# NORTH BAY COOPERATIVE LIBRARY SYSTEM

Board of Directors Meeting
Tuesday, April 23, 2019
11:00 A.M - 12:00 P.M.
Kimpton Sawyer Hotel
500 J Street
Sacramento, CA 95814

| | Item | Presenter | Attachment |
|---|---|---|---|
| 1. | Call to Order | Olawski | |
| 2. | Roll Call | Olawski | |
| 3. | Public invited to address the Council | | |
| 4. | Approval of Agenda **(Action Item)** | Olawski | |
| 5. | Approval of Minutes of May 31, 2018 Meeting **(Action Item)** | Olawski | Attachment 1 |
| 6. | Discussion of NBCLS CalPERS Revised 15-Year Amortization Schedule and Valuation Report | Olawski | Attachment 2 |
| 7. | NBCLS Fund Balance and Suggestion for Shared Funding Formula **(Action Item)** | Frost | Attachment 3 |
| 8. | NBCLS Membership History Chart | Brinkley | Attachment 4 |
| 9. | Discussion of AB1912 and Liability of Legacy Systems | Olawski | Attachment 5 |
| 10. | Select Date for Annual Meeting | Olawski | |
| 11. | Adjournment | Olawski | |

# NORTH BAY COOPERATIVE LIBRARY SYSTEM

**DRAFT**

Board of Directors Meeting Minutes
Thursday, May 31, 2018
Conference Call Meeting

1. Meeting called to order at 3:03 p.m. by Chair, Henry Bankhead.
2. Roll Call
   Present were: Henry Bankhead (San Rafael Public Library), Sarah Houghton (San Rafael Public Library), Linda Kenton (San Anselmo Public Library), Fran Martinez Coyne (Benicia Public Library), Anthony Halstead, (Napa County Library), Bonnie Katz (Solano County Library), Tracy Gray (Sonoma County Library), Jaime Anderson (Sonoma County Library), Suzanne Olawski (Solano County Library), Christopher Veach (Lake County Library), and Abbot Chambers (Sausalito Public Library) . Also present was Jacquie Brinkley, NorthNet Library System/Pacific Library Partnership.

3. Public address – No public in attendance.
4. Approval of Agenda.
   Motion to approve – Kenton moved. Katz seconded. Motion carried.

5. Approval of Minutes of May 30, 2017
   Motion to approve – Katz moved. Kenton seconded.
   Correction to Minutes – Suzanne Olawski's name misspelled in two places. Correction to be made.
   One abstention. Motion carried.

6. Discussion of CalPERS obligations for NBCLS members. Halstead asked about former members and their obligation. Also, expressed concern with depletion of reserves and questioned how CalPERS payments would be made in the future. Brinkley was asked to forward attorney's memo re: NBCLS obligation to Board members. Discussion continued regarding the length of time to pay in full.
   Motion to approve FY 2018/19 NBCLS CalPERS payment obligation from fund reserves. Halstead moved; Katz seconded.
   Motion Carried.

7. Brinkley reviewed memo regarding history of health insurance payments by NBCLS for retirees and limited documentation available from NBCLS records that indicate agreements, but no contracts or MOUs with providers or retirees. Kenton asked of future obligations to cover health insurance for former NBCLS staff who have yet to retire and could this be an NBCLS obligation? Olawski noted the CalPERS report and asked about health obligations in addition to pension for future retirees. Chambers recommended NBCLS continue to pay 100% medical on

the two retirees as it would likely be more costly to invoice at reduced rate and collect from individuals on a monthly basis.
Motion to approve payment of 100% of 2019 retiree health insurance for two NBCLS retirees. Chambers moved; Kenton seconded. Motion carried.

8. Health Resolution approved with approval of above agenda item. Resolution to be emailed to Bankhead for signature. No other action required.

9. Motion to approve FY 2018/19 NBCLS Budget. Katz moved; Veach seconded. Motion carried.

10. Election of NBCLS Chair and Vice Chair for FY 2018/19
Kenton nominated Bankhead as Vice Chair. Katz nominated Olawski as Chair.
Motion to approve the slate of nominees for FY 2018/19 with Olawski as Chair and Bankhead as Vice Chair.
Motion carried.

Meeting Adjourned at 3:45 p.m.

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www.northnetlibs.org

**To:** **North Bay Cooperative Library System**
**From:** **Andrew Yon, PLP Controller**
**Subject:** **NBCLS FY 2019/20 CalPERS Payment**
**Date:** **April 23, 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 (previous 30-year amortization) has resulted in an increase of 134% from FY 2018-19 for NBCLS. The FY 2019-20 Unfunded Liability cost is $75,222, as compared to $32,165. We have been notified that a pre-payment option would result in a reduction of $6,268.47. The cost of Lump Sum Prepayment Option is $72,635.**

Attached please also find the NBCLS Annual Valuation Report as of June 30, 2017 (**Attachment C**).

Finance and Administration Committee

# Agenda Item 7a

**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)

_________________________________

**Randall Dziubek**
Deputy Chief Actuary, Valuation Services

_________________________________

**Scott Terando**
Chief Actuary

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**Charles Asubonten**
Chief Financial Officer

# 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

Purpose 1
Contents 1
Background 2
Strategic Objective 2
Policy 2
Policy Scope 6
Primary Responsibility 6
Key Terms / Definitions 6
Roles and Responsibilities 7
Compliance 8
Consequences of Non-Compliance 8
Authoritative Sources 8
Related Documents 8
Revision History 9

## 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;<br>This policy supersedes:<br>• ACT-96-05E (Rev.) Amortization and Smoothing Policy Resolution dated 5/21/14<br>• 05-02-AESD (Rev.) Smoothing Employer Contribution Rates dated 5/21/14<br>• 30 Year Amortization Extension Policy Guidelines (Rev 9-2010)<br>• 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<br>• Limited direct rate smoothing to the first five years for investment gains and losses<br>• Established that the unfunded liability for inactive agencies be amortized over a closed period.<br>• Eliminated amortization of surplus |

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**August 2018**

**Miscellaneous Plan of the North Bay Cooperative Library System**
**(CalPERS ID: 2429114785)**
**Annual Valuation Report as of June 30, 2017**

Dear Employer,

As an attachment to this letter, you will find a copy of the June 30, 2017 actuarial valuation report of the pension plan.

Because this plan is in a risk pool, the following valuation report has been separated into two sections:

- Section 1 contains specific information for the plan including the development of the current and projected employer contributions, and
- Section 2 contains the Risk Pool Actuarial Valuation appropriate to the plan as of June 30, 2017.

Section 2 can be found on the CalPERS website at (www.calpers.ca.gov). From the home page, go to "*Forms & Publications*" and select "*View All*". In the search box, enter "*Risk Pool*" and from the results list download the Miscellaneous or Safety Risk Pool Actuarial Valuation Report as appropriate.

Your June 30, 2017 actuarial valuation report contains important actuarial information about your pension plan at CalPERS. Your assigned CalPERS staff actuary, whose signature appears in the Actuarial Certification section on page 1, is available to discuss the report with you after August 1, 2018.

The exhibit below displays the minimum employer contributions, before any cost sharing, for Fiscal Year 2019-20 along with estimates of the required contributions for Fiscal Year 2020-21. Member contributions other than cost sharing (whether paid by the employer or the employee) are in addition to the results shown below. **The employer contributions in this report do not reflect any cost sharing arrangements you may have with your employees**.

**Required Contribution**

| Fiscal Year | Employer Normal Cost Rate | Employer Payment of Unfunded Liability |
|---|---|---|
| 2019-20 | 0.000% | $75,222 |
| *Projected Results* | | |
| *2020-21* | *0.0%* | *$83,000* |

The actual investment return for Fiscal Year 2017-18 was not known at the time this report was prepared. The projections above assume the investment return for that year would be 7.25 percent. ***If the actual investment return for Fiscal Year 2017-18 differs from 7.25 percent, the actual contribution requirements for the projected years will differ from those shown above.***

Moreover, the projected results for Fiscal Year 2020-21 assume that there are no future plan changes, no further changes in assumptions other than those recently approved, and no liability gains or losses. Such changes can have a significant impact on required contributions. Since they cannot be predicted in advance, the projected employer results shown above are estimates. The actual required employer contributions for Fiscal Year 2020-21 will be provided in next year's report.

For additional details regarding the assumptions and methods used for these projections please refer to the "Projected Employer Contributions" in the "Highlights and Executive Summary" section.

The "Risk Analysis" section of the valuation report also contains estimated employer contributions in future years under a variety of investment return scenarios.

**Changes since the Prior Year's Valuation**

At its December 2016 meeting, the CalPERS Board of Administration lowered the discount rate from 7.50 percent to 7.00 percent using a three-year phase-in beginning with the June 30, 2016 actuarial valuations. The minimum employer contributions for Fiscal Year 2019-20 determined in this valuation were calculated using a discount rate of 7.25 percent. The projected employer contributions on Page 5 are calculated under the assumption that the discount rate will be lowered to 7.00 percent next year as adopted by the Board.

