

April 3, 2012

VIA ELECTRONIC MAIL

Ms. Roxanne Minnehan, Executive Director Public Employee Retirement Administration 100 North Park, Suite 200 Helena, Montana 59620

Re: Special PERS Projections

Dear Roxanne:

At the request of the Governor's Office of Budget and Program Planning (OBPP), we have prepared projections of the funded status of PERS. The following describes the methodology for these projections:

- All PERS members were allocated either to "State" or "Local Government", based upon their payroll code reported in the data for the 2011 actuarial valuation. Codes CP (State Agencies) and UN (Universities) were included with the State group. All others were considered Local Government. The June 30, 2011 Actuarial Valuation results were then allocated to these two groups.
- Plan assets were allocated to each group in proportion to its actuarial liability as of June 30, 2011.
- An Actuarial Required Contribution (ARC) was determined for each group using the same methodology as has been used for PERS as a whole.
- Projections were preformed through the 2027 fiscal year assuming that all actuarial assumptions will be exactly realized and that the trust fund will earn the assumed rate of 7.75% each year on market value. After June 30, 2011, the trust fund was projected separately for each group. The results based upon current contribution rates are in the tables labeled "Baseline."
- The additional contributions specified by OBPP were added to future contributions. These future contributions were indicated as (1) an increase by 1% in both the employer and employee contribution rate effective July 1, 2013, and (2) a separate schedule of additional contributions unrelated to payroll. It should be noted that our model assumes a 4% annual growth in payroll, so the dollar amounts of the additional employer and employee contributions used in our projections do not match the dollar amounts provided by OBPP. However, we used the dollar amounts of the additional contributions directly. These contributions were provided to us by Mr. Shawn Graham on March 19, 2012. The results based on the additional contributions are in the Tables labeled "Additional Contributions."

The enclosed tables show projections of funded status (actuarial value of assets divided by actuarial liability), contribution rates, and amortization periods through the 2027 fiscal year. The ARC is based upon a 30-year rolling amortization of the UAL as a percentage of payroll.

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The ARC shortfall (or surplus) is the excess (positive or negative) of the ARC over the total contribution rate as a percent of pay.

The calculations in this letter are based upon the data, actuarial methods and assumptions as were used in the actuarial valuation of the Systems as of June 30, 2011. In preparing our letter, we relied without audit on information (some oral and some written) supplied by the staff of the System. This information includes, but is not limited to, plan provisions, membership data, and financial information.

The actuarial assumptions reflect our understanding of the likely future experience of the System, and the assumptions as a whole represent our best estimate for the future experience of the System. The results of this letter are dependent upon future experience conforming to these assumptions. To the extent that future experience deviates from the actuarial assumptions, the true costs could vary from our results.

I hereby certify that, to the best of my knowledge, this letter and its contents, which are work products of Cheiron, Inc., are complete and accurate and have been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board. Furthermore, as a credentialed actuary, I meet the Qualification Standards of the American Academy of Actuaries to render the opinions contained in this letter. This letter does not address any contractual or legal issues. I am not an attorney and our letter does not provide any legal services or advice.

This letter was prepared exclusively for the Public Employees' Retirement System for a specific and limited purpose. This letter is not intended to benefit any third party, and Cheiron assumes no duty or liability to any such party.

If you have questions or need additional information, please feel free to contact me.

Sincerely, Cheiron

Stephen T. McElhaney, FCA, FSA Principal Consulting Actuary

Enclosures

Group: Scenario:	PERS State Baseline							
Fiscal	Funded	Employee	Employer	Add'l	Total	Amort		ARC
Year	Status	Rate	Rate	Contrib.	Contrib	Period	ARC	Shortfall
2012	70%	6.97%	7.13%	0.00%	14.10%	N/A	20.39%	6.29%
2013	68%	6.99%	7.13%	0.00%	14.12%	N/A	21.81%	7.69%
2014	70%	7.07%	7.13%	0.00%	14.20%	N/A	21.01%	6.81%
2015	72%	7.14%	7.13%	0.00%	14.27%	N/A	20.47%	6.20%
2016	71%	7.20%	7.13%	0.00%	14.33%	N/A	20.50%	6.17%
2017	71%	7.26%	7.13%	0.00%	14.39%	N/A	20.54%	6.15%
2018	70%	7.32%	7.13%	0.00%	14.45%	N/A	20.58%	6.14%
2019	70%	7.37%	7.13%	0.00%	14.50%	N/A	20.63%	6.13%
2020	69%	7.42%	7.13%	0.00%	14.55%	N/A	20.68%	6.13%
2021	68%	7.46%	7.13%	0.00%	14.59%	N/A	20.73%	6.14%
2022	68%	7.50%	7.13%	0.00%	14.63%	N/A	20.79%	6.16%
2023	67%	7.54%	7.13%	0.00%	14.67%	N/A	20.85%	6.18%
2024	66%	7.58%	7.13%	0.00%	14.71%	N/A	20.92%	6.21%
2025	65%	7.61%	7.13%	0.00%	14.74%	N/A	21.00%	6.26%
2026	65%	7.64%	7.13%	0.00%	14.77%	N/A	21.08%	6.31%
2027	64%	7.67%	7.13%	0.00%	14.80%	N/A	21.17%	6.37%

