustment*

Impact of Plan Wind-Up

In our opinion, the value of the actuarial liabilities would be greater than the Plan's assets if the Plan were to be wound up on the valuation date. Specifically, the actuarial liabilities of $ 627,718,000 would exceed the market value of assets of $ 521,718,000 by an amount of $ 106,000,000. For purposes of this calculation, the market value of assets includes amounts in-transit and a provision for Plan termination expenses that might be payable from the pension fund and the liabilities exclude the potential liability for future cost-of-living adjustments to pensions in payment.

Total Special Payments for Solvency Deficiencies

In accordance with the *Pension Benefits Act (Ontario)*, each solvency deficiency must be eliminated by special payments within five years of the respective effective date.

The special payments established at December 31, 2003 ($57,600), December 31, 2004 ($411,700) and December 31, 2005 ($72,100) are fully amortized at December 31, 2008, reducing the previously established special payments from $611,600 to $70,200. As a result, the present value of the remaining special payments of $70,200 per month in respect of the solvency deficiencies established on or before January 1, 2008 is $752,000 as at December 31, 2008. In addition, there is a new solvency deficiency of $20,827,000 created at December 31, 2008 which will be amortized over 5 years with special payments of $387,800 per month, producing total special payments of $458,000 per month at December 31, 2008.

The present value of the remaining special payments established to eliminate the solvency deficiencies over the prescribed period is determined as follows:

Present Value of Special Payments

Effective Date	Monthly Special Payment	Last Payment	Present Value of Remaining Payments as at 31.12.2008
31.12.2006	$ 70,200	11.2009	$ 752,000
31.12.2008	387,800	12.2013	20,827,000
Total	$ 458,000		$ 21,579,000

Since the Plan has no prior year credit balance, the minimum total Employer contribution required for 2009 is $5,425,800 and the maximum contribution permitted is equal to the windup deficiency of $106,000,000.

Pension Benefits Guarantee Fund (PBGF) Assessment

In accordance with subsection 47(1)(p.15) of the Regulations under the *Pension Benefits Act (Ontario)*, the pension benefits provided by this Plan are not guaranteed by the Pension Benefits Guarantee Fund (PBGF) and are therefore exempt from the filing of PBGF assessment certificate (subsection 18(7) of the Regulations) and payment of an annual PBGF assessment (section 37 of the Regulations).

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Indexation Reserve Account

General

The pension plan that the Plan can be fairly compared with is the Ontario Municipal Employees Retirement System (OMERS). OMERS has adopted automatic indexation. It was, and is, our opinion that the Plan with its closed membership could not afford to undertake automatic indexation but, instead, must use available assets to meet inflationary pressures on a yearly basis.

Therefore, in 1991 a policy was recommended and adopted that:

(a) assets not required to meet specific current pension liabilities be held in an Indexation Reserve Account (IRA);

(b) the IRA be limited to 30% of the reserve for non-indexed benefits;

(c) the IRA be built up to the maximum before any allocation of surplus be considered; and

(d) minor improvements in pension benefits and increases in pensions due to cost-of-living inflation should be limited to the extent that the IRA is sufficient.

Indexation Reserve Account

The change in the Indexation Reserve Account in 2008 is outlined below.

		($ 000)
Indexation Reserve Account at December 31, 2007		0
January 1, 2008 cost-of-living increases to pensions		0
Indexation Reserve Account at January 1, 2008		**0**
Indexation Reserve Account at December 31, 2008		
a) Going-concern excess (deficiency)	26,116	
b) Solvency surplus (shortfall)	(21,579)	
Indexation Reserve Account (lesser of (a) and (b),but not less than 0)		**0**
January 1, 2009 recommended cost-of-living increases to pensions		0
Indexation Reserve Account at January 1, 2009		**0**

Note: The Indexation Reserve Account (IRA) is not to exceed 30% of the going-concern liability, so the maximum is $ 179,372,000.

