April 2010

Metropolitan Toronto Police Benefit Fund

Report on the Actuarial Valuation for Funding Purposes as at December 31, 2009

MERCER

MARSH MERCER KROLL
GUY CARPENTER OLIVER WYMAN

Consulting. Outsourcing. Investments.

Contents

1

Summary of Results

Asset Values	**31.12.2009**	**31.12.2008**
Market value of assets	$ 549,657,000	$ 522,040,000
Rate of return during the year, based on market values (gross)	16.33%	-14.26%
Actuarial value of assets	$ 582,273,000	$ 624,022,000
Rate of return during the year, based on actuarial values (net of investment expenses)	1.73%	2.56%
Going-Concern Financial Position	**31.12.2009**	**31.12.2008**
Actuarial value of assets	$ 582,273,000	$ 624,022,000
Actuarial liability	(570,766,000)	(597,908,000)
Funding Excess (Unfunded Liability)	$ 11,507,000	$ 26,116,000
Wind-Up Financial Position	**31.12.2009**	**31.12.2008**
Market value of assets (adjusted to reflect estimated Plan termination expenses)	$ 549,340,000	$ 521,718,000
Wind-Up liability	(621,790,000)	(627,718,000)
Wind-Up excess (deficiency)	$ (72,450,000)	$ (106,000,000)
Transfer Ratio	88.4%	83.2%

Solvency Financial Position	**31.12.2009**	**31.12.2008**
Solvency assets	$ 549,340,000	$ 521,718,000
Solvency asset adjustment		
▪ Asset smoothing adjustment	26,062,000	96,408,000
	575,402,000	618,126,000
▪ Present value of funding and pre-existing solvency special payments due within 5 years	17,028,000	752,000
Adjusted solvency assets	$ 592,430,000	$ 618,878,000
Solvency liability	$ 621,790,000	$ 627,718,000
Solvency liability adjustment	(7,057,000)	11,987,000
Adjusted solvency liability	$ 614,733,000	$ 639,705,000
Prior year credit balance	0	0
Solvency excess (deficiency)	$ (22,303,000)	$ (20,827,000)
Solvency position without asset adjustment for funding and solvency special payments and prior year credit balance	$ (39,331,000)	$ (21,579,000)
Indexation Reserve Account (lesser of funding excess and solvency excess)	$ 0	$ 0

Plan Membership	**31.12.2009**	**31.12.2008**
Active	8	10
Suspended or disabled	0	0
Retired members in receipt of pensions	1,391	1,445
Surviving spouses in receipt of pensions	710	684
Total membership	2,109	2,139

Funding Requirements (annualized)	**2010**	**2009**
Estimated minimum Employer contribution	$ 9,637,200	$ 5,425,800
Estimated maximum Employer contribution	$ 72,450,000	$ 106,000,000

Schedule of Employer Contributions	**2010-2013**	**2014**
Current Service Cost	$ 0	$ 0
Unfunded Liability	0	0
Solvency Deficiency	9,637,200	4,983,600
Total	$ 9,637,200	$ 4,983,600

2

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, 2009. The previous actuarial valuation was prepared as at December 31, 2008.

The purpose of this valuation is to determine:

- the funded status of the Plan as at December 31, 2009 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, 2010 through December 31, 2010.

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, 2010.

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 2009.

	December 31, 2008	December 31, 2009	Rate of Return in 2009 *
Market Value	$ 522,040,000	$ 549,657,000	16.03%
Actuarial Value	$ 624,022,000	$ 582,273,000	1.73%

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

b) Going-Concern Financial Position as at December 31, 2009

On a going-concern basis, the actuarial value of assets of $ 582,273,000 is greater than the actuarial liabilities of $ 570,766,000, producing a funding excess of $ 11,507,000. The funded position has reduced from a funding excess of $ 26,116,000 as at December 31, 2008 to a funding excess of $ 11,507,000 as at December 31, 2009. 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, 2009

On a solvency basis, the value of the assets of $ 575,402,000 (market value adjusted to reflect estimated termination expenses and the solvency asset adjustment) is less than the actuarial liabilities of $ 614,733,000, producing a total solvency shortfall of $ 39,331,000. The previous valuation at December 31, 2008 indicated a total solvency shortfall of $21,579,000.

