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January 31, 2025

CONFIDENTIAL

Mr. Doug Anderson
Executive Director
Public Employees Retirement Association of Minnesota
60 Empire Drive, Suite 200
St. Paul, MN 55103

Re: Projection of Contributions and Funding Status – General Employees Plan

Dear Mr. Anderson:

Attached are 30-year projections of estimated funded status, required contributions, and statutory contributions under three asset return scenarios for the General Employees Retirement Plan. These projections, including the underlying investment return assumptions, are required by the Minnesota Standards for Actuarial Work. Unless noted otherwise, the estimates are based on participant data, assets, and plan provisions as outlined in the General Employees Retirement Plan actuarial funding valuation as of July 1, 2024.

Basis for Projections

For all enclosed projections, liabilities are determined using the statutory investment return assumption of 7.0%. As required by the Minnesota Standards for Actuarial Work, the projections reflect three asset return scenarios (7.0%, 5.5% and 8.5%). Note that we believe the 8.5% rate of return assumption is outside of the range of reasonable expected returns for this plan.

The estimates are based on the market value of assets with no smoothing of investment gains or losses. Consequently, the required contributions for the fiscal year will not match the figures based on the actuarial value of assets shown in our valuation report. Payroll is assumed to increase approximately 3.0% per year over the long term, consistent with the valuation assumption for total payroll growth.

The projection is an open group projection; meaning, active members projected to retire or otherwise terminate in the future are replaced with new active members so that the total active membership of the fund remains at 164,224 members. The profile of these new members is the same as new members hired between July 1, 2018 and June 30, 2023. Average salary at hire increases at the assumed payroll growth rate.

- Average age at hire is 37.6
- Average salary at hire is $39,500
- Approximately 69% female, 31% male

If actuarial accrued liability exceeds assets, the unfunded actuarial accrued liability is amortized through June 30, 2048 per Minnesota Statute 356.215, Subdivision 11. 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.

Additional employer contributions of 1.0% of payroll expire when the plan reaches 100% funding (on an Actuarial Value basis). The additional employer contributions are projected to be eliminated in fiscal years ending 2031 and 2035 in the 8.5% and 7.0% investment return scenarios, respectively.

Actual benefit increases will equal one-half the Social Security Cost-of-Living Adjustment, not less than 1.00% and not more than 1.50%. The projections assume a constant post-retirement benefit increase of 1.25%. If actual benefit increases are greater than assumed, liabilities and required contributions will be greater than the amounts shown in the enclosed projections. More information about this assumption can be found in the valuation report as of July 1, 2024.

Comments
The reader should keep the following in mind when reviewing these results:

- The enclosed projections are based on assumptions as outlined in the General Employees Retirement Plan actuarial funding valuation as of July 1, 2024.

- Statutory contributions are defined in statutes as a fixed percentage of payroll plus any statutory supplemental contributions and represent the amount that is actually contributed to the plan. Required contributions are defined in statutes and the LCPR Standards for Actuarial Work and represent the amount needed to fully fund the plan by June 30, 2048 (normal cost, expenses and a payment to amortize the unfunded liability).

- Investment experience that has occurred since the measurement date is not reflected in this report.

- In the 7.0% and 8.5% investment return scenarios, surplus assets reduce the projected required contributions to amounts less than normal cost. We typically recommend the contribution be at least equal to the normal cost of the plan and suggest that plans with considerable surplus assets investigate the pros and cons of reducing the risk of the plan's investment allocation to preserve surplus assets.

- Note that as funding ratios decline, as they are expected to in one of the investment return scenarios shown in this letter, it will be increasingly difficult for the plan to attain the assumed scenario investment return. Each year, a larger proportion of assets is paid out in benefits, and less capital is available to invest.

Disclosures

The purpose of this report is to estimate the Fund's funding progress and required contribution rates over a 30-year period according to prescribed assumptions and the Minnesota Standards for Actuarial Work. 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.

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 Board of 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 section of the valuation report, except as noted. PERA is solely responsible for communicating to GRS any changes required thereto.

The combined effect of the assumptions is expected to have no significant bias (i.e., not significantly optimistic or pessimistic). All actuarial assumptions and methods used in this report follow the guidance in the applicable Actuarial Standards of Practice. Additional information about the actuarial assumptions can be found in the Actuarial Basis section of the July 1, 2024 valuation report.

The contribution rates shown in this report have been determined using the actuarial assumptions and methods disclosed in the Actuarial Basis section of the July 1, 2024 valuation report. This valuation report includes risk metrics on pages 7 through 10, but does not include a robust assessment of the risks of future experience not meeting the actuarial assumptions. Additional assessment of risks was outside the scope of this assignment.

We have assessed that the contribution rate calculated under the 7.0% investment return scenario is a reasonable Actuarially Determined Employer Contribution (ADEC) and it is consistent with the plan accumulating adequate assets to make benefit payments when due.