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Recommendations

Active Members

No improvements are recommended at this time.

Retired Members

As at December 31, 2008 there is a going-concern funding excess of $ 26,116,000. However, since there is a total solvency shortfall of $ 21,579,000 as at December 31, 2008, the Indexation Reserve Account is $ 0 and, therefore, no improvements are recommended at this time.

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Actuarial Opinion

with respect to the Actuarial Valuation as at December 31, 2008
of the Metropolitan Toronto Police Benefit Fund
FSCO and CRA Registration No. 0351585

It is hereby certified that, in our opinion, with respect to the Metropolitan Toronto Police Benefit Fund:

1) since all active officers have completed 35 years of pensionable service as at December 31, 2008, current service contributions for 2009, and thereafter, are nil;

2) on a going-concern basis, the Plan is fully funded as at December 31, 2008, with assets exceeding liabilities by $ 26,116,000.

3) on a solvency basis, the Plan is not fully funded as at December 31, 2008, with liabilities exceeding assets by $ 21,579,000. In order to comply with the *Pension Benefits Act (Ontario)*, the solvency deficiencies must be eliminated by monthly special payments at least equal to the amounts indicated and for the periods set forth below:

Type of Deficiency	Effective Date	Monthly Special Payments	Date of Last Payment
Solvency Deficiency	31.12.2006	$ 70,200	11.2009
Solvency deficiency	31.12.2008	387,800	12.2013
Total		$ 458,000	

The minimum total Employer contribution required for 2009 is $5,425,800 and the maximum contribution permitted is $106,000,000.

4) as at December 31, 2008, the transfer ratio of the Plan is 83.2% and the Prior Year Credit Balance is $ 0; and

5) the Plan benefits are not guaranteed by the Pension Benefits Guarantee Fund and are therefore exempt from the annual filing of the PBGF assessment certificate and payment of any associated fees, in accordance with subsection 47(1)(p.15) of the Regulations under the *Pension Benefits Act (Ontario).*

In our opinion,

- the data on which the valuation is based are sufficient and reliable for the purpose of the valuation.
- the assumptions are, in aggregate, appropriate for the purpose of the valuation.
- the methods employed in the valuation are appropriate for the purpose of the valuation.
- the liabilities would exceed the assets if the Plan were to be wound up on the valuation date.

This report has been prepared, and our opinions have been given, in accordance with accepted actuarial practice.

Anil Narale
Fellow of the Society of Actuaries
Fellow of the Canadian Institute of Actuaries

13 April 2009

Date

Frank Dekeyser
Associate of the Society of Actuaries

13 April 2009

Date

Appendix A

By-law Provisions

The following is a summary of the main provisions of the Plan, contained in By-law no. 181-81, which are relevant to the actuarial valuation. For complete details reference should be made to the formal plan document.

Effective Date: January 1, 1957.

Membership: Police officers who were hired before July 1, 1968.

Normal Retirement: Age 60

Early Retirement: Unreduced pensions upon completion of 25 years of service, or upon attainment of age 55. Reduced pensions (i.e. actuarially reduced from normal retirement date) are available from age 50.

Disability Retirement: Permitted, with full accrued pensions,

(a) if disability occurred in the line of duty; or

(b) if on total and permanent disability; or

(c) after 20 years service, on a “worn-out” basis.

Member Contributions:

Prior to 1999:

7.00% of annual pensionable earnings up to the Canada Pension Plan Y.M.P.E., and 8.50% of higher annual earnings.

1999 through 2002 inclusive:

0.00% of annual pensionable earnings up to the Canada Pension Plan Y.M.P.E., and 0.00% of higher annual earnings.

2003:

2.43% of annual pensionable earnings up to the Canada Pension Plan Y.M.P.E. and 2.93% of higher annual earnings.

2004:

7.30% of annual pensionable earnings up to the Canada Pension Plan Y.M.P.E. and 9.80% of higher annual earnings.

