# Local Government Correctional Service Retirement Fund

Actuarial Valuation and Review as of July 1, 2006

Copyright © 2006

THE SEGAL GROUP, INC., THE PARENT OF THE SEGAL COMPANY ALL RIGHTS RESERVED



The Segal Company 6300 S. Syracuse Way, Suite 750 Englewood, CO 80111 T 303.714.9900 F 303.714.9990 www.segalco.com

November 8, 2006

Ms. Mary Most Vanek Public Employees Retirement Association of Minnesota Local Government Correctional Service Retirement Fund 60 Empire Drive, Suite 200 St. Paul, Minnesota 55103-2088

*Minnesota Department of Finance (2 copies)* 

Dear Ms. Most Vanek:

We are pleased to submit this Actuarial Valuation and Review as of July 1, 2006. It summarizes the actuarial data used in the valuation, establishes the funding requirements for fiscal 2007 and analyzes the preceding year's experience.

The census and financial information on which our calculations were based was prepared by the Public Employees' Retirement Association of Minnesota. That assistance is gratefully acknowledged. The actuarial calculations were completed under our supervision.

This actuarial valuation has been completed in accordance with generally accepted actuarial principles and practices. To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate. Further, in our opinion, the assumptions used in the valuation are consistent with those in the statute, and reasonably represent the experience of the plan.

Sincerely,

#### THE SEGAL COMPANY

By:			
	Thomas D. Levy, FSA, MAAA, EA	Andre Latia, FSA, MAAA, EA	Susan M. Hogarth, MAAA, EA
	Senior Vice President and Chief Actuary	Senior Vice President and Consulting Actuary	Consulting Actuary
cc:	Legislative Commission on Pensions an Minnesota Legislative Reference Librar		

# **SECTION 1**

# **SECTION 2**

#### VALUATION SUMMARY

Purposei
Significant Issues in Valuation Yearii
Summary of Key Valuation

Results.....iii

VALUATION RESULTS

A.	Member Data 1
B.	Financial Information4
C.	Actuarial Experience5
D.	Information Required by the

# **SECTION 3**

# SUPPLEMENTAL INFORMATION

EXHIBIT A Table of Plan Coverage	•••
EXHIBIT B Members in Active Service as of June 30, 2006	

EXHIBIT C Retired Participants as of June 30, 2006 ......9

EXHIBIT D	
Disabled Members as of	
June 30, 2006 10	

EXHIBIT E Beneficiaries as of June 30, 2006..11

EXHIBIT F Reconciliation of Member Data...... 12

#### 

EXHIBIT H Table of Financial Information for Year Ended June 30, 2006......14

#### EXHIBIT I Development of the Fund Through June 30, 2006 ......15

#### EXHIBIT K

Definitions of Pension Terms ...... 17

# **SECTION 4**

#### **REPORTING INFORMATION**

#### EXHIBIT I

Summary of Actuarial Valuation
Results19

#### EXHIBIT II

Actuarial Balance Sheet2	1
--------------------------	---

#### EXHIBIT III

#### EXHIBIT IV

Supplementar	y Information Required
by the GASB	- Schedule of Funding
Progress	

#### EXHIBIT V

Determination of Contribution	
Sufficiency24	

#### EXHIBIT VI

Supplementary Information Required	
by the GASB25	

#### EXHIBIT VII

Actuarial Assumptions and Actuari	al
Cost Method	26

#### EXHIBIT VIII

Summary of Plan Provisions......30

#### Purpose

This report has been prepared by The Segal Company to present a valuation of the Public Employees Retirement Association of Minnesota (Local Government Correctional Service Retirement Fund) as of July 1, 2006. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits. The contribution requirements presented in this report are based on:

- > Section 356.215 of the Minnesota Statutes;
- > The benefit provisions of the Retirement Fund, as administered by the PERA;
- > The data as provided and confirmed by the PERA staff;
- > The characteristics of covered active members, inactive vested members, pensioners and beneficiaries as of July 1, 2006, provided by the Fund;
- > The assets of the Fund as of June 30, 2006, provided by the Fund;
- > Economic assumptions regarding future salary increases and investment earnings; and
- > Other actuarial assumptions regarding employee terminations, retirement, death, etc.

# Significant Issues in Valuation Year

The following key findings were the result of this actuarial valuation:

- The statutory contribution rate under Chapter 353E is equal to 14.58% of payroll compared to the required contribution rate under Chapter 356 of 12.68% of payroll. Therefore, statutory contributions are sufficient to meet the required contribution rate. The decrease in the required contribution rate from July 1, 2005 (13.05% of payroll) to July 1, 2006 (12.68% of payroll) is due to a couple of events. There was a significant increase in the projected annual payroll from 2005 to 2006, which lowered the required contribution rates as a percent of payroll for 2006. In addition, the unfunded actuarial accrued liability decreased from \$10,770,172 as of July 1, 2005 to \$7,529,873 as of July 1, 2006, hence decreasing the supplemental contribution rate.
- The actuarial accrued liability funded ratio based on the actuarial value of assets over the actuarial accrued liability as of July 1, 2006 is 94.35% compared to 90.11% as of July 1, 2005. The majority of the funded ratio increase from 2005 to 2006 is due to investment gain, increasing the market and actuarial value of assets as of June 30, 2006. This ratio is a measure of funding status, and its history is a measure of funding progress, and is the ratio required to be reported under GASB 25.
- > There were no changes in plan provisions, actuarial assumptions or actuarial cost methods since the prior valuation.

