

January 31, 2013

CONFIDENTIAL

Ms. Mary Vanek  
Executive Director  
Public Employees Ret. Assoc. of MN  
60 Empire Drive, Suite 200  
St. Paul, MN 55103

**Re: Projection of Contributions and Funding Status – Local Correctional Plan**

Dear Mary:

Attached are 30-year projections of estimated funded status, required contributions, and statutory contributions under three asset return scenarios for the Local Government Correctional Service Retirement. The estimates are based on participant data, assumptions, methods, and plan provisions as of July 1, 2012 as detailed in the Local Correctional Plan Actuarial Valuation Report as of July 1, 2012.

As required by the State of Minnesota Standards for Actuarial Work, the projections reflect three asset return scenarios. The statutory investment return assumption is a 5-year select and ultimate approach with rates of 8.0% for the period July 1, 2012 to June 30, 2017 and 8.5% thereafter. The scenarios assume future investment returns of 1.5% more than the assumed rate, the assumed rate, and 1.5% less than the assumed rate.

The estimates are based on the market value of assets with no smoothing of investment gains or losses. Payroll is assumed to increase 3.75% a year, consistent with the valuation assumption for total payroll growth. In all scenarios, the valuation interest rate used to discount liabilities was the single effective interest rate used in the July 1, 2012 valuation of 8.39%, which produces a similar liability stream as trending to a liability that reflects the expiration of the 5 year select period on June 30, 2017.

Normal cost is assumed to trend downward as a percent of payroll to a level ultimate rate that reflects the expiration of the 5 year select period on June 30, 2017.

Benefit payments are based on the assumptions and methods described in this letter, with adjustments applied to estimate the impact of future members hired after June 30, 2012 retiring during the 30-year projection period. To estimate this impact, we assumed total benefit payments would increase a minimum of 5% per year.

If actuarial accrued liability exceeds assets, the unfunded actuarial accrued liability is amortized through June 30, 2031 per Minnesota Statute 356.215, Subdivision 11. As directed by PERA, the

statutory amortization date is assumed to be changed to June 30, 2061 once the current period expires in 2031. Per Minnesota Statute 356.215, Subdivision 11 (l), a negative unfunded actuarial accrued liability (i.e. when assets exceed liability) is amortized over a rolling 30-year period.

### **Postretirement Benefit Increases**

A very significant assumption affecting the projected estimates is the expectation of annual increases in the benefits being paid to retirees and beneficiaries. If the plan's funding ratio is less than 90% (on a market value of assets basis), the postretirement increase for the following year will be 1.0%. If the plan's funding ratio is 90% or greater (on a market value of assets basis), the postretirement increase for the following year will be 2.5%.

Under the 8.5% and 10.0% ultimate rate of return scenarios, the funded status of the plan is expected to improve. We assumed a 2.5% postretirement benefit increase for all years for these two scenarios.

Under the 7.0% ultimate rate of return scenario, assuming all future postretirement benefit increases equal 2.5%, the funded status of the plan is expected to remain below 90%. However, if all future postretirement increases beyond 2012 are assumed to be 1.0%, the funded ratio would be greater than 90%. Our projections indicate that the plan would reach a funding status below 90% (assuming future postretirement increases of 1.0%) around the year 2032. We have not shown values for this scenario beyond the year 2031. Different results would be obtained if our projected liabilities anticipated a 1.0% COLA instead of a 2.5% COLA.

### **Comments**

To the best of our knowledge and belief, the calculations were completed in accordance with the requirements of Minnesota Statutes, Section 356.215, and the requirements of the Standards for Actuarial Work established by the Legislative Commission on Pensions and Retirement.

This report should not be relied upon for any purpose other than the purpose described herein. Determinations of the financial results associated with the benefits described in this report in a manner other than the intended purpose may produce significantly different results. GRS is not responsible for the consequences of any unauthorized use.

The valuation was based upon information furnished by the Public Employees Retirement Association of Minnesota (PERA), concerning benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries.

Actuarial assumptions, including discount rates, mortality tables and others identified in this report, are prescribed by Minnesota Statutes Section 356.215 the Legislative Commission on Pensions and Retirement (LCPR), and the Trustees. These parties are responsible for selecting the plan's funding policy, actuarial valuation methods, asset valuation methods, and assumptions. The policies, methods and assumptions used in this valuation are those that have been so prescribed and are described in the Actuarial Basis of the valuation report. PERA is solely responsible for communicating to GRS any changes required thereto.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law.

