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April 13, 2012

Mr. Gary Amelio
Chief Executive Officer
Santa Barbara County Employees' Retirement System
3916 State Street, Suite 210
Santa Barbara, CA 93105

Re: General Plan 7 Contribution Rates for Fiscal Year 2012-2013

Dear Gary:

Per your request, we have calculated the recommended contribution rates for both the members and the employers for the new General Plan 7 for the 2012-2013 Fiscal Year. The recommended employer rate for the new plan is 27.81% of pay. The member rates will vary by entry age, as shown in the Attachment, with an expected average rate of 2.79% of pay. Note that these rates are expected to increase for the Fiscal Year 2013-2014 due to the scheduled decrease in the net investment return assumption.

Note that there are currently no General Plan 7 members. Therefore, the recommended employer contribution rate is an estimate based on the new formula and the calculated cost of other SBCERS' plans. As actual Plan 7 membership emerges, the calculated cost in the future may either be greater or less than the rate we have recommended in this letter. This year-to-year difference is similar to other plans; however, there will likely be a greater variance in the calculated rates for General Plan 7 in the first few years, until the plan becomes more mature.

Because there will be very few (if any) General Plan 7 members as of the June 30, 2012 actuarial valuation date, we expect that an analysis similar to this one will be performed for setting the rates for Fiscal Year 2013-2014.

Member Contribution Rates

Per the email sent by Lila Deeds, dated February 28, 2012, the member contribution rates are defined by the County Employees' Retirement Law (CERL) Code Section 31621.4. That code section specifies that the member contributions should provide a target annuity of 1/240th of the Final Compensation at age 60 for each year of service. For General Plan 7, the Final Compensation is a 3-year average.

The member contribution rates vary by age and are determined using the Entry Age Normal Funding method. As specified in the relevant CERL section, all members are assumed to retire at age 60. We also use the following assumptions:

1. Investment return assumption of 7.75% (valuation assumption).
2. Individual salary increase rate (general wage growth of 3.75% plus additional increases for merit, as specified in valuation).
3. Unisex mortality for members upon service retirement (mortality table used for option factors, equal to the RP-2000 Combined Mortality Table for males projected to 2010 with Scale AA with a 4-year setback).
4. No COLAs are assumed (per '37 Act provision selected by SBCERS).

It is our understanding that General Plan 7 members will be required to contribute one-half of the annual increase in COLA normal costs. It is also our understanding that this requirement will not have an impact on the rates for Fiscal Year 2012-2013 since there was no increase in COLA contribution rates with the June 30, 2011 actuarial valuation.

Please see the Attachment at the end of this letter for a summary of the member contribution rates by entry age.

Employer Contribution Rates

As you are aware, the employer contribution rates consist of two components, the contribution for the Unfunded Actuarial Accrued Liability (UAAL) and the employer portion of the Normal Cost rate. It is our understanding that the employer contribution rates for the UAAL will be the same for all General members. Therefore, the General Plan 7 UAAL rates for the 2012-2013 Fiscal Year will match those calculated in the actuarial valuation as of June 30, 2011.

We have developed recommended employer contribution rates for the Normal Cost based on the provisions of the new General Plan 7 and the assumptions and methodology described below.

Plan Provisions for General Plan 7

The basic monthly service retirement allowance for General Plan 7 is prescribed under CERL Section 31676.1. The formula used is:

(1/60) x (Final Compensation) x (Retirement Age Factor) x (Years of Service)

Where the Final Compensation is based on a 3-year average and the Retirement Age Factors are as follow (only integer ages are shown):

Table 1

Age	Factor	Age	Factor
50	0.7091	58	1.0350
51	0.7457	59	1.0899
52	0.7816	60	1.1500
53	0.8181	61	1.1947
54	0.8556	62	1.2548
55	0.8954	63	1.3186
56	0.9382	64	1.3865
57	0.9846	65 or later	1.4593

Cost-of-living adjustments (COLAs) will be based on changes in the Consumer Price Index (CPI), but will be limited to a maximum of 2%. There is also a COLA Bank that accumulates when the CPI exceeds 2%.

