



**California Public Employees' Retirement System**

**Actuarial Office**

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**August 2025**

**Proposed PEPRA Safety Fire Plan for Capay Valley Fire Protection District  
(CalPERS ID: 1365908470)**

**New Agency Actuarial Valuation Report as of August 31, 2025**

**2.7% @ 57 PEPRA Safety with 3-year Final Average Compensation, 0% Prior Service**

Dear Employer,

Enclosed is the actuarial valuation conducted to determine the required contributions if the Capay Valley Fire Protection District elects to participate in the California Public Employees' Retirement System (CalPERS). This valuation is based on a valuation date and a contract start date of August 31, 2025. CalPERS staff actuaries are available to discuss the contents of this report with you.

Since your public agency has 100 or fewer active safety employees in the applicable category (Miscellaneous or Safety), your proposed plan would be required to participate in the Safety Pool Risk Pool. The following valuation report provides specific information for your proposed PEPRA Safety Fire Plan, including the development of your pooled employer contribution rate, a discussion of the potential volatility of future required contributions and other risks associated with the proposed plan, and an appendix with plan provisions and assumptions.

In the event your public agency elects to contract for CalPERS membership, your employees will be entitled to retirement benefits as provided by CalPERS under the Public Employees' Retirement Law. The contract for CalPERS membership will specify that, to the extent, if any, your employees may claim entitlement to additional benefits resulting from prior membership in a different retirement plan, such benefits will be the responsibility of your agency alone, and not of CalPERS.

**Required Contributions**

Fiscal Year	Employer Normal Cost Rate	Employer Amortization of Unfunded Accrued Liability	PEPRA Member Contribution Rate
2024-25	13.76%	\$0	13.75%
2025-26	13.99%	\$0	13.75%
<i>Projected Results</i>			
2026-27	14.0%	\$0	TBD

The rates shown above will be in effect unless there are further benefit or funding changes. If the membership or asset information is significantly different at the actual contract date, or if the actual contract effective date is delayed beyond the proposed effective date of August 31, 2025 by more than 90 days, the employer contribution rates shown above may have to be recalculated. The contribution rates shown above were based on the results of the June 30, 2022 and June 30, 2023 valuations.

The Employer Amortization of Unfunded Accrued Liability will be invoiced monthly, in an amount equal to one-twelfth of the annual amount, beginning the July following the contract date. As such, the FY 2025-26 payment of \$0 assumes a contract date during FY 2024-25. The total dollar amount of Employer Normal Cost contributions for FY 2024-25 will depend on the number of applicable payroll reporting periods during the Fiscal Year.

In accordance with PEPRA, the member contribution rates shown above are set at 50% of the expected normal cost rate for the benefits that will apply to your PEPRA Safety Fire Plan during the fiscal years provided. Note that the member contribution rate may change over time if the total normal cost for PEPRA members fluctuates by more than 1% of payroll in future valuations.

## Risk Analysis

The actuarial calculations supplied in this communication are based on a number of assumptions about long-term demographic and economic behavior. Unless these assumptions (e.g., 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 differences between actual experience and the assumptions are called actuarial gains and losses and serve to lower or raise the employer's rates from year to year. So, contribution rates will fluctuate, especially due to fluctuations in investment return.

The actuarial methods and assumptions used in determining your rate can be found in Section 2, Appendix A. A list of class 1 benefit provisions used in determining your rate is included in Section 1 of the report. A description of these provisions can be found in Section 2, Appendix B.

Please see the Risk Analysis section of this report for a discussion of factors that can lead to volatility in actuarial valuation results, including required contributions, in the future.

If your agency would like to consider other benefit formulas or other combinations of benefit provisions, please contact us.

