NORTH BAY COOPERATIVE LIBRARY SYSTEM

HTTPS://NORTHNETLIBS.ORG/ABOUT-NLS/NBCLS/

Board of Directors Special Meeting

March 5, 2024, 1:00 p.m.

Zoom Meeting
https://us02web.zoom.us/j/84706391355?pwd=Q0RQakkrQ3FqUkJzemY4TnNMM3I1Zz09

Meeting ID: 847 0639 1355
Passcode: 551242
Phone +1 669 900 6833

1. Call to Order	Duran, Chair	
2. Roll Call	Brinkley	
3. Public Invited to Address the Council		
4. Approval of Consent Items **(ACTION ITEM)** A. Adoption of Agenda B. Approve Minutes of June 9, 2023 Meeting	Duran	Attachment 1, pg. 3
5. Discussion of NBCLS CalPERS Unfunded Liability Payoff **(ACTION ITEM)**	Duran	Attachment 2, pg. 6
6. Set Next Meeting Date		
7. Announcements		
8. Adjournment		

Brown Act: This meeting abides by Cal. Gov't Code § 54953.
Cal. Gov't Code § 54953(b)(1) "Notwithstanding any other provision of law, the legislative body of a local agency may use teleconferencing for the benefit of the public and the legislative body of a local agency in connection with any meeting or proceeding authorized by law. The teleconferenced meeting or proceeding shall comply with all otherwise applicable requirements of this chapter and all otherwise applicable provisions of law relating to a specific type of meeting or proceeding."
Cal. Gov't Code § 54953(j)(6) A "teleconference" is "a meeting of a legislative body, the members of which are in different locations, connected by electronic means, through either audio or video, or both."
Gov't Code § 54953 (b)(2) "Teleconferencing, as authorized by this section, may be used for all purposes in connection with any meeting within the subject matter jurisdiction of the legislative body. If the legislative body of a local agency elects to use teleconferencing, the legislative body of a local agency shall comply with all of the following:

> (A) All votes taken during a teleconferenced meeting shall be by rollcall.
> (B) The teleconferenced meetings shall be conducted in a manner that protects the statutory and constitutional rights of the parties or the public appearing before the legislative body of a local agency.
> (C) The legislative body shall give notice of the meeting and post agendas as otherwise required by this chapter.
> (D) The legislative body shall allow members of the public to access the meeting and the agenda shall provide an opportunity for members of the public to address the legislative body directly pursuant to Section 54954.3."

Gov't Code § 54953 (3) "If the legislative body of a local agency elects to use teleconferencing, it shall post agendas at all teleconference locations. Each teleconference location shall be identified in the notice and agenda of the meeting or proceeding, and each teleconference location shall be accessible to the public. During the teleconference, at least a quorum of the members of the legislative body shall participate from locations within the boundaries of the territory over which the local agency exercises jurisdiction, except as provided in subdivisions (d) and (e)."

Meeting Locations

Belvedere-Tiburon Library	1501 Tiburon Boulevard, Tiburon, CA 94920
Benicia Public Library	150 East L Street, Benicia, CA 94510
Lake County Library	1425 N. High Street, Lakeport, CA 95453
Larkspur Public Library	400 Magnolia Avenue, Larkspur, CA 94939
Marin County Free Library	3501 Civic Center Drive, #414, San Rafael, CA 94903
Mendocino County Library	225 Main Street, Point Arena, CA 95468
Mill Valley Public Library	375 Throckmorton Avenue, Mill Valley, CA 94941
Napa County Library	580 Coombs Street, Napa, CA 94559
St. Helena Public Library	1492 Library Lane, St. Helena, CA 94574
San Anselmo Public Library	110 Tunstead Avenue, San Anselmo, CA 94960
San Rafael Public Library	1100 E Street, San Rafael, CA 94901
Sausalito Public Library	420 Litho Street, Sausalito, CA 94965
Solano County Library	1150 Kentucky Street, Fairfield, CA 94533
Sonoma County Library	6135 State Farm Drive, Rohnert Park, CA 94928
NorthNet Library System	32 West 25th Avenue, Suite 201, San Mateo, CA 94403

NORTH BAY COOPERATIVE LIBRARY SYSTEM

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Board of Directors Annual Meeting
DRAFT Minutes
June 9, 2023

1. **Meeting called to order** at 1:02 p.m. by Chair, Adlawan.

2. **Roll Call**

   Present were: Crystal Duran, Belvedere-Tiburon Library; Jennifer Baker, Benicia Public Library; Christopher Veach, Lake County Library; Deb Fader Samson, Mendocino County Library; Anji Brenner, Mill Valley Public Library; Anthony Halstead, Napa County Library; Chris Kreiden, St. Helena Public Library; Linda Kenton, San Anselmo Public Library; Jill Tokutomi, San Rafael Public Library; Suzanne Olawski, Solano County Library; and Erika Thibault, Sonoma County Library. Also attending, Carol Frost, Andrew Yon and Jacquie Brinkley, Pacific Library Partnership.

3. **No Public in attendance.**

4. **Consent Calendar**

   Motion to approve Consent Calendar. Baker moved; Kreiden seconded. Vote taken by roll call, all votes in favor, motion passed unanimously.

5. **Approve Renewal of NBCLS Delivery Contract with Right Now Courier (dba Sprint Courier Services) Year 3 Contract Renewal**

   Yon presented the delivery contract renewal stating that the annual contract fee of $285,112 includes a 3% CPI increase as well as costs for fuel surcharges. This is a lower annual fee from FY2022-23 due to a reduction in stops for Mendocino County's Ukiah branch from three daily stops to two daily stops. Yon noted that the FY2023-24 renewal will be the final renewal on this current contract.

   Yon asked if there were any subsequent changes of the delivery schedule that directors should notify him or Brinkley as soon as possible.

   Baker asked to confirm the annual contract fee. Yon stated that fuel surcharge estimates were built into the contract and accounted for the higher annual contract fee.

   Thibault asked if fuel surcharge fees fluctuate. Yon confirmed that there is a range of fuel surcharge fees, and they can fluctuate. Yon stated that the American Automobile Association (AAA) valuation chart was used to estimate fuel surcharges for this contract.

   Yon stated that a new Request for Proposal for NBCLS courier services would be necessary before the FY 2024-25 budget year.

   Frost asked Yon if an RFP would be required should NBCLS want to stay with Right Time for courier services. Yon confirmed that an RFP would be required.

Motion to approve the contract with Right Now Courier for the Year 3 Contract Renewal for FY 2023-24, for a total contract of $285,112.

Olawski moved; Veach seconded. Vote taken by roll call. Halstead abstained. All others voted in favor, motion passed unanimously.

6. **Approve Resolution #542 – Reimbursement of Retiree Health Medical Costs for Calendar Year 2024**

Frost reported that in May 2022, the Board approved a cap of $460 per month, $5,520 annually for the retiree health insurance inclusive of prescription costs and other medically related out-of-pocket expenses for 2023. In a recent review with the retiree, the retiree has noted that annual costs are increasing at approximately 9% and that some costs increase twice annually.

Based on this information, it is recommended that the Board consider approving a cap of $505 per month, $6,060 annually for calendar year 2024 for retiree health insurance costs, inclusive of prescription costs and other medically related out-of-pocket expenses. It is recommended that the Board of Directors adopt a resolution that states:

(a) It will annually determine by Board action if it will provide retiree health insurance for the following calendar year, and
(b) If so, it will determine how much the System will pay toward the monthly premium for the retiree during that calendar year. NBCLS may consider an increase of the monthly reimbursement to cover increased cost to retiree in the 2024 calendar year.