### **Professional Qualifications**

The signing actuaries are independent of the plan sponsor. We are not aware of any relationship that would impair the objectivity of our work.

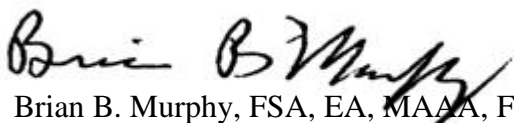
The undersigned actuaries are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. In addition, Mr. Murphy meets the requirements of "approved actuary" under Minnesota Statutes Section 356.215, Subdivision 1, Paragraph (c).

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge and belief the information contained in this report is accurate and fairly presents the actuarial position of the Local Government Correctional Service Retirement Plan as of the valuation date and was performed in accordance with the requirements of Minnesota Statutes Section 356.215, and the requirements of the Standards for Actuarial Work established by the LCPR. All calculations have been made in conformity with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board and with applicable statutes.

Sincerely,



Bonita J. Wurst, ASA, EA, MAAA



Brian B. Murphy, FSA, EA, MAAA, FCA

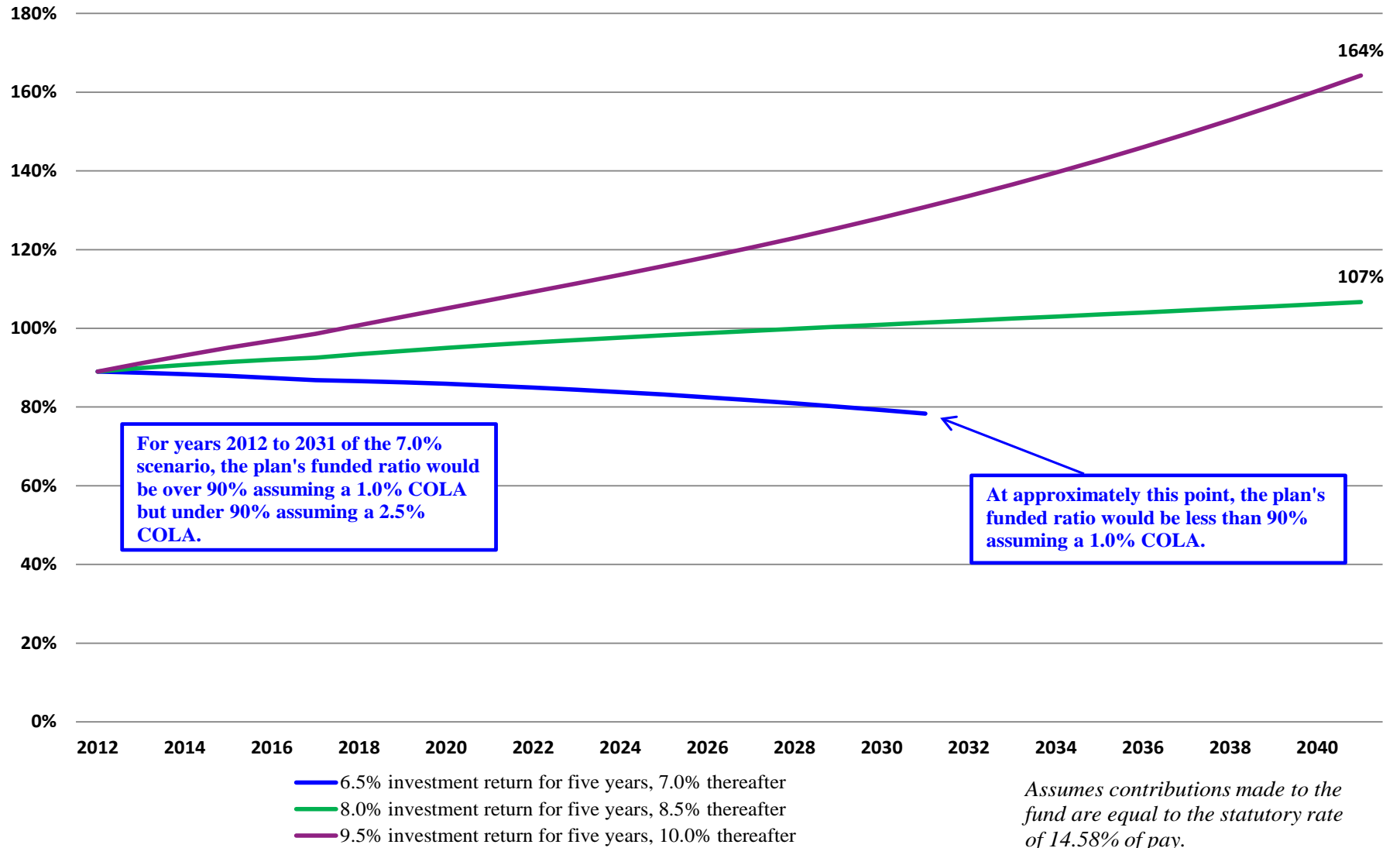
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Enclosures