On December 19, 2017, the CalPERS Board of Administration adopted new actuarial assumptions based on the recommendations in the December 2017 CalPERS Experience Study and Review of Actuarial Assumptions. This study reviewed the retirement rates, termination rates, mortality rates, rates of salary increases and inflation assumption for Public Agencies. These new assumptions are incorporated in your actuarial valuations and will impact the required contribution for FY 2019-20. In addition, the Board adopted a new asset portfolio as part of its Asset Liability Management. The new asset mix supports a 7.00 percent discount rate. The reduction of the inflation assumption will be implemented in two steps in conjunction with the decreases in the discount rate. For the June 30, 2017 valuation an inflation rate of 2.625 percent was used and a rate of 2.50 percent will be used in the following valuation.

The CalPERS Board of Administration has adopted a new amortization policy effective with the June 30, 2019 actuarial valuation. The new policy shortens the period over which actuarial gains and losses are amortized from 30 years to 20 years with the payments computed using a level dollar amount. In addition, the new policy removes the 5-year ramp-up and ramp-down on UAL bases attributable to assumption changes and non-investment gains/losses. The new policy removes the 5-year ramp-down on investment gains/losses. These changes will apply only to new UAL bases established on or after June 30, 2019.

For inactive employers the new amortization policy imposes a maximum amortization period of 15 years for all unfunded accrued liabilities effective June 30, 2017. Furthermore, the plan actuary has the ability to shorten the amortization period on any valuation date based on the life expectancy of plan members and projected cash flow needs to the plan. The impact of this has been reflected in the current valuation results.

The CalPERS Board of Administration adopted a Risk Mitigation Policy which is designed to reduce funding risk over time. This Policy has been temporarily suspended during the period over which the discount rate is being lowered. More details on the Risk Mitigation Policy can be found on our website.

Besides the above noted changes, there may also be changes specific to the plan such as contract amendments and funding changes.

Further descriptions of general changes are included in the "Highlights and Executive Summary" section and in Appendix A, "Statement of Actuarial Data, Methods and Assumptions" of the Section 2 report.

We understand that you might have a number of questions about these results. While we are very interested in discussing these results with your agency, in the interest of allowing us to give every public agency their results, we ask that you wait until after August 1 to contact us with actuarial related questions.

If you have other questions, please call our customer contact center at (888) CalPERS or (**888-225-7377**).

Sincerely,

SCOTT TERANDO
Chief Actuary

# Actuarial Valuation as of June 30, 2017

# for the Miscellaneous Plan of the North Bay Cooperative Library System

**(CalPERS ID: 2429114785)**

## Required Contributions for Fiscal Year July 1, 2019 - June 30, 2020

# Table of Contents

**Section 1 – Plan Specific Information**

**Section 2 – Risk Pool Actuarial Valuation Information**

# Section 1



# Plan Specific Information for the Miscellaneous Plan of the North Bay Cooperative Library System

**(CalPERS ID: 2429114785)**
**(Rate Plan: 605)**

# Table of Contents


**Actuarial Certification** 1

**Highlights and Executive Summary**

- Introduction 3
- Purpose of Section 1 3
- Required Employer Contributions 4
- Plan's Funded Status 5
- Projected Employer Contributions 5
- Changes Since the Prior Year's Valuation 6
- Subsequent Events 6

**Assets and Liabilities**

- Breakdown of Entry Age Normal Accrued Liability 8
- Allocation of Plan's Share of Pool's Experience/Assumption Change 8
- Development of Plan's Share of Pool's MVA 8
- Schedule of Plan's Amortization Bases 9
- Amortization Schedule and Alternatives 10
- Employer Contribution History 12
- Funding History 12

**Risk Analysis**

- Analysis of Future Investment Return Scenarios 14
- Analysis of Discount Rate Sensitivity 15
- Volatility Ratios 16
- Hypothetical Termination Liability 17

**Participant Data** 18

**List of Class 1 Benefit Provisions** 18

**Plan's Major Benefit Options** 20

# Actuarial Certification

Section 1 of this report is based on the member and financial data contained in our records as of June 30, 2017 which was provided by your agency and the benefit provisions under your contract with CalPERS. Section 2 of this report is based on the member and financial data as of June 30, 2017 provided by employers participating in the Miscellaneous Risk Pool to which the plan belongs and benefit provisions under the CalPERS contracts for those agencies.

As set forth in Section 2 of this report, the pool actuaries have certified that, in their opinion, the valuation of the risk pool containing your Miscellaneous Plan has been performed in accordance with generally accepted actuarial principles consistent with standards of practice prescribed by the Actuarial Standards Board, and that the assumptions and methods are internally consistent and reasonable for the risk pool as of the date of this valuation and as prescribed by the CalPERS Board of Administration according to provisions set forth in the California Public Employees' Retirement Law.

Having relied upon the information set forth in Section 2 of this report and based on the census and benefit provision information for the plan, it is my opinion as the plan actuary that Unfunded Accrued Liability amortization bases as of June 30, 2017 and employer contribution as of July 1, 2019, have been properly and accurately determined in accordance with the principles and standards stated above.

The undersigned is an actuary for CalPERS, a member of both the American Academy of Actuaries and Society of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

JEAN FANNJIANG, ASA, MAAA
Senior Pension Actuary, CalPERS
Plan Actuary

# Highlights and Executive Summary

- **Introduction**
- **Purpose of Section 1**
- **Required Employer Contributions**
- **Plan's Funded Status**
- **Projected Employer Contributions**
- **Changes Since the Prior Year's Valuation**
- **Subsequent Events**

# Introduction

This report presents the results of the June 30, 2017 actuarial valuation of the Miscellaneous Plan of the North Bay Cooperative Library System of the California Public Employees' Retirement System (CalPERS). This actuarial valuation sets the required employer contributions for Fiscal Year 2019-20.

# Purpose of Section 1

This Section 1 report for the Miscellaneous Plan of the North Bay Cooperative Library System of the California Public Employees' Retirement System (CalPERS) was prepared by the plan actuary in order to:

- Set forth the assets and accrued liabilities of this plan as of June 30, 2017;
- Determine the minimum required employer contribution for this plan for the fiscal year July 1, 2019 through June 30, 2020; and
- Provide actuarial information as of June 30, 2017 to the CalPERS Board of Administration and other interested parties.

The pension funding information presented in this report should not be used in financial reports subject to GASB Statement No. 68 for a Cost Sharing Employer Defined Benefit Pension Plan. A separate accounting valuation report for such purposes is available from CalPERS and details for ordering are available on our website.

The measurements shown in this actuarial valuation may not be applicable for other purposes. The employer should contact their actuary before disseminating any portion of this report for any reason that is not explicitly described above.

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; changes in actuarial policies; and changes in plan provisions or applicable law.

**California Actuarial Advisory Panel Recommendations**

This report includes all the basic disclosure elements as described in the *Model Disclosure Elements for Actuarial Valuation Reports* recommended in 2011 by the California Actuarial Advisory Panel (CAAP), with the exception of including the original base amounts of the various components of the unfunded liability in the Schedule of Amortization Bases shown on page 9.

Additionally, this report includes the following "Enhanced Risk Disclosures" also recommended by the CAAP in the Model Disclosure Elements document:

- A "Deterministic Stress Test," projecting future results under different investment income scenarios
- A "Sensitivity Analysis," showing the impact on current valuation results using alternative discount rates of 6.0 percent, 7.0 percent and 8.0 percent.