Contributions cease after completion of 35 years of credited service.

Employer Contributions: Same as Member contributions.

Normal Retirement Pension: 2% of employee's highest consecutive 5-year average earnings, multiplied by his number of years of service up to a maximum of 35 years, less (after age 65 or total disability) 0.7% of final 3 year average Y.M.P.E., multiplied by number of years of service after 1.1.66, up to a maximum of 35 years.

For years of service after 1991, the Canada Customs and Revenue Agency restrictions on maximum pensions apply.

Minimum Pension at Normal Retirement: Annual pension of $500 multiplied by credited service (to a maximum of 30 years). Effective from January, 2000.

Spousal Benefits:	66.67% of the deceased member's normal pension.
Orphans' Pensions:	If there is no Spouse, 66.67% of the deceased member's normal pension until youngest orphan reaches 21. If there is a Spouse, an amount per child under age 21 where the total paid to Spouse AND Orphans is not to exceed 100% of the deceased member's normal pension.
Other Pre-Retirement Death Benefits:	Return of deceased member's pre-1987 contributions plus interest, plus the commuted value of the deceased member's post-1986 accrual pension, in lieu of the spouse pension.
Minimum Death Benefit:	Return of deceased member's contributions plus interest.
Withdrawal Benefits:	Vested pension, or return of terminated member's pre-1987 contributions plus interest plus the commuted value of the member's post-1986 accrued pension.
Employer Cost-Sharing:	Upon termination, death or retirement, the member or his beneficiary is entitled to receive the excess, if any, of the member's post-1986 contributions plus interest over 50% of the commuted value of the pension earned over the same period.

Notes:

(1) All pensions are subject to the maximum limitation imposed by the *Municipal Act* and the *Income Tax Act*.

(2) The Fund is subject to the provisions of the *Pension Benefits Act (Ontario).*

(3) In the case of an officer who retires on or after the attainment of age 50 or after the completion of 30 years of service, or because of total and permanent disability, a special benefit is paid equivalent to 1% of salary from January 1, 1980 to April 3, 1984 plus 0.5% of salary thereafter, all accumulated with interest. These Section 24 contributions were refunded in 2001 or 2002 to existing pensioners and surviving spouses who did not take advantage of this retirement provision and are refunded to any future retirees who do not take advantage of this provision.

Appendix B

Membership Data

Data as to the membership of the Plan were obtained from the Employer for purposes of this actuarial valuation. These data reflect membership changes up to the end of January (approximately) of the year following the valuation date.

Tests were carried out as to the validity of the data by comparison with the data obtained in the previous valuation, by reconciliation of the membership movement during the inter-valuation period and by performing various data checks to ensure that salaries, pension amounts, dates of birth, and so on are reasonable. The results of these tests were satisfactory.

Membership Reconciliation

A reconciliation of the membership data since the previous valuation is provided below.

	Active Members	Pensioners	Surviving Spouses	Total
As at 31.12.2007	12	1,496	671	2,179
Reinstatements				
Pension Splits				
Data Corrections				
Exits By:				
Retirement	(2)	2		
Death - no spouse		(13)	(27)	(33)
Death – with spouse		(40)	40	
Disabled				
As at 31.12.2008	10	1,445	684	2,139

Membership Summary

Plan membership data are summarised below. For comparison, we have also summarised corresponding data from the previous valuation.

Membership Data

	31.12.2008	31.12.2007
Active Members		
▪ Number	10	12
▪ Average years of pensionable service	35.0	35.0
▪ Average age in years	62.2	61.7
▪ Average earnings in the year	$ 110,105	$ 108,132
▪ Average accumulated contributions	$ 1,101,046	$ 509,033
Pensioners		
▪ Number	1,445	1,496
▪ Total annual lifetime pension	$ 41,980,411	$ 43,444,205
▪ Total annual bridge pension	$ 4,448,133	$ 5,626,315
▪ Average total annual pension	$ 32,130	$ 32,801
▪ Average age in years	71.4	70.7
Spousal Pensioners		
▪ Number	684	671
▪ Total annual lifetime pension	$ 11,620,993	$ 11,279,323
▪ Total annual bridge pension	$ 201,432	$ 180,766
▪ Average total annual pension	$ 17,284	$ 17,079
▪ Average age in years	76.5	75.9

Note that the pension amounts above are net of Government Annuity pensions credited to certain members under predecessor pension plans.