This exhibit should only be viewed in conjunction with GRS' January 31, 2013 letter to PERA.

## Local Government Correctional Service Retirement Plan

### Projection of Funded Status

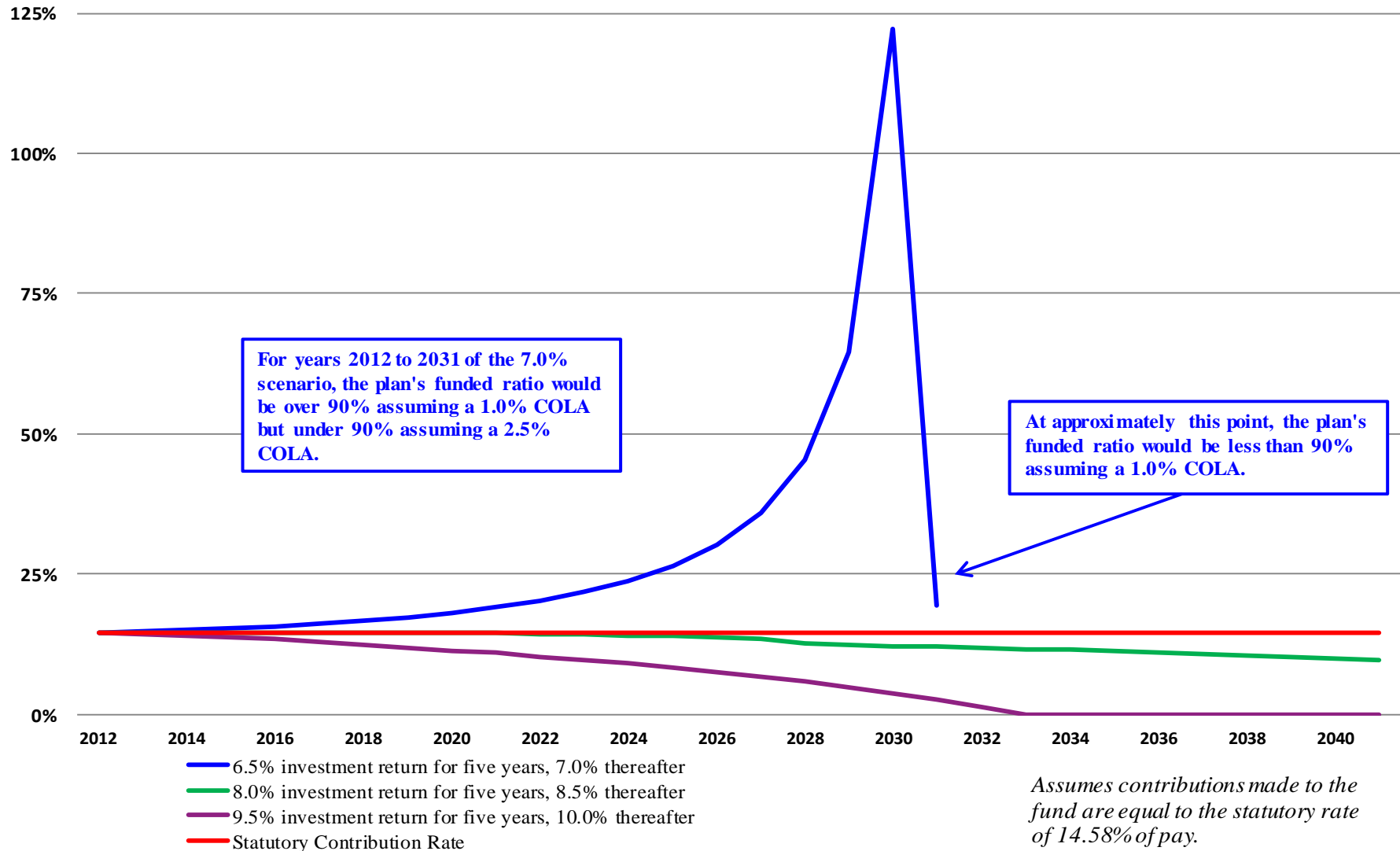
Assumes 2.5% postretirement benefit increase for all years



