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To: **Mountain Valley Library System**
From: **Andrew Yon, PLP Controller**
Date: **March 27, 2019**

NorthNet Library System has been notified by CalPERS that the FY 2019/20 costs for the 3 legacy systems will be increasing.

At the CalPERS Finance and Administration Committee on February 13, 2018, a revised Unfunded Liability Amortization Policy was approved. The Memo from the meeting is attached (**Attachment A**), and includes the following:

> Set a maximum amortization period of **15 years** for all unfunded accrued liability of Inactive Employers (no active members). This change would be effective for the June 30, 2017 actuarial valuations. The actuary will retain the ability to further shorten the period on any valuation date based on the life expectancy of plan members and projected cash flow needs of the plan.

Please note that page 4 of the Memo includes a paragraph about CalPERS's concerns regarding Inactive Employers. The Board adopted all the Chief Actuary's recommendations in an open meeting with notice given to the public. **Attachment B** is the resulting updated actuarial amortization policy. Paragraph B(6) incorporates the language of the recommendation.

We were not notified of this change until we received the Annual Valuation Report.

CalPERS newly adopted 15-year amortization period (previously 30-year amortization) has resulted in an increase of from FY 2018-19. The FY 2019-20 Unfunded Liability cost is $29,876, as compared to $28,506. We have been notified that a pre-payment option would result in a reduction of $1,028. The cost of Lump Sum Prepayment Option is $28,848.

Attached please also find the MVLS Annual Valuation Report as of June 30, 2017.

February 13, 2018

Item Name: Amortization Policy (Second Reading)

Program: Actuarial Office

Item Type: Action

Recommendation
Adopt the following changes to the Amortization Policy for all Public Agency, State and Schools actuarial valuations:

1. Shorten the period over which actuarial gains and losses are amortized from 30 years to 20 years. This change applies only to new gains/losses established on or after the effective date of the policy change (see item 5).
2. Amortization payments for all unfunded accrued liability (UAL) bases will be computed to remain a level dollar amount throughout the amortization period. This change applies only to new UAL bases established on or after the effective date of the policy change (see item 5).
3. Remove the 5-year ramp-up and ramp-down on UAL bases attributable to assumption changes and non-investment gains/losses established on or after the effective date of the policy change (see item 5).
4. Remove the 5-year ramp-down on investment gains/losses established on or after the effective date of the policy change (see item 5).
5. Approve an effective date of June 30, 2019 for policy changes 1-4 above.
6. Set a maximum amortization period of 15 years for all unfunded accrued liability of Inactive Employers (no active members). This change would be effective for the June 30, 2017 actuarial valuations. The actuary will retain the ability to further shorten the period on any valuation date based on the life expectancy of plan members and projected cash flow needs of the plan.

Executive Summary
This agenda item is the second reading of the Actuarial Office's recommended changes to the Actuarial Amortization Policy. This policy has been examined in conjunction with the Asset Liability Management (ALM) process to study the impact of policy changes on projected funded status, contribution volatility, and contribution levels. The recommended changes would shorten the amortization periods in some cases, modify the direct rate smoothing method and change the escalation rate from level percentage of payroll to level dollar amortization. The recommended changes to the policy also include additional provisions for employers that no longer have any active members.

For plans with active members, the amortization bases established prior to the effective date of the revised policy would continue as originally scheduled.

The effective date of any adopted changes could be as early as the June 30, 2017 actuarial valuations. However, given the timing of this Item, staff estimates the delivery of the June 30, 2017 valuation reports would be delayed by about 8 weeks.

Alternatively, implementation of amortization policy changes could be set to occur with the June 30, 2018 actuarial valuations. While staff would have adequate time to incorporate any amortization policy changes into these reports, these policy changes could affect amortization payments related to the scheduled discount rate change from 7.25 percent to 7 percent. These future amortization payments have been previously projected by staff and considered for budgeting purposes by CalPERS agencies under the current policy. This could result in unanticipated increases to required employer contributions beginning in fiscal year 2020-21.

Therefore, staff recommends implementation of policy changes 1-4 above to occur with the June 30, 2019 actuarial valuations. This would result in all known or expected UAL changes for investment gains/losses and assumption changes being amortized under the current policy.

Strategic Plan

This agenda item supports the Fund Sustainability Goal and the Reduce Complexity Goal of the CalPERS 2017-2022 Strategic Plan.

