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January 11, 2013

Ms. Mary Most Vanek
Executive Director
Public Employees Retirement Association of MN
60 Empire Drive, Suite 200
Saint Paul, Minnesota 55103

Re: Supplemental Actuarial Calculations – PERA General Eligibility

Dear Mary:

Enclosed are two supplemental actuarial valuations for proposed eligibility changes to the Public Employees Retirement Association of MN General Employees Retirement Plan (PERA General). To the best of our knowledge and belief, within the confines of the limited data that is available, 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.

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. Due to limited scope of the actuary's assignment, the actuary did not perform an analysis of the potential range of such future measurements.

This report should not be relied on for any purpose other than the purpose described in the primary communication. 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.

The valuation was based upon information furnished by PERA, concerning Retirement System benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries.

The actuaries issuing this report are Members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

The signing actuaries are independent of the plan sponsor.

Please call if you have any questions regarding the calculations enclosed.

Sincerely,

Bonita J. Wurst

Bonita J. Wurst, ASA, MAAA

Brian B. Murphy

Brian B. Murphy, FSA, MAAA

BJW/BBM:rmn
Enclosures

MINNESOTA GENERAL EMPLOYEES RETIREMENT PLAN
EXECUTIVE SUMMARY

Requested By: Ms. Mary Most Vanek, Executive Director

Date: January 11, 2013

Submitted By: Bonita J. Wurst, ASA, MAAA and Brian B. Murphy, FSA, MAAA
Gabriel, Roeder, Smith & Company

This report contains an actuarial valuation of proposed changes in membership eligibility for employees of the Minnesota General Employees Retirement Plan. The 2012 Omnibus Retirement Bill included a requirement that PERA "shall: (1) identify the options for revising the membership threshold salary under Minnesota Statutes, section 353.01, subdivisions 2a and 2b, for membership in a retirement plan administered by the association; (2) determine the actuarial impact on the retirement plans administered by the association, the financial impact on participating employers, and the financial impact on prospective public employees of each option; and (3) formulate the recommendations for structuring each identified option."

The two alternative membership eligibility options for which we have completed actuarial analysis were identified by PERA, and are described below.

Study 1: Eligibility threshold is increased from $425 to $773 in any month.

Study 2: Eligibility threshold is changed from $425 in any month to 780 hours in any year (525 hours if employed by a school)

Please see complete descriptions within this report.

Please note that determining the financial impact of each option on participating employers and on prospective public employees was out of scope and was not performed.

The date of the valuation was June 30, 2012. This means that the results of the supplemental valuations indicate what the June 30, 2012 valuation would have shown if the proposed benefit changes had been in effect on that date. Supplemental valuations do **not** predict the result of future actuarial valuations. Rather, supplemental valuations give an indication of the probable long-term cost of the **benefit change only** without comment on the complete end result of the future valuations.

It is our understanding that benefits for current inactive or retired members would not be affected by the proposed changes. They were excluded from this study.

MINNESOTA GENERAL EMPLOYEES RETIREMENT PLAN
EXECUTIVE SUMMARY (CONCLUSION)

Unless noted otherwise, actuarial assumptions and methods were consistent with those used in the regular actuarial valuation of the PERA General Plan on the valuation date as prescribed by Minnesota Statutes Section 356.215, the requirements of the Standards for Actuarial Work established by the Legislative Commission on Pensions and Retirement (LCPR) and the Trustees for the June 30, 2012 PERA General Valuation. In particular:

- The assumed rate of interest was 8.0% pre-retirement and 7.0% post-retirement for the period beginning July 1, 2012 and ending June 30, 2017, and 8.5% pre-retirement and 7.5% post-retirement thereafter. Where applicable, payment of the 1.0% annual post-retirement benefit increases was accounted for by using a 7.5% post-retirement assumption (7.0% for the years 2012 to 2017), as required by statute.
- Payroll was assumed to increase 3.75% per year.
- The Unfunded Actuarial Accrued Liability was amortized over 19 years.