The projections assume the continuing ability of the plan sponsor to make the contributions necessary to fund this plan. A determination regarding whether or not the plan sponsor is actually able to do so is outside our scope of expertise and was not performed.

The valuation was based upon information furnished by the Public Employees Retirement Association (PERA), concerning benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal and year-to-year consistency, but did not audit the data. We are not responsible for the accuracy or completeness of the information provided by PERA.

This report was prepared using our proprietary valuation model and related software which, in our professional judgement, has the capability to provide results that are consistent with the purposes of the valuation and has no material limitations or known weaknesses. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

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

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 General Employees 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.

Bonita J. Wurst and Sheryl L. Christensen are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. The signing actuaries are independent of the plan sponsor. We are not aware of any relationship that would impair the objectivity of our work.

Respectfully submitted,

Gabriel, Roeder, Smith & Company

Bonita J. Wurst, ASA, EA, FCA, MAAA

Sheryl L. Christensen, FSA, EA, FCA, MAAA

BJW/SLC:dj

Other Observations

General Implications of the Contribution Allocation Procedure or Funding Policy on Future Expected Plan Contributions and Funded Status

Given the plan's contribution allocation procedure, if there are no changes in benefits, Chapter 356 required contributions are made, and all actuarial assumptions are met (including the assumption of the plan earning 7.00% on the actuarial value of assets, as prescribed by statutes), it is expected that:

(1) The normal cost of the plan is expected to remain approximately level as a percent of pay;
(2) The funded status of the plan is expected to gradually improve and is expected to be 100% funded within the next 24 years; and
(3) The unfunded liability will grow initially as a dollar amount for 2 years (based on the current 24-year amortization period and if contributions are equal to the required contribution amount) before beginning to decline.

Limitations of Funded Status Measurements

Unless otherwise indicated, a funded status measurement presented in this report is based upon the actuarial accrued liability and the market value of assets. Unless otherwise indicated, with regard to any funded status measurements presented in this report:

(1) The measurement is inappropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations; in other words, of transferring the obligations to an unrelated third party in an arm's length market value type transaction.
(2) The measurement is dependent upon the actuarial cost method which, in combination with the plan's amortization policy, affects the timing and amounts of future contributions. The amounts of future contributions will most certainly differ from those assumed in this report due to future actual experience differing from assumed experience based upon the actuarial assumptions. A funded status measurement in this report of 100% is not synonymous with no required future contributions. If the funded status were 100%, the plan would still require future normal cost contributions (i.e., contributions to cover the cost of the active membership accruing an additional year of service credit).
(3) The measurement would produce a different result if the actuarial value of assets were used instead of the market value of assets.