Background

In September 2017, the Actuarial Office informed members of this Committee that the amortization policy would be reviewed with the ALM process. The CalPERS amortization policy was last revised in April 2013 to replace open amortization periods with closed periods for gains and losses. The policy utilizes a level percentage of payroll approach for open (active) plans and a level dollar approach for closed (inactive) plans. The policy was also modified to add 5-year “direct rate smoothing” for certain unfunded liability bases. This change was primarily made to allow for gradual recognition of investment gains and losses which was formerly accomplished through asset smoothing.

While the policy adopted in 2013 improved sustainability for the system and reduced contribution volatility over the prior policies, there are concerns with the current amortization policy with regard to negative amortization, actuarial industry guidance and intergenerational equity. There are also growing concerns over the amortization of the unfunded liability for inactive employers.

Analysis

Negative amortization occurs when the payments on a debt are not sufficient to cover the interest accrual. Under the current amortization policy, the combination of longer amortization periods, direct rate smoothing and the payment escalator contribute to the negative amortization experienced in the earlier years of the amortization bases.

The current amortization policy uses a 30-year amortization period for gains and losses and a 20-year period for assumption, method, and benefit changes other than golden handshakes. Golden handshakes are amortized over 5 years.

It is strongly recommended that the amortization period for future gains and losses be reduced from 30 years to 25 years or lower. The specific staff recommendation is for 20 years although other periods may also be acceptable. Longer amortization periods provide a lower initial annual contribution to that layer but greater cumulative contributions due to interest costs. Reducing the amortization period for certain sources of unfunded liability would be expected to increase future average funding ratios, provide faster recovery of funded status following market downturns, decrease expected cumulative contributions and mitigate concerns over intergenerational equity. Reducing the amortization period may, however, increase the likelihood of year-to-year contribution changes that are somewhat larger than those expected under a longer period.

Actuarial assumptions are intended to be long-term assumptions and are not likely to be exactly realized in any given year. The costs associated with the difference in actual experience from assumed experience emerges as gains or losses which impact the unfunded liability. To control contribution volatility, the current amortization policy uses a form of direct rate smoothing that phases in costs over a 5-year period and phases them out again during the last 5 years of the amortization period. This is especially important with respect to investment gains and losses.

Using this phase-in approach, the initial payment is one-fifth of the full payment, which results in negative amortization. Shortening the ramp may increase contribution volatility but would reduce negative amortization and total contributions over the life of the amortization base. Removal of the down ramp at the end of the schedule does not materially impact contribution volatility but, in the case of a market downturn or other actuarial loss, would slightly reduce the ultimate amortization payment. The recommended change to the amortization policy is to remove the use of direct rate smoothing for all sources of unfunded liability except for investment gains and losses, as investment return volatility tends to be the largest contributor to contribution volatility. Based on staff's analysis, shortening the ramp did not materially reduce overall contributions or significantly improve the average funded status of the plans to merit the increase to the contribution volatility. The recommended amortization policy does not reflect changes to the length of the direct rate smoothing period but does remove the down ramp at the end of the schedule.

Required employer contributions are currently calculated with the goal of remaining level as a percentage of payroll, at least for active plans. To achieve this goal, the application of the amortization policy produces a payment which begins with a lower initial payment that increases year after year by the payroll growth assumption, currently 3 percent (changing to 2.875 percent with the June 30, 2017 actuarial valuations). Amortizing without an escalator, as is currently done for inactive plans, would reduce interest costs and eliminate negative amortization by requiring higher payments in the earlier years. In exchange, the payments beyond the first year would remain the same throughout the remainder of the amortization period, assuming no changes to the discount rate or amortization methods occur. Amortizing without an escalator also reduces the intergenerational equity issue.

Pension reform effectively closed many pooled classic public agency plans to new entrants. Using an assumption that payroll will grow on a plan-by-plan basis no longer produces a payment that will maintain a level percentage of payroll. CalPERS also recently began billing public agencies for their unfunded liability as a dollar amount. This change no longer ties the contribution amount to payroll for public agency employers. State and school employers continue to be billed using a contribution rate. Regardless of how unfunded liability payments are billed to employers, the amortization payment escalation rate can be eliminated.