Please see the *General Employees Retirement Plan Actuarial Valuation Report as of July 1, 2012* dated November 2012 for a detailed description of the actuarial assumptions, methods and plan provisions that are not described in this report.

MINNESOTA GENERAL EMPLOYEES RETIREMENT PLAN
CALCULATION AS OF JUNE 30, 2012

A brief summary of the data, as of June 30, 2012, used in this valuation is presented below.

Active Members				Retired Members		Deferred Vested Members
		Average in Years			Annual	
Number	Covered Payroll	Age	Service	Number	Benefits	Number
139,330	$5,201,524,000	47.3	11.1	75,535	$1,015,249,000	44,354

The enclosed cost studies incorporate the baseline actuarial results shown below. Please see the *General Employees Retirement Plan Actuarial Valuation Report as of July 1, 2012* dated November 2012 for a detailed description of these baseline results.

Actuarial Statement

The baseline results as of July 1, 2012 are shown below:

	Required Contribution (Percent of Pay)			
	Normal Cost	Supplemental	Expenses	Total
Baseline results	6.84%	7.43%	0.19%	14.46%

The July 1, 2012 funding ratio is 73.5%.

MINNESOTA GENERAL EMPLOYEES RETIREMENT PLAN
STUDY 1– INCREASE EARNINGS THRESHOLD
CALCULATION AS OF JUNE 30, 2012

PRESENT PROVISIONS: Employees of participating employers are eligible for participation in the PERA General plan once the employee earns $425 in any month. Membership continues even if the salary is less than $425 in a subsequent month.

PROPOSED PROVISIONS: The earnings threshold would increase from $425 in any month to $773.

PERA provided us with a data file of 16,832 current active members of PERA General who became PERA members in 2002 or later that either:

- Would have entered the Plan at a later date if the $773 earnings threshold had been in place (since 2002)
- Would not have entered the Plan yet had the $773 earnings threshold been in place (since 2002)

From the data file of 16,832 employees that PERA provided, we confirmed that all 16,832 were active members in PERA as of July 1, 2012. Of these 16,832 members, 62 were duplicate records and 902 records had no change in service; therefore, 15,868 members are included in the study. Of these 15,868 members, 4,200 members would not have entered the Plan by July 1, 2012 had the increase in earnings threshold been in place. The remaining 11,668 members would have entered the Plan later than they actually did, and would have earned less service on July 1, 2012 had the new earnings threshold been in place.

The participant statistics for this group are shown below:

	Study	**Valuation**
Active Members	135,130	139,330
Average age	47.4	47.3
Average service	11.4	11.1
Average projected earnings	38,377	37,332

Actuarial Statement

The financial effect of the proposal is shown below:

Dollars in Thousands	**Baseline $425 Threshold**	**Proposed $773 Threshold**	**Difference**
Number of active members	139,330	135,130	(4,200)
Active actuarial accrued liability	$ 7,813,875	$ 7,797,256	$ (16,619)
Total actuarial accrued liability	$ 18,598,897	$ 18,582,278	$ (16,619)
Funding ratio	73.45%	73.52%	0.07%
Normal cost, $ amount	$ 355,782	$ 354,765	$ (1,017)
Projected valuation earnings	$ 5,201,524	$ 5,185,852	$ (15,672)
Normal cost, % of pay	6.84%	6.84%	0.00%
Required contribution, % of pay	14.46%	14.46%	0.00%
Projected employee contributions	$ 325,113	$ 324,134	$ (979)
Projected employer contributions	$ 377,139	$ 376,003	$ (1,136)

The data provided by PERA for this study is limited to members who are currently active and became eligible during the past ten years only. The analysis does not incorporate any potential membership changes for actives who have more than ten years of service in PERA General or members who are currently inactive, nor does it contemplate the demographic profile of future members. Actual results could be significantly different.