Active and Disabled Officers

There are currently 10 active officers accruing benefits under the Plan. These members have an average age of 62.2 years, average credited service of 35.0 years and average 2006 earnings of $ 110,105.

The following table provides a further breakdown:

Age Group	No.	Average Pensionable Service	Average Earnings	Average Accumulated Contributions
55 – 59	2	35.0	$ 119,967	$ 521,380
60 – 64	8	35.0	107,639	553,810
Total (all males)	10	35.0	$ 110,105	$ 547,324

Pensioners and Spouses

There are currently 1,445 pensioners having an average age of 71.4 years, receiving an average annual pension of $ 32,130 and there are 684 surviving spouses having an average age of 76.5 years, receiving an average annual pension of $ 17,284.

The following table provides a further breakdown:

	PENSIONERS		SURVIVING SPOUSES	
Age Group	No.	Average Pension	No.	Average Pension
Under 50	0	$ 0	3	$ 17,851
50 – 54	0	0	10	22,147
55 – 59	16	37,177	32	21,114
60 – 64	340	41,589	47	17,619
65 – 69	355	29,923	57	16,784
70 – 74	232	29,044	104	16,293
75 – 79	281	29,124	165	18,109
80 – 84	159	27,846	149	17,011
85 – 89	54	27,651	92	16,595
90 – 94	7	27,293	19	13,824
95 & over	1	37,287	6	13,412
Total	1,445	$ 32,130	684	$ 17,284
Males	1,398	$ 33,334	1	$ 16,174
Females	47	$ 26,080	683	$ 17,286

Appendix C

Actuarial Methods and Assumptions – Going-Concern Basis

The actuarial value of benefits under the Plan is based on economic and demographic assumptions. At each valuation, we determine whether, in our opinion, the actuarial assumptions are still appropriate for the purposes of the valuation, and we revise the assumptions if necessary.

In this valuation, we have used the same assumptions as in the previous valuation, except as noted. Emerging experience will result in gains or losses that will be revealed and considered in future actuarial valuations. For this valuation, we have used the following assumptions:

Economic Assumptions

Investment Return

We have assumed that the investment return on the actuarial value of the fund, net of eligible Plan expenses charged to the Plan assets, will average 5.50% per year over the long term.

This is based on an assumed inflation rate of 2.50% per year plus a real rate of return of 3.00% per year.

Discount Rate

We have assumed that the discount rate for determination of the actuarial liabilities will be equal to the investment return assumption of 5.50% per year.

Expenses

We have not included a specific allowance for eligible Plan expenses. Instead, we have assumed that the investment return assumption is net of all eligible Plan expenses.

Increases in Pensionable Earnings

The benefits ultimately paid will depend on each officer's final average earnings. To calculate the pension benefits payable upon retirement, death or termination of employment, we have taken the 2008 annualized earnings and assumed that such earnings will increase at 4.50% per year.

This is based on an assumed inflation rate of 2.50% per year, a productivity component of 1.00% per year and a merit and promotional increase component of 1.00% per year.

Increases in the YMPE

Since the benefits under the Plan depend on the average Year's Maximum Pensionable Earnings (YMPE) under the Canada Pension Plan, it is necessary to make an assumption about future increases in the YMPE for this valuation.

It is assumed that the YMPE will increase at the rate of 3.50% per year from its 2009 level of $ 46,300.