SECTION 1:	Valuation Summary for the Local Government Correctional Service Retirement Fund
------------	---

Summary of Key Valuation Results		
	2006	2005
Contributions (% of payroll) for plan year beginning July 1:		
Statutory – Chapter 353E	14.58%	14.58%
Required – Chapter 356	12.68%	13.05%
Sufficiency/(Deficiency)	1.90%	1.53%
Funding elements for plan year beginning July 1:		
Normal cost	\$17,134,103	\$15,908,607
Market value of assets	131,696,690	100,874,878
Actuarial value of assets (AVA)	125,775,917	98,155,975
Actuarial accrued liability (AAL)	133,305,790	108,926,147
Unfunded/(Overfunded) actuarial accrued liability	7,529,873	10,770,172
Funded ratios:		
Accrued Benefit Funded Ratio	104.19%	99.88%
Current assets (AVA)	\$125,775,917	\$98,155,975
Current benefit obligations	120,717,463	98,278,594
Projected Benefit Funded Ratio	113.37%	111.79%
Current and expected future assets	\$308,444,067	\$267,531,642
Current and expected future benefit obligations (Present Value of Benefits)	272,069,496	239,306,986
GASB 25/27 for plan year beginning July 1:		
Annual employer required contributions	\$8,506,632	\$8,068,439
Accrued Liability Funded Ratio (AVA/AAL)	94.35%	90.11%
Covered Actual Payroll	\$125,189,428	\$116,848,904
Demographic data for plan year beginning July 1:		
Number of pensioners and beneficiaries	223	180
Number of vested terminated members	1,100	915
Number of other non-vested terminated members	1,086	906
Number of active members	3,531	3,352
Total projected payroll*	\$141,083,054	\$129,231,426
Average projected compensation*	39,956	38,554

\* Calculated as covered actual payroll, projected one year with salary scale.

#### A. MEMBER DATA

The Actuarial Valuation and Review considers the number and demographic characteristics of covered members, including active members, vested terminated members, pensioners and beneficiaries. This section presents a summary of significant statistical data on these member groups.

More detailed information for this valuation year and the preceding valuation can be found in Section 3, Exhibits A, B, C, D, E and F.

# A historical perspective of **CHART 1**

Member Population: 2002 – 2006

Year Ended June 30	Active Members	Vested Terminated Members*	Pensioners and Beneficiaries	Ratio of Non-Actives to Actives
2002	3,270	282	63	0.11
2003	3,155	590	100	0.22
2004	3,251	758	139	0.28
2005	3,352	915	180	0.33
2006	3,531	1,100	223	0.37

\* Excludes terminated members due a refund of employee contributions.

how the member

this chart.

population has changed over the past five valuations can be seen in

#### **Active Members**

Plan costs are affected by the age, years of service and payroll of active members. In this year's valuation, there were 3,531 active members with an average age of 38.7, average years of service of 4.2 years and average projected compensation of \$39,956. The 3,352 active members in the prior valuation had an average age of 38.8, average service of 3.9 years and average projected compensation of \$38,554.

#### **Inactive Members**

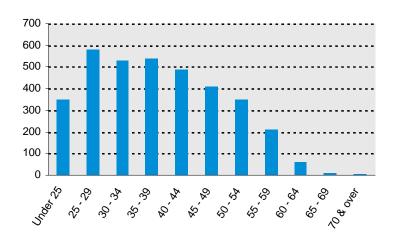
In this year's valuation, there were 1,100 members with a vested right to a deferred or immediate vested benefit.

In addition there were 1,086 other non-vested terminated members entitled to a return of their employee contributions.

These graphs show a distribution of active members by age and by years of service.

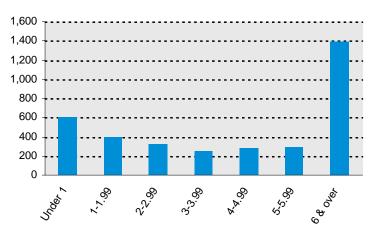
# CHART 2

Distribution of Active Members by Age as of June 30, 2006



#### CHART 3

Distribution of Active Members by Years of Service as of June 30, 2006



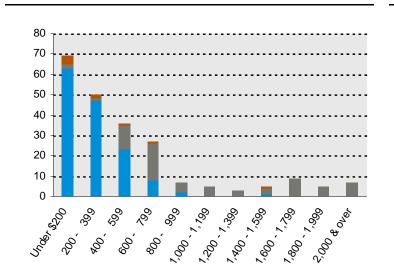
#### **Pensioners and Beneficiaries**

As of June 30, 2006, 214 pensioners (144 retired and 70 disableds) and 9 beneficiaries were receiving monthly benefits of \$122,191. For comparison, in the previous valuation, there were 172 pensioners (113 retired and 59 disableds) and 8 beneficiaries receiving monthly benefits of \$93,927.

These graphs show a distribution of the current pensioners and beneficiaries based on their monthly amount and age, by type of pension.

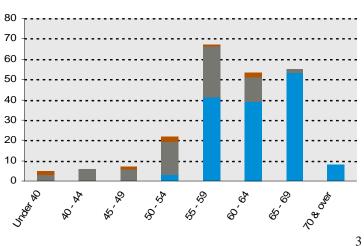
# CHART 4

Distribution of Pensioners and Beneficiaries by Type and by Monthly Amount as of June 30, 2006



# CHART 5

Distribution of Pensioners and Beneficiaries by Type and by Age as of June 30, 2006



Survivor

Disability

Service

#### **B.** FINANCIAL INFORMATION

**CHART 6** 

It is desirable to have level and predictable plan costs from one year to the next. For this reason, the Minnesota Statutes require an asset valuation method that gradually adjusts to market value. Under this valuation method, the full value of market fluctuations is not recognized in a single year and, as a result, the asset value and the plan costs are more stable. The amount of the adjustment to recognize market value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets has no immediate effect on the actuarial value. Both the actuarial value and market value of assets are representations of the Fund's financial status. As investment gains and losses are gradually taken into account, the actuarial value of assets tracks the market value of assets. The actuarial asset value is significant because the Fund's liabilities are compared to these assets to determine what portion, if any, remains unfunded. Amortization of the unfunded actuarial accrued liability is an important element in determining the contribution requirement.