Assumptions and Methodology

We have recommended a total Normal Cost rate for General Plan 7 based on the total Normal Cost rate for General Plan 5C and a comparison of the expected value of the two benefits. For our analysis, we assumed that the new General Plan 7 will have a distribution of entry ages similar to those of General Plan 5C. If the entry ages for the new Plan tend to be older, the costs will be higher, while if the entry ages for the new Plan tend to be younger, the costs will be lower, all else being equal.

For a given retirement age, Final Compensation, and years of service, the value of the benefits will be lower under General Plan 7 than they will be under General Plan 5C for two reasons:

1. The percentage applied to final compensation is less under General Plan 7. Specifically, One-sixtieth of the Retirement Age Factors for General Plan 7 is less than one-fiftieth of the Retirement Age Factors for General Plan 5C at all retirement ages, as shown in the following table.
2. The maximum COLA for General Plan 7 is 2% while the maximum COLA for General Plan 5C is 3%.

In developing the Normal Cost rate for General Plan 7, we first considered the new plan's Retirement Age Factors combined with the applicable fraction, relative to the current General Plan 5C. The following is a comparison between the two plans:

Table 2

	Current General Plan 5		New General Plan 7		
	31676.12 - 1/50th		31676.1 - 1/60th		Ratio
Age	Retirement Age Factor	Percentage	Retirement Age Factor	Percentage	Plan 7 / Plan 5
50	0.6681	1.3362%	0.7091	1.1818%	88.4%
51	0.7056	1.4112%	0.7457	1.2428%	88.1%
52	0.7454	1.4908%	0.7816	1.3027%	87.4%
53	0.7882	1.5764%	0.8181	1.3635%	86.5%
54	0.8346	1.6692%	0.8556	1.4260%	85.4%
55	0.8850	1.7700%	0.8954	1.4923%	84.3%
56	0.9399	1.8798%	0.9382	1.5637%	83.2%
57	1.0000	2.0000%	0.9846	1.6410%	82.1%
58	1.0447	2.0894%	1.0350	1.7250%	82.6%
59	1.1048	2.2096%	1.0899	1.8165%	82.2%
60	1.1686	2.3372%	1.1500	1.9167%	82.0%
61	1.2365	2.4730%	1.1947	1.9912%	80.5%
62	1.3093	2.6186%	1.2548	2.0913%	79.9%
63	1.3093	2.6186%	1.3186	2.1977%	83.9%
64	1.3093	2.6186%	1.3865	2.3108%	88.2%
65 or later	1.3093	2.6186%	1.4593	2.4322%	92.9%

We then considered the impact of the differing COLAs. We developed annuity factors to calculate a present value of benefits per dollar of monthly benefit. As with our valuation assumption, we assumed that the maximum COLA will be paid each year. In order to determine the annuity values, we also needed assumptions for form of payment, beneficiary age, mortality, and investment returns. For these assumptions, we matched the assumptions used for the Additional Retirement Credit calculator. Please see our letter dated January 7, 2011 for more information about that. The relevant assumptions are summarized as follows:

- **Payment option** – We assume that retirees choose the Unmodified option. For retirees with eligible survivors, this option includes a 60% joint-and-survivor annuity. In accordance with our valuation assumptions, we assume that 80% of males have an eligible survivor at retirement, while 55% of females have one. Approximately 66% of General members are female. Combining the marriage assumption and the gender composition, 63.5% of General members are assumed to have eligible survivors at retirement.
- **Beneficiary Age** – Beneficiaries are assumed to be three years younger than members at retirement.

- **Mortality** – We used the RP-2000 Combined Mortality Table for Males projected to 2010 using Scale AA with ages set back 4 years for General members. Beneficiaries use the RP-2000 Table for Females projected to 2010 using Scale AA with ages set back 2 years. These are the same unisex mortality factors used in the determination of option factors and member contribution rates.
- **Investment Return Assumption** – 7.75% per year.