# Required Employer Contributions

| Required Employer Contributions | | Fiscal Year 2019-20 |
|---|---|---|
| **Employer Normal Cost Rate** | | **0.000%** |
| ***Plus, Either*** | | |
| **1) Monthly Employer Dollar UAL Payment** | **$** | **6,268.47** |
| ***Or*** | | |
| **2) Annual Lump Sum Prepayment Option** | **$** | **72,635** |

*The total minimum required employer contribution is the* ***sum*** *of the Plan's Employer Normal Cost Rate (expressed as a percentage of payroll)* ***plus*** *the Employer Unfunded Accrued Liability (UAL) Contribution Amount (billed monthly in dollars).*

*Only the UAL portion of the employer contribution can be prepaid* ***(which must be received in full no later than July 31)****. Plan Normal Cost contributions will be made as part of the payroll reporting process. If there is contractual cost sharing or other change, this amount will change.*

*In accordance with Sections 20537 and 20572 of the Public Employees' Retirement Law, if a contracting agency fails to remit the required contributions when due, interest and penalties may apply.*

| | Fiscal Year 2018-19 | Fiscal Year 2019-20 |
|---|---|---|
| **Development of Normal Cost as a Percentage of Payroll**[1] | | |
| Base Total Normal Cost for Formula | 0.000% | 0.000% |
| Surcharge for Class 1 Benefits[2] | | |
| None | 0.000% | 0.000% |
| Phase out of Normal Cost Difference[3] | 0.000% | 0.000% |
| Plan's Total Normal Cost | 0.000% | 0.000% |
| Formula's Expected Employee Contribution Rate | 0.000% | 0.000% |
| Employer Normal Cost Rate | 0.000% | 0.000% |
| Projected Payroll for the Contribution Fiscal Year | $ 0 | $ 0 |
| **Estimated Employer Contributions Based on Projected Payroll** | | |
| Plan's Estimated Employer Normal Cost | $ 0 | $ 0 |
| Plan's Payment on Amortization Bases[4] | 32,165 | 75,222 |
| % of Projected Payroll (illustrative only) | 0.000% | 0.000% |
| Estimated Total Employer Contribution | $ 32,165 | $ 75,222 |
| % of Projected Payroll (illustrative only) | 0.000% | 0.000% |

[1] The results shown for Fiscal Year 2018-19 reflect the prior year valuation and may not take into account any lump sum payment, side fund payoff, or rate adjustment made after June 30, 2017.

[2] Section 2 of this report contains a list of Class 1 benefits and corresponding surcharges for each benefit.

[3] The normal cost difference is phased out over a five-year period. The phase out of normal cost difference is 100 percent for the first year of pooling, and is incrementally reduced by 20 percent of the original normal cost difference for each subsequent year. This is non-zero only for plans that joined a pool within the past 5 years. Most plans joined a pool June 30, 2003, when risk pooling was implemented.

[4] See page 9 for a breakdown of the Amortization Bases.

# Plan's Funded Status

| | | June 30, 2016 | | June 30, 2017 |
|---|---|---|---|---|
| 1. Present Value of Projected Benefits (PVB) | $ | 2,621,543 | $ | 2,742,370 |
| 2. Entry Age Normal Accrued Liability (AL) | | 2,621,543 | | 2,742,370 |
| 3. Plan's Market Value of Assets (MVA) | | 1,970,346 | | 2,086,328 |
| 4. Unfunded Accrued Liability (UAL) [(2) - (3)] | | 651,197 | | 656,042 |
| 5. Funded Ratio [(3) / (2)] | | 75.2% | | 76.1% |

This measure of funded status is an assessment of the need for future employer contributions based on the selected actuarial cost method used to fund the plan. The UAL is the present value of future employer contributions for service that has already been earned and is in addition to future normal cost contributions for active members. For a measure of funded status that is appropriate for assessing the sufficiency of plan assets to cover estimated termination liabilities, please see "Hypothetical Termination Liability" in the "Risk Analysis" section.

# Projected Employer Contributions

The table below shows projected employer contributions (before cost sharing) for the next six fiscal years. Projected results reflect the adopted changes to the discount rate described in Appendix A, "Statement of Actuarial Data, Methods and Assumptions" of the Section 2 report. The projections also assume that all actuarial assumptions will be realized and that no further changes to assumptions, contributions, benefits, or funding will occur during the projection period.

| | **Required Contribution** | **Projected Future Employer Contributions (Assumes 7.25% Return for Fiscal Year 2017-18)** | | | | |
|---|---|---|---|---|---|---|
| **Fiscal Year** | **2019-20** | **2020-21** | **2021-22** | **2022-23** | **2023-24** | **2024-25** |
| **Normal Cost %** | 0.000% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| **UAL Payment** | $75,222 | $83,000 | $83,000 | $83,000 | $83,000 | $83,000 |

Changes in the UAL due to actuarial gains or losses as well as changes in actuarial assumptions or methods are amortized using a 5-year ramp up. For more information, please see "Amortization of the Unfunded Actuarial Accrued Liability" under "Actuarial Methods" in Appendix A of Section 2. This method phases in the impact of unanticipated changes in UAL over a 5-year period and attempts to minimize employer cost volatility from year to year. As a result of this methodology, dramatic changes in the required employer contributions in any one year are less likely. However, required contributions can change gradually and significantly over the next five years. In years where there is a large increase in UAL the relatively small amortization payments during the ramp up period could result in a funded ratio that is projected to decrease initially while the contribution impact of the increase in the UAL is phased in.

Due to the adopted changes in the discount rate for next year's valuation in combination with the 5-year phase-in ramp, the increases in the required contributions are expected to continue for six years from Fiscal Year 2019-20 through Fiscal Year 2024-25.

For projected contributions under alternate investment return scenarios, please see the "Analysis of Future Investment Return Scenarios" in the "Risk Analysis" section.

# Changes since the Prior Year's Valuation

**Benefits**

None. This valuation generally reflects plan changes by amendments effective before the date of the report. Please refer to the "Plan's Major Benefit Options" and Appendix B of Section 2 for a summary of the plan provisions used in this valuation.

**Actuarial Methods and Assumptions**

At its December 2016 meeting, the CalPERS Board of Administration lowered the discount rate from 7.50 percent to 7.00 percent using a three-year phase-in beginning with the June 30, 2016 actuarial valuations. The minimum employer contributions for Fiscal Year 2019-20 determined in this valuation were calculated using a discount rate of 7.25 percent. The projected employer contributions on page 5 are calculated assuming that the discount rate will be lowered to 7.00 percent next year as adopted by the Board. The decision to reduce the discount rate was primarily based on reduced capital market assumptions provided by external investment consultants and CalPERS investment staff. The specific decision adopted by the Board reflected recommendations from CalPERS staff and additional input from employer and employee stakeholder groups. Based on the investment allocation adopted by the Board and capital market assumptions, the reduced discount rate assumption provides a more realistic assumption for the long-term investment return of the fund.

On December 19, 2017, the CalPERS Board of Administration adopted new actuarial assumptions based on the recommendations in the December 2017 CalPERS Experience Study and Review of Actuarial Assumptions. This study reviewed the retirement rates, termination rates, mortality rates, rates of salary increases and inflation assumption for Public Agencies. These new assumptions are incorporated in this actuarial valuation and will impact the required contribution for FY 2019-20. In addition, the Board adopted a new asset portfolio as part of its Asset Liability Management. The new asset mix supports a 7.00 percent discount rate. The reduction of the inflation assumption will be implemented in two steps in conjunction with the decreases in the discount rate. For the June 30, 2017 valuation an inflation rate of 2.625 percent will be used and a rate of 2.50 percent in the following valuation.

Notwithstanding the Board's decision to phase into a 7.0 percent discount rate, subsequent analysis of the expected investment return of CalPERS assets or changes to the investment allocation may result in a change to this three-year discount rate schedule.

# Subsequent Events

The CalPERS Board of Administration has adopted a new amortization policy effective with the June 30, 2019 actuarial valuation. The new policy shortens the period over which actuarial gains and losses are amortized from 30 years to 20 years with the payments computed using a level dollar amount. In addition, the new policy removes the 5-year ramp-up and ramp-down on UAL bases attributable to assumption changes and non-investment gains/losses. The new policy removes the 5-year ramp-down on investment gains/losses. These changes will apply only to new UAL bases established on or after June 30, 2019.

For inactive employers the new amortization policy imposes a maximum amortization period of 15 years for all unfunded accrued liabilities effective June 30, 2017. Furthermore, the plan actuary has the ability to shorten the amortization period on any valuation date based on the life expectancy of plan members and projected cash flow needs to the plan. The impact of this has been reflected in the current valuation results.

The contribution requirements determined in this actuarial valuation report are based on demographic and financial information as of June 30, 2017. Changes in the value of assets subsequent to that date are not reflected. Investment returns below the assumed rate of return will increase the retired contribution, while investment returns above the assumed rate of return will decrease the retired contribution.

This actuarial valuation report reflects statutory changes, regulatory changes and CalPERS Board actions through January 2018. Any subsequent changes or actions are not reflected.