Several organizations have released guidance on amortization policies for public sector pension plans. These include the California Actuarial Advisory Panel (CAAP), the Conference of Consulting Actuaries (CCA), the Government Finance Officers Association (GFOA), and the Society of Actuaries (SOA) Blue Ribbon Panel. The general recommendations for the length of the amortization period vary by source but indicate a period of 15 to 20 years for gains and losses, a period of no longer than twenty-five years for assumption changes, and a period of the lesser of expected future service or 15 years for benefit changes that impact active members.

The CAAP paper also provides that the amortization policy should reflect explicit consideration of the level and duration of negative amortization as well as supporting policy objectives of accountability and transparency.

Analysis has also been performed regarding the amortization policies employed by other major retirement systems in California and the United States. Many systems have adopted shorter amortization periods than are employed in the current policy, especially with regard to the 30-year period that CalPERS currently uses for gains and losses.

The CAAP paper also considers transition policies, that is, how to handle existing amortization layers when amending the amortization policy. To avoid undue disruption to an employer's budget, the CAAP suggests that existing layers may be allowed to continue as originally scheduled, and the new policy only be applied to new layers.

Inactive Employers

There is growing concern over the funding policy for employers that no longer have active members. Currently, the amortization policy for active employers is applied to inactive plans with the exception that unfunded liability for inactive plans is amortized as a level dollar amortization rather than a level percentage of pay. The periods used to pay down the unfunded liability are sometimes longer than the duration of the liability. The recommended change to the policy is to require a maximum 15-year level dollar amortization of the unfunded liability for employers with no active members in any of their pension plans and discretion for the actuary to reduce the period based on the demographics of the plan.

Budget and Fiscal Impacts

Not applicable.

Benefits and Risks

The adoption of the recommended changes to the policy will result in a policy that is consistent with industry best practice and reduces the amount of negative amortization. Adopting the changes may result in somewhat higher year-to-year contribution increases due to actuarial losses than those that would be expected under a longer period. This may put more strain on employers' budgets. Implementing the change on a prospective basis is in line with the CAAP paper and will provide minimal changes to contributions in the near-term than if the current amortization bases were modified under the new policy.

Not adopting any changes and keeping our existing policy in place maintains the current issues with negative amortization and intergenerational equity and falls outside of industry guidance.

Attachments
Attachment 1 - Amortization Policy Presentation (PowerPoint)
Attachment 2 - Actuarial Amortization Policy (redline version)
Attachment 3 - Actuarial Amortization Policy (final version)
Attachment 4 - Estimated Change in Contributions Due to Proposed Amortization Policy
Attachment 5 - Alternate Amortization Policies – Impact on Sample Plan (PowerPoint)

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Chief Actuary

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Actuarial Amortization Policy

Purpose

The Actuarial Amortization Policy establishes the amortization methods to eliminate positive or negative unfunded liabilities in a manner that maintains benefit security for the members of the System while minimizing substantial variations in employer contribution rates.

Contents

Background

This Policy uses a principled approach in the allocation of the cost of unfunded accrued liabilities in respect to retirement benefits - that is, to fairly allocate the costs of experience gains/losses, changes due to plan amendments, actuarial assumption changes, and actuarial methods in a manner than controls contribution volatility while promoting intergenerational equity. This principled approach has evolved over time between Board, stakeholders, and the Actuarial Office.

Strategic Objective

This policy establishes amortization methods that are aimed at ensuring that future contributions and current plan assets will be sufficient to provide for all benefits expected to be paid to members and their beneficiaries with the following considerations:

- Impact on the preservation/advancement of funded status
- Impact on the estimated volatility of the annual change in employer contribution rates
- Impact on the estimated average employer contribution rate
- Likelihood of high levels of employer contribution rates in any given year
- Likelihood of large changes in employer contribution rates in any given year

Policy

(A) CalPERS shall use professionally accepted amortization methods to eliminate unfunded liabilities in a manner that maintains benefit security for the members of the System while minimizing substantial variations in employer contribution rates.

(B) CalPERS shall amortize different portions of the total unfunded liability over different periods of time, depending upon the type of event that created the particular portion of the unfunded liability. For bases established on or after the effective date of this policy, the unfunded liability shall be amortized as a level dollar amount with the following specifications.

1) **Investment Gains and Losses**

The contribution amount with regard to any investment gains and losses recognized in that valuation shall be the annual amount determined in accordance with the following schedule:

- Year 1: 20% of base payment
- Year 2: 40% of base payment
- Year 3: 60% of base payment
- Year 4: 80% of base payment
- Years 5 through 20: base payment

Where the base payment shall be the contribution amount necessary for the gains and losses to be fully amortized over a fixed 20-year period using the above schedule.