Sincerely,

May Shuang Yu, ASA, MAAA  
Senior Actuary, CalPERS



Randall Dziubek, ASA, MAAA  
Deputy Chief Actuary, Valuation Services, CalPERS



Scott Terando, ASA, EA, MAAA, FCA, CFA  
Chief Actuary, CalPERS



**New Agency  
Actuarial Valuation  
as of August 31, 2025**

**For the  
Proposed PEPRA Safety Fire Plan of the  
Capay Valley Fire Protection District,  
2.7% @ 57 PEPRA Safety Formula with  
3-year Final Average Compensation and  
0% Prior Service**

# Table of Contents

Section 1 – Plan Specific Information

Section 2 – Risk Pool Actuarial Valuation Information

# Section 1

CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

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**Plan Specific Information  
for the  
Proposed PEPRA Safety Fire Plan of the  
Capay Valley Fire Protection District**

# Table of Contents

<b>Actuarial Certification</b> .....	<b>1</b>
<b>Highlights and Executive Summary</b> .....	<b>2</b>
Introduction .....	3
Purpose of Section 1.....	3
Required Contributions .....	4
Funded Status – Funding Policy Basis .....	5
Projected Employer Contributions.....	6
Subsequent Events.....	6
<b>Liabilities and Contributions</b> .....	<b>7</b>
Development of the Plan’s UAL .....	8
Schedule of Plan’s Amortization Bases .....	9
Amortization Schedule and Alternatives .....	10
PEPRA Member Contribution Rates .....	12
<b>Risk Analysis</b> .....	<b>13</b>
Future Investment Return Scenarios .....	14
Discount Rate Sensitivity .....	15
Mortality Rate Sensitivity.....	15
Maturity Measures .....	16
Funded Status – Termination Basis .....	18
Funded Status – Low-Default-Risk Basis.....	19
<b>Participant Data</b> .....	<b>20</b>
<b>List of Class 1 Benefit Provisions</b> .....	<b>20</b>
<b>Plan’s Major Benefit Options</b> .....	<b>21</b>

## Actuarial Certification

This report was prepared in order to provide the employer with information about the cost of benefits and the contributions required in order to assist in the decision as to whether or not to contract for the benefits. Use of this report for other purposes is inappropriate.

It is our opinion that the valuation has been performed in accordance with generally accepted actuarial principles as well as the applicable Standards of Practice promulgated by the Actuarial Standards Board. While this report, consisting of Section 1 and Section 2, is intended to be complete, our office is available to answer questions as needed. All of the undersigned are actuaries who satisfy the *Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States* of the American Academy of Actuaries with regard to pensions.

### Actuarial Methods and Assumptions

It is our opinion that the assumptions and methods, as recommended by the Chief Actuary and adopted by the CalPERS Board of Administration, are internally consistent and reasonable for this plan.



Randall Dziubek, ASA, MAAA  
Deputy Chief Actuary, Valuation Services, CalPERS



Scott Terando, ASA, EA, MAAA, FCA, CFA  
Chief Actuary, CalPERS

### Actuarial Data and Rate Plan Results

To the best of my knowledge and having relied upon the attestation above that the actuarial methods and assumptions are reasonable as well as the information in Section 2 of this report, this report is complete and accurate and contains sufficient information to disclose, fully and fairly, the funded condition of the proposed PEPRSA Safety Fire Plan of the Capay Valley Fire Protection District and satisfies the actuarial valuation requirements of Government Code section 7504. This valuation and related validation work was performed by the CalPERS Actuarial Office. The valuation was based on the member and financial data as of June 30, 2023, 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 Capay Valley Fire Protection District, while Section 2 is based on the corresponding information for all agencies participating in the Safety Pool to which the plan would belong.

May Shuang Yu, ASA, MAAA  
Senior Actuary, CalPERS

## Highlights and Executive Summary

- **Introduction** **3**
- **Purpose of Section 1** **3**
- **Required Contributions** **4**
- **Funded Status – Funding Policy Basis** **5**
- **Projected Employer Contributions** **6**
- **Subsequent Events** **6**

## Introduction

This report presents the results of the August 31, 2025 new agency actuarial valuation of the PEPRA Safety Fire Plan of the Capay Valley Fire Protection District of the California Public Employees' Retirement System (CalPERS). This actuarial valuation sets the required employer contributions for fiscal years (FY) 2024-25 and 2025-26 if the Capay Valley Fire Protection District elects to contract with CalPERS for the proposed pension benefits with a contract start date of August 31, 2025.