# The chart shows the determination of the actuarial value of assets as of the valuation date.

# Determination of Actuarial Value of Assets for Year Ended June 30, 2006

1.	Market value of assets available for benefits			\$131,696,690
		Original Amount	% Not Recognized	
2.	Calculation of unrecognized return			
	(a) Year ended June 30, 2006	\$3,874,605	80%	\$3,099,684
	(b) Year ended June 30, 2005	1,967,298	60%	1,180,379
	(c) Year ended June 30, 2004	5,905,774	40%	2,362,310
	(d) Year ended June 30, 2003	-3,608,000	20%	-721,600
	(e) Total unrecognized return			\$5,920,773
3.	Actuarial value of assets ("Current Assets"): $(1) - (2e)$			<u>\$125,775,917</u>
4.	Actuarial value as a percent of market value			<u>95.5%</u>

#### C. ACTUARIAL EXPERIENCE

To calculate the required contribution, assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. Each year actual experience is measured against the assumptions. If overall experience is more favorable than anticipated (an actuarial gain), the contribution requirement will decrease from the previous year. On the other hand, the contribution requirement will increase if overall actuarial experience is less favorable than expected (an actuarial loss).

Taking account of experience gains or losses in one year without making a change in assumptions reflects the belief that the single year's experience was a short-term development and that, over the long term, experience will return to the original assumptions. For contribution requirements to remain stable, assumptions should approximate experience.

If assumptions are changed, the contribution requirement is adjusted to take into account a change in experience anticipated for all future years.

For the plan year ended June 30, 2006, the total gain is \$872,613, including a gain of \$727,013 from investments and a gain of \$145,600 from all other sources. The net experience variation from individual sources other than investments was 0.11% of the total actuarial accrued liability, which includes age/service retirements, disability, mortality (pre and post-retirement), withdrawal and salary increases.

#### This chart provides a summary of the actuarial experience during the past

#### CHART 7

Actuarial Experience for Year Ended June 30, 2006

1.	Net gain/(loss) from investments	\$727,013
2.	Net gain/(loss) from other experience	145,600
3.	Net experience $gain/(loss)$ : (1) + (2)	\$872,613

year.

#### **D.** INFORMATION REQUIRED BY THE GASB

Governmental Accounting Standards Board (GASB) reporting information provides standardized information for comparative purposes of governmental pension plans. This information allows a reader of the financial statements to compare the funding status of one governmental plan to another on relatively equal terms.

Critical information to GASB is the historical comparison of the GASB required contribution to the actual contributions. This comparison demonstrates whether a plan is being funded within the range of the GASB reporting requirements. Section 4, Exhibit III presents a schedule of this information of the Fund. The other critical piece of information regarding the Fund's financial status is the funded ratio. This ratio compares the actuarial value of assets to the actuarial accrued liabilities of the plan as calculated under GASB. High ratios indicate a well-funded plan with assets sufficient to pay most benefits. Lower ratios may indicate recent changes to benefit structures, funding of the plan below actuarial requirements, poor asset performance, or a variety of other factors.

GASB requires that the actuarial value of assets be used to determine the funded ratio, as shown in Section 4, Exhibit IV.

#### EXHIBIT A

# Table of Plan Coverage

	Year End	ed June 30	
Category	2006	2005	Change From Prior Year
Active members in valuation:			
Number	3,531	3,352	5.3%
Average age	38.7	38.8	N/A
Average service	4.2	3.9	N/A
Total projected payroll	\$141,083,054	\$129,231,426	9.2%
Average projected compensation	39,956	38,554	3.6%
Total active vested members	2,218	2,193	1.1%
Vested terminated members	1,100	915	20.2%
Retired participants:			
Number in pay status	144	113	27.4%
Average age	63.3	62.7	N/A
Average monthly benefit	\$268	\$214	25.2%
Disabled members:			
Number in pay status	70	59	18.6%
Average age	54.4	55.1	N/A
Average monthly benefit	\$1,144	\$1,134	0.9%
Beneficiaries:			
Number in pay status	9	8	12.5%
Average age	47.6	45.4	N/A
Average monthly benefit	\$390	\$349	11.7%
Other non-vested terminated members	1,086	906	19.9%

#### EXHIBIT B

Members in Active Service as of June 30, 2006 By Age, Years of Service, and Average Projected Compensation

	Years of Service									
Age	Total	Under 5	5-9	10-14	15-19	20-24	25-29	30 & Over		
Under 25	351	351						-		
	\$25,283	\$25,283						-		
25 - 29	581	491	90							
	33,244	31,294	\$43,882							
30 - 34	529	297	232							
	38,857	33,770	45,369							
35 - 39	539	237	302							
	41,712	32,124	49,237							
40 - 44	487	186	301							
	44,563	33,039	51,684							
45 - 49	410	139	271							
	46,315	36,070	51,570							
50 - 54	352	84	268							
	45,671	31,661	50,063							
55 - 59	211	49	162							
	46,988	33,389	51,102							
60 - 64	60	9	51							
	44,284	29,207	46,944							
65 - 69	8		8							
	54,850		54,850							
70 & over	3	1	2							
	25,911	11,512	33,110							
Total	3,531	1,844	1,687							
	\$39,956	\$31,243	\$49,479							

#### SECTION 3: Supplemental Information for the Local Government Correctional Service Retirement Fund

# EXHIBIT C

Retired Participants as of June 30, 2006 By Age, Years Retired and Average Annual Benefit

	Years Retired									
Age	Total	Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35 & over	
Under 45										
45 - 49										
									-	
50 - 54	3	3								
	\$2,379	\$2,379							-	
55 - 59	41	41								
	4,256	4,256							-	
60 - 64	39	36	3						-	
	3,275	3,506	\$506						-	
65 - 69	53	33	20						-	
	2,556	2,919	1,956						-	
70 - 74	8	2	6						-	
	2,285	1,642	2,499						-	
75 - 79									-	
									-	
80 - 84									-	
									-	
85 - 89									-	
									-	
90 & Over									-	
									-	
Total	144	115	29						-	
	\$3,216	\$3,543	\$1,919						-	