2) Non-Investment Gains and Losses

The contribution amount with regard to any non-investment gains and losses recognized in that valuation shall be amortized over a period of 20 years.

3) Change in Actuarial Assumptions or Actuarial Methods

The contribution amount with regard to a change in unfunded liability due to a change in actuarial assumptions, or a change in actuarial methods, shall be amortized over a period of 20 years.

4) Change in Plan Provisions

The contribution amount with regard to a change in unfunded liability due to a change in plan provisions (other than a Golden Handshake) shall be the dollar amount required to amortize that change in unfunded liability over a period of 20 years from the date of the actuarial valuation which first recognizes that change in unfunded liability.

5) Golden Handshakes

The annual contribution amount with regard to a change in unfunded liability due to a Golden Handshake shall be the contribution rate or dollar amount required to amortize that change in unfunded liability over a period of 5 years from the date of the actuarial valuation which first recognizes that change in unfunded liability.

6) Inactive Agency

For a public agency with no active members in any plan, the unfunded liability shall be amortized over a closed amortization period of no more than 15 years at the discretion of the Chief Actuary.

7) New Contracting Agency

Any agency contracting with CalPERS for the first time shall have the initial unfunded liability amortized over a period equal to the smaller of 20 years or the average future working lifetime of that agency's active members.

8) Mathematical Inconsistencies

In certain cases, this section provides for a Fresh Start of the amortization bases.

(a) A Fresh Start may be used whenever application of policies as set forth in paragraphs (B)(1) through (B)(5) result in mathematical inconsistencies or a violation of the goals as stated in the strategic objectives, including, without limitation, the following circumstances:

1) a negative employer contribution rate; or
   a negative employer amortization payment on a positive unfunded liability; or
2) the effect of adding multiple amortization base payments results in a net amortization payment that completely amortizes the total unfunded

liability/surplus in a very short time period, which results in a large change in the employer contribution rate; or
3) Whenever application of the methods set forth in paragraph (B), in the professional judgment of the Chief Actuary, does not accomplish the goals as stated in paragraph (A).

(b) The amortization period of the Fresh Start base shall be determined by policies established by the Chief Actuary in a manner which best meets the goals stated in paragraph (A).

9) Plans First Joining a Risk Pool

The amortization schedule with regard to the unfunded accrued liabilities for agencies joining a risk pool for the first time shall remain the same as the amortization schedule before joining the risk pool. If a non-pooled plan is required to be split into separate rate plans due to differing retirement formulae, then the unfunded liabilities will be allocated in an appropriate manner that meets the needs of the contracting agency consistent with paragraph (11).

10) Request up to a 30-year Extension due to Severe Financial Hardship

The following guidelines are for evaluating requests by employers for a re-amortization of its unfunded liability. If granted, the unfunded liability shall be amortized as a level dollar amount over a period not to exceed 30 years. These guidelines are not meant to be exclusive and additional facts or criteria may be examined where deemed necessary by the Chief Actuary prior to approval or denial of extension requests:

a) Evidence of a need for rate relief consisting of:
   1) A statement of hardship from the employer;
   2) A statement that the employer has notified employees or employee groups of the request for an extension of the employer's amortization period; and
   3) A statement that the employer is aware of the potential for a reduction in benefits in the event that the employer terminates the plan without providing continuation of funding that would be adequate to fully fund the liabilities upon termination.
b) Evidence that the extension will, in fact provide rate relief – that is if the current net amortization period is already nearly 30 years, then extending to 30 years will not produce measurable rate relief and is unwarranted.
c) Evidence that the reductions in the employer rate will produce no long-term harm to the employer's plan, including:
   1) A review of the plan's future cash flows to ensure that benefit payments and refunds are not jeopardized in any way;
   2) A review of future funded status of the plan;
   3) A review of the plan's funded status on a termination basis i.e. in the event that the employer terminates the plan (as current State law allows)

to determine if the plan's assets will be sufficient in the future to cover all plan termination liabilities without any reduction in benefits. If the plan's assets will not be sufficient, other factors will be considered on a case by case basis based on the specific facts and circumstances of each request, including without limitation, the likelihood of the employer terminating its contract, the employer's ability to provide continuation of funding at termination, whether annual contributions continue to and are projected to continue to exceed benefits paid to retirees and beneficiaries, and/or whether the rate relief would have a material impact on the plan's funded status.