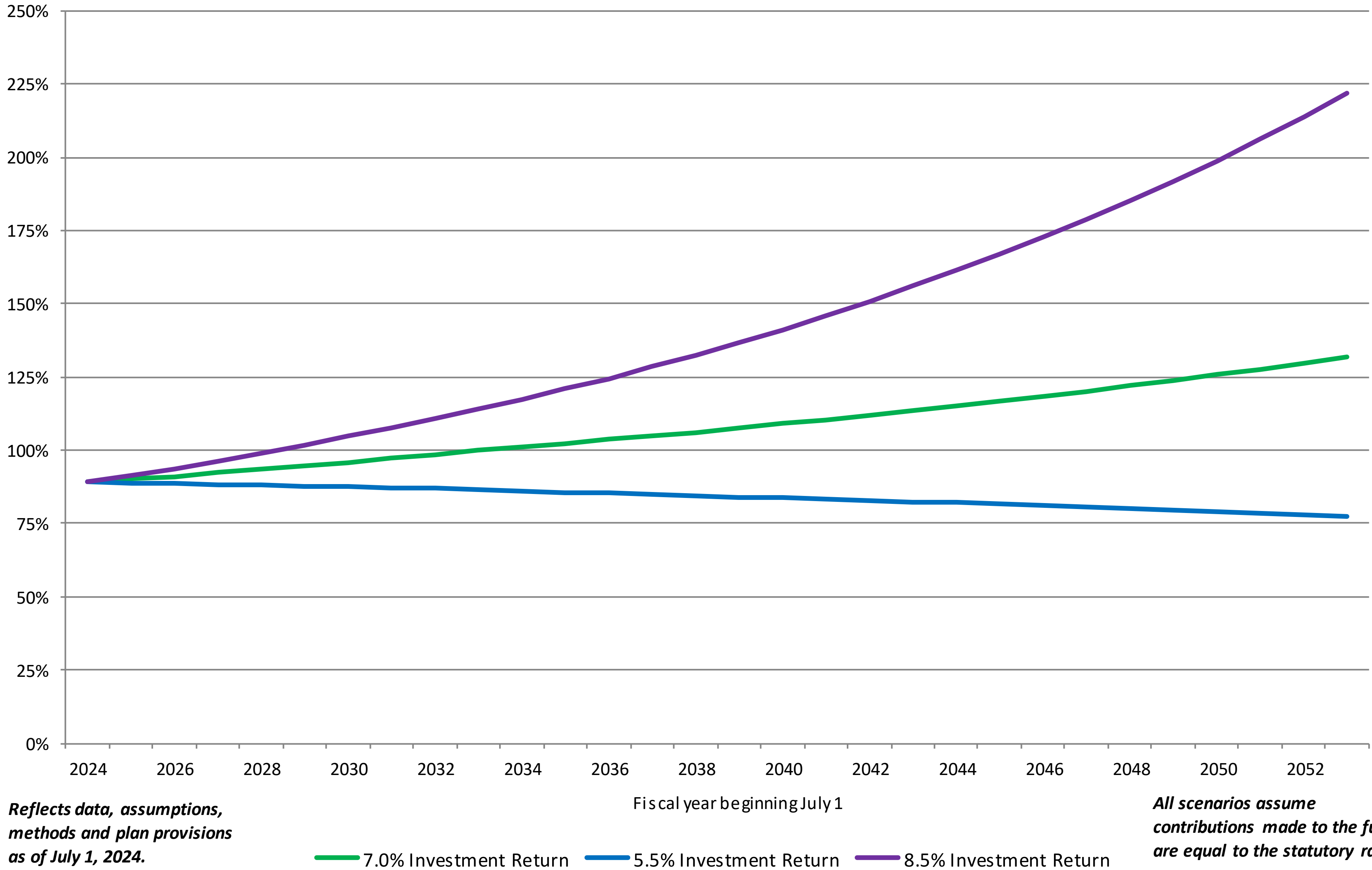
Limitations of Project Scope

Actuarial standards do not require the actuary to evaluate the ability of the plan sponsor or other contributing entity to make required contributions to the plan when due. Such an evaluation was not within the scope of this project and is not within the actuary's domain of expertise. Consequently, the actuary performed no such evaluation.

This exhibit should only be viewed in conjunction with GRS' January 31, 2025 letter to PERA.

PERA General Employees Retirement Plan
Estimated Accrued Liability Funded Ratio
(Market Value of Assets Basis)

In all scenarios, the interest rate used to discount liabilities was 7.00%.



Reflects data, assumptions, methods and plan provisions as of July 1, 2024.

All scenarios assume contributions made to the fund are equal to the statutory rate.

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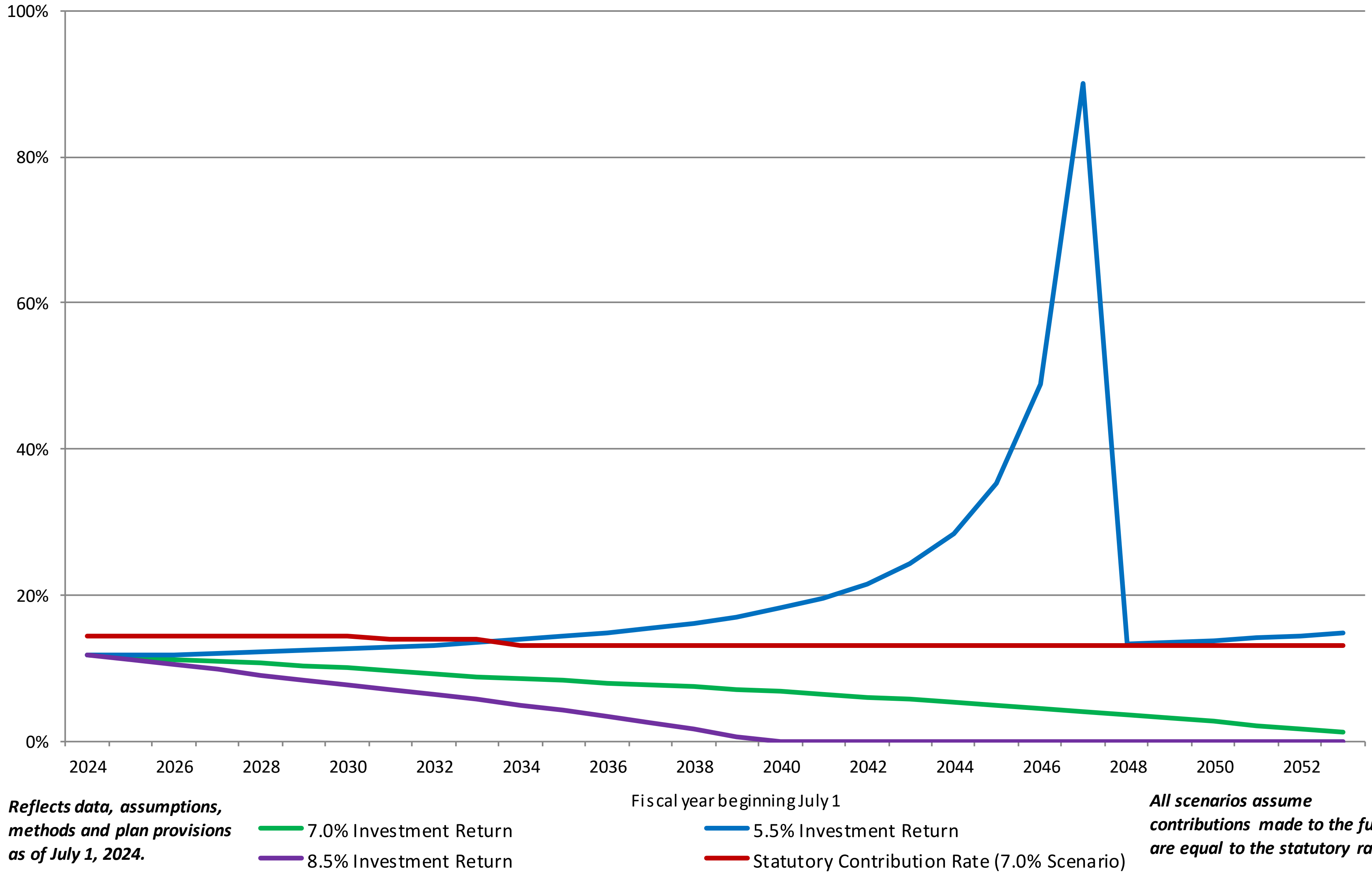
PERA General Employees Retirement Plan
Estimated Required Contribution Rates
(% of Pay, Market Value of Assets Basis)