It is further recommended that the Board of Directors pass a motion to continue offering the currently covered retiree health insurance for calendar 2024, with the retiree choosing the health plan during open enrollment and with NBCLS reimbursing the retiree monthly up to a specific amount for the plan, and that said retiree may elect to cover dependents at their own expense.

Motion to approve reimbursement of retiree health medical costs for Calendar Year 2024, and to approve a $505 per month cap or $6,060 annually for the retiree's prescription and out-of-pocket medical costs.

Olawski moved; Fader Samson seconded. Vote taken by roll call, all votes in favor, motion passed unanimously.

7. **CalPERS FY 2023-24 Pre-Payment Option for Annual Payment and Cost Share**

Yon presented the NBCLS CalPERS Unfunded Liability obligation for FY 2023-24 and the pre-payment discount available for payment received by July 31, 2023. Yon provided detail of the CalPERS costs which includes the annual payment obligation and the annual GASB report. Yon noted that a payoff can only be estimated and that the payment chart provided indicates estimates to each member library for a payoff scenario.

Olawski and Halstead stated that they would like NBCLS to discuss a payoff of this obligation. Olawski asked Yon to provide a 5-year projection.

Yon explained that the payoff amount depends on the CalPERS investments each year and what NBCLS may owe in Unfunded Liabilities. Yon continued to state that CalPERS publishes their investment reports of two years prior and it is difficult to predict investment returns for the future. Yon referenced the Mountain Valley Library System (MVLS) and their payoff of retiree obligation in 2021 but that since, CalPERS investment losses were incurred and MVLS was required to pay but not as significant an amount if they had not paid down the full amount.

Discussion ensued regarding which NBCLS members could budget for a payoff and that some with 2-year budget cycles may have to make mid-year modifications in order to make a payoff amount. Members agreed that knowing the CalPERS payoff amount by March of 2024 would allow them to budget for this payment in their FY 2024-25 cycle. Olawski suggested a March annual meeting for NBCLS.

Yon stated that CalPERS would require a date of payoff for them to provide a payoff amount.

Thibault stated that they would consider a payoff amount but did not have the authority to approve this item. Baker asked about any remaining NBCLS reserves. Yon confirmed that reserves were fully expended.

> **Motion to approve the FY 2023-24 CalPERS pre-payment option for annual payment and cost share in amount of $64,128, and recommendation to hold a special meeting in March 2024 to determine the CalPERS Unfunded Liability payoff amount for FY 2024-25 and to consider the payoff by July 31, 2024.**
>
> **Olawski moved; Thibault seconded. Vote taken by roll call, all votes in favor, motion passed unanimously.**

8. **Adoption of NBCLS FY 2023-24 Budget**

Yon presented the NBCLS FY 2023-24 budget. Yon stated that NBCLS would be Invoiced for CalPERS 2023 payment by July 3, 2023.

> **Motion to approve NBCLS FY 2023-24 budget.**
>
> **Olawski moved; Kenton seconded. Vote taken by roll call, all votes in favor, motion passed unanimously**.

9. **Election of Chair and Vice Chair FY 2023-24**

> **Motion to approve Kreiden, St. Helena Public Library as Chair and Duran, Belvedere-Tiburon, as Vice Chair.**
>
> **Baker moved; Tokutomi seconded. Vote taken by roll call, all votes in favor, motion passed unanimously.**

10. **Announcements**

Sonoma County Library is recruiting a Deputy Director.

11. **Adjournment** - Meeting adjourned at 1:47 p.m.

NORTH BAY COOPERATIVE LIBRARY SYSTEM

HTTPS://NORTHNETLIBS.ORG/ABOUT-NLS/NBCLS/

To: North Bay Cooperative Library System Board of Directors
From: Andrew Yon
Subject: Discussion of NBCLS CalPERS Unfunded Liability Payoff
Date: March 5, 2024

Background

At the June 9, 2023 NBCLS meeting, the Directors requested a special meeting in March 2024 to determine the CalPERS Unfunded Liability payoff amount for FY 2024-25 and to consider the payoff by July 31, 2024.

Cost Share Formula Scenarios

A cost share based on distribution by 50% population and 50% operating budget (not including the capital budget) using the most recent available California State Library annual data reporting. NBCLS libraries are invoiced along with their membership fees. All scenarios below are based on Exhibit A, the CalPERS Actuarial Annual Valuation Report as of June 30, 2022.

Scenario 1: CalPERS Unfunded Accrued Liability (UAL) payoff amount for FY 2024-25 with the payoff estimated on 6/30/24

On page 13 of the Valuation Report, the following chart identifies the UAL balance payoff as $867,775.

Reason for Base	Date Est.	Ramp Level 2024-25	Ramp Shape	Escala-tion Rate	Amort. Period	Balance 6/30/22	Expected Payment 2022-23	Balance 6/30/23	Expected Payment 2023-24	Balance 6/30/24	Minimum Required Payment 2024-25
Fresh Start	6/30/22	No Ramp		0.00%	10	907,054	95,044	870,511	59,927	867,775	118,451
Total						**907,054**	**95,044**	**870,511**	**59,927**	**867,775**	**118,451**

Below is a cost share for the UAL balance payoff amount:

CalPERS Estimated Unfunded Accrued Liability Balance Pay-Off for FY2024-25

Payoff of Unfunded Accrued Liability Balance = $867,775 (Estimated as of 6/30/24)

Library	FY23/24 CSL Certifed Population	FY21/22 Operating Expenditure	50% Base on Population	50% Based on Budget Size	Proposed Annual Unfunded Liability Cost
Belvedere-Tiburon	10,843	$ 3,070,926	$ 3,210	$ 12,793	$ **16,003**
Benicia	26,180	$ 2,488,861	$ 7,751	$ 10,368	$ **18,119**
Lake County	66,800	$ 1,475,793	$ 19,778	$ 6,148	$ **25,926**
Larkspur	12,571	$ 766,115	$ 3,722	$ 3,192	$ **6,913**
Marin	136,930	$ 18,670,925	$ 40,541	$ 77,781	$ **118,322**
Mendocino	89,164	$ 3,922,749	$ 26,399	$ 16,342	$ **42,741**
Mill Valley	13,664	$ 2,474,466	$ 4,046	$ 10,308	$ **14,354**
Napa	129,282	$ 8,954,258	$ 38,277	$ 37,302	$ **75,579**
San Anselmo	12,405	$ 1,068,158	$ 3,673	$ 4,450	$ **8,123**
San Rafael	59,681	$ 4,350,632	$ 17,670	$ 18,124	$ **35,794**
Sausalito	6,865	$ 818,173	$ 2,033	$ 3,408	$ **5,441**
Solano	417,569	$ 22,404,349	$ 123,630	$ 93,334	$ **216,964**
Sonoma	478,174	$ 32,685,661	$ 141,574	$ 136,164	$ **277,738**
St.Helena	5,355	$ 1,001,719	$ 1,586	$ 4,173	$ **5,759**
Total	**1,465,483**	**$ 104,152,785**	**$ 433,888**	**$ 433,888**	**$ 867,775**

Scenario 2: Unfunded Accred Liability (UAL) Termination at 1.75% = $3,284,226

In order to obtain a precise pay-off of the Plan termination amount, NBCLS would need to commit to terminating the NBCLS CalPERS plan and CalPERS will move forward and complete the necessary calculations for the payoff payment amount based on the NBCLS Council's approved predetermined payoff date. The process can take up to three months to complete, thus, the reason for using page 28 as a basis to estimate the payoff amount.

CalPERS has indicated that should NBCLS like to move forward with terminating the NBCLS CalPERS Plan, NBCLS should use the estimated Unfunded Termination Liability numbers in the latest FY2022-23 NBCLS Valuation Report, page 22 (see **Exhibit A** for the full report) as CalPERS can only provide the exact payoff amount when they are notified officially of the intent to terminate the CalPERS Plan.