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## Local Government Correctional Service Retirement Plan Estimated Contribution Rates

Assumes postretirement benefit increases of 2.5% for all years



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**Local Government Correctional Service Retirement Plan**  
**Scenario: 6.5% for Five Years, 7.0% thereafter**  
**Fiscal year beginning July 1**

<b>\$ in Thousands</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
<b>Contributions (% of Payroll)</b>										
Statutory - Chapter 353E	14.6%	14.6%	14.6%	14.6%	14.6%	14.6%	14.6%	14.6%	14.6%	14.6%
Required - Chapter 356	14.5%	14.7%	15.0%	15.3%	15.7%	16.2%	16.8%	17.4%	18.1%	19.1%
Sufficiency / (Deficiency)	0.1%	-0.1%	-0.4%	-0.7%	-1.2%	-1.7%	-2.2%	-2.8%	-3.6%	-4.5%
<b>Contributions</b>										
Statutory - Chapter 353E	24,938	25,873	26,843	27,850	28,895	29,978	31,102	32,269	33,479	34,734
Required - Chapter 356	24,800	26,115	27,592	29,262	31,167	33,376	35,734	38,463	41,664	45,476
Sufficiency / (Deficiency)	138	(242)	(749)	(1,412)	(2,272)	(3,398)	(4,632)	(6,194)	(8,185)	(10,742)
<b>Funding Ratios</b>										
Current Assets (MVA)	305,408	343,302	383,043	424,657	468,247	513,786	563,798	616,118	670,627	727,353
Actuarial Accrued Liability (AAL)	343,199	386,975	433,582	483,149	535,894	591,914	651,260	714,218	780,802	851,182
Unfunded AAL	37,791	43,673	50,539	58,492	67,647	78,128	87,462	98,100	110,175	123,829
Funding Ratio	89%	89%	88%	88%	87%	87%	87%	86%	86%	85%
<b>Benefit Payments</b>										
	7,241	8,765	10,414	12,119	14,009	16,139	18,405	20,985	23,729	26,683

*Assumes annual postretirement increases of 2.5% for all years.*

*Numbers may not add due to rounding*

*For years 2012 to 2030, the plan's funded ratio would be under 90% assuming a 2.5% COLA but over 90% assuming a 1.0% COLA. In approximately the year 2031, the plan's funded ratio would be under 90% assuming a 1.0% COLA.*

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## Local Government Correctional Service Retirement Plan

**Scenario: 6.5% for Five Years, 7.0% thereafter**

**Fiscal year beginning July 1**

<b>\$ in Thousands</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>	<b>2031</b>
<b>Contributions (% of Payroll)</b>										
Statutory - Chapter 353E	14.6%	14.6%	14.6%	14.6%	14.6%	14.6%	14.6%	14.6%	14.6%	14.6%
Required - Chapter 356	20.3%	21.8%	23.7%	26.4%	30.2%	35.8%	45.4%	64.5%	122.1%	19.5%
Sufficiency / (Deficiency)	-5.7%	-7.2%	-9.2%	-11.8%	-15.6%	-21.3%	-30.8%	-49.9%	-107.5%	-4.9%
<b>Contributions</b>										
Statutory - Chapter 353E	36,037	37,388	38,790	40,245	41,754	43,320	44,944	46,629	48,378	50,192
Required - Chapter 356	50,101	55,840	63,166	72,869	86,366	106,491	139,857	206,301	405,000	67,065
Sufficiency / (Deficiency)	(14,064)	(18,452)	(24,376)	(32,624)	(44,612)	(63,171)	(94,913)	(159,672)	(356,622)	(16,873)
<b>Funding Ratios</b>										
Current Assets (MVA)	786,280	847,342	910,561	975,745	1,042,561	1,111,014	1,181,216	1,253,166	1,326,839	1,402,186
Actuarial Accrued Liability (AAL)	925,499	1,003,854	1,086,452	1,173,294	1,264,255	1,359,563	1,459,571	1,564,540	1,674,732	1,790,400
Unfunded AAL	139,219	156,512	175,891	197,549	221,694	248,549	278,355	311,374	347,893	388,214
Funding Ratio	85%	84%	84%	83%	82%	82%	81%	80%	79%	78%
<b>Benefit Payments</b>	29,896	33,281	37,048	41,322	45,755	50,247	54,916	59,787	64,886	70,090