# EXHIBIT D

Disabled Members as of June 30, 2006 By Age, Years Disabled and Average Annual Benefit

	Years Disabled								
Age	Total	Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35 & over
Under 45	9	7	2						
	\$12,418	\$11,139	\$16,892						
45 - 49	6	6							
	21,831	21,831							
50 - 54	16	13	3						
	13,029	13,201	12,285						
55 - 59	25	19	6						
	13,214	12,536	15,363						
60 - 64	12	7	5						
	13,932	13,050	15,166						
65 - 69	2	2							
	6,202	6,202							
70 - 74									
75 - 79									
80 - 84									
85 - 89									
90 & Over									
Total	70	54	16						
	\$13,731	\$13,380	\$14,915						

# EXHIBIT E

Beneficiaries as of June 30, 2006

By Age, Years Since Death and Average Annual Benefit

	Years Since Death										
Age	Total	Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35 & over		
Under 45	2	2									
	\$614	\$614									
45 - 49	1		1								
	870		\$870								
50 - 54	3	3									
	4,601	4,601									
55 - 59	1	1									
	17,970	17,970									
60 - 64	2	2									
	4,101	4,101									
65 - 69											
70 - 74											
75 - 79											
80 - 84											
85 - 89											
90 & Over											
Total	9	8	1								
	\$4,675	\$5,150	\$870								

# SECTION 3: Supplemental Information for the Local Government Correctional Service Retirement Fund

#### EXHIBIT F

**Reconciliation of Member Data** 

	Active Members	Vested Terminated Members	Other Non- Vested Terminated Members	Disableds	Retired Participants	Beneficiaries	Total
A. Number as of July 1, 2005	3,352	915	906	59	113	8	5,353
B. Data Adjustments	-	23	-23	-1	-	-	-1
C. Additions	627	181	269	16	31	1	1,125
D. Deletions:							
1. Terminated - Nonvested	-228	-3	-	-	-	-	-231
2. Terminated - Vested	-176	-	-	-	-	-	-176
3. Retirements	-25	-4	-	-2	-	-	-31
4. Disability	-15	-	-	-	-	-	-15
5. Died with Beneficiary	-	-	-	-	-	-	-
6. Died without Beneficiary	-4	-	-	-1	-	-	-5
7. Return to Active	-	-12	-12	-	-	-	-24
8. Other	<u>-</u>	<u>-</u>	<u>-54</u>	<u>-1</u>	=	<u>-</u>	<u>-55</u>
E. Number as of June 30, 2006	3,531	1,100	1,086	70	144	9	5,940

#### EXHIBIT G

Summary Statement of Income and Expenses on a Market Value Basis for Year Ended June 30, 2006

			Non-MPRIF	MPRIF	Market
			Assets	Reserve	Value
		lable at beginning of period	\$97,255,314	\$3,619,564	\$100,874,878
B. C	Operating r				
		mber contributions	\$7,880,664	-	\$7,880,664
		ployer contributions	11,825,800	-	11,825,800
		RIF income	-	\$438,296	438,296
		investment income			
	(a)		\$3,406,831	-	\$3,406,831
	(b)		9,535,392	-	9,535,392
	(c)		45,704	-	45,704
	(d)	•	-172,382	<u>-</u>	<u>-172,382</u>
	(e)	Net subtotal	\$12,815,545	-	\$12,815,545
	5. Oth	ler	11,633		<u>11,633</u>
	6. Tota	al additions	\$32,533,642	\$438,296	\$32,971,938
C. (	Operating e	expenses:			
	1. Ben	nefits	\$943,014	\$398,421	\$1,341,435
	2. Ref	funds	618,865	-	618,865
	3. Adr	ministrative expenses	186,478	-	186,478
	4. Oth	ler	3,348		3,348
	5. Tota	al operating expenses	\$1,751,705	\$398,421	\$2,150,126
D. (	Other chang	ges in reserves:			
	1. Anr	nuities awarded	-\$1,816,610	\$1,816,610	-
	2. Mor	rtality gain/(loss)	-173,338	173,338	-
	3. Cha	ange in MPRIF assumptions	_		
	4. Tota	al other changes	-\$1,989,948	\$1,989,948	-
E. A	Assets avail	lable at end of period	\$126,047,303	\$5,649,387	\$131,696,690
F. I	Determinati	ion of current year unrecognized asset return (UAR)			
	1. Ave	erage balance:			
	(a)	-			\$97,255,314
	(b)	Non-MPRIF Assets available at EOY*: $(E) - (D.2)$			126,220,641
	(c)				105,324,389
	2. Exp	bected return: 8.50% x (F.1(c))			8,952,573
	-	ual return: $(B.4(e)) + (B.5)$			12,827,178
		rrent year UAR: $(F.3) - (F.2)$			\$3,874,605

\* Before adjustment for MPRIF Mortality Gain / Loss.