# Assets and Liabilities

- **Breakdown of Entry Age Normal Accrued Liability**
- **Allocation of Plan's Share of Pool's Experience/Assumption Change**
- **Development of Plan's Share of Pool's MVA**
- **Schedule of Plan's Amortization Bases**
- **Amortization Schedule and Alternatives**
- **Employer Contribution History**
- **Funding History**

## Breakdown of Entry Age Normal Accrued Liability

| | | |
|---|---|---|
| Active Members | $ | 0 |
| Transferred Members | | 623,480 |
| Terminated Members | | 176,077 |
| Members and Beneficiaries Receiving Payments | | 1,942,813 |
| Total | $ | 2,742,370 |

## Allocation of Plan's Share of Pool's Experience/Assumption Change

It is the policy of CalPERS to ensure equity within the risk pools by allocating the pool's experience gains/losses and assumption changes in a manner that treats each employer equitably and maintains benefit security for the members of the System while minimizing substantial variations in employer contributions. The Pool's experience gains/losses and impact of assumption/method changes is allocated to the plan as follows:

| | | | |
|---|---|---|---|
| 1. | Plan's Accrued Liability | $ | 2,742,370 |
| 2. | Projected UAL balance at 6/30/17 | | 686,390 |
| 3. | Pool's Accrued Liability[1] | $ | 15,780,998,593 |
| 4. | Sum of Pool's Individual Plan UAL Balances at 6/30/17[1] | | 3,912,002,885 |
| 5. | Pool's 2016/17 Investment & Asset (Gain)/Loss | | (413,206,167) |
| 6. | Pool's 2016/17 Other (Gain)/Loss | | (21,126,605) |
| 7. | Plan's Share of Pool's Asset (Gain)/Loss [(1) - (2)] / [(3) - (4)] * (5) | | (71,577) |
| 8. | Plan's Share of Pool's Other (Gain)/Loss [(1)] / [(3)] * (6) | | (3,671) |
| 9. | Plan's New (Gain)/Loss as of 6/30/2017 [(7) + (8)] | $ | (75,248) |
| 10. | Increase in Pool's Accrued Liability due to Change in Assumptions[1] | | 258,379,047 |
| 11. | Plan's Share of Pool's Change in Assumptions [(1)] / [(3)] * (10) | $ | 44,900 |

[1] Does not include plans that transferred to Pool on the valuation date.

## Development of the Plan's Share of Pool's Market Value of Assets

| | | | |
|---|---|---|---|
| 12. | Plan's UAL [(2) + (9) + (11)] | $ | 656,042 |
| 13. | Plan's Share of Pool's MVA [(1) - (12)] | $ | **2,086,328** |

# Schedule of Plan's Amortization Bases

There is a two-year lag between the valuation date and the start of the contribution fiscal year.

- The assets, liabilities, and funded status of the plan are measured as of the valuation date: June 30, 2017.
- The employer contribution determined by the valuation is for the fiscal year beginning two years after the valuation date: Fiscal Year 2019-20.

This two-year lag is necessary due to the amount of time needed to extract and test the membership and financial data, and the need to provide public agencies with their employer contribution well in advance of the start of the fiscal year.

The Unfunded Accrued Liability (UAL) is used to determine the employer contribution and therefore must be rolled forward two years from the valuation date to the first day of the fiscal year for which the contribution is being determined. The UAL is rolled forward each year by subtracting the payment on the UAL for the fiscal year and adjusting for interest. Additional discretionary payments are reflected in the Expected Payments column in the fiscal year they were made by the agency.

| | | | | | | | | Amounts for Fiscal 2019-20 | |
|---|---|---|---|---|---|---|---|---|---|
| **Reason for Base** | **Date Established** | **Ramp Up/Down 2019-20** | **Amortization Period** | **Balance 6/30/17** | **Payment 2017-18** | **Balance 6/30/18** | **Payment 2018-19** | **Balance 6/30/19** | **Scheduled Payment for 2019-20** |
| FRESH START | 06/30/17 | No Ramp | 15 | $656,042 | $20,584 | $682,288 | $32,164 | $698,445 | $75,222 |
| **TOTAL** | | | | **$656,042** | **$20,584** | **$682,288** | **$32,164** | **$698,445** | **$75,222** |

The (gain)/loss bases are the plan's allocated share of the risk pool's (gain)/loss for the fiscal year as disclosed on the previous page. These (gain)/loss bases will be amortized according to Board policy over 30 years with a 5-year ramp-up.

If the total Unfunded Liability is negative (i.e., plan has a surplus), the scheduled payment is $0, because the minimum required contribution under PEPRA must be at least equal to the normal cost.

# Amortization Schedule and Alternatives

The amortization schedule on the previous page shows the minimum contributions required according to CalPERS amortization policy. There has been considerable interest from many agencies in paying off these unfunded accrued liabilities sooner and the possible savings in doing so. As a result, we have provided alternate amortization schedules to help analyze the current amortization schedule and illustrate the advantages of accelerating unfunded liability payments.

Shown on the following page are future year amortization payments based on: 1) the current amortization schedule reflecting the individual bases and remaining periods shown on the previous page, and 2) alternate "fresh start" amortization schedules using two sample periods that would both result in interest savings relative to the current amortization schedule. Note that the payments under each alternate scenario increase by 2.875 percent for each year into the future. **The schedules do not attempt to reflect any experience after June 30, 2017 that may deviate from the actuarial assumptions. Therefore, future amortization payments displayed in the Current Amortization Schedule may not match projected amortization payments shown in connection with Projected Employer Contributions provided elsewhere in this report.**

The Current Amortization Schedule typically contains individual bases that are both positive and negative. Positive bases result from plan changes, assumption changes or plan experience that result in increases to unfunded liability. Negative bases result from plan changes, assumption changes or plan experience that result in decreases to unfunded liability. The combination of positive and negative bases within an amortization schedule can result in unusual or problematic circumstances in future years such as:

- A positive total unfunded liability with a negative total payment,
- A negative total unfunded liability with a positive total payment, or
- Total payments that completely amortize the unfunded liability over a very short period of time

In any year where one of the above scenarios occurs, the actuary will consider corrective action such as replacing the existing unfunded liability bases with a single "fresh start" base and amortizing it over a reasonable period.

The Current Amortization Schedule on the following page may appear to show that, based on the current amortization bases, one of the above scenarios will occur at some point in the future. It is impossible to know today whether such a scenario will in fact arise since there will be additional bases added to the amortization schedule in each future year. Should such a scenario arise in any future year, the actuary will take appropriate action based on guidelines in the CalPERS amortization policy.

# Amortization Schedule and Alternatives

| | Current Amortization Schedule | | Alternate Schedules | | | |
|---|---|---|---|---|---|---|
| | | | 10 Year Amortization | | 5 Year Amortization | |
| **Date** | **Balance** | **Payment** | **Balance** | **Payment** | **Balance** | **Payment** |
| **6/30/2019** | 698,444 | 75,222 | 698,444 | 97,135 | 698,444 | 165,588 |
| **6/30/2020** | 671,181 | 75,222 | 648,487 | 97,135 | 577,596 | 165,588 |
| **6/30/2021** | 641,941 | 75,222 | 594,907 | 97,135 | 447,985 | 165,588 |
| **6/30/2022** | 610,581 | 75,222 | 537,442 | 97,135 | 308,979 | 165,588 |
| **6/30/2023** | 576,947 | 75,222 | 475,812 | 97,135 | 159,894 | 165,588 |
| **6/30/2024** | 540,875 | 75,222 | 409,713 | 97,135 | | |
| **6/30/2025** | 502,188 | 75,222 | 338,822 | 97,135 | | |
| **6/30/2026** | 460,695 | 75,222 | 262,792 | 97,135 | | |
| **6/30/2027** | 416,195 | 75,222 | 181,249 | 97,135 | | |
| **6/30/2028** | 368,468 | 75,222 | 93,795 | 97,135 | | |
| **6/30/2029** | 317,282 | 75,222 | | | | |
| **6/30/2030** | 262,384 | 75,222 | | | | |
| **6/30/2031** | 203,506 | 75,222 | | | | |
| **6/30/2032** | 140,359 | 75,222 | | | | |
| **6/30/2033** | 72,635 | 75,222 | | | | |
| **6/30/2034** | | | | | | |
| **6/30/2035** | | | | | | |
| **6/30/2036** | | | | | | |
| **6/30/2037** | | | | | | |
| **6/30/2038** | | | | | | |
| **6/30/2039** | | | | | | |
| **6/30/2040** | | | | | | |
| **6/30/2041** | | | | | | |
| **6/30/2042** | | | | | | |
| **6/30/2043** | | | | | | |
| **6/30/2044** | | | | | | |
| **6/30/2045** | | | | | | |
| **6/30/2046** | | | | | | |
| **6/30/2047** | | | | | | |
| **6/30/2048** | | | | | | |
| **Totals** | | **1,128,325** | | **971,355** | | **827,942** |
| **Interest Paid** | | **429,881** | | **272,911** | | **129,497** |
| **Estimated Savings** | | | | **156,970** | | **300,383** |

* This schedule does not reflect the impact of adopted discount rate changes that will become effective beyond June 30, 2017. For Projected Employer Contributions, please see page 5.