*Assumes annual postretirement increases of 2.5% for all years.*

*Numbers may not add due to rounding*

*For years 2012 to 2030, the plan's funded ratio would be under 90% assuming a 2.5% COLA but over 90% assuming a 1.0% COLA. In approximately the year 2031, the plan's funded ratio would be under 90% assuming a 1.0% COLA.*

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## Local Government Correctional Service Retirement Plan

Scenario: 8.0% for Five Years, 8.5% thereafter

Fiscal year beginning July 1

\$ in Thousands	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
<b>Contributions (% of Payroll)</b>										
Statutory - Chapter 353E	14.6%	14.6%	14.6%	14.6%	14.6%	14.6%	14.6%	14.6%	14.6%	14.6%
Required - Chapter 356	14.5%	14.5%	14.5%	14.5%	14.6%	14.6%	14.6%	14.5%	14.5%	14.4%
Sufficiency / (Deficiency)	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%
<b>Contributions</b>										
Statutory - Chapter 353E	24,938	25,873	26,843	27,850	28,895	29,978	31,102	32,269	33,479	34,734
Required - Chapter 356	24,800	25,732	26,714	27,752	28,852	30,033	31,095	32,179	33,279	34,389
Sufficiency / (Deficiency)	138	141	129	98	43	(55)	7	90	200	345
<b>Funding Ratios</b>										
Current Assets (MVA)	305,408	348,014	393,408	441,719	493,159	547,825	608,539	673,212	741,898	814,812
Actuarial Accrued Liability (AAL)	343,199	386,975	433,582	483,149	535,894	591,914	651,260	714,218	780,802	851,182
Unfunded AAL	37,791	38,961	40,174	41,430	42,735	44,089	42,721	41,006	38,904	36,370
Funding Ratio	89%	90%	91%	91%	92%	93%	93%	94%	95%	96%
<b>Benefit Payments</b>										
	7,241	8,765	10,414	12,119	14,009	16,139	18,405	20,985	23,729	26,683

*Assumes annual postretirement increases of 2.5% for all years.*

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## Local Government Correctional Service Retirement Plan

**Scenario: 8.0% for Five Years, 8.5% thereafter**

Fiscal year beginning July 1

\$ in Thousands	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
<b>Contributions (% of Payroll)</b>										
Statutory - Chapter 353E	14.6%	14.6%	14.6%	14.6%	14.6%	14.6%	14.6%	14.6%	14.6%	14.6%
Required - Chapter 356	14.4%	14.3%	14.1%	14.0%	13.7%	13.4%	12.7%	12.4%	12.2%	12.0%
Sufficiency / (Deficiency)	0.2%	0.3%	0.4%	0.6%	0.9%	1.2%	1.9%	2.2%	2.4%	2.5%
<b>Contributions</b>										
Statutory - Chapter 353E	36,037	37,388	38,790	40,245	41,754	43,320	44,944	46,629	48,378	50,192
Required - Chapter 356	35,497	36,585	37,624	38,564	39,313	39,686	39,250	39,597	40,529	41,445
Sufficiency / (Deficiency)	540	803	1,166	1,681	2,441	3,634	5,694	7,032	7,849	8,747
<b>Funding Ratios</b>										
Current Assets (MVA)	892,141	974,040	1,060,767	1,152,387	1,248,843	1,350,436	1,457,599	1,570,682	1,690,040	1,816,034
Actuarial Accrued Liability (AAL)	925,499	1,003,854	1,086,452	1,173,294	1,264,255	1,359,563	1,459,571	1,564,540	1,674,732	1,790,400
Unfunded AAL	33,358	29,814	25,685	20,907	15,412	9,127	1,972	(6,142)	(15,308)	(25,634)
Funding Ratio	96%	97%	98%	98%	99%	99%	100%	100%	101%	101%
<b>Benefit Payments</b>										
	29,896	33,281	37,048	41,322	45,755	50,247	54,916	59,787	64,886	70,090