#### EXHIBIT H

Table of Financial Information for Year Ended June 30, 2006

	Market Value	Cost Value
Assets in trust		
Cash, equivalents, short-term securities	\$2,636,111	\$2,636,111
Fixed income	28,863,985	30,063,260
Equity	80,421,202	74,012,909
Equity in MPRIF	5,649,387	5,649,387
Invested securities lending collateral	15,508,345	15,508,345
SBI alternative	<u>13,823,391</u>	<u>11,815,743</u>
Total assets in trust	\$146,902,421	\$139,685,755
Assets receivable	<u>\$527,736</u>	<u>\$527,736</u>
Fotal assets	\$147,430,157	\$140,213,491
Amounts currently payable		
Securities lending collateral	-\$15,508,345	-\$15,508,345
Other	<u>-225,122</u>	-225,122
Total amounts currently payable	-\$15,733,467	-\$15,733,467
Assets available for benefits		
MPRIF reserves	\$5,649,387	\$5,649,387
Member reserves	33,773,744	33,773,744
Other non-MPRIF reserves	<u>92,273,559</u>	85,056,893
Total assets available for benefits	<u>\$131,696,690</u>	<u>\$124,480,024</u>
Net Assets at Market/Cost Value	<u>\$131,696,690</u>	\$124,480,024

#### EXHIBIT I

Development of the Fund Through June 30, 2006

Year Ended June 30	Employer Contributions	Member Contributions	Net Investment Return*	Administrative Expenses	Benefit Payments	Actuarial Value of Assets at End of Year
2002	\$8,830,000	\$5,882,000	\$1,126,000	\$137,000	\$610,000	\$40,105,000
2003	9,645,000	6,430,000	1,424,000	149,000	968,000	56,487,000
2004	10,029,408	6,671,647	3,881,483	161,861	1,392,532	75,515,145
2005	10,814,425	7,192,028	6,542,230	175,961	1,731,982	98,155,975
2006	11,825,800	7,880,664	10,060,256	186,478	1,960,300	125,775,917

\* Net Investment Return on an Actuarial Value of Assets basis and net of investment fees.

# EXHIBIT J

#### Development of Unfunded/(Overfunded) Actuarial Accrued Liability for Year Ended June 30, 2006

1.	Unfunded/(Overfunded) actuarial accrued liability at beginning of year		\$10,770,172
2.	Normal cost at beginning of year		15,908,607
3.	Total contributions		19,706,464
4.	Interest		<u>1,430,171</u>
5.	Expected unfunded/(overfunded) actuarial accrued liability $(1) + (2) - (3) + (4)$		\$8,402,486
6.	Changes due to (gain)/loss from:		
	(a) Investments	-\$727,013	
	(b) MPRIF Mortality	173,338	
	(c) Salary increases	-1,214,136	
	(d) Other demographics*	<u>895,198</u>	
	(e) Total changes due to (gain)/loss		-\$872,613
7.	Unfunded/(Overfunded) actuarial accrued liability at end of year		<u>\$7,529,873</u>

\* Includes (gain)/loss due to age/service retirements, disability, mortality (pre and post-retirement) and withdrawal.

#### **EXHIBIT K**

#### **Definitions of Pension Terms**

The following list defines certain technical terms for the convenience of the reader: **Assumptions or Actuarial Assumptions:** The estimates on which the cost of the Fund is calculated including: Investment return — the rate of investment yield that the Fund will earn over (a) the long-term future; Mortality rates — the death rates of employees and pensioners; life (b) expectancy is based on these rates; <u>Retirement rates</u> — the rate or probability of retirement at a given age; (c) (d) Turnover rates — the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement. Normal Cost: The amount of contributions required to fund the benefit allocated to the current year of service. **Actuarial Accrued Liability** For Actives: The equivalent of the accumulated normal costs allocated to the years before the valuation date. **Actuarial Accrued Liability** The single sum value of lifetime benefits to existing pensioners. This sum takes For Pensioners: account of life expectancies appropriate to the ages of the pensioners and the interest that the sum is expected to earn before it is entirely paid out in benefits. **Unfunded Actuarial Accrued** Liability: The extent to which the actuarial accrued liability of the Fund exceeds the assets of the Fund. There is a wide range of approaches to paying off the unfunded actuarial accrued liability, from meeting the interest accrual only to amortizing it over a specific period of time.

Amortization of the Unfunded Actuarial Accrued Liability:	Payments made over a period of years equal in value to the Fund's unfunded actuarial accrued liability.
Investment Return:	The rate of earnings of the Fund from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next.
Accrued Benefit Funded Ratio:	A current year funded status that measures the percent of benefits covered by Current Assets. This ratio is based on benefits earned to the valuation date (accrued service) and includes future salary increases to retirement. The liability for these benefits is defined as the Current Benefit Obligations. The Accrued Benefit Funded Ratio is calculated as the Actuarial Value of Assets (Current Assets) divided by the Current Benefit Obligations.
Projected Benefit Funded Ratio:	A projected funded status that measures contribution sufficiency/deficiency, which is based on a present value of all plan benefits for the lifetime of all plan members. The liability for these benefits is defined as the Current and Expected Future Benefit Obligations, or Present Value of Benefits. The Current and Expected Future Assets are determined as the sum of the Actuarial Value of Assets (Current Assets), the Present Value of Expected Future Statutory Supplemental Contributions and the Present Value of Future Normal Costs. The Projected Benefit Funded Ratio is calculated as the Current and Expected Future Assets divided by the Current and Expected Future Benefit Obligations. If the ratio is equal to or more than 100%, there is a contribution sufficiency, and if it is less than 100% there is a contribution deficiency.

# EXHIBIT I

# **Summary of Actuarial Valuation Results**

Th	e valuation was made with respect to the following data supplied to us:		
1.	Pensioners as of the valuation date (including 9 beneficiaries in pay status)		223
2.	Members inactive during year ended June 30, 2006 with vested rights		1,100
3.	Members active during the year ended June 30, 2006		3,531
	Fully vested	2,218	
	Not vested	1,313	
4.	Other non-vested terminated members as of June 30, 2006		1,086