The chart below is from Exhibit A, using the conservative Discount Rate of 1.75% (rate of return) as recommended by CalPERS Actuary, NBCLS has total assets of $2,119,447 that is with CalPERS and a $5,403,673 total Termination Liability for the Plan, so NBCLS would need to pay $3,284,226 (Unfunded Termination Liability) to terminate the Plan.

	Discount Rate: 1.75% Price Inflation: 2.50%			Discount Rate: 4.50% Price Inflation: 2.75%		
Market Value of Assets (MVA)	Termination Liability[1,2]	Funded Ratio	Unfunded Termination Liability	Termination Liability[1,2]	Funded Ratio	Unfunded Termination Liability
$2,119,447	$5,403,673	39.2%	$3,284,226	$3,983,948	53.2%	$1,864,501

[1] The termination liabilities calculated above include a 5% contingency load. The contingency load and other actuarial assumptions can be found in Appendix A of the Section 2 report.

[2] The discount rate used for termination valuations is a w eighted average of the 10-year and 30-year U.S. Treasury yields w here 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 w as 3.38% on June 30, 2022, the valuation date.

In order to terminate the plan, first contact our Pension Contract Services unit to initiate a Resolution of Intent to Terminate. The completed Resolution will allow the plan actuary to provide a preliminary termination valuation with a more up-to-date estimate of the plan liabilities. Before beginning this process, please consult with the plan actuary.

CalPERS Plan Termination Pay-Off

Plan Unfunded Accrued Liability (UAL) Termination Payoff at 1.75% = $3,284,226

Library	FY23/24 CSL Certifed Population	FY21/22 Operating Expenditure	50% Base on Population	50% Based on Budget Size	Total Proposed Unfunded Liability Cost
Belvedere-Tiburon	10,843	$ 3,070,926	$ 12,150	$ 48,417	**$ 60,567**
Benicia	26,180	$ 2,488,861	$ 29,335	$ 39,240	**$ 68,576**
Lake County	66,800	$ 1,475,793	$ 74,851	$ 23,268	**$ 98,119**
Larkspur	12,571	$ 766,115	$ 14,086	$ 12,079	**$ 26,165**
Marin	136,930	$ 18,670,925	$ 153,434	$ 294,373	**$ 447,807**
Mendocino	89,164	$ 3,922,749	$ 99,911	$ 61,848	**$ 161,758**
Mill Valley	13,664	$ 2,474,466	$ 15,311	$ 39,013	**$ 54,324**
Napa	129,282	$ 8,954,258	$ 144,864	$ 141,176	**$ 286,040**
San Anselmo	12,405	$ 1,068,158	$ 13,900	$ 16,841	**$ 30,741**
San Rafael	59,681	$ 4,350,632	$ 66,874	$ 68,594	**$ 135,468**
Sausalito	6,865	$ 818,173	$ 7,692	$ 12,900	**$ 20,592**
Solano	417,569	$ 22,404,349	$ 467,897	$ 353,236	**$ 821,133**
Sonoma	478,174	$ 32,685,661	$ 535,807	$ 515,335	**$ 1,051,142**
St.Helena	5,355	$ 1,001,719	$ 6,000	$ 15,793	**$ 21,794**
Total	**1,465,483**	**$ 104,152,785**	**$ 1,642,113**	**$ 1,642,113**	**$ 3,284,226**

Scenario 3: CalPERS Annual UAL Discounted Pre-Payment Option= $114,618

The annual UAL prepayment balance for FY2024-25 is $114,618 when full payment is made by July 31, 2024. This is a discount of $3,833 off the annual required payment of $118,451.

Should NBCLS choose the CalPERS discounted pre-payment option, the total cost for FY2024-25 is $114,618, not including retiree medical and GASB report costs.

CalPERS Annual Unfunded Accrued Liability Pay-Off for FY2024-25

Annual Unfunded Accrued Liability (UAL) Balance (July 1. 2024) = $114,618 ***(Prepayment Amount Due 7/31/24)***

Library	FY23/24 CSL Certifed Population	FY21/22 Operating Expenditure	50% Base on Population	50% Based on Budget Size	Proposed Annual Unfunded Liability Cost
Belvedere-Tiburon	10,843	$ 3,070,926	$ 424	$ 1,690	**$ 2,114**
Benicia	26,180	$ 2,488,861	$ 1,024	$ 1,369	**$ 2,393**
Lake County	66,800	$ 1,475,793	$ 2,612	$ 812	**$ 3,424**
Larkspur	12,571	$ 766,115	$ 492	$ 422	**$ 913**
Marin	136,930	$ 18,670,925	$ 5,355	$ 10,273	**$ 15,628**
Mendocino	89,164	$ 3,922,749	$ 3,487	$ 2,158	**$ 5,645**
Mill Valley	13,664	$ 2,474,466	$ 534	$ 1,362	**$ 1,896**
Napa	129,282	$ 8,954,258	$ 5,056	$ 4,927	**$ 9,983**
San Anselmo	12,405	$ 1,068,158	$ 485	$ 588	**$ 1,073**
San Rafael	59,681	$ 4,350,632	$ 2,334	$ 2,394	**$ 4,728**
Sausalito	6,865	$ 818,173	$ 269	$ 450	**$ 719**
Solano	417,569	$ 22,404,349	$ 16,329	$ 12,328	**$ 28,657**
Sonoma	478,174	$ 32,685,661	$ 18,699	$ 17,985	**$ 36,684**
St.Helena	5,355	$ 1,001,719	$ 209	$ 551	**$ 761**
Total	**1,465,483**	**$ 104,152,785**	**$ 57,309**	**$ 57,309**	**$ 114,618**

Recommendation

It is recommended that the NBCLS Board of Directors consider the options for the FY2024-25 CalPERS cost share.

An NBCLS meeting will be held later in this fiscal year to adopt the FY2024-25 budget, the retiree medical costs, and the courier RFP.

California Public Employees' Retirement System
Actuarial Office
400 Q Street, Sacramento, CA 95811 | Phone: (916) 795-3000 | Fax: (916) 795-2744
888 CalPERS (or **888**-225-7377) | TTY: (877) 249-7442 | **www.calpers.ca.gov**

July 2023

Miscellaneous Plan of the North Bay Cooperative Library System (CalPERS ID: 2429114785)
Annual Valuation Report as of June 30, 2022

Dear Employer,

Attached to this letter is the June 30, 2022 actuarial valuation report for the rate plan noted above. **Provided in this report is the determination of the minimum required employer contributions for fiscal year (FY) 2024-25**. In addition, the report contains important information regarding the current financial status of the plan as well as projections and risk measures to aid in planning for the future.

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, 2022.

Section 2 can be found on the CalPERS website (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 Risk Pool Actuarial Valuation Report for June 30, 2022.

Actuarial valuations are based on assumptions regarding future plan experience including investment return and payroll growth, eligibility for the types of benefits provided, and longevity among retirees. The CalPERS Board of Administration (board) adopts these assumptions after considering the advice of CalPERS actuarial and investment teams and other professionals. Each actuarial valuation reflects all prior differences between actual and assumed experience and adjusts the contribution requirements as needed. This valuation is based on an investment return assumption of 6.8%, which was adopted by the board in November 2021. Other assumptions used in this report are those recommended in the CalPERS Experience Study and Review of Actuarial Assumptions report from November 2021.

