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Via Email

April 9, 2024

Ms. Debby Cherney
Chief Executive Officer
San Bernardino County Employees' Retirement Association
348 W Hospitality Lane, Suite 100
San Bernardino, CA 92408

**Re: San Bernardino County Employees' Retirement Association (SBCERA)
Adjustment to asset smoothing method to combine deferred investment gains and
losses as of June 30, 2023 for the June 30, 2024 Actuarial Valuation**

Dear Debby:

This letter provides information on a possible ad hoc adjustment to the asset-smoothing method in a manner that is provided for in SBCERA's funding policy.[1] Note this adjustment is similar to one adopted by SBCERA in 2012.

Background information

The following two bullets from the June 30, 2023 Actuarial Valuation and Review highlight the results of the current asset smoothing method and provide background information:

- As indicated in *Section 2, Subsection B* of our report, the total unrecognized net investment loss as of June 30, 2023 was $86,020,540.[2] This investment loss will be recognized in the determination of the actuarial value of assets for funding purposes in the next several years.

- Footnote 2 to the *Determination of Actuarial Value of Assets for Year Ended June 30, 2023* chart on page 22 of the Actuarial Valuation and Review shows that under the asset smoothing method, the $86.0 million net deferred loss will be recognized in the next four years, but in a markedly non-level pattern. In particular, there will be investment gains recognized in the next two years totaling about $240.5 million followed by two years of losses totaling about $326.5 million, so as to ultimately recognize all of the current total net deferred loss of $86.0 million. This means that, absent any new gains or losses in the future, there will be two more years of decreases in the employer contribution rate followed by two years of increases before the $86.0 million in net deferred loss is fully recognized.

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[1] The funding policy provisions describing the proposed adjustment are provided in a later section of this letter.
[2] For comparison purposes, the total unrecognized investment gain as of June 30, 2022 was $42,320,756.

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For reference, the *Determination of Actuarial Value of Assets for Year Ended June 30, 2023* chart from page 22 of the June 30, 2023 Actuarial Valuation and Review has been included as Exhibit 1 to this letter.

Possible ad hoc adjustment to the asset smoothing method

For the June 30, 2024 valuation, the asset smoothing method that is part of the SBCERA funding policy could be adjusted in a manner provided for in that policy by combining the deferred gain and loss "layers" that comprise the net deferred investment loss of $86.0 million as determined in the 2023 valuation into a single four-year smoothing layer. This layer would then be recognized over the next four years in four level amounts of approximately $21.5 million for each year. Otherwise, as mentioned earlier, the asset smoothing method would recognize gains for the next two years totaling about $240.5 million followed by losses for two years totaling about $326.5 million.

This anomalous result – having a relatively small net loss recognized as a large gain followed by an offsetting loss (both after asset smoothing) – is a routine result of the asset smoothing method whenever large market value gains are followed by large market value losses. This "tail volatility" can be avoided by occasional active management of the asset smoothing layers in the manner being recommended here and anticipated in SBCERA's funding policy.

The recommended ad hoc adjustment would reduce the volatility associated with the current pattern of deferred loss recognition and result in both more stable funded ratios (on an actuarial value basis) and more level total funding policy employer contribution rates. Note that this adjustment would have no impact on the June 30, 2023 valuation results as the total amount of net deferred losses as of June 30, 2023 remains unchanged. Also note that we recommend using a four-year smoothing period (starting from July 1, 2023) for the combined deferred losses, as that will complete the recognition of the net loss over the same period as under the separate smoothing layers. Both of these features of the ad hoc adjustment derive from the fact that the policy intent here is not to change either the amount of or the period of recognition for the net deferred loss. This ad hoc adjustment is similar to a previous adjustment made by the Board in 2012 to level out the recognition of deferred investment loss after the June 30, 2011 valuation.

Exhibit 2 shows recent historical rates of return on both a market and actuarial value basis. We also show the projected future rates of return starting from July 1, 2023 based on an assumed market value return of 7.25% per year. The circled area on the graph illustrates the differences between the rates of return on an actuarial value basis under the default smoothing method and under the ad hoc adjustment of combining the net deferred losses as described above. This illustrates that the rates of return under the default smoothing method are expected to be more volatile than those that would result under the ad hoc adjustment.

Finally, the graph shown in Exhibit 3 to this letter displays a simplified illustration of the effect of the proposed adjustment, showing the projected average employer contributions over the next

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five years (starting from the June 30, 2023 valuation date) under both the default smoothing method and under the ad hoc adjustment of combining the net deferred losses as described above. After the end of the remaining smoothing period for the current net deferred losses, the contribution rates largely converge under the default smoothing method and those under the ad hoc adjustment.[1] The difference is the distinct paths the two lines take to get to substantially the same place.