In all scenarios, the interest rate used to discount liabilities was 7.00%.



Reflects data, assumptions, methods and plan provisions as of July 1, 2024.

All scenarios assume contributions made to the fund are equal to the statutory rate.

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General Employees Retirement Plan
Scenario: 7.0% Investment Return for All Years
Fiscal Year Beginning July 1

$ in Thousands	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**
Contributions (% of Payroll)										
Statutory - Chapter 353	14.44%	14.42%	14.40%	14.39%	14.38%	14.37%	14.36%	14.00%	14.00%	14.00%
Required - Chapter 356 (MVA)	11.67%	11.44%	11.18%	10.93%	10.66%	10.36%	10.03%	9.66%	9.28%	8.84%
Sufficiency / (Deficiency)	2.77%	2.98%	3.22%	3.46%	3.72%	4.01%	4.33%	4.34%	4.72%	5.16%
Contributions										
Statutory - Chapter 353	$ 1,219,810	$ 1,262,499	$ 1,316,323	$ 1,363,785	$ 1,407,786	$ 1,451,585	$ 1,495,447	$ 1,502,790	$ 1,547,847	$ 1,593,795
Required - Chapter 356 (MVA)	986,100	1,001,364	1,021,694	1,035,573	1,043,413	1,046,773	1,044,974	1,037,243	1,025,696	1,006,108
Sufficiency / (Deficiency)	233,710	261,136	294,629	328,212	364,374	404,812	450,472	465,548	522,151	587,686
Funding Ratios										
Current Assets (MVA)	$30,162,004	$31,456,279	$32,799,708	$34,200,492	$35,664,763	$37,196,695	$38,802,514	$40,489,571	$42,227,171	$44,058,307
Actuarial Accrued Liability (AAL)	33,858,933	34,912,782	35,983,476	37,066,424	38,169,925	39,297,432	40,452,396	41,639,090	42,861,506	44,123,021
Unfunded AAL	3,696,929	3,456,503	3,183,768	2,865,932	2,505,161	2,100,736	1,649,882	1,149,519	634,335	64,714
Funding Ratio	89.1%	90.1%	91.2%	92.3%	93.4%	94.7%	95.9%	97.2%	98.5%	99.9%
Benefit Payments	$ 1,986,430	$ 2,068,344	$ 2,156,574	$ 2,236,519	$ 2,313,332	$ 2,388,507	$ 2,461,638	$ 2,533,393	$ 2,604,726	$ 2,675,241
Ratio of Assets to Benefit Payments	15.18	15.21	15.21	15.29	15.42	15.57	15.76	15.98	16.21	16.47

Numbers may not add due to rounding.

The interest rate used to discount liabilities was 7.0%.

This exhibit should only be viewed in conjunction with GRS' January 31, 2025 letter to PERA.