## Purpose of Section 1

This Section 1 report for the proposed PEPRA Safety Fire Plan of the Capay Valley Fire Protection District of CalPERS was prepared by the Actuarial Office. The purpose of the valuation is to:

- Set forth the assets and accrued liabilities of this plan as of August 31, 2025;
- Determine the minimum required employer contributions for this plan for FY July 1, 2024 through June 30, 2025 and July 1, 2025 through June 30, 2026;
- Determine the required member contribution rate for FY July 1, 2024 through June 30, 2025 and July 1, 2025 through June 30, 2026 for employees subject to the California Public Employees' Pension Reform Act of 2013 (PEPRA); and
- Provide actuarial information as of August 31, 2025 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 required.

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.

### Assessment and Disclosure of Risk

This report includes the following risk disclosures consistent with the recommendations of Actuarial Standards 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

	Fiscal Year
<b>Required Employer Contributions</b>	<b>2025-26</b>
Employer Normal Cost Rate	13.99%
Plus	
Unfunded Accrued Liability (UAL) Contribution Amount <sup>1</sup>	
1) Monthly Payment	\$0
Or	
2) Annual Prepayment Option*	\$0
<b>Required PEPRA Member Contribution Rates</b>	<b>13.75%</b>
<p><i>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).</i></p> <p><i>* Only the UAL portion of the employer contribution can be prepaid (which must be received in full no later than July 31).</i></p>	

	Fiscal Year 2024-25	Fiscal Year 2025-26
<b>Development of Normal Cost as a Percentage of Payroll<sup>1</sup></b>		
Base Total Normal Cost for Formula	27.51%	27.74%
Surcharge for Class 1 Benefits <sup>2</sup>		
None	0.00%	0.00%
Plan's Total Normal Cost	27.51%	27.74%
Offset Due to Employee Contributions	13.75%	13.75%
Employer Normal Cost Rate	13.76%	13.99%
Projected Payroll for the Contribution Fiscal Year <sup>3</sup>	\$105,636	\$108,594
<b>Estimated Employer Contributions Based on Projected Payroll</b>		
Plan's Estimated Employer Normal Cost <sup>4</sup>	TBD	\$15,192
Plan's Payment on Amortization Bases	0	0
Estimated Total Employer Contribution	TBD	\$15,192

<sup>1</sup> The Monthly UAL Payment will be charged beginning the July following the contract date. As such, the FY 2025-26 monthly UAL payment of \$0 assumes a contract date during FY 2024-25. This payment is only to pay for prior service, if any.

<sup>2</sup> Appendix C of Section 2 contains the list of class 1 benefits with their corresponding surcharges.

<sup>3</sup> Payroll from the prior year is assumed to increase by the 2.8% payroll growth assumption.

<sup>4</sup> The Plan's Estimated Employer Normal Cost for FY 2024-25 will depend on the number of applicable payroll reporting periods during the Fiscal Year. The FY 2025-26 amount assumes payments made for the entire Fiscal Year.

## 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.

	<b>August 31, 2025</b>
1. Present Value of Projected Benefits (PVB)	\$419,484
2. Entry Age Normal Accrued Liability (AL)	0
3. Plan's Market Value of Assets (MVA)	0
4. Unfunded Accrued Liability (UAL) [(2) - (3)]	0
5. Funded Ratio [(3) / (2)]	N/A

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:

	<b>1% Lower Average Return</b>	<b>Current Assumption</b>	<b>1% Higher Average Return</b>
Discount Rate	5.8%	6.8%	7.8%
1. Entry Age Accrued Liability	\$0	\$0	\$0
2. Market Value of Assets (MVA)	0	0	0
3. Unfunded Accrued Liability (UAL) [(1) – (2)]	\$0	\$0	\$0
4. Funded Ratio [(2) / (1)]	N/A	N/A	N/A

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 2023-24 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.

	<b>Required Contribution</b>	<b>Projected Future Employer Contributions (Assumes 6.80% Return for Fiscal Year 2023-24)</b>				
<b>Fiscal Year</b>	<b>2025-26</b>	<b>2026-27</b>	<b>2027-28</b>	<b>2028-29</b>	<b>2029-30</b>	<b>2030-31</b>
<b>Normal Cost %</b>	13.99%	14.0%	14.0%	14.0%	14.0%	14.0%
<b>UAL Payment</b>	\$0	\$0	\$0	\$0	\$0	\$0

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 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.