Increases in the Maximum Pension Permitted under the Income Tax Act

The *Income Tax Act (Canada)* (ITA) stipulates that the maximum pension that can be provided under a registered pension plan will increase by $ 111 per year from $ 2,222 in 2007 to $ 2,444 in 2009 and, thereafter, increase in accordance with general increases in the average wage. For this Plan the ITA maximum pension limitations apply only to the pension benefits accrued after 1991.

For this valuation, it is assumed that the ITA maximum pension will increase at the rate of 3.50% per year, starting in 2010.

Demographic Assumptions

Retirement Age

Because early retirement pensions are reduced in accordance with a formula, the retirement age of Plan members has an impact on the cost of the Plan benefits. Accordingly, we have assumed that all active members will retire at the age of 58 years or the age at the valuation date plus one, if greater.

Termination of Employment

We have not made an explicit assumption for benefits payable on pre-retirement termination.

Mortality

The actuarial value of the pension depends on the lifetime of the member. We have assumed mortality rates after retirement in accordance with the Uninsured Pensioner Mortality Table for 1994 (UP94), with allowance for future mortality improvements. No mortality assumption was included in the pre-retirement period. According to this table, the life expectancy at age 65 years is 18.7 years for a male and 21.3 years for a female.

Disability

We have not made an implicit assumption for benefits payable on disability retirement.

Spousal Benefit Assumptions

Based on actual data provided and an allowance for remarriage of 0.75% of the pensioner liability.

Subject to the entitlement of the prior spouse, if any, the waiting period specified in the Plan and the requirements under the *Pension Benefits Act (Ontario),* a spouse acquired after retirement date may be entitled to receive the spousal pension. Based on remarriage rates for older adults in Canada, it was estimated that the additional liability as a result of this provision is approximately 0.75% of the pensioner liability.

Assumed Percentage of Members Married

We have assumed that 100% of active members are married. Female spouses are assumed to be 4 years younger than males.

Allowance for Stepped Pensions

Upon the death of a pensioner whose pension has been stepped at retirement, the Plan provides a pension to the spouse whereby the survivor percentage is applied to the post-65 pre-stepped pension rather than the post-65 pension in payment. A stepped pension is a pension that has been increased before age 65 and reduced after age 65 to produce a level pension in anticipation of the OAS pension commencing from age 65.

We have performed a calculation based on the membership data supplied to estimate the spousal pension.

Deviation from Assumptions

Emerging experience differing from the assumptions will result in gains or losses in future actuarial valuations.

Funding Method

The total *actuarial liability* has been determined as the actuarial present value of projected benefits for active, disabled and suspended participants plus the actuarial present value of accrued benefits for current pensioners, spousal pensioners and deferred pensioners.

The total v*alue of assets* has been determined as the actuarial value of invested assets.

A *prior year credit balance* may result when the Employer makes contributions to the Plan which are in excess of the minimum contribution requirements as outlined in the applicable actuarial valuation report. The amount of the prior year credit balance is equal to the sum of such excess contributions.

The difference between the total value of assets and the sum of the total actuarial liability and the prior year credit balance is called the *funding excess* or *unfunded liability*, as the case may be. An unfunded liability will be amortized over no more than 15 years through special payments as required under the *Pension Benefits Act (Ontario)*.

The Indexation Reserve Account which is equal to the funding excess, subject to a maximum of 30% of the actuarial liability, is to be used primarily to provide ad hoc pension increases to Members in receipt of pension payments from the Benefit Fund.

Differences between actual experience and that expected based upon the set of actuarial assumptions during the period between two actuarial valuation dates will result in experience gains/(losses) which will increase/(decrease) the Indexation Reserve Account and Funding Excess/(Unfunded Liability).

Appendix D

Actuarial Methods and Assumptions – Solvency Basis

The value of assets used for determining the financial position of the Plan on the solvency basis includes the solvency assets plus a solvency asset adjustment.

The *solvency assets* are determined as the market value of investments held by the Plan plus any cash balances of the Plan and accrued or receivable income items.