Required Contributions

The table below shows the minimum required employer contributions for FY 2024-25 along with estimates of the required contributions for FY 2025-26. Employee contributions other than cost sharing (whether paid by the employer or the employee) are in addition to the results shown below. **The required employer contributions in this report do not reflect any cost sharing arrangement between the agency and the employees.**

Fiscal Year	Employer Normal Cost Rate	Employer Amortization of Unfunded Accrued Liability
2024-25	0.00%	$118,451
Projected Results		
2025-26	*0.0%*	*$118,000*

The actual investment return for FY 2022-23 was not known at the time this report was prepared. The projections above assume the investment return for that year would be 6.8%. ***To the extent the actual investment return for FY 2022-23 differs from 6.8%, the actual contribution requirements for FY 2025-26 will differ from those shown above.*** 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. This section also contains projected required contributions through FY 2029-30.

Changes from Previous Year's Valuations

There are no significant changes in actuarial assumptions or policies in the 2022 actuarial valuation. There may be changes specific to the plan such as contract amendments and funding changes.

Further descriptions of general changes are included in "Highlights and Executive Summary" and in Appendix A of the Section 2 report in "Actuarial Methods and Assumptions." The effects of any changes on the required contributions are included in "Reconciliation of Required Employer Contributions," also in the Section 2 report.

Questions

A CalPERS actuary is available to answer questions about this report. Other questions may be directed to the Customer Contact Center at (888)-CalPERS or (**888-225-7377**).

Sincerely,

SCOTT TERANDO, ASA, EA, MAAA, FCA, CFA
Chief Actuary, CalPERS

RANDALL DZIUBEK, ASA, MAAA
Deputy Chief Actuary, Valuation Services, CalPERS

CalPERS

Actuarial Valuation as of June 30, 2022

for the Miscellaneous Plan of the North Bay Cooperative Library System

(CalPERS ID: 2429114785)

Required Contributions for Fiscal Year July 1, 2024 - June 30, 2025

Table of Contents

Section 1 – Plan Specific Information

Section 2 – Risk Pool Actuarial Valuation Information

Section 1

CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

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

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

Table of Contents

Actuarial Certification 1

Highlights and Executive Summary

- Introduction 3
- Purpose of Section 1 3
- Required Contributions 4
- Additional Discretionary Employer Contributions 5
- Funded Status – Funding Policy Basis 6
- Projected Employer Contributions 7
- Other Pooled Miscellaneous Risk Pool Rate Plans 8
- Cost 9
- Changes Since the Prior Year's Valuation 10
- Subsequent Events 10

Assets and Liabilities

- Breakdown of Entry Age Accrued Liability 12
- Allocation of Plan's Share of Pool's Experience/Assumption Change 12
- Development of Plan's Share of Pool's Market Value of Assets 12
- Schedule of Amortization Bases 13
- Amortization Schedule and Alternatives 14
- Employer Contribution History 16
- Funding History 16

Risk Analysis

- Future Investment Return Scenarios 18
- Discount Rate Sensitivity 19
- Mortality Rate Sensitivity 19
- Maturity Measures 20
- Maturity Measures History 21
- Funded Status – Termination Basis 22

Participant Data 23

List of Class 1 Benefit Provisions 23

Plan's Major Benefit Options 24

Actuarial Certification

To the best of our knowledge, this report, comprised of Sections 1 and 2, is complete and accurate and contains sufficient information to disclose, fully and fairly, the funded condition of the Miscellaneous Plan of the North Bay Cooperative Library System and satisfies the actuarial valuation requirements of Government Code section 7504. This valuation is based on the member and financial data as of June 30, 2022 provided by the various CalPERS databases and the benefits under this plan with CalPERS as of the date this report was produced. Section 1 of this report is based on the member and financial data for North Bay Cooperative Library System, while Section 2 is based on the corresponding information for all agencies participating in the Miscellaneous Risk Pool to which the plan belongs.

As set forth in Section 2 of this report, the pool actuaries have certified that, in their opinion, the valuation of the Miscellaneous Risk Pool has been performed in accordance with generally accepted actuarial principles, in accordance 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 rate plan, it is my opinion as the plan actuary that the Unfunded Accrued Liability amortization bases as of June 30, 2022 and employer contribution as of July 1, 2024 have been properly and accurately determined in accordance with the principles and standards stated above.

The undersigned is an actuary who satisfies the *Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States* with regard to pensions.

Kurt Schneider

KURT SCHNEIDER, MPA, ASA, EA, MAAA
Supervising Actuary, CalPERS

Highlights and Executive Summary

- **Introduction**
- **Purpose of Section 1**
- **Required Contributions**
- **Additional Discretionary Employer Contributions**
- **Funded Status – Funding Policy Basis**
- **Projected Employer Contributions**
- **Other Pooled Miscellaneous Risk Pool Rate Plans**
- **Cost**
- **Changes Since the Prior Year's Valuation**
- **Subsequent Events**

Introduction

This report presents the results of the June 30, 2022 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 minimum required contributions for fiscal year (FY) 2024-25.

Purpose of Section 1

This Section 1 report for the Miscellaneous Plan of the North Bay Cooperative Library System of CalPERS was prepared by the Actuarial Office using data as of June 30, 2022. The purpose of the valuation is to:

- Set forth the assets and accrued liabilities of this rate plan as of June 30, 2022;
- Determine the minimum required employer contributions for this rate plan for FY July 1, 2024 through June 30, 2025;
- Determine the required member contribution rate for FY July 1, 2024 through June 30, 2025 for employees subject to the California Public Employees' Pension Reform Act of 2013 (PEPRA); and
- Provide actuarial information as of June 30, 2022 to the CalPERS Board of Administration (board) and other interested parties.

The pension funding information presented in this report should not be used in financial reports subject to Governmental Accounting Standards Board (GASB) Statement No. 68 for a Cost Sharing Employer Defined Benefit Pension Plan. A separate accounting valuation report for such purposes is available on the CalPERS website (www.calpers.ca.gov).

The measurements shown in this actuarial valuation may not be applicable for other purposes. The agency should contact the plan 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; changes in plan provisions or applicable law; and differences between the required contributions determined by the valuation and the actual contributions made by the agency.

Assessment and Disclosure of Risk

This report includes the following risk disclosures consistent with the guidance of Actuarial Standard of Practice No. 51 and recommended by the California Actuarial Advisory Panel (CAAP) in the Model Disclosure Elements document:

- A "Scenario Test," projecting future results under different investment income returns.
- A "Sensitivity Analysis," showing the impact on current valuation results using alternative discount rates of 5.8% and 7.8%.
- A "Sensitivity Analysis," showing the impact on current valuation results assuming rates of mortality are 10% lower or 10% higher than our current post-retirement mortality assumptions adopted in 2021.
- Plan maturity measures indicating how sensitive a plan may be to the risks noted above.

Required Contributions

Required Employer Contributions	Fiscal Year 2024-25
Employer Normal Cost Rate	**0.00%**
Plus	
Required Payment on Amortization Bases[1]	**$118,451**
Paid either as	
1) Monthly Payment	**$9,870.92**
Or	
2) Annual Prepayment Option*	**$114,618**

The total minimum required employer contribution is the sum of the Plan's Employer Normal Cost Rate (expressed as a percentage of payroll and paid as payroll is reported) plus the Employer Unfunded Accrued Liability (UAL) Contribution Amount (billed monthly (1) or prepaid annually (2) in dollars).

** Only the UAL portion of the employer contribution can be prepaid **(which must be received in full no later than July 31)**.*

Development of Normal Cost as a Percentage of Payroll	Fiscal Year 2023-24	Fiscal Year 2024-25
Base Total Normal Cost for Formula	0.00%	0.00%
Surcharge for Class 1 Benefits[2]		
None	0.00%	0.00%
Phase out of Normal Cost Difference[3]	0.00%	0.00%
Plan's Total Normal Cost	0.00%	0.00%
Offset Due to Employee Contributions	0.00%	0.00%
Employer Normal Cost Rate	0.00%	0.00%

1 The required payment on amortization bases does not take into account any additional discretionary payment made after April 28, 2023.