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 $ 621,790,000 exceed the value of assets of $ 549,340,000 (market value adjusted to reflect estimated termination expenses), producing a windup deficiency of $ 72,450,000. The previous valuation at December 31, 2008 indicated a wind-up deficiency of $ 106,000,000.

d) Funding Requirements

In 2010, it is recommended that the Employer make contributions at least equal to the minimum required contributions of $ 9,637,200 ($803,100 per month) in respect of the solvency deficiency. Note that Employer contributions for 2010 cannot exceed a maximum of $ 72,450,000.

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 2010 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	9,637,200	72,450,000
Total Employer contributions	$ 9,637,200	$ 72,450,000

e) 50% Rule Refund of Excess Contributions

It was recently discovered that, in respect of members who retired since January 1, 1987, the 50% rule refund of excess contributions amount, if any, may not have been processed. The issue is under investigation and a resolution has not yet been reached. At this time, the impact of the above, if any, is not known and cannot as yet be quantified. If it is determined that the Plan has an additional liability for unpaid excess refunds, the funded position of the Plan will be adversely affected and special payments may have to be increased.

f) Plan Membership

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

- 8 active officers, having an average age of 63.3 years and 2009 pensionable earnings totalling $ 963,000.
- 1,391 retired members having an average age of 72.2 years, in receipt of annual pensions totalling $ 43,974,000.

- 710 surviving spouses having an average age of 77.0 years, in receipt of annual pensions totalling $ 12,408,000.
- During 2009, the active membership declined from 10 at the start of the year to 8 at the current valuation date. The number of retired members and surviving beneficiaries receiving pensions from the Plan decreased from 2,129 to 2,101.
- During the inter-valuation period, there were 2 new retirements at an average age of 63.3 years.

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

Changes in Actuarial Assumptions and Methods

There were no changes made to the going-concern actuarial assumptions and methods from the assumptions used in the previous valuation at December 31, 2008.

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, 2008. A summary of the main By-law provisions in effect on the valuation date is provided in Appendix A.

Recommendations

Based on the results of this valuation, it is recommended that no post retirement cost-of-living adjustment be made to pensions in payment as at January 1, 2010.

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

Respectfully submitted,

Anil Narale	Frank Dekeyser
Fellow of the Canadian Institute of Actuaries	Associate of the Society of Actuaries
Fellow of the Society of Actuaries	
April 15, 2010	April 15, 2010
Date	Date

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

3

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 $ 583,928,000 at December 31, 2009. This amount is further adjusted with net payments in-transit of $1,655,000, producing an **Actuarial Value of $582,273,000** at December 31, 2009.

Amounts in-transit (i.e. contributions and payments made in 2010 in respect of 2009) at December 31, 2009 include:

- $ 77,000, 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;
- $ 321,000, in respect of investment management fees.

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

Assets of the Pension Fund at December 31, 2009		Market Value	Actuarial Value
I.	Cash and Equivalents		
	Cash and short-term investments	14,941	14,941
II.	Active Management		
	Bonds	265,919	265,919
	Canadian equities	153,965	153,965
	Foreign equities	116,487	116,487
	Subtotal	536,371	536,371
III.	Smoothing Adjustment		32,616
Total (before in-transit amounts)		**551,312**	**583,928**
Net amount in-transit		(1,655)	(1,655)
Total (after in-transit amounts)		**549,657**	**582,273**

Under this adopted asset valuation system, the Plan's investment rate of return in 2009 was equal to 1.73% (net of investment expenses).

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 2007 loss	(6,942)	
	25% of 2008 loss	(32,332)	
	25% of 2009 gain	12,996	(26,278)
2008	25% of 2008 loss	(32,332)	
	25% of 2009 gain	12,997	(19,335)
2009	25% of 2009 gain	12,997	12,997
Total			**(32,616)**

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, 2009:

Manager	Investments
Addenda/TAL	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 31.12.2008			**522,040**	**624,022**
Net amount in-transit		1,531	1,531	1,531
Adjusted Value at 31.12.2008			523,571	625,553
I.	Contributions			
	Employee Contributions	0		
	Employer Contributions	5,880	5,880	5,880
II.	Adjusted Investment Income		81,134	11,768
III.	Pensions & Other Benefits			
	Pensions for Members	45,401		
	Pensions for Widows & Others	12,100		
	Lump sum payments	0	(57,501)	(57,501)
IV.	Actuarial, Legal and Other Fees			
	Actuarial Fees	216		
	Custodial Fees	101		
	Investment Management Fees	1,387		
	Other Fees (audit, legal, etc.)	68	(1,772)	(1,772)
Value at 31.12.2009 (before in-transits)			**551,312**	**583,928**
Net amount in-transit		(1,655)	(1,655)	(1,655)
Value at 31.12.2009 (after in-transits)			**549,657**	**582,273**

Historical Fund Performance

Annual rates of return, net of investment expenses, for the last 12 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
2009	$ 549,657,000	16.03%	$ 582,273,000	1.73%
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 23 years, applicable to pensions that have been in payment for at least one year on the effective date, are provided below. Adjustments, if payable, are currently based on a ratio of the index at September of the current year over September of the prior year.

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%	January 1, 2009	0.00%
July 1, 1998	0.70%		

4

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, 2009, with comparable results from the previous valuation, is summarized below:

Financial Position – Going-Concern Basis

	Dec. 31, 2009 ($ 000)	Dec. 31, 2008 ($ 000)
Assets		
▪ Value of Pension Fund	583,928	625,553
▪ Net amount in-transit	(1,655)	(1,531)
Actuarial value of assets	582,273	624,022
Liabilities		
▪ Active and disabled officers	7,896	10,061
▪ Retired members' pensions	459,705	486,942
▪ Spouses and other survivor pensions	103,165	100,903
Total actuarial liabilities	570,766	597,906
Prior year credit balance adjustment	0	0
Funding Excess (Unfunded Liability) *	11,507	26,116

* *It should be noted that the going-concern position is subject to change pending resolution of the 50% rule excess refund issue.*

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 2010, and a comparison with the corresponding value for 2009 determined in the prior valuation, is summarized below:

	2010	2009
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, 2009 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, 2009, therefore no unfunded liability special payments are required.

5

Reconciliation of Going-Concern Financial Position

As the foregoing actuarial balance sheet indicates, the Plan has a funding excess of $ 11,507,000 on the valuation date. The analysis of change in the financial position during 2009 is as follows.

	($ 000)	($ 000)
Funding Excess (Deficiency) at December 31, 2008		26,116
Prior year credit balance adjustment at 31.12.2008		0
▪ Interest on reserve account at 5.50% per year	1,436	
▪ Employer special payments made in 2009, with interest	5,998	7,434
Experience gains (losses)		
▪ Investment experience	(22,986)	
▪ Retirement experience	813	
▪ Mortality experience	(616)	
▪ Wage & Ympe increases lower than expected	24	
▪ Data corrections and valuation program changes	628	
▪ Miscellaneous	94	(22,043)
Prior year credit balance adjustment at 31.12.2009		0
Funding Excess (Deficiency) at December 31, 2009		11,507

6

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, 2009 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 31.12.2009
31.12.2006	$ 70,200	11.2009	$ 0
31.12.2008	387,800	12.2013	17,028,000
Total	$ 458,000		$ 17,028,000

As indicated above, the solvency deficiency established on December 31, 2006 has been fully amortized as at December 31, 2009. As a result, the pre-existing solvency special payments of $458,000 per month from the previous valuation have reduced to $387,800 per month with a present value of $ 17,028,000 at the current valuation date.

Financial Position on a Solvency Basis

The Plan's solvency position as at December 31, 2009, in comparison with that of the previous valuation as at December 31, 2008, is determined as follows:

Financial Position – Solvency Basis

	Dec. 31, 2009 ($ 000)	Dec. 31, 2008 ($ 000)
Assets		
Market value of assets (before in-transit amounts)	551,312	523,571
▪ Net amount in-transit	(1,655)	(1,531)
Market value of assets (after in-transit amounts)	549,657	522,040
▪ Termination expenses	(317)	(322)
Solvency assets	549,340	521,718
Solvency asset adjustment:		
▪ Averaging method adjustment	26,062 *	96,408
▪ Present value of special payments for previously determined solvency deficiencies	17,028	752
Adjusted solvency assets	592,430	618,878
Actuarial liability		
Present value of accrued benefits for:		
Active and disabled officers	8,854	10,588
Retired officers	501,737	511,704
Survivors	111,199	105,426
Solvency liabilities	621,790	627,718
Solvency liability adjustment	(7,057)	11,987
Adjusted solvency liability	614,733	639,705
Prior year credit balance adjustment	0	0
Solvency excess (deficiency) created at the valuation date **	(22,303)	(20,827)
Total solvency surplus (shortfall), excluding asset adjustment for funding and solvency deficiency payments and prior year credit balance adjustment **	(39,331)	(21,579)
Market value less prior year credit balance	549,657	522,040
Solvency liability, excluding adjustments	621,790	627,718
Transfer ratio	88.4%	83.2%