# Employer Contribution History

The table below provides a recent history of the required employer contributions for the plan, as determined by the annual actuarial valuation. It does not account for prepayments or benefit changes made during a fiscal year.

| Fiscal Year | Employer Normal Cost | Unfunded Liability Payment ($) |
|---|---|---|
| 2016 - 17 | 0.000% | $12,385 |
| 2017 - 18 | 0.000% | $20,584 |
| 2018 - 19 | 0.000% | $32,165 |
| 2019 - 20 | 0.000% | $75,222 |

# Funding History

The funding history below shows the plan's actuarial accrued liability, share of the pool's market value of assets, share of the pool's unfunded liability, funded ratio, and annual covered payroll.

| Valuation Date | Accrued Liability (AL) | Share of Pool's Market Value of Assets (MVA) | Plan's Share of Pool's Unfunded Liability | Funded Ratio | Annual Covered Payroll |
|---|---|---|---|---|---|
| 06/30/2011 | $ 2,558,443 | $ 2,156,491 | $ 401,952 | 84.3% | $ 377,619 |
| 06/30/2012 | 2,596,002 | 2,065,580 | 530,422 | 79.6% | 0 |
| 06/30/2013 | 2,271,272 | 1,896,468 | 374,804 | 83.5% | 0 |
| 06/30/2014 | 2,486,396 | 2,158,411 | 327,985 | 86.8% | 0 |
| 06/30/2015 | 2,614,774 | 2,153,765 | 461,009 | 82.4% | 0 |
| 06/30/2016 | 2,621,543 | 1,970,346 | 651,197 | 75.2% | 0 |
| 06/30/2017 | 2,742,370 | 2,086,328 | 656,042 | 76.1% | 0 |

# Risk Analysis

- **Analysis of Future Investment Return Scenarios**
- **Analysis of Discount Rate Sensitivity**
- **Volatility Ratios**
- **Hypothetical Termination Liability**

# Analysis of Future Investment Return Scenarios

Analysis was performed to determine the effects of various future investment returns on required employer contributions. The projections below provide a range of results based on five investment return scenarios assumed to occur during the next four fiscal years (2017-18, 2018-19, 2019-20 and 2020-21). The projections also assume that all other actuarial assumptions will be realized and that no further changes to assumptions, contributions, benefits, or funding will occur.

Each of the five investment return scenarios assumes a return of 7.25 percent for fiscal year 2017-18. For fiscal years 2018-19, 2019-20, and 2020-21 each scenario assumes an alternate fixed annual return. The fixed return assumptions for the five scenarios are 1.0 percent, 4.0 percent, 7.0 percent, 9.0 percent and 12.0 percent.

The alternate investment returns were chosen based on stochastic analysis of possible future investment returns over the four-year period ending June 30, 2021. Using the expected returns and volatility of the asset classes in which the funds are invested, we produced five thousand stochastic outcomes for this period based on the recently completed Asset Liability Management process. We then selected annual returns that approximate the 5$^{th}$, 25$^{th}$, 50$^{th}$, 75$^{th}$, and 95$^{th}$ percentiles for these outcomes. For example, of all the 4-year outcomes generated in the stochastic analysis, approximately 25 percent of them had an average annual return of 4.0 percent or less.

Required contributions outside of this range are also possible. In particular, whereas it is unlikely that investment returns will average less than 1.0 percent or greater than 12.0 percent over this four-year period, the possibility of a single investment return less than 1.0 percent or greater than 12.0 percent in any given year is much greater.

| **Assumed Annual Return From 2018-19 through 2020-21** | **Projected Employer Contributions** | | | |
|---|---|---|---|---|
| | **2020-21** | **2021-22** | **2022-23** | **2023-24** |
| **1.0%** | | | | |
| Normal Cost | 0.0% | 0.0% | 0.0% | 0.0% |
| UAL Contribution | $83,000 | $99,000 | $115,000 | $132,000 |
| **4.0%** | | | | |
| Normal Cost | 0.0% | 0.0% | 0.0% | 0.0% |
| UAL Contribution | $83,000 | $91,000 | $99,000 | $108,000 |
| **7.0%** | | | | |
| Normal Cost | 0.0% | 0.0% | 0.0% | 0.0% |
| UAL Contribution | $83,000 | $83,000 | $83,000 | $83,000 |
| **9.0%** | | | | |
| Normal Cost | 0.0% | 0.0% | 0.0% | 0.0% |
| UAL Contribution | $83,000 | $80,000 | $76,000 | $72,000 |
| **12.0%** | | | | |
| Normal Cost | 0.0% | 0.0% | 0.0% | 0.0% |
| UAL Contribution | $83,000 | $72,000 | $59,000 | $44,000 |

Given the temporary suspension of the Risk Mitigation Policy during the period over which the discount rate assumption is being phased down to 7.0 percent, the projections above were performed without reflection of any possible impact of this Policy for Fiscal Year 2020-21. In addition, the projections above do not reflect the recent changes to the new amortization policy effective with the June 30, 2019 valuation but the impact on the results above is expected to be minimal.

# Analysis of Discount Rate Sensitivity

Shown below are various valuation results as of June 30, 2017 assuming alternate discount rates. Results are shown using the current discount rate of 7.25 percent as well as alternate discount rates of 6.0 percent, 7.0 percent, and 8.0 percent. The alternate rate of 7.0 percent was selected since the Board has adopted this rate as the final discount rate at the end of the three-year phase-in of the reduction in this assumption. The rates of 6.0 percent and 8.0 percent were selected since they illustrate the impact of a 1 percent increase or decrease to the 7.0 percent assumption. This analysis shows the potential plan impacts if the PERF were to realize investment returns of 6.0 percent, 7.0 percent, or 8.0 percent over the long-term.

This type of analysis gives the reader a sense of the long-term risk to required contributions. For a measure of funded status that is appropriate for assessing the sufficiency of plan assets to cover estimated termination liabilities, please see "Hypothetical Termination Liability" at the end of this section.

| Sensitivity Analysis | | | | |
|---|---|---|---|---|
| **As of June 30, 2017** | **Plan's Total Normal Cost** | **Accrued Liability** | **Unfunded Accrued Liability** | **Funded Status** |
| 7.25% (current discount rate) | 0.000% | $2,742,370 | $656,042 | 76.1% |
| 6.0% | 0.000% | $3,097,303 | $1,010,975 | 67.4% |
| 7.0% | 0.000% | $2,804,506 | $718,178 | 74.4% |
| 8.0% | 0.000% | $2,555,945 | $469,617 | 81.6% |

# Volatility Ratios

Actuarial calculations are based on a number of assumptions about long-term demographic and economic behavior. Unless these assumptions (terminations, deaths, disabilities, retirements, salary growth, and investment return) are exactly realized each year, there will be differences on a year-to-year basis. The year-to-year differences between actual experience and the assumptions are called actuarial gains and losses and serve to lower or raise required employer contributions from one year to the next. Therefore, employer contributions will inevitably fluctuate, especially due to the ups and downs of investment returns.

**Asset Volatility Ratio (AVR)**

Plans that have higher asset-to-payroll ratios experience more volatile employer contributions (as a percentage of payroll) due to investment return. For example, a plan with an asset-to-payroll ratio of 8 may experience twice the contribution volatility due to investment return volatility, than a plan with an asset-to-payroll ratio of 4. Shown below is the asset volatility ratio, a measure of the plan's current contribution volatility. It should be noted that this ratio is a measure of the current situation. It increases over time but generally tends to stabilize as the plan matures.

**Liability Volatility Ratio (LVR)**

Plans that have higher liability-to-payroll ratios experience more volatile employer contributions (as a percentage of payroll) due to investment return and changes in liability. For example, a plan with a liability-to-payroll ratio of 8 is expected to have twice the contribution volatility of a plan with a liability-to-payroll ratio of 4. The liability volatility ratio is also shown in the table below. It should be noted that this ratio indicates a longer-term potential for contribution volatility. The asset volatility ratio, described above, will tend to move closer to the liability volatility ratio as the plan matures. Since the liability volatility ratio is a long-term measure, it is shown below at the current discount rate (7.25 percent) as well as the discount rate the Board has adopted to determine the contribution requirement in the June 30, 2018 actuarial valuation (7.00 percent).

| Rate Volatility | | As of June 30, 2017 |
|---|---|---|
| 1. Market Value of Assets | $ | 2,086,328 |
| 2. Payroll | | 0 |
| 3. Asset Volatility Ratio (AVR) [(1) / (2)] | | N/A |
| 4. Accrued Liability | $ | 2,742,370 |
| 5. Liability Volatility Ratio (LVR) [(4) / (2)] | | N/A |
| 6. Accrued Liability (7.00% discount rate) | | 2,804,506 |
| 7. Projected Liability Volatility Ratio [(6) / (2)] | | N/A |

# Hypothetical Termination Liability

The hypothetical termination liability is an estimate of the financial position of the plan had the contract with CalPERS been terminated as of June 30, 2017. The plan liability on a termination basis is calculated differently compared to the plan's ongoing funding liability. For the hypothetical termination liability calculation, both compensation and service are frozen as of the valuation date and no future pay increases or service accruals are assumed. This measure of funded status is not appropriate for assessing the need for future employer contributions in the case of an ongoing plan, that is, for an employer that continues to provide CalPERS retirement benefits to active employees.