General Employees Retirement Plan

Scenario: 7.0% Investment Return for All Years

Fiscal Year Beginning July 1

$ in Thousands	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043
Contributions (% of Payroll)										
Statutory - Chapter 353	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%
Required - Chapter 356 (MVA)	8.51%	8.24%	7.97%	7.68%	7.38%	7.07%	6.74%	6.40%	6.05%	5.68%
Sufficiency / (Deficiency)	4.49%	4.76%	5.03%	5.32%	5.62%	5.93%	6.26%	6.60%	6.95%	7.32%
Contributions										
Statutory - Chapter 353	$ 1,523,558	$ 1,567,974	$ 1,613,309	$ 1,659,831	$ 1,707,489	$ 1,756,182	$ 1,805,963	$ 1,856,857	$ 1,908,951	$ 1,962,345
Required - Chapter 356 (MVA)	997,343	994,407	988,820	980,545	969,284	954,695	936,528	914,503	888,356	857,790
Sufficiency / (Deficiency)	526,215	573,567	624,488	679,286	738,205	801,487	869,435	942,354	1,020,595	1,104,554
Funding Ratios										
Current Assets (MVA)	$45,991,278	$47,913,726	$49,942,344	$52,085,070	$54,352,398	$56,756,246	$59,306,500	$62,013,482	$64,886,662	$67,936,656
Actuarial Accrued Liability (AAL)	45,427,709	46,779,898	48,182,182	49,638,178	51,153,653	52,735,601	54,388,675	56,117,544	57,925,640	59,817,119
Unfunded AAL	(563,569)	(1,133,828)	(1,760,162)	(2,446,892)	(3,198,745)	(4,020,645)	(4,917,825)	(5,895,938)	(6,961,021)	(8,119,537)
Funding Ratio	101.2%	102.4%	103.7%	104.9%	106.3%	107.6%	109.0%	110.5%	112.0%	113.6%
Benefit Payments	$ 2,744,998	$ 2,815,933	$ 2,887,278	$ 2,957,365	$ 3,025,474	$ 3,094,281	$ 3,164,080	$ 3,236,421	$ 3,310,919	$ 3,388,541
Ratio of Assets to Benefit Payments	16.75	17.02	17.30	17.61	17.96	18.34	18.74	19.16	19.60	20.05

Numbers may not add due to rounding.

The interest rate used to discount liabilities was 7.0%.

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General Employees Retirement Plan

Scenario: 7.0% Investment Return for All Years

Fiscal Year Beginning July 1

$ in Thousands	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053
Contributions (% of Payroll)										
Statutory - Chapter 353	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%
Required - Chapter 356 (MVA)	5.30%	4.90%	4.49%	4.06%	3.61%	3.15%	2.67%	2.17%	1.65%	1.11%
Sufficiency / (Deficiency)	7.70%	8.10%	8.51%	8.94%	9.39%	9.85%	10.33%	10.83%	11.35%	11.89%
Contributions										
Statutory - Chapter 353	$ 2,017,097	$ 2,073,281	$ 2,131,024	$ 2,190,539	$ 2,251,910	$ 2,315,222	$ 2,380,528	$ 2,448,008	$ 2,517,761	$ 2,589,891
Required - Chapter 356 (MVA)	822,448	781,963	735,987	684,160	626,000	560,996	488,584	408,241	319,317	221,130
Sufficiency / (Deficiency)	1,194,649	1,291,317	1,395,037	1,506,379	1,625,910	1,754,226	1,891,943	2,039,767	2,198,445	2,368,761
Funding Ratios										
Current Assets (MVA)	$71,173,926	$74,609,024	$ 78,252,409	$ 82,115,200	$ 86,208,874	$ 90,547,034	$ 95,143,553	$ 100,012,120	$ 105,166,852	$ 110,623,170
Actuarial Accrued Liability (AAL)	61,795,496	63,863,898	66,024,794	68,280,710	70,633,813	73,087,730	75,645,647	78,309,806	81,081,983	83,964,376
Unfunded AAL	(9,378,430)	(10,745,126)	(12,227,614)	(13,834,489)	(15,575,062)	(17,459,304)	(19,497,907)	(21,702,314)	(24,084,868)	(26,658,794)
Funding Ratio	115.2%	116.8%	118.5%	120.3%	122.1%	123.9%	125.8%	127.7%	129.7%	131.8%
Benefit Payments	$ 3,469,964	$ 3,556,063	$ 3,647,033	$ 3,743,487	$ 3,844,234	$ 3,950,009	$ 4,061,987	$ 4,180,852	$ 4,306,398	$ 4,438,809
Ratio of Assets to Benefit Payments	20.51	20.98	21.46	21.94	22.43	22.92	23.42	23.92	24.42	24.92

Numbers may not add due to rounding.

The interest rate used to discount liabilities was 7.0%.

This exhibit should only be viewed in conjunction with GRS' January 31, 2025 letter to PERA.