2 Section 2 of this report contains a list of Class 1 benefits and corresponding surcharges.

3 When a rate plan joins the pool, the difference in normal cost between the pool and the rate plan is phased out over a five-year period in accordance with the CalPERS contribution allocation policy.

Additional Discretionary Employer Contributions

The minimum required employer contribution towards the Unfunded Accrued Liability (UAL) for this rate plan for FY 2024-25 is $118,451. CalPERS allows agencies to make additional discretionary payments (ADPs) at any time and in any amount. These optional payments serve to reduce the UAL and future required contributions and can result in significant long-term savings. Agencies can also use ADPs to stabilize annual contributions as a fixed dollar amount, percent of payroll or percent of revenue.

Provided below are select ADP options for consideration. Making such an ADP during FY 2024-25 does not require an ADP be made in any future year, nor does it change the remaining amortization period of any portion of unfunded liability. For information on permanent changes to amortization periods, see the "Amortization Schedule and Alternatives" section of the report.

Agencies considering making an ADP should contact CalPERS for additional information.

Minimum Required Employer Contribution for Fiscal Year 2024-25

Estimated Normal Cost	Minimum UAL Payment	ADP	Total UAL Contribution	Estimated Total Contribution
$0	$118,451	$0	$118,451	$118,451

Alternative Fiscal Year 2024-25 Employer Contributions for Greater UAL Reduction

Funding Horizon	Estimated Normal Cost	Minimum UAL Payment	ADP[1]	Total UAL Contribution	Estimated Total Contribution
5 years	$0	$118,451	$85,247	$203,698	$203,698

[1] The ADP amounts are assumed to be made in the middle of the fiscal year. A payment made earlier or later in the fiscal year would have to be less or more than the amount shown to have the same effect on the UAL amortization.

Note that the calculations above are based on the projected UAL as of June 30, 2024 as determined in the June 30, 2022 actuarial valuation. New unfunded liabilities can emerge in future years due to assumption or method changes, changes in plan provisions, and actuarial experience different than assumed. Making an ADP illustrated above for the indicated number of years will not result in a plan that is exactly 100% funded in the indicated number of years. Valuation results will vary from one year to the next and can diverge significantly from projections over a period of several years.

Funded Status – Funding Policy Basis

The table below provides information on the current funded status of the plan under the funding policy. The funded status for this purpose is based on the market value of assets relative to the funding target produced by the entry age actuarial cost method and actuarial assumptions adopted by the board. The actuarial cost method allocates the total expected cost of a member's projected benefit (**Present Value of Benefits**) to individual years of service (the **Normal Cost**). The value of the projected benefit that is not allocated to future service is referred to as the **Accrued Liability** and is the plan's funding target on the valuation date. The **Unfunded Accrued Liability** (UAL) equals the funding target minus the assets. The UAL is an absolute measure of funded status and can be viewed as employer debt. The **funded ratio** equals the assets divided by the funding target. The funded ratio is a relative measure of the funded status and allows for comparisons between plans of different sizes.

	June 30, 2021	June 30, 2022
1. Present Value of Benefits	$2,875,288	$3,026,501
2. Entry Age Accrued Liability	2,875,288	3,026,501
3. Market Value of Assets (MVA)	2,293,602	2,119,447
4. Unfunded Accrued Liability (UAL) [(2) – (3)]	$581,686	$907,054
5. Funded Ratio [(3) / (2)]	79.8%	70.0%

A funded ratio of 100% (UAL of $0) implies that the funding of the plan is on target and that future contributions equal to the normal cost of the active plan members will be sufficient to fully fund all retirement benefits if future experience matches the actuarial assumptions. A funded ratio of less than 100% (positive UAL) implies that in addition to normal costs, payments toward the UAL will be required. Plans with a funded ratio greater than 100% have a negative UAL (or surplus) but are required under current law to continue contributing the normal cost in most cases, preserving the surplus for future contingencies.

Calculations for the funding target reflect the expected long-term investment return of 6.8%. If it were known on the valuation date that future investment returns will average something greater/less than the expected return, calculated normal costs and accrued liabilities provided in this report would be less/greater than the results shown. Therefore, for example, if actual average future returns are less than the expected return, calculated normal costs and UAL contributions will not be sufficient to fully fund all retirement benefits. Under this scenario, required future normal cost contributions will need to increase from those provided in this report, and the plan will develop unfunded liabilities that will also add to required future contributions. For illustrative purposes, funded statuses based on a 1% lower and higher average future investment return (discount rate) are as follows:

	1% Lower Average Return	Current Assumption	1% Higher Average Return
Discount Rate	5.8%	6.8%	7.8%
1. Entry Age Accrued Liability	$3,312,204	$3,026,501	$2,781,767
2. Market Value of Assets (MVA)	2,119,447	2,119,447	2,119,447
3. Unfunded Accrued Liability (UAL) [(1) – (2)]	$1,192,757	$907,054	$662,320
4. Funded Ratio [(2) / (1)]	64.0%	70.0%	76.2%

The "Risk Analysis" section of the report provides additional information regarding the sensitivity of valuation results to the expected investment return and other factors. Also provided in that section are measures of funded status that are appropriate for assessing the sufficiency of plan assets to cover estimated termination liabilities.

Projected Employer Contributions

The table below shows the required and projected employer contributions (before cost sharing) for the next six fiscal years. The projection assumes that all actuarial assumptions will be realized and that no further changes to assumptions, contributions, benefits, or funding will occur during the projection period. In particular, the investment return beginning with FY 2022-23 is assumed to be 6.80% per year, net of investment and administrative expenses. Future contribution requirements may differ significantly from those shown below. The actual long-term cost of the plan will depend on the actual benefits and expenses paid and the actual investment experience of the fund.

	Required Contribution	**Projected Future Employer Contributions (Assumes 6.80% Return for Fiscal Year 2022-23 and Beyond)**				
Fiscal Year	**2024-25**	**2025-26**	**2026-27**	**2027-28**	**2028-29**	**2029-30**
	Rate Plan 605 Results					
Normal Cost %	0.00%	0.0%	0.0%	0.0%	0.0%	0.0%
UAL Payment	$118,451	$118,000	$118,000	$118,000	$118,000	$118,000

For ongoing plans, investment gains and losses 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 the Section 2 Report. This method phases in the impact of the change in UAL over a 5-year period in order to reduce 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 when there is a large investment loss, the relatively small amortization payments during the ramp up period could result in contributions that are less than interest on the UAL (i.e. negative amortization) while the contribution impact of the increase in the UAL is phased in.

For projected contributions under alternate investment return scenarios, please see the “Future Investment Return Scenarios” in the “Risk Analysis” section. Our online pension plan projection tool, Pension Outlook, is available in the Employers section of the CalPERS website. Pension Outlook can help plan and budget pension costs under various scenarios.

Other Pooled Miscellaneous Risk Pool Rate Plans

All of the results presented in this Section 1 report, except those shown on this page, correspond to rate plan 605. In many cases, employers have additional rate plans within the same risk pool. For cost analysis and budgeting it is useful to consider contributions for these rate plans as a whole rather than individually. The estimated contribution amounts and rates for all of the employer's rate plans in the Miscellaneous Risk Pool are shown below and assume that the total employer payroll within the Miscellaneous Risk Pool will grow according to the overall payroll growth assumption of 2.80% per year for three years. In a refinement since the prior year's report, Classic members who are projected to terminate employment are assumed to be replaced by PEPRA members.