*Assumes annual postretirement increases of 2.5% for all years.*

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## Local Government Correctional Service Retirement Plan

Scenario: 8.0% for Five Years, 8.5% thereafter

Fiscal year beginning July 1

\$ in Thousands	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
<b>Contributions (% of Payroll)</b>										
Statutory - Chapter 353E	14.6%	14.6%	14.6%	14.6%	14.6%	14.6%	14.6%	14.6%	14.6%	14.6%
Required - Chapter 356	11.9%	11.7%	11.5%	11.2%	11.0%	10.8%	10.5%	10.3%	10.0%	9.7%
Sufficiency / (Deficiency)	2.7%	2.9%	3.1%	3.3%	3.6%	3.8%	4.0%	4.3%	4.6%	4.9%
<b>Contributions</b>										
Statutory - Chapter 353E	52,074	54,027	56,053	58,155	60,336	62,599	64,946	67,382	69,908	72,530
Required - Chapter 356	42,341	43,210	44,048	44,846	45,598	46,295	46,928	47,486	47,958	48,331
Sufficiency / (Deficiency)	9,733	10,817	12,005	13,309	14,738	16,304	18,018	19,896	21,950	24,199
<b>Funding Ratios</b>										
Current Assets (MVA)	1,949,187	2,089,894	2,238,707	2,396,486	2,563,899	2,741,706	2,931,042	3,133,162	3,349,272	3,580,371
Actuarial Accrued Liability (AAL)	1,911,956	2,039,668	2,173,952	2,315,520	2,464,879	2,622,610	2,789,656	2,967,060	3,155,799	3,356,618
Unfunded AAL	(37,231)	(50,226)	(64,755)	(80,966)	(99,020)	(119,096)	(141,386)	(166,102)	(193,473)	(223,753)
Funding Ratio	102%	102%	103%	104%	104%	105%	105%	106%	106%	107%
<b>Benefit Payments</b>										
	75,565	81,198	86,739	92,446	98,287	103,968	109,469	114,942	120,689	126,724

*Assumes annual postretirement increases of 2.5% for all years.*

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## Local Government Correctional Service Retirement Plan

Scenario: 9.5% for Five Years, 10.0% thereafter

Fiscal year beginning July 1

\$ in Thousands	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
<b>Contributions (% of Payroll)</b>										
Statutory - Chapter 353E	14.6%	14.6%	14.6%	14.6%	14.6%	14.6%	14.6%	14.6%	14.6%	14.6%
Required - Chapter 356	14.5%	14.3%	14.0%	13.7%	13.3%	12.9%	12.4%	11.9%	11.4%	10.9%
Sufficiency / (Deficiency)	0.1%	0.3%	0.6%	0.9%	1.2%	1.7%	2.2%	2.7%	3.1%	3.7%
<b>Contributions</b>										
Statutory - Chapter 353E	24,938	25,873	26,843	27,850	28,895	29,978	31,102	32,269	33,479	34,734
Required - Chapter 356	24,800	25,349	25,825	26,200	26,441	26,505	26,350	26,377	26,271	26,013
Sufficiency / (Deficiency)	138	524	1,018	1,650	2,454	3,473	4,752	5,892	7,208	8,721
<b>Funding Ratios</b>										
Current Assets (MVA)	305,408	352,727	403,915	459,246	519,093	583,730	656,354	735,030	820,078	912,010
Actuarial Accrued Liability (AAL)	343,199	386,975	433,582	483,149	535,894	591,914	651,260	714,218	780,802	851,182
Unfunded AAL	37,791	34,248	29,667	23,903	16,801	8,184	(5,094)	(20,812)	(39,276)	(60,828)
Funding Ratio	89%	91%	93%	95%	97%	99%	101%	103%	105%	107%
<b>Benefit Payments</b>										
	7,241	8,765	10,414	12,119	14,009	16,139	18,405	20,985	23,729	26,683