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

## Subsequent Events

The contribution requirements determined in this actuarial valuation report are based on demographic and financial information as of August 31, 2025. Changes in the value of assets subsequent to that date are not reflected. Investment returns below the assumed rate of return will increase the required contribution, while investment returns above the assumed rate of return will decrease the required contribution.

This actuarial valuation report reflects fund investment return through June 30, 2023 as well as statutory changes, regulatory changes and board actions through January 2024.

The 2023 annual benefit limit under the Internal Revenue Code (IRS) section 415(b) and annual compensation limits under IRS section 401(a)(17) and Government Code section 7522.10 were used for this valuation and are assumed to increase 2.3% per year based on the price inflation assumption. The actual 2024 limits, determined in October 2023, are not reflected.

On April 16, 2024, the board took action to modify the Funding Risk Mitigation Policy to remove the automatic change to the discount rate when the investment return exceeds various thresholds. Rather than an automatic change to the discount rate, a board discussion would be placed on the calendar. The 95<sup>th</sup> percentile return in the Future Investment Return Scenarios exhibit in this report has not been modified and still reflects the projected contribution requirements associated with a deduction in the discount rate.

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.

## **Liabilities and Contributions**

- **Development of the Plan's UAL** **8**
- **Schedule of Plan's Amortization Bases** **9**
- **Amortization Schedule and Alternatives** **10**
- **PEPRA Member Contribution Rates** **12**

## Development of the Plan's UAL

	<b>August 31, 2025</b>
1. Plan's Accrued Liability	\$0
2. Plan's Market Value Assets	\$0
3. Plan's Unfunded Accrued Liability (UAL) [(1) - (2)]	\$0

## Schedule of Plan’s Amortization Bases

The schedule of the plan’s amortization bases is below. Amortization bases represent sources of Unfunded Accrued Liability (UAL).

- The assets, liabilities, and funded status of the plan are measured as of the date the agency joins CalPERS: August 31, 2025.
- The required employer contributions determined by the valuation are for Fiscal Year 2025-26.

<b>Reason for Base</b>	<b>Date Established</b>	<b>Ramp Up/Down 2025-26</b>	<b>Escalation Rate</b>	<b>Amortization Period</b>	<b>Balance 08/31/25</b>	<b>Payment 2024-25</b>	<b>Balance 6/30/25</b>	<b>Scheduled Payment 2025-26</b>
PRIOR SERVICE	08/31/25	No Ramp	0.000%	N/A	\$0	\$0	\$0	\$0
<b>TOTAL</b>					<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

If the total UAL 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 the CalPERS amortization policy. Many agencies have expressed 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.

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 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 [Actuarial Amortization Policy](#).

## Amortization Schedule and Alternatives (continued)

Date	<u>Current Amortization Schedule</u>		<u>Alternate Schedules</u>			
	Balance	Payment	N/A Year Amortization		N/A Year Amortization	
	Balance	Payment	Balance	Payment	Balance	Payment
6/30/2025	N/A	N/A	N/A	N/A	N/A	N/A
6/30/2026						
6/30/2027						
6/30/2028						
6/30/2029						
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6/30/2044						
<b>Totals</b>		<b>N/A</b>		<b>N/A</b>		<b>N/A</b>
<b>Interest Paid</b>		<b>N/A</b>		<b>N/A</b>		<b>N/A</b>
<b>Estimated Savings</b>				<b>N/A</b>		<b>N/A</b>

## PEPRA Member Contribution Rates

The California Public Employees' Pension Reform Act of 2013 (PEPRA) established new benefit formulas, final compensation period, and contribution requirements for "new" employees (generally those first hired into a CalPERS-covered position on or after January 1, 2013). In accordance with Government Code Section 7522.30(b), "new members ... shall have an initial contribution rate of at least 50% of the normal cost rate." The normal cost rate is dependent on the plan of retirement benefits, actuarial assumptions and demographics of the risk pool, particularly members' entry age. Should the total normal cost rate change by more than 1% from the base total normal cost rate, the new member rate shall be 50% of the new normal cost rate rounded to the nearest quarter percent.