* *Averaging method adjustment = 75% of investment gains from 2009, $(42,256,000), plus 50% of investment losses from 2008, $62,242,000, plus 25% of investment losses from 2007, $6,076,000.*

*** The solvency position is subject to change pending resolution of the 50% rule excess refund issue.*

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 $ 621,790,000 would exceed the market value of assets of $ 549,340,000 by an amount of $ 72,450,000. 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. It should be noted that the financial position on the windup basis is subject to change pending resolution of the 50% rule excess refund issue.

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, 2006 ($70,200) are fully amortized at December 31, 2009, reducing the previously established special payments from $458,000 to $387,800. As a result, the present value of the remaining special payments of $387,800 per month in respect of the solvency deficiency established at December 31, 2008 is $17,028,000 at December 31, 2009. In addition, there is a new solvency deficiency of $22,303,000 created at December 31, 2009 which will be amortized over 5 years with special payments of $415,300 per month, producing total special payments of $803,100 per month at December 31, 2009.

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 31.12.2009
31.12.2008	$ 387,800	12.2013	$ 17,028,000
31.12.2009	415,300	12.2014	22,303,000
Total	$ 803,100		$ 21,579,000

Since the Plan has no prior year credit balance, the minimum total Employer contribution required for 2010 is $9,637,200 and the maximum contribution permitted is equal to the windup deficiency of $72,450,000.

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).

7

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, 2008		0
January 1, 2009 cost-of-living increases to pensions		0
Indexation Reserve Account at January 1, 2009		**0**
Indexation Reserve Account at December 31, 2009		
a) Going-concern excess (deficiency)	11,507	
b) Solvency surplus (shortfall)	(39,331)	
Indexation Reserve Account (lesser of (a) and (b),but not less than 0)		**0**
January 1, 2010 recommended cost-of-living increases to pensions		0
Indexation Reserve Account at January 1, 2010		**0**

Note: The Indexation Reserve Account (IRA) is not to exceed 30% of the going-concern liability, so the maximum is $ 171,230,000.

8

Recommendations

Active Members

No improvements are recommended at this time.

Retired Members

As at December 31, 2009 there is a going-concern funding excess of $ 11,507,000. However, since there is a total solvency shortfall of $ 39,331,000 as at December 31, 2009, the Indexation Reserve Account is $ 0 and, therefore, no improvements are recommended at this time.

9

Actuarial Opinion

With respect to the Actuarial Valuation as at December 31, 2009
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, 2009, current service contributions for 2010, and thereafter, are nil;

2) on a going-concern basis, the Plan is fully funded as at December 31, 2009, with assets exceeding liabilities by $ 11,507,000.

3) on a solvency basis, the Plan is not fully funded as at December 31, 2009, with liabilities exceeding assets by $ 39,331,000. 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	31.12.2008	$ 387,800	12.2013
Solvency deficiency	31.12.2009	415,300	12.2014
Total		$ 803,100	

4) the financial positions of the Plan on the going-concern and solvency bases are subject to change pending resolution of the 50% rule excess refund issue;

5) the minimum total Employer contribution required in 2010 is $9,637,200 and the maximum contribution permitted is $72,450,000; and

6) as at December 31, 2009, the transfer ratio of the Plan is 88.4% and the Prior Year Credit Balance is $0;

7) 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 in Canada.

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

April 15, 2010
Date

Frank Dekeyser
Associate of the Society of Actuaries

April 15, 2010
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.