We note that the results discussed in this letter do not take into account any actuarial gains/losses or assumption changes that may occur after the June 30, 2023 valuation date. However, our recommendation to level out the recognition of the current net deferred investment gain will achieve greater contribution rate stability regardless of whether there are future gains/losses or assumption changes.

Exhibit 3 is simplified to show only the effect of the proposed adjustment. Exhibit 4 displays the same illustration of the projected average employer contributions as Exhibit 3 but also takes into account anticipated contribution changes (mostly reductions) that result from some Unfunded Actuarial Accrued Liability (UAAL) amortization layers becoming fully amortized in the next few years. The effect of the adjustment is still shown but along with reductions in the average employer contributions because of those amortization layers becoming fully amortized.[2]

SBCERA Statement of Funding Policy

As noted above, the proposed ad hoc adjustment is not a change in the underlying asset smoothing method, but rather an adjustment to manage an occasional but routine result of the current asset smoothing method. For that reason, the Conference of Consulting Actuaries Public Plans Community (CCA PPC) "White Paper" on Funding Policies and Practices for Public Pension Plans considers this adjustment a Model Practice when performed in the specific circumstances and in the particular manner that we propose.

SBCERA's statement of funding policy specifically anticipates the possibility of such future adjustments. The policy describes both the circumstances and the manner of these ad hoc adjustments, and states that they would be at the discretion of the Board and considered only on the advice of the actuary. Here is the policy text, which was based on the specific text from the CCA PPC White Paper:

> This policy anticipates that future circumstances may warrant adjustments to change the pattern of the recognition of the net deferred investment gains or losses after a period of significant market change followed by a period of market correction, upon receiving an analysis from SBCERA's actuary. Such adjustments would be appropriate when the net deferred investment gains or losses are relatively small (i.e., the actuarial and market values

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[1] Under the default smoothing method, future contribution rates will be slightly higher due to the lower contributions received in the first couple years of the described period.

[2] Exhibit 4 also reflects (1) losses due to investment income not earned on the excess of the actuarial value of assets over the market value of assets (and gains when the opposite situation occurs, i.e., when the actuarial value of assets is less than the market value of assets) and (2) contribution gains and losses which occur from the scheduled delay in the implementation of new rates until 12 months after the actuarial valuation date. However, the main difference between Exhibits 4 and 3 is the effect of the fully amortized UAAL layers.

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are very close together), but the recognition of that net deferred amount is markedly non-level. Any such adjustment would be made subject to the following conditions:

– The net deferred investment gains or losses are unchanged as of the date of the adjustment; and

– The period over which the net deferred investment gains and losses are fully recognized is unchanged as of the date of the adjustment.

Basis for projections

Unless otherwise noted, the illustrations shown in Exhibits I through III were made using generally accepted actuarial practices and are based on the June 30, 2023 actuarial valuation results, including the participant data and actuarial assumptions on which that valuation was based. Here is a summary of some of the important assumptions used in the illustration.

- Results are due solely to the $348 million in net deferred loss as of June 30, 2023. Employer contributions and UAAL due to all components of SBCERA experience (past or future) have been excluded from these graphs.

- June 30, 2023 non-economic assumptions remain unchanged.

- June 30, 2023 economic assumptions remain unchanged, including the 7.25% investment earnings assumption.

- June 30, 2023 retirement benefit formulas remain unchanged.

- June 30, 2023 1937 Act and CalPEPRA statutes remain unchanged.

- UAAL amortization method remains unchanged (i.e., separate 20-year declining layers for actuarial gains or losses).

- 7.25% is earned on a market value basis for each of the five years.

- Active payroll grows at 3.00% per annum.

- All other actuarial assumption used in the June 30, 2023 actuarial valuation are realized.

- Any deferred investment gains are all applied directly to reduce the UAAL.

- No changes are made to other actuarial methodologies, such as adjusting for the contribution rate delay in advance.

- The projections do not reflect any changes in the employer contribution rates that could result due to future changes in the demographics of SBCERA's active members or decreases in the employer contribution rates that might be due to new hires going into new tiers as applicable.

Other considerations

It is important to note that the projection is based on plan assets as of June 30, 2023. The plan's funded status does not reflect short-term fluctuations of the market, but rather is based on the market values on the last day of the plan year. Moreover, this projection does not include any possible short-term or long-term impacts on mortality of the covered population that may

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emerge after May 31, 2023 due to COVID-19. Segal is available to prepare projections of potential outcomes of market conditions and other demographic experience upon request.

Finally, we emphasize that projections, by their nature, are not a guarantee of future results. The modeling projections are intended to serve as illustrations of future financial outcomes that are based on the information available to us at the time the modeling is undertaken and completed, and the agreed-upon assumptions and methodologies described herein. Emerging results may differ significantly if the actual experience proves to be different from these assumptions or if alternative methodologies are used. Actual experience may differ due to such variables as demographic experience, the economy, stock market performance and the regulatory environment.