The following is a comparison of the two sets of annuity factors.

Table 3

Age	Current General Plan 5 3% COLA Annuity Factor	New General Plan 7 2% COLA Annuity Factor	Ratio Plan 7 / Plan 5
50	213.18	186.79	87.6%
51	210.95	185.19	87.8%
52	208.62	183.50	88.0%
53	206.21	181.73	88.1%
54	203.69	179.88	88.3%
55	201.07	177.92	88.5%
56	198.35	175.89	88.7%
57	195.53	173.75	88.9%
58	192.60	171.52	89.1%
59	189.56	169.18	89.2%
60	186.43	166.75	89.4%
61	183.21	164.24	89.6%
62	179.89	161.63	89.9%
63	176.48	158.93	90.1%
64	172.96	156.13	90.3%
65	169.36	153.23	90.5%

Combining the impact of the Retirement Age Factors in Table 2 with the COLA-adjusted annuity factors in Table 3 provides us with a ratio for the value of the two plans for a given retirement age, Final Compensation, and years of service.

Table 4

Age	(a) Table 2 Ratio	(b) Table 3 Ratio	(a) x (b) Combined Ratio
50	88.4%	87.6%	77.5%
51	88.1%	87.8%	77.3%
52	87.4%	88.0%	76.9%
53	86.5%	88.1%	76.2%
54	85.4%	88.3%	75.4%
55	84.3%	88.5%	74.6%
56	83.2%	88.7%	73.8%
57	82.1%	88.9%	72.9%
58	82.6%	89.1%	73.5%
59	82.2%	89.2%	73.4%
60	82.0%	89.4%	73.4%
61	80.5%	89.6%	72.2%
62	79.9%	89.9%	71.8%
63	83.9%	90.1%	75.6%
64	88.2%	90.3%	79.7%
65	92.9%	90.5%	84.0%

While the above gives us an estimate for the relative value of benefits for a given retirement age, it likely overstates the differences between the value of retirement benefits between the two plans. While the exact retirement patterns cannot be accurately predicted at this time, we believe that under Retirement Plan 7, people will tend to retire later than under Plan 5 for two reasons:

1. The lower benefit factors will make it harder to afford to retire at the same age, which will cause some to work longer.
2. The current Retirement Age Factors attain their maximum at age 62, while the Plan 7 factors extend to age 65. This will provide greater incentive to continue to work until age 65.

The later retirement ages will tend to increase the ages and service amounts, which will cause an increase in benefits.

Results

Based on the above analysis, we believe that the total Normal cost for the new General Plan 7 will be approximately 80% of that of General Plan 5C. We reached this conclusion because the value of General Plan 7 is roughly 75% of the value of General Plan 5C at most retirement ages, as shown in Table 4. However, we expect members under the new plan will tend to retire later, resulting in a slightly higher cost, as represented by the 80% figure. Since the total Normal Cost rate from our June 30, 2011 actuarial valuation was 17.66% for General Plan 5C, we recommend using a total Normal Cost rate for General Plan 7 of **14.13%.** This contribution rate can be divided into Basic and COLA Normal Cost rates based on annuity values with and without the 2% COLA. We estimate that the Basic Normal Cost rate will be 11.45%, while the COLA Normal Cost rate will be 2.68%.

To determine the employer Normal Cost rate, the member contribution rates are subtracted from the total Normal Cost rate. The only difference between the member contribution rate formula under General Plan 5C and General Plan 7 is the fact that $1/200^{th}$ is used for Plan 5C, while $1/240^{th}$ is used for Plan 7. This means that if the average entry ages are similar, the rates for General Plan 7 will be approximately equal to the rates for General Plan 5C multiplied by 200 and divided by 240. The average member contribution rate offset for General Plan 5C is 3.35%, so the offset for General Plan 7 will be approximately 2.79% (3.35% x. 200 / 240). Subtracting 2.79% from the total Normal Cost rate of 14.13% above results in an employer Normal Cost rate of **11.34%**.