A more conservative investment policy and asset allocation strategy was adopted by the CalPERS Board for the Terminated Agency Pool. The Terminated Agency Pool has limited funding sources since no future employer contributions will be made. Therefore, expected benefit payments are secured by risk-free assets and benefit security for members is increased while funding risk is limited. However, this asset allocation has a lower expected rate of return than the PERF and consequently, a lower discount rate is assumed. The lower discount rate for the Terminated Agency Pool results in higher liabilities for terminated plans.

The effective termination discount rate will depend on actual market rates of return for risk-free securities on the date of termination. As market discount rates are variable, the table below shows a range for the hypothetical termination liability based on the lowest and highest interest rates observed during an approximate 2-year period centered around the valuation date.

| Market Value of Assets (MVA) | Hypothetical Termination Liability[1,2] @ 1.75% | Funded Status | Unfunded Termination Liability @ 1.75% | Hypothetical Termination Liability[1,2] @ 3.00% | Funded Status | Unfunded Termination Liability @ 3.00% |
|---|---|---|---|---|---|---|
| $2,086,328 | $5,009,889 | 41.6% | $2,923,561 | $4,646,835 | 44.9% | $2,560,507 |

[1] The hypothetical liabilities calculated above include a 5 percent mortality contingency load in accordance with Board policy. Other actuarial assumptions can be found in Appendix A.

[2] The current discount rate assumption used for termination valuations is a weighted average of the 10-year and 30-year U.S. Treasury yields where the weights are based on matching asset and liability durations as of the termination date. The discount rates used in the table are based on 20-year Treasury bonds, rounded to the nearest quarter percentage point, which is a good proxy for most plans. The 20-year Treasury yield was 2.61 percent on June 30, 2017, and was 2.83 percent on January 31, 2018.

In order to terminate the plan, you must first contact our Retirement Services Contract Unit to initiate a Resolution of Intent to terminate. The completed Resolution will allow the plan actuary to give you a preliminary termination valuation with a more up-to-date estimate of the plan liabilities. CalPERS advises you to consult with the plan actuary before beginning this process.

# Participant Data

The table below shows a summary of your plan's member data upon which this valuation is based:

| | June 30, 2016 | June 30, 2017 |
|---|---|---|
| Reported Payroll | $ 0 | $ 0 |
| Projected Payroll for Contribution Purposes | $ 0 | $ 0 |
| | | |
| Number of Members | | |
| Active | 0 | 0 |
| Transferred | 4 | 5 |
| Separated | 5 | 4 |
| Retired | 18 | 18 |

# List of Class 1 Benefit Provisions

This plan has the additional Class 1 Benefit Provisions:

- None

## Plan’s Major Benefit Options

# Plan's Major Benefit Options

Shown below is a summary of the major optional benefits for which your agency has contracted. A description of principal standard and optional plan provisions is in Appendix B within Section 2 of this report.

| | Contract package | | |
|---|---|---|---|
| **Benefit Provision** | Inactive Misc | Receiving Misc | |
| Benefit Formula | 2.0% @ 55 | | |
| Social Security Coverage | No | | |
| Full/Modified | Full | | |
| Employee Contribution Rate | | | |
| Final Average Compensation Period | One Year | | |
| Sick Leave Credit | Yes | | |
| Non-Industrial Disability | Standard | | |
| Industrial Disability | No | | |
| Pre-Retirement Death Benefits | | | |
| Optional Settlement 2 | Yes | | |
| 1959 Survivor Benefit Level | Indexed | | |
| Special | No | | |
| Alternate (firefighters) | No | No | |
| Post-Retirement Death Benefits | | | |
| Lump Sum | $500 | $500 | |
| Survivor Allowance (PRSA) | No | No | |
| COLA | 2% | 2% | |

# Section 2

CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

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## Section 2 may be found on the CalPERS website (www.calpers.ca.gov) in the Forms and Publications section

**California Public Employees' Retirement System**
**Actuarial Office**
P.O. Box 942709
Sacramento, CA 94229-2709
TTY: (916) 795-3240
(888) 225-7377 phone – (916) 795-2744 fax
**www.calpers.ca.gov**

**August 2018**

**Miscellaneous Plan of the North Bay Cooperative Library System**
**(CalPERS ID: 2429114785)**
**Annual Valuation Report as of June 30, 2017**

Dear Employer,

As an attachment to this letter, you will find a copy of the June 30, 2017 actuarial valuation report of the pension plan.

Because this plan is in a risk pool, the following valuation report has been separated into two sections:

- Section 1 contains specific information for the plan including the development of the current and projected employer contributions, and
- Section 2 contains the Risk Pool Actuarial Valuation appropriate to the plan as of June 30, 2017.

Section 2 can be found on the CalPERS website at (www.calpers.ca.gov). From the home page, go to "*Forms & Publications*" and select "*View All*". In the search box, enter "*Risk Pool*" and from the results list download the Miscellaneous or Safety Risk Pool Actuarial Valuation Report as appropriate.

Your June 30, 2017 actuarial valuation report contains important actuarial information about your pension plan at CalPERS. Your assigned CalPERS staff actuary, whose signature appears in the Actuarial Certification section on page 1, is available to discuss the report with you after August 1, 2018.

The exhibit below displays the minimum employer contributions, before any cost sharing, for Fiscal Year 2019-20 along with estimates of the required contributions for Fiscal Year 2020-21. Member contributions other than cost sharing (whether paid by the employer or the employee) are in addition to the results shown below. **The employer contributions in this report do not reflect any cost sharing arrangements you may have with your employees**.

**Required Contribution**

| Fiscal Year | Employer Normal Cost Rate | Employer Payment of Unfunded Liability |
|---|---|---|
| 2019-20 | 0.000% | $75,222 |
| *Projected Results* | | |
| *2020-21* | *0.0%* | *$83,000* |

The actual investment return for Fiscal Year 2017-18 was not known at the time this report was prepared. The projections above assume the investment return for that year would be 7.25 percent. ***If the actual investment return for Fiscal Year 2017-18 differs from 7.25 percent, the actual contribution requirements for the projected years will differ from those shown above.***

Moreover, the projected results for Fiscal Year 2020-21 assume that there are no future plan changes, no further changes in assumptions other than those recently approved, and no liability gains or losses. Such changes can have a significant impact on required contributions. Since they cannot be predicted in advance, the projected employer results shown above are estimates. The actual required employer contributions for Fiscal Year 2020-21 will be provided in next year's report.

For additional details regarding the assumptions and methods used for these projections please refer to the "Projected Employer Contributions" in the "Highlights and Executive Summary" section.

The "Risk Analysis" section of the valuation report also contains estimated employer contributions in future years under a variety of investment return scenarios.

**Changes since the Prior Year's Valuation**

At its December 2016 meeting, the CalPERS Board of Administration lowered the discount rate from 7.50 percent to 7.00 percent using a three-year phase-in beginning with the June 30, 2016 actuarial valuations. The minimum employer contributions for Fiscal Year 2019-20 determined in this valuation were calculated using a discount rate of 7.25 percent. The projected employer contributions on Page 5 are calculated under the assumption that the discount rate will be lowered to 7.00 percent next year as adopted by the Board.

On December 19, 2017, the CalPERS Board of Administration adopted new actuarial assumptions based on the recommendations in the December 2017 CalPERS Experience Study and Review of Actuarial Assumptions. This study reviewed the retirement rates, termination rates, mortality rates, rates of salary increases and inflation assumption for Public Agencies. These new assumptions are incorporated in your actuarial valuations and will impact the required contribution for FY 2019-20. In addition, the Board adopted a new asset portfolio as part of its Asset Liability Management. The new asset mix supports a 7.00 percent discount rate. The reduction of the inflation assumption will be implemented in two steps in conjunction with the decreases in the discount rate. For the June 30, 2017 valuation an inflation rate of 2.625 percent was used and a rate of 2.50 percent will be used in the following valuation.

The CalPERS Board of Administration has adopted a new amortization policy effective with the June 30, 2019 actuarial valuation. The new policy shortens the period over which actuarial gains and losses are amortized from 30 years to 20 years with the payments computed using a level dollar amount. In addition, the new policy removes the 5-year ramp-up and ramp-down on UAL bases attributable to assumption changes and non-investment gains/losses. The new policy removes the 5-year ramp-down on investment gains/losses. These changes will apply only to new UAL bases established on or after June 30, 2019.

For inactive employers the new amortization policy imposes a maximum amortization period of 15 years for all unfunded accrued liabilities effective June 30, 2017. Furthermore, the plan actuary has the ability to shorten the amortization period on any valuation date based on the life expectancy of plan members and projected cash flow needs to the plan. The impact of this has been reflected in the current valuation results.

The CalPERS Board of Administration adopted a Risk Mitigation Policy which is designed to reduce funding risk over time. This Policy has been temporarily suspended during the period over which the discount rate is being lowered. More details on the Risk Mitigation Policy can be found on our website.