MINNESOTA GENERAL EMPLOYEES RETIREMENT PLAN
STUDY 2 – CHANGE TO HOURS THRESHOLD
CALCULATION AS OF JUNE 30, 2012

PRESENT PROVISIONS: Employees of participating employers are eligible for participation in the PERA General plan once the employee earns $425 in any month. Membership continues even if the salary is less than $425 in a subsequent month.

PROPOSED PROVISIONS: Employees are eligible for membership in the PERA General Plan once the employee works 780 hours in a year (525 for school employees).

Currently, most employers do not report hours to PERA. For this study, PERA provided us with a file of members of PERA General in 2011 that either:

- Had hours reported at least 80% of the time but did not exceed 780 hours in 2011 (525 if employed by a school)
- Had hours reported at least 80% of the time and did exceed 780 hours in 2011 (525 if employed by a school)

From the data files of 49,604 employees that PERA provided, we identified 49,517 active members in PERA as of July 1, 2012. The remaining 87 employees were not included in our 2012 valuation as active members (perhaps due to termination of employment) and were excluded from this study.

The participant statistics for this group are shown below:

	School	Non-School	Total
Members with hours reported - exceed threshold	10,183	34,991	45,174
Members with hours reported - did not exceed threshold	6	4,337	4,343
Total members with hours data available	**10,189**	**39,328**	**49,517**
Total from July 1, 2012 valuation			**139,330**
% membership data utilized for study			*35.5%*

	Study	Valuation
Count	49,517	139,330
Average age	47.7	47.3
Average service	13.1	11.1
Average projected earnings	47,230	37,332

The actual cost savings will ultimately depend on how similar the study group is to the total membership base used in the valuation. For this study, we assumed the data used for this study was an accurate representation of the entire membership group.

Actuarial Statement

We determined the actuarial results of the study group under current plan provisions, and then determined the actuarial results of the study group under the proposal (i.e. members under the hours threshold were excluded). The financial effect of the proposal on the study group is shown below:

	Study Group				
Dollars in Thousands		**Baseline**		**Excluding Members under Hours Threshold**	**Change**
Number of active members		49,517		45,174	-8.8%
Active actuarial accrued liability	$	3,731,494	$	3,662,010	-1.9%
Normal cost, $ amount	$	155,774	$	150,053	-3.7%
Projected valuation earnings	$	2,338,699	$	2,256,651	-3.5%

MINNESOTA GENERAL EMPLOYEES RETIREMENT PLAN
STUDY 2 – CHANGE TO HOURS THRESHOLD
CALCULATION AS OF JUNE 30, 2012

If we apply the changes observed in the study group (increase/decrease percentage) to the entire PERA membership, the estimated financial effect on PERA due to the membership eligibility change is shown below.

	Estimated PERA General Valuation Results		
Dollars in Thousands	**Baseline**	**Excluding Members under Hours Threshold**	**Difference**
Number of active members	139,330	127,110	(12,220)
Active actuarial accrued liability	$ 7,813,875	$ 7,668,373	$ (145,502)
Total actuarial accrued liability	$ 18,598,897	$ 18,453,395	$ (145,502)
Funding ratio	73.45%	74.03%	0.58%
Normal cost, $ amount	$ 355,782	$ 342,716	$ (13,066)
Projected valuation earnings	$ 5,201,524	$ 5,019,040	$ (182,484)
Normal cost, % of pay	6.84%	6.83%	-0.01%
Required contribution*, % of pay	14.46%	14.49%	0.03%
Projected employee contributions	$ 325,113	$ 313,708	$ (11,405)
Projected employer contributions	$ 377,139	$ 363,909	$ (13,230)

** Supplemental contribution increases as a % of payroll but decreases as a $ amount due to a decrease in projected payroll.*

The data provided by PERA for this study is limited to data from employers who reported hours to PERA during 2011. The analysis does not incorporate any potential membership changes for actives who would have been excluded based on hours in other years or members who are currently inactive, nor does it contemplate the demographic profile of future members. Results for members with unknown hours were estimated assuming similar results to those members with reported hours. Actual results could be significantly different.