Group: Scenario:	PERS State Additional Contributions								
Fiscal Year	Funded Status	Employee Rate	Employer Rate	Add'l Contrib.	Total Contrib	Amort Period	ARC	ARC Shortfall	
2012	70%	6.97%	7.13%	0.00%	14.10%	N/A	20.39%	6.29%	
2013	68%	6.99%	7.13%	0.00%	14.12%	N/A	21.81%	7.69%	
2014	70%	7.90%	8.13%	2.74%	18.77%	42.9	21.08%	2.31%	
2015	73%	7.90%	8.13%	2.68%	18.71%	35.1	20.23%	1.52%	
2016	73%	7.90%	8.13%	2.61%	18.64%	33.4	19.95%	1.31%	
2017	74%	7.90%	8.13%	2.55%	18.58%	31.8	19.67%	1.09%	
2018	74%	7.90%	8.13%	2.49%	18.52%	30.3	19.40%	0.88%	
2019	75%	7.90%	8.13%	2.43%	18.46%	28.8	19.12%	0.66%	
2020	75%	7.90%	8.13%	2.74%	18.77%	25.5	18.84%	0.07%	
2021	76%	7.90%	8.13%	2.67%	18.70%	24.3	18.54%	-0.16%	
2022	76%	7.90%	8.13%	2.60%	18.63%	23.1	18.23%	-0.39%	
2023	77%	7.90%	8.13%	2.53%	18.56%	22.0	17.93%	-0.63%	
2024	77%	7.90%	8.13%	2.46%	18.49%	20.8	17.62%	-0.87%	
2025	78%	7.90%	8.13%	2.40%	18.43%	19.8	17.31%	-1.12%	
2026	79%	7.90%	8.13%	2.34%	18.37%	18.7	17.00%	-1.36%	
2027	79%	7.90%	8.13%	2.28%	18.31%	17.7	16.69%	-1.62%	

Group:	PERS Local							
Scenario:	Baseline				7 -1-1	A 4		450
Fiscal	Funded	Employee	Employer	Add'l	Total	Amort		ARC
Year	Status	Rate	Rate	Contrib.	Contrib	Period	ARC	Shortfall
2012	70%	6.97%	7.13%	0.00%	14.10%	N/A	20.39%	6.29%
2013	68%	7.01%	7.13%	0.00%	14.14%	N/A	19.62%	5.48%
2014	71%	7.09%	7.13%	0.00%	14.22%	N/A	18.94%	4.72%
2015	72%	7.16%	7.13%	0.00%	14.29%	N/A	18.44%	4.16%
2016	72%	7.22%	7.13%	0.00%	14.35%	N/A	18.39%	4.04%
2017	72%	7.28%	7.13%	0.00%	14.41%	N/A	18.33%	3.92%
2018	72%	7.33%	7.13%	0.00%	14.46%	N/A	18.28%	3.82%
2019	72%	7.39%	7.13%	0.00%	14.52%	· N/A	18.23%	3.71%
2020	72%	7.44%	7.13%	0.00%	14.57%	N/A	18.17%	3.61%
2021	72%	7.48%	7.13%	0.00%	14.61%	N/A	18.12%	3.51%
2022	71%	7.52%	7.13%	0.00%	14.65%	N/A	18.07%	3.42%
2023	71%	7.56%	7.13%	0.00%	14.69%	N/A	18.03%	3.33%
2024	71%	7.60%	7.13%	0.00%	14.73%	N/A	17.98%	3.25%
2025	71%	7.63%	7.13%	0.00%	14.76%	N/A	17.94%	3.18%
2026	71%	7.66%	7.13%	0.00%	14.79%	N/A	17.91%	3.12%
2027	70%	7.69%	7.13%	0.00%	14.82%	N/A	17.87%	3.06%

Group:	PERS Local								
Scenario:	Additional Contributions								
Fiscal	Funded	Employee	Employer	Add'l	Total	Amort		ARC	
Year	Status	Rate	Rate	Contrib.	Contrib	Period	ARC	Shortfall	
2012	70%	6.97%	7.13%	0.00%	14.10%	N/A	20.39%	6.29%	
2013	68%	7.01%	7.13%	0.00%	14.14%	N/A	19.62%	5.48%	
2014	71%	7.90%	8.13%	0.57%	16.60%	52.6	19.00%	2.41%	
2015	73%	7.90%	8.13%	1.77%	17.80%	27.3	18.32%	0.52%	
2016	74%	7.90%	8.13%	2.25%	18.28%	22.7	18.01%	-0.27%	
2017	75%	7.90%	8.13%	2.71%	18.74%	19.2	17.67%	-1.06%	
2018	76%	7.90%	8.13%	3.23%	19.26%	16.2	17.30%	-1.96%	
2019	78%	7.90%	8.13%	3.74%	19.77%	13.8	16.89%	-2.88%	
2020	79%	7.90%	8.13%	4.22%	20.25%	11.8	16.44%	-3.81%	
2021	81%	7.90%	8.13%	4.68%	20.71%	10.1	15.95%	-4.76%	
2022	82%	7.90%	8.13%	5.12%	21.15%	8.5	15.43%	-5.72%	
2023	84%	7.90%	8.13%	5.54%	21.57%	7.1	14.88%	-6.70%	
2024	86%	7.90%	8.13%	5.95%	21.98%	5.8	14.28%	-7.69%	
2025	89%	7.90%	8.13%	6.33%	22.36%	4.6	13.65%	-8.71%	
2026	91%	7.90%	8.13%	6.69%	22.72%	3.4	12.99%	-9.74%	
2027	94%	7.90%	8.13%	7.04%	23.07%	2.3	12.28%	-10.79%	