	Fiscal Year 2023-24	**Fiscal Year 2024-25**
Estimated Combined Employer Contributions for all Pooled Miscellaneous Rate Plans		
Projected Payroll for the Contribution Year	$0	$0
Estimated Employer Normal Cost	$0	$0
Required Payment on Amortization Bases	$59,927	$118,451
Estimated Total Employer Contributions	$59,927	$118,451
Estimated Total Employer Contribution Rate (illustrative only)	0.00%	0.00%

Cost

Actuarial Determination of Plan Cost

Contributions to fund the plan are comprised of two components:

- Normal Cost, expressed as a percentage of total active payroll
- Amortization of the Unfunded Accrued Liability (UAL), expressed as a dollar amount

For fiscal years prior to 2015-16, the Amortization of UAL component was expressed as a percentage of total active payroll. Starting with FY 2015-16, the Amortization of UAL component was expressed as a dollar amount and invoiced on a monthly basis. There is an option to prepay this amount during July of each fiscal year.

The Normal Cost component is expressed as a percentage of active payroll with employer and employee contributions payable as part of the regular payroll reporting process.

The determination of both components requires complex actuarial calculations. The calculations are based on a set of actuarial assumptions which can be divided into two categories:

- Demographic assumptions (e.g., mortality rates, retirement rates, employment termination rates, disability rates)
- Economic assumptions (e.g., future investment earnings, inflation, salary growth rates)

These assumptions reflect CalPERS' best estimate of future experience of the plan and are long term in nature. We recognize that all assumptions will not be realized in any given year. For example, the investment earnings at CalPERS have averaged 6.9% over the 20 years ending June 30, 2022, yet individual fiscal year returns have ranged from -23.6% to +21.3%. In addition, CalPERS reviews all actuarial assumptions by conducting in-depth experience studies every four years, with the most recent experience study completed in 2021.

Changes Since the Prior Year's Valuation

Benefits

The standard actuarial practice at CalPERS is to recognize mandated legislative benefit changes in the first annual valuation following the effective date of the legislation. Voluntary benefit changes by plan amendment are generally included in the first valuation that is prepared after the amendment becomes effective, even if the valuation date is prior to the effective date of the amendment.

This valuation generally reflects plan amendments effective before the date of the report. Please refer to the "Plan's Major Benefit Options" in this report and Appendix B of the Section 2 Report for a summary of the plan provisions used in this valuation.

In 2022, SB 1168 increased the standard retiree lump sum death benefit from $500 to $2,000 for any death occurring on or after July 1, 2023. For pooled plans this is a Class 3 benefit and there is no normal cost surcharge. The impact on the unfunded liability is included in the pool's (gain)/loss.

Actuarial Methods and Assumptions

There are no significant changes to the actuarial methods or assumptions for the June 30, 2022 actuarial valuation.

Subsequent Events

This actuarial valuation report reflects fund investment return through June 30, 2022 and statutory/regulatory changes and board actions through January 2023.

During the time period between the valuation date and the publication of this report, inflation has been significantly higher than the expected inflation of 2.3% per annum. Since inflation influences cost-of-living increases for retirees and beneficiaries and active member pay increases, higher inflation is likely to put at least some upward pressure on contribution requirements and downward pressure on the funded status in the June 30, 2023 valuation. The actual impact of higher inflation on future valuation results will depend on, among other factors, how long higher inflation persists. At this time, we continue to believe the long-term inflation assumption of 2.3% is appropriate.

To the best of our knowledge, there have been no other subsequent events that could materially affect current or future certifications rendered in this report.

Assets and Liabilities

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

Breakdown of Entry Age Accrued Liability

Active Members	$0
Transferred Members	374,815
Separated Members	217,977
Members and Beneficiaries Receiving Payments	2,433,709
Total	$3,026,501

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	$3,026,501
2.	Projected UAL Balance at 6/30/2022	531,167
3.	Other UAL Adjustments (Golden Handshake, Prior Service Purchase, etc.)	0
4.	Adjusted UAL Balance at 6/30/2022 for Asset Share	531,167
5.	Pool's Accrued Liability[1]	22,021,735,002
6.	Sum of Pool's Individual Plan UAL Balances at 6/30/2022[1]	2,453,954,297
7.	Pool's 2021-22 Investment (Gain)/Loss[1]	2,614,071,182
8.	Pool's 2021-22 Non-Investment (Gain)/Loss[1]	309,490,972
9.	Plan's Share of Pool's Investment (Gain)/Loss: [(1) - (4)] ÷ [(5) - (6)] × (7)	333,353
10.	Plan's Share of Pool's Non-Investment (Gain)/Loss: (1) ÷ (5) × (8)	42,534
11.	Plan's New (Gain)/Loss as of 6/30/2022: (9) + (10)	375,887
12.	Increase in Pool's Accrued Liability due to Change in Assumptions[1]	0
13.	Plan's Share of Pool's Change in Assumptions: (1) ÷ (5) × (12)	0
14.	Increase in Pool's Accrued Liability due to Funding Risk Mitigation[1]	0
15.	Plan's Share of Pool's Change due to Funding Risk Mitigation: (1) ÷ (5) × (14)	0
16.	Offset due to Funding Risk Mitigation	0
17.	Plan's Investment (Gain)/Loss: (9) – (16)	333,353

[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

18.	Plan's UAL: (2) + (3) + (11) + (13) + (15)	$907,054
19.	Plan's Share of Pool's MVA: (1) - (18)	$2,119,447

Schedule of Amortization Bases

Below is the schedule of the plan's amortization bases. Note that there is a two-year lag between the valuation date and the start of the contribution year.

- The assets, liabilities, and funded status of the plan are measured as of the valuation date: June 30, 2022.
- The required employer contributions determined by the valuation are for the fiscal year beginning two years after the valuati on date: FY 2024-25.

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 required 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 expected payment on the UAL for the fiscal year and adjusting for interest. The expected payment for the first fiscal year is determined by the actuarial valuation two years ago and the contribution for the second year is from the actuarial valuation one year ago. Additional discretionary payments are reflected in the Expected Payments column in the fiscal year they were made by the agency.

Reason for Base	Date Est.	Ramp Level 2024-25	Ramp Shape	Escala-tion Rate	Amort. Period	Balance 6/30/22	Expected Payment 2022-23	Balance 6/30/23	Expected Payment 2023-24	Balance 6/30/24	Minimum Required Payment 2024-25
Fresh Start	6/30/22	No	Ramp	0.00%	10	907,054	95,044	870,511	59,927	867,775	118,451
Total						**907,054**	**95,044**	**870,511**	**59,927**	**867,775**	**118,451**

The (gain)/loss bases are the plan's allocated share of the risk pool's (gain)/loss for the fiscal year as disclosed in "Allo cation of Plan's Share of Pool's Experience/Assumption Change" earlier in this section. These (gain)/loss bases will be amortized in accordance with the CalPERS amortization policy in effect at the time the base was established.

Amortization Schedule and Alternatives

The amortization schedule on the previous page(s) shows the minimum contributions required according to the CalPERS amortization policy. Many agencies have expressed a desire for a more stable pattern of payments or have indicated interest in paying off the unfunded accrued liabilities more quickly than required. As such, we have provided alternative amortization schedules to help analyze the current amortization schedule and illustrate the potential savings 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) alternative “fresh start” amortization schedules using two sample periods that would both result in interest savings relative to the current amortization schedule. To initiate a fresh start, please contact the plan actuary.

The Current Amortization Schedule typically contains both positive and negative bases. Positive bases result from plan changes, assumption changes, method changes or plan experience that increase unfunded liability. Negative bases result from plan changes, assumption changes, method changes, or plan experience that decrease 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:

- When a negative payment would be required on a positive unfunded actuarial liability; or
- When the payment would completely amortize the total unfunded liability in a very short time period, and results in a large change in the employer contribution requirement.