General Employees Retirement Plan

Scenario: 5.5% Investment Return for All Years

Fiscal Year Beginning July 1

$ in Thousands	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Contributions (% of Payroll)										
Statutory - Chapter 353	14.44%	14.42%	14.40%	14.39%	14.38%	14.37%	14.36%	14.00%	14.00%	14.00%
Required - Chapter 356 (MVA)	11.67%	11.78%	11.88%	12.02%	12.19%	12.37%	12.58%	12.82%	13.11%	13.45%
Sufficiency / (Deficiency)	2.77%	2.64%	2.52%	2.37%	2.19%	2.00%	1.78%	1.18%	0.89%	0.55%
Contributions										
Statutory - Chapter 353	$ 1,219,810	$ 1,262,499	$ 1,316,323	$ 1,363,785	$ 1,407,786	$ 1,451,585	$ 1,495,447	$ 1,502,790	$ 1,547,847	$ 1,593,795
Required - Chapter 356 (MVA)	986,100	1,031,030	1,085,700	1,139,347	1,193,292	1,250,205	1,310,768	1,375,897	1,449,808	1,530,943
Sufficiency / (Deficiency)	233,710	231,470	230,623	224,438	214,494	201,380	184,679	126,893	98,039	62,852
Funding Ratios										
Current Assets (MVA)	$30,162,004	$31,009,770	$31,863,017	$32,726,775	$33,603,722	$34,494,315	$35,400,784	$36,326,165	$37,235,381	$38,166,712
Actuarial Accrued Liability (AAL)	33,858,933	34,912,782	35,983,476	37,066,424	38,169,925	39,297,432	40,452,396	41,639,090	42,861,506	44,123,021
Unfunded AAL	3,696,929	3,903,012	4,120,459	4,339,649	4,566,203	4,803,117	5,051,612	5,312,925	5,626,125	5,956,310
Funding Ratio	89.1%	88.8%	88.6%	88.3%	88.0%	87.8%	87.5%	87.2%	86.9%	86.5%
Benefit Payments	$ 1,986,430	$ 2,068,344	$ 2,156,574	$ 2,236,519	$ 2,313,332	$ 2,388,507	$ 2,461,638	$ 2,533,393	$ 2,604,726	$ 2,675,241
Ratio of Assets to Benefit Payments	15.18	14.99	14.77	14.63	14.53	14.44	14.38	14.34	14.30	14.27

Numbers may not add due to rounding.

The interest rate used to discount liabilities was 7.0%.

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General Employees Retirement Plan

Scenario: 5.5% Investment Return for All Years

Fiscal Year Beginning July 1

$ in Thousands	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043
Contributions (% of Payroll)										
Statutory - Chapter 353	14.00%	14.00%	14.00%	14.00%	14.00%	14.00%	14.00%	14.00%	14.00%	14.00%
Required - Chapter 356 (MVA)	13.83%	14.27%	14.79%	15.40%	16.13%	17.03%	18.16%	19.61%	21.56%	24.29%
Sufficiency / (Deficiency)	0.17%	(0.27)%	(0.79)%	(1.40)%	(2.13)%	(3.03)%	(4.16)%	(5.61)%	(7.56)%	(10.29)%
Contributions										
Statutory - Chapter 353	$ 1,640,755	$ 1,688,588	$ 1,737,409	$ 1,787,510	$ 1,838,834	$ 1,891,273	$ 1,944,883	$ 1,999,692	$ 2,055,793	$ 2,113,294
Required - Chapter 356 (MVA)	1,620,847	1,721,359	1,835,174	1,966,041	2,118,882	2,300,820	2,522,692	2,801,499	3,165,602	3,665,980
Sufficiency / (Deficiency)	19,908	(32,771)	(97,764)	(178,530)	(280,048)	(409,547)	(577,809)	(801,807)	(1,109,809)	(1,552,685)
Funding Ratios										
Current Assets (MVA)	$39,123,112	$40,107,759	$41,121,878	$42,167,663	$43,249,437	$44,372,445	$45,539,361	$46,752,761	$48,013,798	$49,324,177
Actuarial Accrued Liability (AAL)	45,427,709	46,779,898	48,182,182	49,638,178	51,153,653	52,735,601	54,388,675	56,117,544	57,925,640	59,817,119
Unfunded AAL	6,304,597	6,672,138	7,060,305	7,470,515	7,904,215	8,363,156	8,849,314	9,364,783	9,911,843	10,492,942
Funding Ratio	86.1%	85.7%	85.4%	85.0%	84.6%	84.1%	83.7%	83.3%	82.9%	82.5%
Benefit Payments	$ 2,744,998	$ 2,815,933	$ 2,887,278	$ 2,957,365	$ 3,025,474	$ 3,094,281	$ 3,164,080	$ 3,236,421	$ 3,310,919	$ 3,388,541
Ratio of Assets to Benefit Payments	14.25	14.24	14.24	14.26	14.30	14.34	14.39	14.45	14.50	14.56

Numbers may not add due to rounding.

The interest rate used to discount liabilities was 7.0%.