Finally, we add the UAAL rates for General employers from the June 30, 2011 valuation. The results are summarized in the following table:

Table 5		
i.	Total Basic Normal Cost rate	11.45%
ii.	Member Contributions	2.79%
iii.	Employer Basic Normal Cost rate (i.-ii.)	8.66%
iv.	Employer COLA Normal Cost rate	2.68%
v.	Employer Normal Cost rate (iii.+iv.)	11.34%
vi.	Basic UAAL contribution rate	11.29%
vii.	COLA UAAL contribution rate	5.18%
viii.	UAAL contribution rate	16.47%
ix.	Basic Employer contribution rate (iii.+vi.)	19.95%
x.	COLA Employer contribution rate (iv.+vii.)	7.86%
xi.	Employer contribution rate (ix.+x.)	27.81%

Caveats and Certification

The estimates provided in this letter are based on the results of the June 30, 2011 actuarial valuation including all actuarial assumptions and methods, and census and financial data. The plan provisions used are summarized above. The Board of Retirement has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in Appendix A of the June 30, 2011 valuation report.

It should be noted that plan changes may materially affect member behavior. We have not reflected any potential changes in the assumptions, except that we have anticipated slightly later retirement by members of the new plan, for reasons previously noted.

These cost estimates are subject to the uncertainties of a regular actuarial valuation; the costs are inexact because they are based on assumptions that are themselves necessarily inexact, even though we consider them reasonable. Thus, the emerging costs will vary from those presented in this letter to the extent actual experience differs from that projected by the actuarial assumptions.

Future actuarial measurements may differ significantly from the current measurements presented in this letter 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 and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements. The Board of Retirement has the final decision regarding the appropriateness of the assumptions.

In preparing the valuation upon which this letter was based, we relied without audit, on information (some oral and some in writing) supplied by SBCERS staff. This information includes, but is not limited to, statutory provisions, employee data and financial information. In our examination of these data, we have found them to be reasonably consistent and comparable with data used for other purposes. It should be noted that if any data or other information is materially inaccurate or incomplete, our calculations may need to be revised.

Milliman's work is prepared solely for the internal business use of SBCERS. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exceptions:

(a) SBCERS may provide a copy of Milliman's work, in its entirety, to the System's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit the System.

(b) SBCERS may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law.

No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are pension actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this cost study letter is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices I am a member of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

If you have any questions, please let us know.

Sincerely,

Daniel Wade

Nick Collier

Daniel R. Wade, FSA, EA, MAAA
Consulting Actuary

Nick J. Collier, ASA, EA, MAAA
Consulting Actuary

DRW/NJC/nlo

Attachment

cc: Ms. Lila Deeds

Attachment

SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
Based on June 30, 2011 Actuarial Valuation

Member Contribution Rates

Entry Age	General Plan 7	Entry Age	General Plan 7
16	2.08%	38	3.06%
17	2.08%	39	3.13%
18	2.08%	40	3.19%
19	2.08%	41	3.25%
20	2.08%	42	3.32%
21	2.13%	43	3.38%
22	2.18%	44	3.45%
23	2.22%	45	3.51%
24	2.27%	46	3.58%
25	2.32%	47	3.64%
26	2.38%	48	3.71%
27	2.43%	49	3.78%
28	2.48%	50	3.85%
29	2.54%	51	3.91%
30	2.59%	52	3.98%
31	2.65%	53	4.04%
32	2.71%	54	4.09%
33	2.76%	55	4.13%
34	2.82%	56	4.15%
35	2.88%	57	4.15%
36	2.94%	58	4.30%
37	3.00%	59 and later	4.46%

Assumptions:

Interest:	7.75%
Salary:	2010 Valuation Scale (Service Based)
Unisex Mortality:	General - RP 2000 Projected to 2010 with Scale AA (Male, Setback 4 years)