*Assumes annual postretirement increases of 2.5% for all years.*

*Numbers may not add due to rounding*

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## Local Government Correctional Service Retirement Plan

Scenario: 9.5% for Five Years, 10.0% thereafter

Fiscal year beginning July 1

\$ in Thousands	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
<b>Contributions (% of Payroll)</b>										
Statutory - Chapter 353E	14.6%	14.6%	14.6%	14.6%	14.6%	14.6%	14.6%	14.6%	14.6%	14.6%
Required - Chapter 356	10.4%	9.7%	9.1%	8.3%	7.5%	6.7%	5.8%	4.8%	3.7%	2.6%
Sufficiency / (Deficiency)	4.2%	4.9%	5.5%	6.3%	7.0%	7.9%	8.8%	9.8%	10.9%	12.0%
<b>Contributions</b>										
Statutory - Chapter 353E	36,037	37,388	38,790	40,245	41,754	43,320	44,944	46,629	48,378	50,192
Required - Chapter 356	25,581	24,952	24,097	22,987	21,591	19,870	17,786	15,293	12,342	8,878
Sufficiency / (Deficiency)	10,456	12,436	14,693	17,258	20,163	23,450	27,158	31,336	36,036	41,314
<b>Funding Ratios</b>										
Current Assets (MVA)	1,011,339	1,118,583	1,234,403	1,359,309	1,493,732	1,638,513	1,794,686	1,963,264	2,145,338	2,342,086
Actuarial Accrued Liability (AAL)	925,499	1,003,854	1,086,452	1,173,294	1,264,255	1,359,563	1,459,571	1,564,540	1,674,732	1,790,400
Unfunded AAL	(85,840)	(114,729)	(147,951)	(186,015)	(229,477)	(278,950)	(335,115)	(398,724)	(470,606)	(551,686)
Funding Ratio	109%	111%	114%	116%	118%	121%	123%	125%	128%	131%
<b>Benefit Payments</b>	29,896	33,281	37,048	41,322	45,755	50,247	54,916	59,787	64,886	70,090

*Assumes annual postretirement increases of 2.5% for all years.*

*Numbers may not add due to rounding*

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## Local Government Correctional Service Retirement Plan

Scenario: 9.5% for Five Years, 10.0% thereafter

Fiscal year beginning July 1

\$ in Thousands	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
<b>Contributions (% of Payroll)</b>										
Statutory - Chapter 353E	14.6%	14.6%	14.6%	14.6%	14.6%	14.6%	14.6%	14.6%	14.6%	14.6%
Required - Chapter 356	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Sufficiency / (Deficiency)	13.2%	14.5%	14.6%	14.6%	14.6%	14.6%	14.6%	14.6%	14.6%	14.6%
<b>Contributions</b>										
Statutory - Chapter 353E	52,074	54,027	56,053	58,155	60,336	62,599	64,946	67,382	69,908	72,530
Required - Chapter 356	4,840	161	-	-	-	-	-	-	-	-
Sufficiency / (Deficiency)	47,234	53,866	56,053	58,155	60,336	62,599	64,946	67,382	69,908	72,530
<b>Funding Ratios</b>										
Current Assets (MVA)	2,554,932	2,785,272	3,034,764	3,305,495	3,599,495	3,919,031	4,266,911	4,646,245	5,060,300	5,512,355
Actuarial Accrued Liability (AAL)	1,911,956	2,039,668	2,173,952	2,315,520	2,464,879	2,622,610	2,789,656	2,967,060	3,155,799	3,356,618
Unfunded AAL	(642,976)	(745,604)	(860,812)	(989,975)	(1,134,616)	(1,296,421)	(1,477,255)	(1,679,185)	(1,904,501)	(2,155,737)
Funding Ratio	134%	137%	140%	143%	146%	149%	153%	157%	160%	164%
<b>Benefit Payments</b>										
	75,565	81,198	86,739	92,446	98,287	103,968	109,469	114,942	120,689	126,724

*Assumes annual postretirement increases of 2.5% for all years.*

*Numbers may not add due to rounding*