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General Employees Retirement Plan

Scenario: 5.5% Investment Return for All Years

Fiscal Year Beginning July 1

$ in Thousands	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053
Contributions (% of Payroll)										
Statutory - Chapter 353	14.00%	14.00%	14.00%	14.00%	14.00%	14.00%	14.00%	14.00%	14.00%	14.00%
Required - Chapter 356 (MVA)	28.39%	35.23%	48.94%	90.07%	13.34%	13.57%	13.82%	14.09%	14.38%	14.70%
Sufficiency / (Deficiency)	(14.39)%	(21.23)%	(34.94)%	(76.07)%	0.66%	0.43%	0.18%	(0.09)%	(0.38)%	(0.70)%
Contributions										
Statutory - Chapter 353	$ 2,172,258	$ 2,232,764	$ 2,294,949	$ 2,359,042	$ 2,425,134	$ 2,493,316	$ 2,563,645	$ 2,636,316	$ 2,711,435	$ 2,789,113
Required - Chapter 356 (MVA)	4,404,493	5,618,802	8,021,811	15,177,617	2,310,141	2,416,210	2,530,029	2,652,524	2,784,665	2,927,587
Sufficiency / (Deficiency)	(2,232,235)	(3,386,038)	(5,726,861)	(12,818,575)	114,994	77,106	33,616	(16,207)	(73,229)	(138,473)
Funding Ratios										
Current Assets (MVA)	$50,684,814	$52,096,041	$53,557,389	$55,068,302	$56,627,795	$58,236,143	$59,892,971	$61,596,737	$63,345,305	$65,136,743
Actuarial Accrued Liability (AAL)	61,795,496	63,863,898	66,024,794	68,280,710	70,633,813	73,087,730	75,645,647	78,309,806	81,081,983	83,964,376
Unfunded AAL	11,110,682	11,767,857	12,467,406	13,212,408	14,006,018	14,851,588	15,752,676	16,713,069	17,736,678	18,827,633
Funding Ratio	82.0%	81.6%	81.1%	80.7%	80.2%	79.7%	79.2%	78.7%	78.1%	77.6%
Benefit Payments	$ 3,469,964	$ 3,556,063	$ 3,647,033	$ 3,743,487	$ 3,844,234	$ 3,950,009	$ 4,061,987	$ 4,180,852	$ 4,306,398	$ 4,438,809
Ratio of Assets to Benefit Payments	14.61	14.65	14.69	14.71	14.73	14.74	14.74	14.73	14.71	14.67

Numbers may not add due to rounding.

The interest rate used to discount liabilities was 7.0%.

This exhibit should only be viewed in conjunction with GRS' January 31, 2025 letter to PERA.

General Employees Retirement Plan

Scenario: 8.5% Investment Return for All Years

Fiscal Year Beginning July 1

$ in Thousands	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**
Contributions (% of Payroll)										
Statutory - Chapter 353	14.44%	14.42%	14.40%	14.39%	14.38%	14.37%	13.36%	13.00%	13.00%	13.00%
Required - Chapter 356 (MVA)	11.67%	11.10%	10.47%	9.80%	9.06%	8.23%	7.70%	7.05%	6.39%	5.69%
Sufficiency / (Deficiency)	2.77%	3.32%	3.93%	4.59%	5.32%	6.14%	5.66%	5.95%	6.61%	7.31%
Contributions										
Statutory - Chapter 353	$ 1,219,810	$ 1,262,499	$ 1,316,323	$ 1,363,785	$ 1,407,786	$ 1,451,585	$ 1,391,272	$ 1,395,448	$ 1,437,287	$ 1,479,952
Required - Chapter 356 (MVA)	986,100	971,698	956,772	928,797	886,954	831,297	801,824	756,792	706,315	647,755
Sufficiency / (Deficiency)	233,710	290,801	359,551	434,987	520,832	620,288	589,448	638,656	730,972	832,198
Funding Ratios										
Current Assets (MVA)	$30,162,004	$31,902,788	$33,749,794	$35,716,843	$37,816,275	$40,059,067	$42,458,906	$44,922,734	$47,524,645	$50,316,065
Actuarial Accrued Liability (AAL)	33,858,933	34,912,782	35,983,476	37,066,424	38,169,925	39,297,432	40,452,396	41,639,090	42,861,506	44,123,021
Unfunded AAL	3,696,929	3,009,993	2,233,683	1,349,580	353,650	(761,635)	(2,006,510)	(3,283,644)	(4,663,140)	(6,193,044)
Funding Ratio	89.1%	91.4%	93.8%	96.4%	99.1%	101.9%	105.0%	107.9%	110.9%	114.0%
Benefit Payments	$ 1,986,430	$ 2,068,344	$ 2,156,574	$ 2,236,519	$ 2,313,332	$ 2,388,507	$ 2,461,638	$ 2,533,393	$ 2,604,726	$ 2,675,241
Ratio of Assets to Benefit Payments	15.18	15.42	15.65	15.97	16.35	16.77	17.25	17.73	18.25	18.81

Numbers may not add due to rounding.