Besides the above noted changes, there may also be changes specific to the plan such as contract amendments and funding changes.

Further descriptions of general changes are included in the "Highlights and Executive Summary" section and in Appendix A, "Statement of Actuarial Data, Methods and Assumptions" of the Section 2 report.

We understand that you might have a number of questions about these results. While we are very interested in discussing these results with your agency, in the interest of allowing us to give every public agency their results, we ask that you wait until after August 1 to contact us with actuarial related questions.

If you have other questions, please call our customer contact center at (888) CalPERS or (**888-225-7377**).

Sincerely,

SCOTT TERANDO
Chief Actuary

2471 Flores Street, San Mateo, CA 94403
650-349-5538 Fax: 650-349-5089

www.northnetlibs.org

**To:** North Bay Cooperative Library System
**From:** Andrew Yon, PLP Controller
**Subject:** NBCLS Fund Balance and Suggestion for Shared Funding Formula
**Date:** April 23, 2019

In past years, NBCLS has used its fund balance to pay for its annual CalPERS obligations and retiree health insurance. In FY 2018/19, those budgeted costs were $32,165 for CalPERS, $650 for GASB, $14,500 Medical, $1,357 Medicare, for a total of $48,672. At that time, it was projected that the FY 2019/20 CalPERS Costs would be $45,000.

The recent changes by CalPERS to accelerate the Unfunded Liability amortization schedule from 30 years to 15 years, results in an increase of 134% from FY 2018-19 Unfunded Liability cost of $31,165. The FY 2019-20 Unfunded Liability cost is $75,222, and GASB Audit Report is $350. The retiree health care typically increases 4-6% annually for health and Medicare. Assuming a 5% increase, the anticipated FY 2019/20 total health cost will be $15,620, for a total cost of $91,192 for FY 2019/20.

**FUND BALANCE**

The estimated ending NBCLS fund balance as of June 30, 2019 is $168,387, with the total cost of all FY 2018/19 CalPERS Unfunded Liability and retiree health care being accounted for.

| | |
|---|---|
| FY 2018/19 Ending Balance | **$168,387** |
| FY2019/20 Interest Income | $5,947 |
| FY 2019/20 Estimated Net Costs | ($91,192) |
| FY 2019/20 Estimated Ending Balance | **$83,141** |
| | |
| FY 2020/21 Estimated Net Costs* | ($93,607) |
| FY 2020/21 Estimated Ending Balance | **($10,466)** |

**CalPERS Unfunded Liability Estimate and Medical Costs*

Based on the above Fund Balance projection, NBCLS libraries will need to commence contribution to the CalPERS Unfunded Liability and retiree medical costs by FY 2020/21. NBCLS will need to establish a shared cost formula for these two ongoing fiscal obligations.

**Establishing a Cost Share Formula**

Several years ago, the North State Cooperative Library System depleted its fund balance and adopted a cost share model for its members for CalPERS obligations. Below is their previous formula:

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**5-TIER Cost Share Formula Based on $91,192 Unfunded Liability and Medical Cost**

| | |
|---|---|
| Budget size under $1,000,000 | $100 |
| Budget size under $2,000,000 | 200 |
| Budget size under $3,000,000 | 300 |
| Budget size under $5,000,000 | 400 |
| Budget sizes over $10,000,000 | 500 |

| Library | FY16/17 Budget Expenditure | Library Base Rate | Base Factor | FY19/20 Total Amount |
|---|---|---|---|---|
| Larkspur | $840,454 | $100 | 19.82 | $1,982 |
| San Anselmo | $871,917 | $100 | 19.82 | $1,982 |
| Sausalito | $930,311 | $100 | 19.82 | $1,982 |
| St.Helena | $1,028,931 | $200 | 19.82 | $3,965 |
| Lake County | $1,047,297 | $200 | 19.82 | $3,965 |
| Dixon | $1,162,420 | $200 | 19.82 | $3,965 |
| Benicia | $2,062,802 | $300 | 19.82 | $5,947 |
| Mill Valley | $2,448,628 | $300 | 19.82 | $5,947 |
| Belvedere-Tiburon | $2,471,187 | $300 | 19.82 | $5,947 |
| Mendocino | $3,085,167 | $400 | 19.82 | $7,930 |
| San Rafael | $3,968,981 | $400 | 19.82 | $7,930 |
| Napa | $14,623,972 | $500 | 19.82 | $9,912 |
| Marin | $15,530,838 | $500 | 19.82 | $9,912 |
| Solano | $17,609,704 | $500 | 19.82 | $9,912 |
| Sonoma | $19,748,048 | $500 | 19.82 | $9,912 |
| | **Total** | **$4,600** | **19.82** | **$91,192** |

*Source: CSL Ready Report - FY16/17 Expenditure*
*Base Factor = Unfunded Liability & Medical Costs/ Total Base Rate*

**FORMULA**
Library Budget determines base rate
Base Rate is sum of the individual base rates
The Factor is the cost of the CalPERS obligations divided by the sum of the base rates
The individual cost per library is the base rate times the factor.

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## 15-TIER Cost Share Formula Based on $91,192 Unfunded Liability and Medical Cost

Below is a 15-Tier proposed formula. By expanding the number of tiers, the proposed cost share formula allows the smallest budget to pay the least and the largest budget to pay the most.

Budget size under
$850,000 *$100*
Budget sizes over $850,000 *Incremental Increase of $100*

| Library | FY 16/17 Budget Expenditure | Library Base Rate | Base Factor | FY19/20 Total Amount |
|---|---|---|---|---|
| Larkspur | $840,454 | $100 | 7.60 | $760 |
| San Anselmo | $871,917 | $200 | 7.60 | $1,520 |
| Sausalito | $930,311 | $300 | 7.60 | $2,280 |
| St.Helena | $1,028,931 | $400 | 7.60 | $3,040 |
| Lake County | $1,047,297 | $500 | 7.60 | $3,800 |
| Dixon | $1,162,420 | $600 | 7.60 | $4,560 |
| Benicia | $2,062,802 | $700 | 7.60 | $5,320 |
| Mill Valley | $2,448,628 | $800 | 7.60 | $6,080 |
| Belvedere-Tiburon | $2,471,187 | $900 | 7.60 | $6,839 |
| Mendocino | $3,085,167 | $1,000 | 7.60 | $7,599 |
| San Rafael | $3,968,981 | $1,100 | 7.60 | $8,359 |
| Napa | $14,623,972 | $1,200 | 7.60 | $9,119 |
| Marin | $15,530,838 | $1,300 | 7.60 | $9,879 |
| Solano | $17,609,704 | $1,400 | 7.60 | $10,639 |
| Sonoma | $19,748,048 | $1,500 | 7.60 | $11,399 |
| | **Total** | **$12,000** | **7.60** | **$91,192** |

*Source: CSL Ready Report - FY16/17 Expenditure*
*Base Factor = Unfunded Liability & Medical Costs/ Total Base Rate*

**FORMULA**
Incremental increase in the Base Rate with the lowest base rate assigned to the smallest budget size to the largest budget size
Base Rate is sum of the individual base rates
The Factor is the cost of the CalPERS obligations divided by the sum of the base rates
The cost share per library is the base rate times the Factor.

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**Percentage of Membership Dues Cost Share Formula Based on $91,192 Unfunded Liability and Medical Cost**

| Library | FY18/19 Membership Dues | % of Membership Dues | FY19/20 Total Amount |
|---|---|---|---|
| Larkspur | $515 | 1.5% | $1,382 |
| San Anselmo | $515 | 1.5% | $1,382 |
| Sausalito | $515 | 1.5% | $1,382 |
| Lake County | $515 | 1.5% | $1,382 |
| Dixon | $1,030 | 3.0% | $2,763 |
| St.Helena | $1,030 | 3.0% | $2,763 |
| Benicia | $2,060 | 6.1% | $5,527 |
| Mill Valley | $2,060 | 6.1% | $5,527 |
| Belvedere-Tiburon | $2,060 | 6.1% | $5,527 |
| Mendocino | $2,060 | 6.1% | $5,527 |
| San Rafael | $3,090 | 9.1% | $8,290 |
| Napa | $4,120 | 12.1% | $11,054 |
| Marin | $4,120 | 12.1% | $11,054 |
| Solano | $5,150 | 15.2% | $13,817 |
| Sonoma | $5,150 | 15.2% | $13,817 |
| **Total** | **$33,990** | **100.0%** | **$91,192** |

**FORMULA**
Utilization of each library's NLS annual membership due
Determine each library's percentage by dividing their due amount to the total membership dues (100%) and apply percentage to CalPERS Obligations.

**RECOMMENDATION**

It is recommended that NBCLS consider and adopt a cost share formula for its members for CalPERS obligations.