# EXHIBIT I (continued)

Summary of Actuarial Valuation Results

			Actuarial Presen		
			Value of Projected Benefits	Present Value of Future Normal Costs	Actuarial Accrued Liability
A.	Dete	rmination of Actuarial Accrued Liability			
	1.	Active members:			
		(a) Retirement benefits	\$168,461,723	\$89,258,888	\$79,202,835
		(b) Disability benefits	25,451,058	16,490,576	8,960,482
		(c) Death benefits	7,383,345	4,353,123	3,030,222
		(d) Withdrawal benefits	40,078,149	28,661,119	<u>11,417,030</u>
		(e) Total	\$241,374,275	\$138,763,706	\$102,610,569
	2.	Vested terminated members	\$12,638,549	-	\$12,638,549
	3.	Other non-vested terminated members	1,105,046	-	1,105,046
	4.	Annuitants in MPRIF	5,649,387	-	5,649,387
	5.	Annuitants not in MPRIF	<u>11,302,239</u>		<u>11,302,239</u>
	6.	Total	\$272,069,496	\$138,763,706	\$133,305,790
B.	Dete	rmination of Unfunded Actuarial Accrued Liability			
	1.	Actuarial Accrued Liability			\$133,305,790
	2.	Actuarial Value of Assets			<u>125,775,917</u>
	3.	Unfunded Actuarial Accrued Liability: (B.1) – (B.2)			\$7,529,873
C.	Dete	ermination of Supplemental Contribution Rate			
	1.	Present value of future payrolls through amortization date of July 1, 2023			\$1,917,224,627
	2.	Supplemental contribution rate: (B.3) / (C.1)			0.39%
D.	Dete	ermination of GASB Amortization Rate			
	1.	Present value of future payrolls through amortization date of July 1, 2023			\$1,788,549,682
	2.	Supplemental contribution rate: (B.3) / (D.1)			0.42%

# EXHIBIT II

### Actuarial Balance Sheet

A.	Current Assets			\$125,775,917
B.	Expected Future Assets			
	1. Present Value of Expected Future Statutory Supplemental Contribution	ns		\$43,904,444
	2. Present Value of Future Normal Costs			<u>138,763,706</u>
	3. Total Expected Future Assets			\$182,668,150
C.	Total Current and Expected Future Assets			\$308,444,067
D.	Current Benefit Obligations	Non-Vested	Vested	Total
	1. Benefit recipients:			
	(a) Retirement annuities	-	\$5,187,846	\$5,187,846
	(b) Disability benefits	-	11,302,239	11,302,239
	(c) Beneficiaries	-	461,541	461,541
	2. Vested terminated members	-	12,638,549	12,638,549
	3. Other non-vested terminated members	-	1,105,046	1,105,046
	4. Active members	\$4,802,663	85,219,579	90,022,242
	5. Total Current Benefit Obligations	\$4,802,663	\$115,914,800	\$120,717,463
E.	Expected Future Benefit Obligations			<u>151,352,033</u>
F.	Total Current and Expected Future Benefit Obligations - Present Value of Benefits: $(D.5 + E)$			\$272,069,496
G.	Current Unfunded/(Surplus) Actuarial Liability (D.5 - A)			-\$5,058,454
H.	Current and Future Unfunded/(Surplus) Actuarial Liability (F - C)			-\$36,374,571

#### EXHIBIT III

Supplementary Information Required by the GASB – Schedule of Employer Contributions

Plan Year Ended June 30	Actuarially Required Contribution Rate <sup>(2)</sup> (a)	Actual Covered Payroll (b)	Actual Member Contributions (c)	Annual Required Employer Contributions [(a) x (b)] – (c) = (d)	Actual Employer Contributions <sup>(1)</sup> (e)	Percentage Contributed (e) / (d)
2000	15.03%	\$70,690,000	\$4,382,000	\$6,243,000	\$6,487,000	103.91%
2001	14.36% <sup>(3)</sup>	91,025,000	5,308,000	7,763,000	8,054,000	103.75%
2002	14.21%	101,309,000	5,882,000	8,514,000	8,830,000	103.71%
2003	14.10% <sup>(4)</sup>	110,296,000	6,430,000	9,122,000	9,645,000	105.74%
2004	14.15%	109,600,235	6,671,647	8,836,786	10,029,408	113.50%
2005	13.06%	116,848,904	7,192,028	8,068,439	10,814,425	134.03%
2006	13.09%	125,189,428	7,880,664	8,506,632	11,825,800	139.02%
2007	12.71%					

<sup>(1)</sup> Includes contributions from other sources (if applicable).

(2) Actuarially Required Contribution Rate calculated according to parameters of GASB 25 with no assumption for growth of covered population.

<sup>(3)</sup> Actuarially Required Contribution Rate prior to change in Asset Valuation Method is 14.38%.

<sup>(4)</sup> Actuarially Required Contribution Rate prior to change in Actuarial Assumptions is 14.08%.

# EXHIBIT IV

Supplementary Information Required by the GASB – Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded/ (Overfunded) AAL (UAAL) (b) – (a)	Funded Ratio (a) / (b)	Actual Covered Payroll (Previous FY) (c)	UAAL as a Percentage of Covered Payroll [(b) – (a)] / (c)
07/01/2000	\$11,116,000	\$10,195,000	-\$921,000	109.03%	\$70,690,000	-1.30%
07/01/2001	25,014,000	25,453,000	439,000	98.28%	91,025,000	0.48%
07/01/2002	40,105,000	42,144,000	2,039,000	95.16%	101,309,000	2.01%
07/01/2003	56,487,000	62,542,000	6,055,000	90.32%	110,296,000	5.49%
07/01/2004	75,515,145	85,693,412	10,178,267	88.12%	109,600,235	9.29%
07/01/2005	98,155,975	108,926,147	10,770,172	90.11%	116,848,904	9.22%
07/01/2006	125,775,917	133,305,790	7,529,873	94.35%	125,189,428	6.01%

# EXHIBIT V

**Determination of Contribution Sufficiency** 

	July 1,	2006
A. Statutory Contributions – Chapter 353E	Percent of Payroll	Dollar Amount
1. Member Contributions	5.83%	\$8,225,142
2. Employer Contributions	8.75%	12,344,767
3. Total	<u>14.58%</u>	\$20,569,909
3. Required Contributions – Chapter 356		
1. Normal Cost:		
(a) Retirement benefits	8.09%	\$11,410,132
(b) Disability benefits	1.49%	2,107,194
(c) Death	0.36%	502,487
(d) Withdrawal benefits	<u>2.21%</u>	<u>3,114,290</u>
(e) Total	12.15%	\$17,134,103
2. Amortization of Supplemental Contribution UAAL	0.39%	550,224
3. Allowance for Administrative Expenses	<u>0.14%</u>	<u>197,516</u>
4. Total	<u>12.68%</u>	<u>\$17,881,843</u>
C. Contribution Sufficiency (Deficiency) (A.3 – B.4)	1.90%	\$2,688,066
Projected annual payroll* for fiscal year beginning on the valuati	on date	\$141,083,054

\*Calculated as covered actual payroll, projected one year with salary scale.