d) A request for extension will be approved only if the Chief Actuary determines that approval would not constitute a breach of the Board's fiduciary duties or violate applicable tax laws.
e) If it is known that employer contributions are expected to increase in the next few years, the Chief Actuary will ascertain how the agency plans to provide for such anticipated future rate increases.
f) Any request for an extension shall be submitted to CalPERS on or before May 31st prior to the beginning of the fiscal year for which the employer contribution rate would be recalculated, and CalPERS shall grant or deny the request no later than June 30 prior to the beginning of the fiscal year for which the employer contribution rate would be recalculated.
g) Additional facts or criteria may be examined where deemed necessary by the Chief Actuary.
h) Annually, the Chief Actuary will report to the Board actions taken pursuant to these guidelines.

11) Flexibility to Address Funding Needs

In the event that a public agency requests to change any amortization bases to achieve fiscal necessities staff may fresh start existing bases, shorten existing individual bases, and/or combine/split existing bases to achieve the public agencies goals. However, in no event shall any change in amortization under this section result in a deferral of funding.

12) Funding Stability

When an agency is faced with significant increases or decreases in amortization payments and it is desired to smooth out the funding volatility, the Chief Actuary may rebalance amortization payments as long as it does not result in a deferral of funding.

13) Surplus Plans

If an actuarial surplus exists (i.e. the Market Value of Assets exceeds the plan's accrued liability) any prior amortization layers shall be considered fully amortized, and the surplus shall not be amortized.

In the event of any subsequent unfunded liability a Fresh Start shall be used with an amortization period of 20 years or less in accordance with policies established by the Chief Actuary in a manner which best meets the goals stated in paragraph (A). The schedule described in paragraph (B)(2) may be used.

14) Small Amounts

Where small unfunded liabilities are identified in annual valuations which result in small payment amounts, the actuary may shorten these bases to achieve a payment that is proportional to the size of liabilities of the plan.

15) Funding Risk Mitigation

In the event of a risk mitigation event as outlined in the Funding Risk Mitigation Policy, investment gains due to that event will be amortized to offset the impact of the discount rate change.

Policy Scope

Not Applicable

Primary Responsibility

Not Applicable

Key Terms / Definitions

For the purposes of this document, the following terms and definitions apply.

Key Term	Definition
Fresh Start	Combining multiple amortization bases into a single base

Roles and Responsibilities

CalPERS Chief Actuary shall:

- Review the appropriateness of the actuarial amortization methods from time to time or at any time for each of the benefit programs (including the affiliate programs) and make recommendations to the Board as appropriate.
- Direct and oversee the ongoing and effective implementation and maintenance of this policy.

All CalPERS actuaries shall comply with this policy in the execution of their duties.

Compliance

All methodologies contained in this policy are subject to the auditing procedures of the CalPERS Office of Audit Services.

Consequences of Non-Compliance

Not Applicable

Authoritative Sources

CalPERS will administer this policy in compliance with the following legal, regulatory, and policy requirements:

Source	**Description**
Cal. Gov't Code §20812	Establishes authority and criteria for adoption of amortization extensions
Cal. Gov't Code §7522.52	Effectively prohibits amortization of surplus

Related Documents

For additional information, please refer to:

Document	**Relevance**
Funding Risk Mitigation Policy	The Funding Risk Mitigation Policy seeks to reduce CalPERS funding risk over time by lowering the discount rate when the CalPERS actual investment performance significantly outperforms the assumed discount rate.

Revision History

The following revisions have been made to this policy:

Version	Modification Date	Summary of Changes
1.0	4/20/2016	Combined and reformatted existing resolutions; This policy supersedes: • ACT-96-05E (Rev.) Amortization and Smoothing Policy Resolution dated 5/21/14 • 05-02-AESD (Rev.) Smoothing Employer Contribution Rates dated 5/21/14 • 30 Year Amortization Extension Policy Guidelines (Rev 9-2010) • Funding Stability Directive effective 1/1/2015
2.0	2/14/2018 for the 6/30/2019 funding valuations	• Shortened amortization period for gains and losses to 20 years • Limited direct rate smoothing to the first five years for investment gains and losses • Established that the unfunded liability for inactive agencies be amortized over a closed period. • Eliminated amortization of surplus