In any year when 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 an appropriate 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 (continued)

			Alternate Schedules			
	Current Amortization Schedule		5 Year Amortization		0 Year Amortization	
Date	**Balance**	**Payment**	**Balance**	**Payment**	**Balance**	**Payment**
6/30/2024	867,775	118,451	867,775	203,698	N/A	N/A
6/30/2025	804,372	118,451	716,274	203,698		
6/30/2026	736,657	118,451	554,471	203,699		
6/30/2027	664,338	118,451	381,664	203,698		
6/30/2028	587,101	118,451	197,107	203,698		
6/30/2029	504,612	118,451				
6/30/2030	416,514	118,451				
6/30/2031	322,425	118,451				
6/30/2032	221,938	118,451				
6/30/2033	114,618	118,451				
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						
6/30/2049						
Total		**1,184,510**		**1,018,491**		**N/A**
Interest Paid		**316,735**		**150,716**		**N/A**
Estimated Savings				**166,019**		**N/A**

Employer Contribution History

The table below provides a recent history of the required and discretionary employer contributions for the plan. The required amounts are based on the actuarial valuation from two years prior without subsequent adjustments, if any. Additional discretionary payments before July 1, 2019 or after April 28, 2023 are not included.

Fiscal Year	Employer Normal Cost	Unfunded Liability Payment ($)	Additional Discretionary Payments
2016 - 17	0.000%	$12,385	N/A
2017 - 18	0.000%	20,584	N/A
2018 - 19	0.000%	32,165	N/A
2019 - 20	0.000%	75,222	0
2020 - 21	0.000%	84,379	0
2021 - 22	0.00%	87,159	0
2022 - 23	0.00%	95,044	0
2023 - 24	0.00%	59,927	
2024 - 25	0.00%	118,451	

Funding History

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

Valuation Date	Accrued Liability (AL)	Share of Pool's Market Value of Assets (MVA)	Unfunded Accrued Liability (UAL)	Funded Ratio	Annual Covered Payroll
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
06/30/2018	2,807,643	2,041,872	765,771	72.7%	0
06/30/2019	2,844,908	2,037,810	807,098	71.6%	0
06/30/2020	2,858,422	2,016,053	842,369	70.5%	0
06/30/2021	2,875,288	2,293,602	581,686	79.8%	0
06/30/2022	3,026,501	2,119,447	907,054	70.0%	0

Risk Analysis

- **Future Investment Return Scenarios**
- **Discount Rate Sensitivity**
- **Mortality Rate Sensitivity**
- **Maturity Measures**
- **Maturity Measures History**
- **Funded Status – Termination Basis**

Future Investment Return Scenarios

Analysis using the investment return scenarios from the Asset Liability Management process completed in 2021 was performed to determine the effects of various future investment returns on required employer contributions. The projections below reflect the impact of the CalPERS Funding Risk Mitigation policy. The projections also assume that all other actuarial assumptions will be realized and that no further changes in assumptions, contributions, benefits, or funding will occur.

The first table shows projected contribution requirements if the fund were to earn either 3.0% or 10.8% annually. These alternate investment returns were chosen because 90% of long-term average returns are expected to fall between them over the 20-year period ending June 30, 2042.

Assumed Annual Return FY 2022-23 through 2041-42	Projected Employer Contributions				
	2025-26	2026-27	2027-28	2028-29	2029-30
3.0% (5th percentile)					
Normal Cost Rate	0.0%	0.0%	0.0%	0.0%	0.0%
UAL Contribution	$132,000	$147,000	$164,000	$184,000	$207,000
10.8% (95th percentile)					
Normal Cost Rate	0.0%	0.0%	0.0%	0.0%	0.0%
UAL Contribution	$107,000	$93,000	$76,000	$54,000	$25,000

Required contributions outside of this range are also possible. In particular, whereas it is unlikely that investment returns will average less than 3.0% or greater than 10.8% over a 20-year period, the likelihood of a single investment return less than 3.0% or greater than 10.8% in any given year is much greater. The following analysis illustrates the effect of an extreme, single year investment return.

The portfolio has an expected volatility (or standard deviation) of 12.0% per year. Accordingly, in any given year there is a 16% probability that the annual return will be -5.2% or less and a 2.5% probability that the annual return will be -17.2% or less. These returns represent one and two standard deviations below the expected return of 6.8%.

The following table shows the effect of a one or two standard deviation investment loss in FY 2022-23 on the FY 2025-26 contribution requirements. Note that a single-year investment gain or loss decreases or increases the required UAL contribution amount incrementally for each of the next five years, not just one, due to the 5-year ramp in the amortization policy. However, the contribution requirements beyond the first year are also impacted by investment returns beyond the first year. Historically, significant downturns in the market are often followed by higher than average returns. Such investment gains would offset the impact of these single year negative returns in years beyond FY 2025-26.

Assumed Annual Return for Fiscal Year 2022-23	Required Employer Contributions	Projected Employer Contributions
	2024-25	2025-26
(17.2)% (2 standard deviation loss)		
Normal Cost Rate	0.00%	0.0%
UAL Contribution	$118,451	$204,000
(5.2)% (1 standard deviation loss)		
Normal Cost Rate	0.00%	0.0%
UAL Contribution	$118,451	$161,000

- Without investment gains (returns higher than 6.8%) in FY 2023-24 or later, projected contributions rates would continue to rise over the next four years due to the continued phase-in of the impact of the illustrated investment loss in FY 2022-23.
- The Pension Outlook Tool can be used to model projected contributions for these scenarios beyond FY 2025-26 as well as to model other investment return scenarios.

Discount Rate Sensitivity

The discount rate assumption is calculated as the sum of the assumed real rate of return and the assumed annual price inflation, currently 4.5% and 2.3%, respectively. Changing either the price inflation assumption or the real rate of return assumption will change the discount rate. The sensitivity of the valuation results to the discount rate assumption depends on which component of the discount rate is changed. Shown below are various valuation results as of June 30, 2022 assuming alternate discount rates by changing the two components independently. Results are shown using the current discount rate of 6.8% as well as alternate discount rates of 5.8% and 7.8%. The rates of 5.8% and 7.8% were selected since they illustrate the impact of a 1.0% increase or decrease to the 6.8% assumption.

Sensitivity to the Real Rate of Return Assumption

As of June 30, 2022	1% Lower Real Return Rate	Current Assumptions	1% Higher Real Return Rate
Discount Rate	**5.8%**	**6.8%**	**7.8%**
Price Inflation	2.3%	2.3%	2.3%
Real Rate of Return	**3.5%**	**4.5%**	**5.5%**
a) Total Normal Cost	0.00%	0.00%	0.00%
b) Accrued Liability	$3,312,204	$3,026,501	$2,781,767
c) Market Value of Assets	$2,119,447	$2,119,447	$2,119,447
d) Unfunded Liability/(Surplus) [(b) - (c)]	$1,192,757	$907,054	$662,320
e) Funded Ratio	64.0%	70.0%	76.2%

Sensitivity to the Price Inflation Assumption

As of June 30, 2022	1% Lower Price Inflation	Current Assumptions	1% Higher Price Inflation
Discount Rate	**5.8%**	**6.8%**	**7.8%**
Price Inflation	**1.3%**	**2.3%**	**3.3%**
Real Rate of Return	4.5%	4.5%	4.5%
a) Total Normal Cost	0.00%	0.00%	0.00%
b) Accrued Liability	$3,104,809	$3,026,501	$2,816,465
c) Market Value of Assets	$2,119,447	$2,119,447	$2,119,447
d) Unfunded Liability/(Surplus) [(b) - (c)]	$985,362	$907,054	$697,018
e) Funded Ratio	68.3%	70.0%	75.3%

Mortality Rate Sensitivity

The following table looks at the change in the June 30, 2022 plan costs and funded status under two different longevity scenarios, namely assuming post-retirement rates of mortality are 10% lower or 10% higher than our current mortality assumptions adopted in 2021. This type of analysis highlights the impact on the plan of a change in the mortality assumption.