Segal valuation results are based on proprietary actuarial modeling software. The actuarial valuation models generate a comprehensive set of liability and cost calculations that are presented to meet regulatory, legislative and client requirements. Our Actuarial Technology and Systems unit, comprised of both actuaries and programmers, is responsible for the initial development and maintenance of these models. The models have a modular structure that allows for a high degree of accuracy, flexibility and user control. The client team programs the assumptions and the plan provisions, validates the models, and reviews test lives and results, under the supervision of the responsible actuary.

Unless otherwise noted, all of the above calculations are based on the June 30, 20223 actuarial valuation results including the participant data and actuarial assumptions on which that valuation was based. That valuation and these projections were completed under the supervision of Molly Calcagno, ASA, MAAA, Enrolled Actuary.

We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.

Please let us know if you have any questions.

Sincerely,

Paul Angelo, FSA, MAAA, FCA, EA
Senior Vice President & Actuary

Molly Calcagno, ASA, MAAA, EA
Senior Actuary

MYM/bbf
Enclosure

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Exhibit 1

Determination of Actuarial and Valuation Value of Assets for Year Ended June 30, 2023

| Step	Actual Return	Expected Return	Investment Gain/(Loss)	Percent Deferred	Deferred Amount	Amount
1. Market value of assets						$14,071,349,533
2. Calculation of unrecognized return[1]						
a. Year ended June 30, 2019	$502,752,677	$730,578,345	$(227,825,668)	0%	$0	
b. Year ended June 30, 2020	(302,050,888)	767,727,375	(1,069,778,263)	20%	(213,955,653)	
c. Year ended June 30, 2021	3,353,791,858	745,550,010	2,608,241,848	40%	1,043,296,739	
d. Year ended June 30, 2022	(323,043,598)	988,391,295	(1,311,434,893)	60%	(786,860,936)	
e. Year ended June 30, 2023	802,595,553	963,221,416	(160,625,863)	80%	(128,500,690)	
f. Total deferred return[2]						**$(86,020,540)**
3. Actuarial value of assets (1) - (2f)						**$14,157,370,073**
4. Ratio of actuarial to market value (3) ÷ (1)						100.6%
5. Non-valuation reserves						
a. Burial Allowance Reserve						$324,652
6. Preliminary valuation value of assets (3) – (5a)						**$14,157,045,421**
7. Valuation value of assets[3]						**$14,163,143,392**

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[1] Recognition at 20% per year over five years.

[2] Deferred return as of June 30, 2023 recognized in each of the next four years:

a.	Amount recognized on June 30, 2024	$13,280,566
b.	Amount recognized on June 30, 2025	227,236,218
c.	Amount recognized on June 30, 2026	(294,412,151)
d.	Amount recognized on June 30, 2027	(32,125,173)
e.	**Subtotal**	**$(86,020,540)**

[3] Includes $6.1 million that represents the present value of additional future contributions payable from the County to SBCERA related to the Crest Forest Fire District transfer and from the City of Big Bear Lake (including the Big Bear Fire Authority) to SBCERA for their transfers.

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Exhibit 2

Market and Actuarial Rates of Return for Years Ended June 30, 2021 – 2028
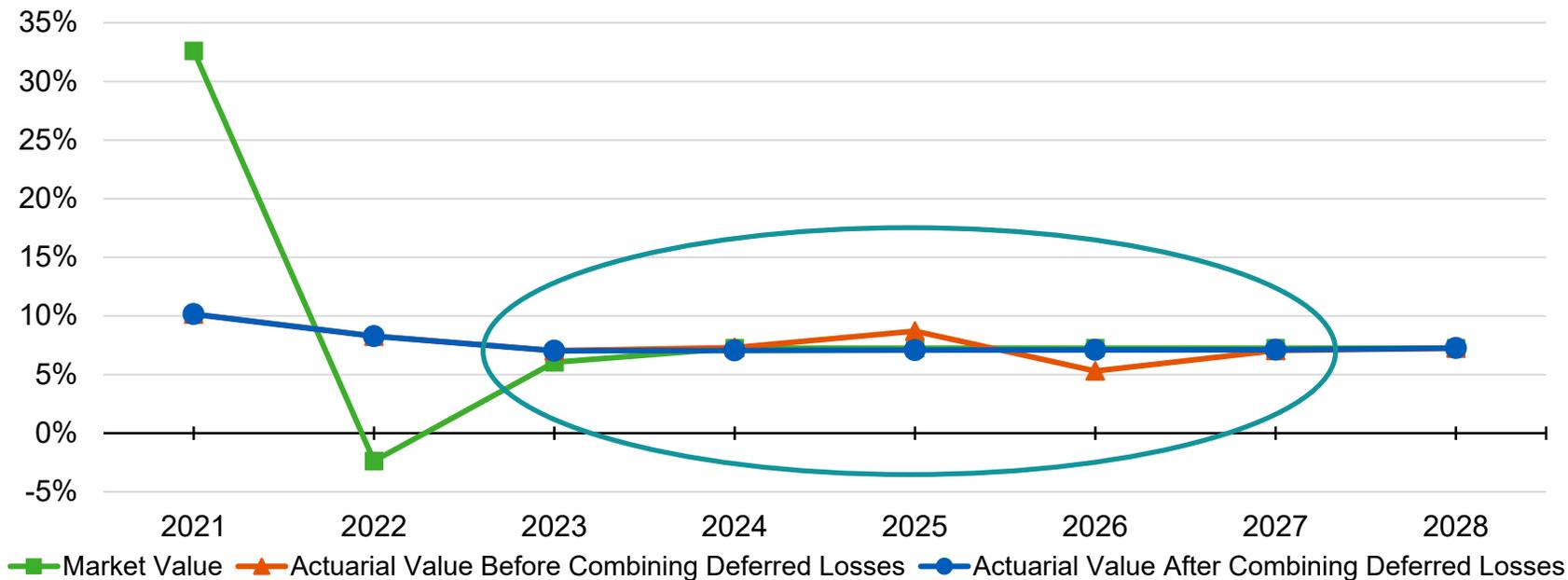
Exhibit 3