<u>Notes:</u>

(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 special benefits 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 31.12.2008	10	1,445	684	2,139
Reinstatements				
Pension Splits				
Data Corrections				
Exits By:				
Retirement	(2)	2		
Death - no spouse		(14)	(16)	(30)
Death – with spouse		(42)	42	
Disabled				
As at 31.12.2009	8	1,391	710	2,109

Membership Summary

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

Membership Data

	31.12.2009	31.12.2008
Active Members		
▪ Number	8	10
▪ Average years of pensionable service	35.0	35.0
▪ Average age in years	63.3	62.2
▪ Average earnings in the year	$ 120,339	$ 110,105
▪ Average accumulated contributions	$ 574,970	$ 547,342
Pensioners		
▪ Number	1,391	1,445
▪ Total annual lifetime pension	$ 40,582,051	$ 41,980,411
▪ Total annual bridge pension	$ 3,391,464	$ 4,448,133
▪ Average total annual pension	$ 31,613	$ 32,130
▪ Average age in years	72.2	71.4
Spousal Pensioners		
▪ Number	710	684
▪ Total annual lifetime pension	$ 12,099,582	$ 11,620,993
▪ Total annual bridge pension	$ 308,611	$ 201,432
▪ Average total annual pension	$ 17,476	$ 17,284
▪ Average age in years	77.0	76.5

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 8 active officers accruing benefits under the Plan. These members have an average age of 63.3 years, average credited service of 35.0 years and average 2009 earnings of $ 120,339.

The following table provides a further breakdown:

Age Group	No.	Average Pensionable Service	Average Earnings	Average Accumulated Contributions
60 – 64	8	35.0	$ 120,339	$ 574,970
Total (all males)	8	35.0	$ 120,339	$ 574,970

Pensioners and Spouses

There are currently 1,391 pensioners having an average age of 72.2 years, receiving an average annual pension of $ 31,613 and there are 710 surviving spouses having an average age of 77.0 years, receiving an average annual pension of $ 17,476.

The following table provides a further breakdown:

	PENSIONERS		SURVIVING SPOUSES	
Age Group	No.	Average Pension	No.	Average Pension
Under 50	0	$ 0	6	$ 18,092
50 – 54	0	0	5	23,660
55 – 59	1	51,553	28	20,126
60 – 64	265	41,577	53	18,878
65 – 69	405	29,655	58	16,439
70 – 74	219	30,229	105	17,221
75 – 79	248	29,465	168	17,699
80 – 84	180	26,985	157	17,816
85 – 89	65	29,070	93	16,377
90 – 94	8	27,435	30	15,488
95 & over	0	0	7	13,934
Total	1,391	$ 31,613	710	$ 17,476
Males	1,347	$ 31,795	2	$ 15,616
Females	44	$ 26,032	708	$ 17,482

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. We have based this assumption on an expected long-term return on the pension fund less an allowance for investment and administrative expenses and less a margin for adverse deviations, as described below.

We have assumed a gross rate of return of 7.02% consistent with market conditions applicable on the valuation date, based on estimated returns for each major asset class and the target asset mix specified in the Plan's investment policy. We have allowed for investment and administrative expenses of 0.30% per year, the expected average rate of such expenses in the future. We have included a margin for adverse deviations, from all sources, of 1.22% 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 2009 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 2010 level of $ 47,200.

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 from $2,444 in 2009 to $ 2,494 in 2010 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 2011.

Cost-of-Living Increases

We have not included an assumption for potential future post retirement cost-of-living increases to pensions.

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, with allowance for future mortality improvements (i.e. UP94 Generational table). 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 2020 (U94P2020), 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.

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

Actuarial Assumptions

Mortality rates:	UP 1994, with mortality projection to 2020
Interest rate for benefits to be settled through annuity purchase:	4.49%
Family composition:	Same as for going concern valuation
Post retirement cost-of-living increases	0.00%
Termination expenses:	$ 317,000 (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 2020
Interest rate for benefits to be settled through annuity purchase:	4.625%
Family composition:	Same as for going concern valuation
Post retirement cost-of-living increases	0.00%

We have used an average of the annuity proxy rates as at December 31, 2006 (4.60% per year), December 31, 2007 (4.50% per year), December 31, 2008 (4.85% per year) and December 31, 2009 (4.49% 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, 2009, 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, 2009 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
GUY CARPENTER OLIVER WYMAN

Mercer (Canada) Limited
161 Bay Street
P.O. Box 501
Toronto, Ontario M5J 2S5
416 868 2000

Consulting. Outsourcing. Investments.