# EXHIBIT VI

# Supplementary Information Required by the GASB

Valuation date	July 1, 2006
Actuarial cost method	Entry Age Normal
Amortization method	Level percentage of payroll, assuming payroll increases at 5.00% per annum
Remaining amortization period	17 years remaining as of July 1, 2006
Asset valuation method	Market Value, adjusted for amortization obligations receivable at the end of each fiscal year, less a percentage of the Unrecognized Asset Return determined at the close of each of the four preceding fiscal years. Unrecognized Asset Return is the difference between actual net return on Market Value of Assets and the asset return expected during that fiscal year (based on the assumed interest rate employed in the July 1 Actuarial Valuation of the fiscal year).
Actuarial assumptions:	
Investment rate of return:	
Pre-retirement	8.50% per annum
Post-retirement	8.50% per annum (payment of earnings on retired reserves in excess of 6.00% accounted for by 6.00% post-retirement assumption)
Plan membership:	
Pensioners and beneficiaries receiving benefits	223
Terminated vested members entitled to, but not yet receiving benefits	1,100
Other non-vested terminated members	1,086
Active members	<u>3,531</u>
Total	5.940

# EXHIBIT VII

Actuarial Assumptions and Actuarial Cost Method

Net Investment Return:					
Pre-Retirement:	8.50% per annum.				
Post-Retirement:	8.50% p	8.50% per annum.			
Benefit Increases After Retirement:	•	of earnings on retired reserves in excess of 6.00% accounted for by 6.00% rement assumptions.			
Salary Increases:	Reported salary at valuation date increased according to the rate table below to current fiscal year and annually for each future year. Prior fiscal year salary is annualized for new members.				
Mortality Rates:					
Healthy Pre-Retirement:	Male:	1983 Group Annuity Mortality Table for males set back one year.			
	Female:	1983 Group Annuity Mortality Table for females.			
Healthy Post-Retirement:	Male:	1983 Group Annuity Mortality Table for males set forward two years.			
	Female:	1983 Group Annuity Mortality Table for females set forward two years.			
Disabled:	Male:	Combined Annuity Mortality Table.			
	Female:	Combined Annuity Mortality Table.			

Retirement Rates:	Age-related table as follows:				
	Ages:	50-53	2.00%		
		54	5.00		
		55	25.00		
		56-59	10.00		
		60-61	20.00		
		62-64	40.00		
		65-69	50.00		
	7	70 & Over	100.00		
Withdrawal Rates:			tual experience developed by the June 30, 1997 experience onal Employees Retirement Fund. Rates are shown in rate		
Disability:	Rates as show	wn in the rat	e table.		
Allowance for Combined Service Annuity:	members are	increased by	nbers are increased by 0.00% and liabilities for former y 30.00% to account for the effect of some participants ombined Service Annuity.		
Administrative Expenses:	Prior year ad payroll.	ministration	expenses expressed as percentage of prior year projected		
Return of Contributions:			ing after becoming eligible for a deferred benefit take the ons accumulated with interest or the value of their deferred		
Percent Married:	85% of mem	bers are assu	umed to be married.		

Social Security:	while in st	the present law and 6.00% retroactive salary scale. Only earnings history rate service is used. Future Social Security benefits replace the same of salary as at present.		
Special Consideration:	Married m follows:	members assumed to elect subsidized joint and survivor form of annuity as		
	Males:	25.00% elect 50% J&S option		
		25.00% elect 100% J&S option		
	Females:	5.00% elect 50% J&S option		
		5.00% elect 100% J&S option		
Actuarial Cost Method:	participant are calcula	Normal Actuarial Cost Method. Entry Age is the age at the time the t commenced employment. Normal Cost and Actuarial Accrued Liability ated on an individual basis and are expressed as a level percentage of ith Normal Cost determined as if the current benefit accrual rate had always fect.		
Asset Valuation Method:	fiscal year close of ea difference expected c July 1 Act	alue, adjusted for amortization obligations receivable at the end of each r, less a percentage of the Unrecognized Asset Return determined at the ach of the four preceding fiscal years. Unrecognized Asset Return is the between actual net return on Market Value of Assets and the asset return during the fiscal year (based on the assumed interest rate employed in the uarial Valuation of the fiscal year). Transition rules apply between July 1, July 1, 2003, when the method is fully in effect.		
Payment on the Unfunded Actuarial Accrued Liability:		rcentage of payroll each year to the statutory amortization date assuming creases of 6.00% per annum.		
Accrued Liability:		If there is a negative Unfunded Actuarial Accrued Liability, the surplus amount shall be amortized over 30 years as a level percentage of payroll.		