Comments

Comment 1 — The calculations are based upon assumptions regarding future events, which may or may not materialize. They are also based upon plan provisions that are outlined in this report. If you have reason to believe that the assumptions that were used are unreasonable, that the plan provisions are incorrectly described, that important plan provisions relevant to this proposal are not described, or that conditions have changed since the calculations were made, you should contact the authors of this report prior to relying on information in the report.

Comment 2 — If you have reason to believe that the information provided in this report is inaccurate, or is in any way incomplete, or if you need further information in order to make an informed decision on the subject matter of this report, please contact the authors of the report prior to making such decision.

Comment 3 — No statement in this report is intended to be interpreted as a recommendation in favor of the changes, or in opposition to them.

Comment 4 — In the event that more than one plan change is being considered, it is very important to remember that the results of separate actuarial valuations cannot generally be added together to produce a correct estimate of the combined effect of all of the changes. The total can be considerably greater than the sum of the parts due to the interaction of various plan provisions with each other, and with the assumptions that must be used.

Comment 5 — This report is intended to describe the financial effect of the proposed eligibility changes on the General Employees Retirement Plan. Except as otherwise noted, potential effects on other benefit plans were not considered.

Comment 6 — The probabilities of retirement or withdrawal were not adjusted in connection with this proposal. If members exit the plan differently than our assumptions, as a result of this membership change, then the cost of the change will be different.

Comments (Continued)

Comment 7 — The allowances for combined service annuities were not adjusted in connection with this proposal. Currently, liabilities for active members are increased by 0.80% and liabilities for former members are increased by 60.0% to account for the effect of some participants having eligibility for a Combined Service Annuity. If Combined Service Annuity experience is different than our assumptions, as a result of this membership change, then the cost of the change will be different.

Comment 8 — The reader of this report should keep in mind that actuarial calculations are mathematical estimates based on current data and assumptions about future events (which may or may not materialize). Please note that actuarial calculations can and do vary from one valuation year to the next, sometimes significantly if the group valued is very small (less than 30 lives). As a result, the cost impact of a benefit change may fluctuate over time, as the demographics of the group changes.

Comment 9 — In the event the PERA General Plan becomes 90% funded on a market value of assets basis, post-retirement benefit increases will change from inflation up to 1.0% to 2.5%. For purposes of this valuation it was assumed that the post-retirement benefit increase will remain at the reduced level of 1.0% indefinitely, consistent with recent valuations of the PERA General Plan. If the plan does become 90% funded in the future, the liability for these retirees will substantially increase from what is presented in this report.

Comment 10 — The State's actuary has provided guidance on the preferred method for valuing the select and ultimate discount rate changes effective with the July 1, 2012 valuation. The method includes a process that develops a single effective interest rate that is the mathematical equivalent of the select and ultimate discount rate structure. We have estimated this effective interest rate to be 8.34%. For the purposes of these studies, we have assumed this effective rate would be unchanged.

Comment 11 — Statutes require the use of a post-retirement discount rate of 7.5% (7.0% for the years 2012 to 2017) to account for the annual post-retirement benefit increase of 1.0%. Mathematically, this assumption funds a post-retirement benefit increase of 0.9% (1.085/1.075 = 1.009; 1.080/1.070 = 1.009) instead of 1.0%.

Comments (Concluded)

Comment 12 — We have provided this analysis in the same format as that used when plan changes are considered by the Board of Trustees. For any legislative proposals, it may be necessary to follow up with a more in-depth analysis to comply with the Standards for Actuarial Work. We will provide the additional information upon request.

Comment 13 — A review of these proposals for compliance with federal, state, or local law or regulation was out of scope and not performed.