The *solvency asset adjustment* is determined as (1) the present value at the interest rate used to calculate the solvency liability adjustment of the special payments required to eliminate any going-concern unfunded liability or experience deficiency determined in this report that are scheduled for payment within 5 years of the valuation date, plus (2) the amount, positive or negative, by which the value of the solvency assets are adjusted as a result of applying an averaging method that stabilizes short-term fluctuations of the Plan assets.

The value of the liabilities used for determining the financial position of the Plan on the solvency basis includes the solvency liabilities plus a solvency liability adjustment.

To determine the *solvency liability*, we have valued those benefits that would have been paid had the Plan been wound up on the valuation date with all members vested in their accrued benefits.

The *solvency liability adjustment* is determined as the amount, positive or negative, by which the value of the solvency liabilities are adjusted as a result of using a solvency valuation interest rate that is the average of the market interest rates calculated over a period of 4 years (the same period used for the averaging method used to determine the solvency asset adjustment).

The difference between (1) the sum of the solvency assets and solvency asset adjustment and (2) the sum of the solvency liability, solvency liability adjustment and prior year credit balance is called the *solvency excess* or *solvency deficiency*, as the case may be.

Since virtually all members have qualified for a retirement pension, we have assumed that all benefits will be settled through the purchase of annuities and have used a valuation interest rate for solvency purposes which, when used with the 1994 Uninsured Pensioners mortality table with mortality projected to 2015 (U94P2015), provides an estimate of group annuity purchase rates for non-indexed pensions.

The Plan provides that the new spouse of a pensioner, whose former spouse at retirement has died or who was without spouse at retirement, is eligible for a survivor pension provided that the new spousal relationship, as defined in the Plan, has been in effect for a minimum of 2 years, with a pro rata share of the spousal pension for spousal relationships of less than 2 years. In order to make allowance for the possible increase in future liabilities on remarriage of a pensioner, we have loaded the pensioner liabilities by 0.75% as an allowance for remarriage.

Spousal benefits for members with stepped pensions have been determined in the same manner as outlined under the going-concern valuation assumptions.

It should be noted that we have excluded from our calculations any potential liability for future cost-of-living increases provided under the Plan.

Assumptions for determination of the solvency and wind-up liability are as follows:

Actuarial Assumptions

Mortality rates:	UP 1994, with mortality projection to 2015
Interest rate for benefits to be settled through annuity purchase:	4.85%
Family composition:	Same as for going concern valuation
Termination expenses:	$ 322,000 (based on $ 150 per pensioner/survivor and $ 250 per active/suspended/deferred vested)

Assumptions for determination of the solvency liability adjustment are as follows:

Actuarial Assumptions

Mortality rates:	UP 1994, with mortality projection to 2015
Interest rate for benefits to be settled through annuity purchase:	4.625%
Family composition:	Same as for going concern valuation

We have used an average of the annuity proxy rates as at December 31, 2005 (4.50% per year), December 31, 2006 (4.60% per year), December 31, 2007 (4.50% per year) and December 31, 2008 (4.85% per year) which produces a rate of 4.625% per year (rounded to the nearest 1/8%).

Appendix E

Employer Certification

With respect to the report on the actuarial valuation of the *Metropolitan Toronto Police Benefit Fund*, as at December 31, 2008, I hereby certify that, to the best of my knowledge and belief:

- a copy of the official Plan documents, and of all amendments made up to the date of the valuation, were provided to the actuary;
- the membership and financial data provided to the actuary for the purposes of this valuation are accurate and complete;
- the membership data provided to the actuary include a complete and accurate description of every person who is entitled to benefits under the terms of the Plan for service up to the date of the valuation, and
- all events subsequent to December 31, 2008 that may have an impact on the results of the valuation have been communicated to the actuary.

Date

Signed

Name

Title

MERCER

MARSH MERCER KROLL
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