Comparison of Average Employer Contribution Rate Assuming Investments Earn a Market Return of 7.25% in 2023/2024 and Thereafter Excluding Effect of Fully Amortized UAAL Bases
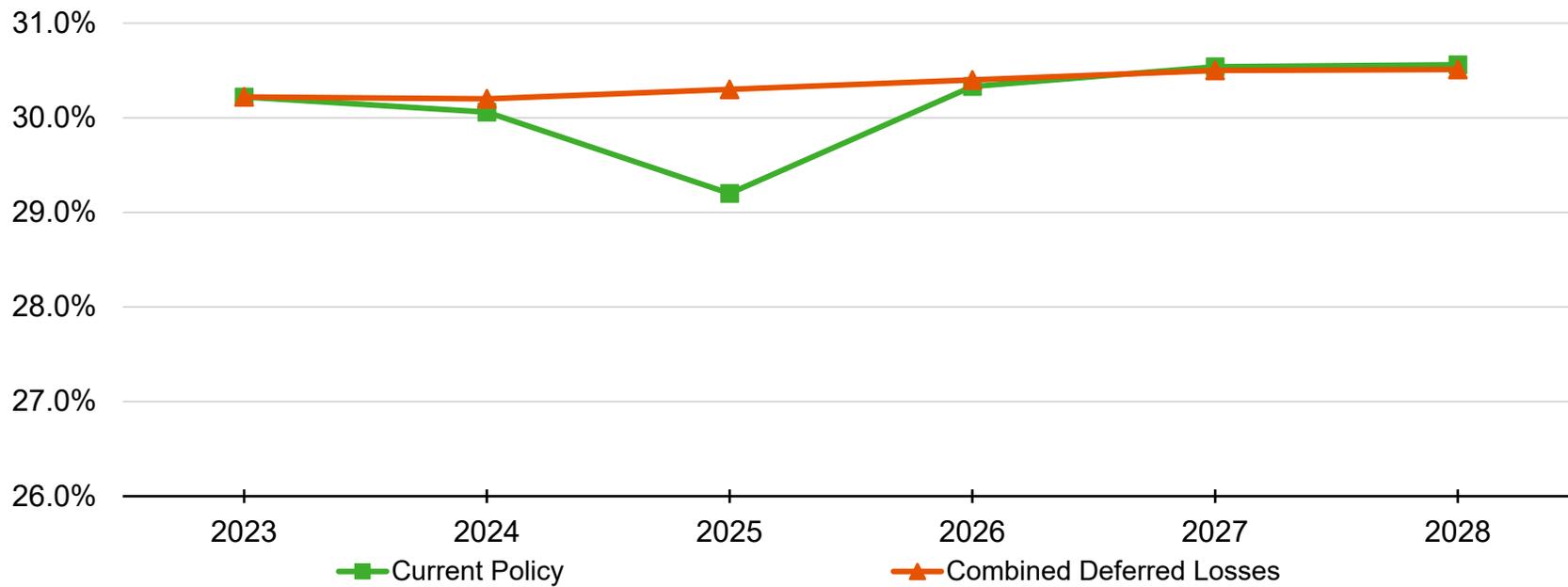
Exhibit 4

Comparison of Average Employer Contribution Rate Assuming Investments Earn a Market Return of 7.25% in 2023/2024 and Thereafter Including Effect of Fully Amortized UAAL Bases