The interest rate used to discount liabilities was 7.0%.

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General Employees Retirement Plan
Scenario: 8.5% Investment Return for All Years
Fiscal Year Beginning July 1

$ in Thousands	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**	**2041**	**2042**	**2043**
Contributions (% of Payroll)										
Statutory - Chapter 353	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%
Required - Chapter 356 (MVA)	4.95%	4.17%	3.35%	2.48%	1.56%	0.59%	0.00%	0.00%	0.00%	0.00%
Sufficiency / (Deficiency)	8.05%	8.83%	9.65%	10.52%	11.44%	12.41%	13.00%	13.00%	13.00%	13.00%
Contributions										
Statutory - Chapter 353	$ 1,523,558	$ 1,567,974	$ 1,613,309	$ 1,659,831	$ 1,707,489	$ 1,756,182	$ 1,805,963	$ 1,856,857	$ 1,908,951	$ 1,962,345
Required - Chapter 356 (MVA)	580,393	503,275	415,571	316,477	204,858	79,454	-	-	-	-
Sufficiency / (Deficiency)	943,165	1,064,700	1,197,738	1,343,354	1,502,631	1,676,728	1,805,963	1,856,857	1,908,951	1,962,345
Funding Ratios										
Current Assets (MVA)	$53,314,797	$56,540,216	$60,011,188	$ 63,749,095	$ 67,779,150	$ 72,129,408	$ 76,827,415	$ 81,902,805	$ 87,386,143	$ 93,311,081
Actuarial Accrued Liability (AAL)	45,427,709	46,779,898	48,182,182	49,638,178	51,153,653	52,735,601	54,388,675	56,117,544	57,925,640	59,817,119
Unfunded AAL	(7,887,088)	(9,760,318)	(11,829,005)	(14,110,917)	(16,625,498)	(19,393,807)	(22,438,740)	(25,785,261)	(29,460,503)	(33,493,962)
Funding Ratio	117.4%	120.9%	124.6%	128.4%	132.5%	136.8%	141.3%	146.0%	150.9%	156.0%
Benefit Payments	$ 2,744,998	$ 2,815,933	$ 2,887,278	$ 2,957,365	$ 3,025,474	$ 3,094,281	$ 3,164,080	$ 3,236,421	$ 3,310,919	$ 3,388,541
Ratio of Assets to Benefit Payments	19.42	20.08	20.78	21.56	22.40	23.31	24.28	25.31	26.39	27.54

Numbers may not add due to rounding.

The interest rate used to discount liabilities was 7.0%.

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General Employees Retirement Plan

Scenario: 8.5% Investment Return for All Years

Fiscal Year Beginning July 1

$ in Thousands	**2044**	**2045**	**2046**	**2047**	**2048**	**2049**	**2050**	**2051**	**2052**	**2053**
Contributions (% of Payroll)										
Statutory - Chapter 353	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%
Required - Chapter 356 (MVA)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Sufficiency / (Deficiency)	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%
Contributions										
Statutory - Chapter 353	$ 2,017,097	$ 2,073,281	$ 2,131,024	$ 2,190,539	$ 2,251,910	$ 2,315,222	$ 2,380,528	$ 2,448,008	$ 2,517,761	$ 2,589,891
Required - Chapter 356 (MVA)	-	-	-	-	-	-	-	-	-	-
Sufficiency / (Deficiency)	2,017,097	2,073,281	2,131,024	2,190,539	2,251,910	2,315,222	2,380,528	2,448,008	2,517,761	2,589,891
Funding Ratios										
Current Assets (MVA)	$ 99,713,225	$ 106,630,562	$ 114,103,469	$122,175,684	$130,894,239	$140,311,495	$150,483,578	$161,470,217	$173,335,692	$186,150,058
Actuarial Accrued Liability (AAL)	61,795,496	63,863,898	66,024,794	68,280,710	70,633,813	73,087,730	75,645,647	78,309,806	81,081,983	83,964,376
Unfunded AAL	(37,917,729)	(42,766,664)	(48,078,674)	(53,894,973)	(60,260,427)	(67,223,765)	(74,837,931)	(83,160,412)	(92,253,708)	(102,185,682)
Funding Ratio	161.4%	167.0%	172.8%	178.9%	185.3%	192.0%	198.9%	206.2%	213.8%	221.7%
Benefit Payments	$ 3,469,964	$ 3,556,063	$ 3,647,033	$ 3,743,487	$ 3,844,234	$ 3,950,009	$ 4,061,987	$ 4,180,852	$ 4,306,398	$ 4,438,809
Ratio of Assets to Benefit Payments	28.74	29.99	31.29	32.64	34.05	35.52	37.05	38.62	40.25	41.94

Numbers may not add due to rounding.

The interest rate used to discount liabilities was 7.0%.