As of June 30, 2022	10% Lower Mortality Rates	Current Assumptions	10% Higher Mortality Rates
a) Total Normal Cost	0.00%	0.00%	0.00%
b) Accrued Liability	$3,106,039	$3,026,501	$2,953,960
c) Market Value of Assets	$2,119,447	$2,119,447	$2,119,447
d) Unfunded Liability/(Surplus) [(b) - (c)]	$986,592	$907,054	$834,513
e) Funded Ratio	68.2%	70.0%	71.7%

Maturity Measures

As pension plans mature they become more sensitive to risks. Understanding plan maturity and how it affects the ability of a pension plan sponsor to tolerate risk is important in understanding how the pension plan is impacted by investment return volatility, other economic variables, and changes in longevity or other demographic assumptions.

Since it is the employer that bears the risk, it is appropriate to perform this analysis on a pension plan level considering all rate plans. The following measures are for one rate plan only. One way to look at the maturity level of CalPERS and its plans is to look at the ratio of a plan's retiree liability to its total liability. A pension plan in its infancy will have a very low ratio of retiree liability to total liability. As the plan matures, the ratio starts increasing. A mature plan will often have a ratio above 60%-65%.

Ratio of Retiree Accrued Liability to Total Accrued Liability	**June 30, 2021**	**June 30, 2022**
1. Retired Accrued Liability	$1,857,478	$2,433,709
2. Total Accrued Liability	2,875,288	3,026,501
3. Ratio of Retiree AL to Total AL [(1) / (2)]	0.65	0.80

Another measure of maturity level of CalPERS and its plans is to look at the ratio of actives to retirees, also called the support ratio. A pension plan in its infancy will have a very high ratio of active to retired members. As the plan matures and members retire, the ratio declines. A mature plan will often have a ratio near or below one.

To calculate the support ratio for the rate plan, retirees and beneficiaries receiving a continuance are each counted as one, even though they may have only worked a portion of their careers as an active member of this rate plan. For this reason, the support ratio, while intuitive, may be less informative than the ratio of retiree liability to total accrued liability above.

For comparison, the support ratio for all CalPERS public agency plans as of June 30, 2021, was 0.78 and was calculated consistently with how it is for the individual rate plan. Note that to calculate the support ratio for all public agency plans, a retiree with service from more than one CalPERS agency is counted as a retiree more than once.

Support Ratio	**June 30, 2021**	**June 30, 2022**
1. Number of Actives	0	0
2. Number of Retirees	17	18
3. Support Ratio [(1) / (2)]	0.00	0.00

Maturity Measures (continued)

The actuarial calculations supplied in this communication are based on various assumptions about long-term demographic and economic behavior. Unless these assumptions (e.g., terminations, deaths, disabilities, retirements, salary growth, 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

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

Liability Volatility Ratio

Also shown in the table below is the liability volatility ratio (LVR), which is the ratio of accrued liability to payroll. Plans that have a higher LVR experience more volatile employer contributions (as a percentage of payroll) due to changes in liability. For example, a plan with LVR of 8 is expected to have twice the contribution volatility of a plan with LVR of 4. It should be noted that this ratio indicates a longer-term potential for contribution volatility, since the AVR, described above, will tend to move closer to the LVR as the funded ratio approaches 100%.

Contribution Volatility	June 30, 2021	June 30, 2022
1. Market Value of Assets	$2,293,602	$2,119,447
2. Payroll	0	0
3. Asset Volatility Ratio (AVR) [(1) / (2)]	N/A	N/A
4. Accrued Liability	$2,875,288	$3,026,501
5. Liability Volatility Ratio (LVR) [(4) / (2)]	N/A	N/A

Maturity Measures History

Valuation Date	Ratio of Retiree Accrued Liability to Total Accrued Liability	Support Ratio	Asset Volatility Ratio	Liability Volatility Ratio
06/30/2017	0.71	0.00	N/A	N/A
06/30/2018	0.69	0.00	N/A	N/A
06/30/2019	0.68	0.00	N/A	N/A
06/30/2020	0.66	0.00	N/A	N/A
06/30/2021	0.65	0.00	N/A	N/A
06/30/2022	0.80	0.00	N/A	N/A

Funded Status – Termination Basis

The funded status measured on a termination basis is an estimate of the financial position of the plan had the contract with CalPERS been terminated as of June 30, 2022. The accrued liability on a termination basis (termination liability) is calculated differently compared to the plan's ongoing funding liability. For the 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. Unlike the actuarial cost method used for ongoing plans, the termination liability is the present value of the benefits earned through the valuation date.

A more conservative investment policy and asset allocation strategy was adopted by the 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 limiting the funding risk. 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 19-month period from 12 months before the valuation date to seven months after.

	Discount Rate: 1.75% Price Inflation: 2.50%			Discount Rate: 4.50% Price Inflation: 2.75%		
Market Value of Assets (MVA)	**Termination Liability[1,2]**	**Funded Ratio**	**Unfunded Termination Liability**	**Termination Liability[1,2]**	**Funded Ratio**	**Unfunded Termination Liability**
$2,119,447	$5,403,673	39.2%	$3,284,226	$3,983,948	53.2%	$1,864,501

[1] The termination liabilities calculated above include a 5% contingency load. The contingency load and other actuarial assumptions can be found in Appendix A of the Section 2 report.

[2] The discount rate 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 3.38% on June 30, 2022, the valuation date.

In order to terminate the plan, first contact our Pension Contract Services unit to initiate a Resolution of Intent to Terminate. The completed Resolution will allow the plan actuary to provide a preliminary termination valuation with a more up-to-date estimate of the plan liabilities. Before beginning this process, please consult with the plan actuary.

Participant Data

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

	June 30, 2021	June 30, 2022
Active Members		
Counts	0	0
Average Attained Age	0.0	0.0
Average Entry Age to Rate Plan	0.0	0.0
Average Years of Credited Service	0.0	0.0
Average Annual Covered Pay	$0	$0
Annual Covered Payroll	$0	$0
Present Value of Future Payroll	$0	$0
Transferred Members	4	2
Separated Members	3	4
Retired Members and Beneficiaries*		
Counts	17	18
Average Annual Benefits	$10,544	$12,359
Total Annual Benefits	$179,251	$222,454

Counts of members included in the valuation are counts of the records processed by the valuation. Multiple records may exist for those who have service in more than one valuation group. This does not result in double counting of liabilities.

* Values include community property settlements.

List of Class 1 Benefit Provisions

This plan has the additional Class 1 Benefit Provisions:

- None

Plan's Major Benefit Options

Shown below is a summary of the major <u>optional</u> benefits for which the agency has contracted. A description of principal standard and optional plan provisions is in Section 2.

	Benefit Group			
Member Category	Misc	Misc	Misc	
Demographics				
Actives	No	No	No	
Transfers/Separated	Yes	No	No	
Receiving	Yes	Yes	Yes	
Benefit Provision				
Benefit Formula	2% @ 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			
Post-Retirement Death Benefits				
Lump Sum	$2000	$2000	$2000	
Survivor Allowance (PRSA)	No	No	No	
COLA	2%	2%	2%	

Section 2

CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

Risk Pool Actuarial Valuation Information

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