NORTH BAY COOPERATIVE LIBRARY SYSTEM
Membership History

| Name of Member | Original Date Joined | Date of Change Permanent Agency | Member or Affiliate | Withdrew | Member April 2019 |
|---|---|---|---|---|---|
| Belvedere-Tiburon Library | | | M | | X |
| Benicia Public Library | 1960 | | M | | X |
| Cloverdale Public Library | 1960 | | | | |
| Cloverdale Unified School District | 11/21/1975 | | | | |
| Dixon Public Library | | | M | | X |
| Dominican University | | | M | | X |
| Healdsburg Public Library | 7/3/1967 | | | | |
| Lake County Library | | | M | | X |
| Lakeport Public Library | | 5/13/1964 | | | |
| Larkspur Public Library | | | M | | X |
| Marin County Free Library (Marin County) | 1960 | 5/13/1964 | M | | X |
| Marin Inst for Prevention Alcohol/Other Drug Problems | 3/9/1990 | | | | |
| Mendocino County Library | | | M | | X |
| Mendocino Public Library Demonstration | | 5/13/1964 | | | |
| Mill Valley Public Library | | 5/13/1964 | M | | X |
| Napa City-County Public Library | 1960 | 5/13/1964 | M | | X |
| Pacific Union College | 3/24/1998 | | M to AFF 11/1/2002 | 6/1/2004 | |
| Petaluma Public Library | 1960 | 5/13/1964 | | | |
| Petaluma Unified School District | 11/2/2000 | | | | |
| Rancho Cotati High School Library | 1/9/1997 | | M to AFF 11/27/2002 | | |
| Richmond Public Library | 1/4/1996 | | | 8/29/2005 | |
| San Anselmo Public Library | | | M | | X |
| San Francisco Public Library | 7/1/1996 | | | 7/1/2002 | |
| San Rafael Public Library | | | M | | X |
| Santa Rosa Jr College | | | M to AFF 10/1/2003 | | |
| Santa Rosa Public Library | 1960 | 5/13/1964 | | | |
| Sausalito Public Library | 5/13/1964 | | M | | X |
| Sebastopol Public Library | 1960 | 5/13/1964 | | | |
| Solano College Library | 11/9/1990 | | | | |
| Solano County Library | 1960 | | M | | X |
| Solano County District | | 5/13/1964 | | | |
| Sonoma County Library | 1960 | 5/13/1964 | M | | X |
| Sonoma Office of Education | 4/7/1983 | | | | |
| Sonoma State University Library | 10/1/1980 | | | | |
| Sonoma, City of | 1960 | 5/13/1964 | | | |
| St. Helena Public Library | 1960 | 5/13/1964 | M | | X |
| The Goodman Library of Napa | 1960 | | | | |
| Travis AFB | 9/18/1980 | | | | |
| UC Davis Library | 11/24/1975 | | | | |
| Ukiah Municipal Library | 1960 | | | | |
| Ukiah Public Library | | 5/13/1964 | | | |
| Vacaville Union High School District | 1960 | | | | |
| Vacaville Union High School Library | | 5/13/1964 | | | |
| Vallejo Public Library | 1960 | 5/13/1964 | | | |

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BEST BEST & KRIEGER LLP
ATTORNEYS AT LAW

## MEMORANDUM

**To:** Board of Directors
NORTHNET LIBRARY SYSTEM
**From:** Isabel C. Safie
**Date:** November 29, 2018
**Re:** Update on AB 1912 and Liability of Legacy Systems

### UPDATE ON AB 1912

Since my last presentation to NorthNet Library System ("NorthNet") on June 15, 2018, AB 1912 was amended several more times, and signed into law by Governor Brown. AB 1912 becomes effective on January 1, 2019. The following is a summary of the most significant aspects of the bill:

- Shared Retirement Liabilities of the JPA. The retirement liabilities of a JPA are the debts of the parties to the JPA agreement. This rule applies on a retroactive and prospective basis. However AB 1912 would not apply to members of a JPA whose retirement contract was terminated prior to AB 1912's passage or to members of a JPA that dissolved prior to January 1, 2019.

- Apportionment if JPA Winds Down. Member agencies would only be required to apportion retirement liabilities of a JPA *if* (a) the JPA intends to adopt a resolution of intent to terminate its contract with CalPERS, or (b) CalPERS issues a notice of potential termination following the JPA's default for failure to pay employer contributions or upon its determination that the JPA is no longer in existence, such as in the event of dissolution or cessation of operations. This means that members of a JPA that is not at risk of failing or which is not planning to terminate its CalPERS contract, would not be forced to apportion the JPA's retirement liability among themselves. **This is a significant change since my presentation to NorthNet on AB 1912**.

- Timing of Apportionment Agreement. For any JPA participating in CalPERS, member agencies would need to apportion retirement liabilities of the JPA and submit a copy of the agreement to the CalPERS Board *prior to filing a notice to terminate*. Additionally, any JPA subject to potential termination for failure to pay employer

contributions would need to provide the Board with a copy of the apportionment agreement within 60 days' notice.

- CalPERS' Determination of Apportionment. If member agencies are unable to agree as to apportionment, the retirement board (i.e., CalPERS for legacy members) would determine apportionment between member agencies based on the share of service received by each member agency, or the population of each member agency. A member agency may challenge the Board's determination, in which case an arbitrator would make the final and binding determination.

- Member Agencies Always Remain Liable. Terminating JPAs and their member agencies will remain liable to CalPERS if there are still inadequate funds available for the benefits promised (e.g. one member agency defaults on its obligations), even after member agencies agree or the Board apportions 100% of the JPA's retirement liabilities. **This is another significant change from my presentation to NorthNet on AB 1912**.

## APPLICATION OF AB 1912 TO LEGACY SYSTEMS

In our previous Memorandum dated June 12, 2018, we concluded that members of North Bay could not be held liable for the JPA's retirement liabilities since North Bay's JPA agreement specifically provided that members would not be responsible for the debts of the JPA. We also concluded that members of Mountain-Valley could not be held liable for the debts of Mountain-Valley because it is not subject to JPA law and the members have not otherwise agreed to be liable for the system's retirement liabilities. With regard to North State, we concluded that members *are* liable, in proportion with the members' respective periods of membership, because North State's Bylaws voluntarily subject North State to the Joint Exercise of Powers Act, including the shared liability provisions of Government Code section 6508.1.

In light of AB 1912 becoming law, our previous conclusion with regard to North Bay changes significantly—North Bay member agencies would now be liable for the JPA's retirement liabilities in the event North Bay intends to adopt a resolution of intent to terminate its contract with CalPERS or CalPERS gives notice of potential termination. Our conclusion for North State remains essentially the same—North State member agencies are liable, however the proportion of liability would be decided by the members themselves or the CalPERS' Board if the members cannot agree. Lastly our conclusion with regard to Mountain-Valley remains the same (i.e., Mountain-Valley member agencies are not liable) since AB 1912 is not applicable. Below we provide further detail regarding how AB 1912 will apply (or not apply) to the legacy systems.

### A. North Bay & North State – Shared Liability Among Member Agencies

Members of North Bay and North State will share liability for the retirement obligations of their respective library system. However neither system will be required to allocate liability unless either intends to adopt a resolution of intent to terminate its contract with CalPERS or CalPERS provides either with a notice of a potential termination. Members of North Bay and North State will not be required to apportion liability if their respective systems are not at risk of failing, continue to pay required employer contributions, and do not plan to terminate their CalPERS contract.

In the event either system decides to terminate its contract with CalPERS, the member agencies would need to decide how to allocate retirement liability amongst themselves and provide CalPERS with a copy of the allocation agreement prior to filing a notice to terminate. Since the entire termination process begins with filing a notice to terminate and can generally last up to one (1) year, member agencies should work on the allocation agreement as soon as possible once it is determined that the system is terminating its contract, to avoid further delays.

If member agencies cannot agree on apportioning liability, CalPERS would determine apportionment between the member agencies based on share of service received from the legacy system by each agency, or the population of each member agency. A member agency may challenge the Board's determination, in which case an arbitrator would make the final and binding determination.

Please keep in mind that North State members may be likely to challenge application of AB 1912 since the system was not explicitly formed pursuant to JPA law, but rather a provision in its Bylaws voluntarily subjects North State to JPA law. Moreover, documents previously provided by NorthNet indicate that North State administrators may be under the mistaken impression that the system is not subject to JPA law. However based on our review, we believe the Bylaws are sufficient to show that parties intended for members to be responsible for the debts of North State, given that JPA law imposed joint liability on member agencies of a JPA absent a clear renunciation of liability pursuant to section 6508.1.

B. Mountain-Valley Library System – Member Agencies Not Liable

Since Mountain-Valley is not a JPA and has not elected to be subject to JPA law, its members are not liable for the retirement obligations of the system, regardless of AB 1912's passage.