Summary of Rate	es:	Shown below	for selected ages	::		
_			Rate	(%)		
	De	ath	Withd	rawal		
Age	Male	Female	Male	Female	Disability	Salary Increases
20	0.04%	0.02%	24.00%	16.00%	0.04%	7.25%
25	0.04	0.03	14.70	14.20	0.06	7.00
30	0.06	0.03	9.10	13.50	0.08	7.00
35	0.08	0.05	6.00	12.90	0.11	7.00
40	0.11	0.07	4.40	10.40	0.18	6.50
45	0.19	0.10	3.40	6.40	0.29	5.75
50	0.35	0.16	2.40	4.70	0.50	5.50
55	0.57	0.25	1.40	3.30	0.88	5.25
60	0.84	0.42	0.00	0.00	1.41	5.25
65	1.29	0.71	0.00	0.00	0.00	5.25
70	2.48	1.24	0.00	0.00	0.00	5.25

#### SECTION 4: Reporting Information for the Local Government Correctional Service Retirement Fund

**Changes in Actuarial Assumptions** 

and Actuarial Cost Methods:

There have been no changes in the actuarial assumptions or actuarial cost methods since the prior valuation.

# EXHIBIT VIII

### Summary of Plan Provisions

This summary of provisions reflects the interpretation of applicable Statutes for purposes of preparing this valuation. This interpretation is not intended to create or rescind any benefit rights in conflict with any Minnesota Statutes.

Plan Year:	Effective July 1, 1999		
Eligibility:	Local government employees in covered correctional service for a county- administered jail or correctional facility or in a regional correctional facility administered by multiple counties, spends at least 95% of working time in direct contact with persons confined in the jail or facility, and is not a member of the Public Employees Police and Fire Fund.		
Contributions:			
	Member: 5.83% of salary.		
	<i>Employer:</i> 8.75% of salary.		
Allowable Service:	Local Government Correctional Service during which member contributions were made. May also include certain leaves of absence, military service and periods while temporary Worker's Compensation is paid.		
Salary:	Includes wages, allowances and fees. Excludes lump sum payments at a separation and reduced salary while receiving Worker's Compensation benefits.		
Average Salary:	Average of the five highest successive years of salary. Average Salary is based on al Allowable Service if less than five years.		

Age 55 and three years of Allowable Service. Proportionate Retirement Annuity is available at age 65 and one year of Allowable Service.
1.9% of Average Salary for each year of Allowable Service, pro rata for completed months.
Age 50 and three years of Allowable Service.
Normal Retirement Benefit based on Allowable Service and Average Salary at retirement date to the actuarial equivalent of the benefit that would be payable if the member deferred the benefit until age 55.
Life annuity. Actuarially equivalent options are:
25%, 50%, 75%, or 100% joint and survivor with bounce back feature without additional reduction.
Benefits may be increased each January 1 depending on the investment performance of the Minnesota Post Retirement Investment Fund (MPRIF). A benefit recipient who has been receiving a benefit for at least 12 full months as of June 30 will receive a full increase. Members receiving benefits for at least one full month but less than 12 full months will receive a partial increase.
Member who cannot perform duties as a direct result of a disability related to an act of duty.
47.50% of Average Salary plus 1.90% of Average Salary for each year in excess of 25 years of Allowable Service (pro rata for completed months).

Payment begins at disability and stops at age 65 or earlier if disability ceases or death occurs. Benefits may be paid upon re-employment but salary plus benefit cannot exceed current salary of position held at time of disability.

Non-Occupational Disability:	
Age/Service Requirement:	At least one year of Allowable Service and disability not related to covered employment.
Amount:	Normal Retirement Benefit based on Allowable Service (minimum of 10 years) and Average Salary at disability.
	Payment begins at disability and stops at age 65 or earlier if disability ceases or death occurs. Benefits may be paid upon re-employment but salary plus benefit cannot exceed current salary of position held at time of disability.
Form of Payment:	Same as for retirement.
Benefit Increases:	Adjusted by PERA to provide same increase as MPRIF.
<u>Retirement Benefits</u> :	
Age/Service Requirement:	Age 65 with continued disability.
Amount:	Any optional annuity continues. Otherwise, the larger of the disability benefit paid before age 65 or the normal retirement benefit available at age 65, or an actuarially equivalent optional annuity.
Form of Payment:	Same as for retirement.
Benefit Increases:	Same as for retirement.

# Death:

Surviving Spouse Benefit:	
Age/Service Requirement:	Member at any age or former member age 50 or older who dies before retirement or disability benefits commence with three years of Allowable Service. If an active member dies, benefits may commence immediately, regardless of age.
Amount:	Surviving spouse receives the 100% joint and survivor benefit using the Normal Retirement formula above. If commencement is prior to age 50, the appropriate early retirement formula described above applies except that one-half the monthly reduction factor is used from age 50 to the commencement age. In lieu of this benefit, the surviving spouse may elect a refund of contributions with interest or an actuarially

equivalent term	certain a	annuitv	(lump	sum	pavable to	b estate at death).
	•••••••		(p			o obtatte at acath).

Benefit Increases:	Adjusted by PERA to provide same increase as MPRIF.
<u>Surviving Dependent Children's</u> <u>Benefit</u> :	
Age/Service Requirement:	If no surviving spouse, all dependent children (biological or adopted) below age 20 who are dependent for more than half of their support on deceased member.
Amount:	Actuarially equivalent to surviving spouse 100% joint survivor annuity payable to the later of age 20 or five years. The amount is to proportionally divided among surviving children.
<u>Refund of Contributions</u> <u>With Interest</u> :	
Age/Service Requirement:	Active employee dies and survivor benefits are not payable or a former employee dies before annuity begins. If accumulated contributions with interest exceed total payments to the surviving spouse and children, then the remainder is paid out.
Amount:	The member's contributions with 6.00% interest.
Termination:	
<b>Termination:</b> <u>Refund of Contributions</u> :	
	Termination of local government service.
<u>Refund of Contributions:</u>	Termination of local government service. Member's contributions with 6.00% interest compounded annually. A deferred annuity may be elected in lieu of a refund if three or more years of Allowable Service.
<u>Refund of Contributions</u> : Age/Service Requirement:	Member's contributions with 6.00% interest compounded annually. A deferred
<u>Refund of Contributions</u> : Age/Service Requirement: Amount:	Member's contributions with 6.00% interest compounded annually. A deferred