The table below shows the determination of the PEPRA member contribution rates effective July 1, 2024, based on 50% of the total normal cost rate as of the June 30, 2022 valuation.

Rate Plan Identifier	Benefit Group Name	Basis for Current Rate		Rates Effective July 1, 2024			
		Total Normal Cost	Member Rate	Total Normal Cost	Change	Change Needed	Member Rate
TBD	Safety Fire PEPRA Level	27.29%	13.75%	27.51%	0.22%	No	13.75%

The table below shows the determination of the PEPRA member contribution rates effective July 1, 2025, based on 50% of the total normal cost rate as of the June 30, 2023 valuation.

Rate Plan Identifier	Benefit Group Name	Basis for Current Rate		Rates Effective July 1, 2025			
		Total Normal Cost	Member Rate	Total Normal Cost	Change	Change Needed	Member Rate
TBD	Safety Fire PEPRA Level	27.29%	13.75%	27.74%	0.45%	No	13.75%

## **Risk Analysis**

- **Future Investment Return Scenarios** 14
- **Discount Rate Sensitivity** 15
- **Mortality Rate Sensitivity** 15
- **Maturity Measures** 16
- **Funded Status – Termination Basis** 18
- **Funded Status – Low-Default Risk Basis** 19

## 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, 2043.

Assumed Annual Return FY 2023-24 through 2042-43	Projected Employer Contributions				
	2026-27	2027-28	2028-29	2029-30	2030-31
<b>3.0% (5<sup>th</sup> percentile)</b>					
Normal Cost Rate	14.0%	14.0%	14.0%	14.0%	14.0%
UAL Contribution	\$0	\$0	\$17	\$80	\$220
<b>10.8% (95<sup>th</sup> percentile)</b>					
Normal Cost Rate	14.4%	14.2%	14.6%	14.9%	14.8%
UAL Contribution	\$0	\$0	\$0	\$0	\$0

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 2023-24 on the FY 2026-27 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 2026-27.

Assumed Annual Return for Fiscal Year 2023-24	Required Employer Contributions	Projected Employer Contributions
	2025-26	2026-27
<b>(17.2)% (2 standard deviation loss)</b>		
Normal Cost Rate	13.99%	14.0%
UAL Contribution	\$0	\$0
<b>(5.2)% (1 standard deviation loss)</b>		
Normal Cost Rate	13.99%	14.0%
UAL Contribution	\$0	\$0

- Without investment gains (returns higher than 6.8%) in year FY 2024-25 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 2023-24.

## 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 August 31, 2025 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 August 31, 2025	1% Lower Real Return Rate	Current Assumptions	1% Higher Real Return Rate
<b>Discount Rate</b>	<b>5.8%</b>	<b>6.8%</b>	<b>7.8%</b>
Price Inflation	2.3%	2.3%	2.3%
<b>Real Rate of Return</b>	<b>3.5%</b>	<b>4.5%</b>	<b>5.5%</b>
a) Total Normal Cost	34.92%	27.74%	22.31%
b) Accrued Liability	\$0	\$0	\$0
c) Market Value of Assets	\$0	\$0	\$0
d) Unfunded Liability/(Surplus) [(b) - (c)]	\$0	\$0	\$0
e) Funded Ratio	N/A	N/A	N/A

### Sensitivity to the Price Inflation Assumption

As of August 31, 2025	1% Lower Price Inflation	Current Assumptions	1% Higher Price Inflation
<b>Discount Rate</b>	<b>5.8%</b>	<b>6.8%</b>	<b>7.8%</b>
<b>Price Inflation</b>	<b>1.3%</b>	<b>2.3%</b>	<b>3.3%</b>
Real Rate of Return	4.5%	4.5%	4.5%
a) Total Normal Cost	29.30%	27.74%	25.06%
b) Accrued Liability	\$0	\$0	\$0
c) Market Value of Assets	\$0	\$0	\$0
d) Unfunded Liability/(Surplus) [(b) - (c)]	\$0	\$0	\$0
e) Funded Ratio	N/A	N/A	N/A

## Mortality Rate Sensitivity

The following table looks at the change in the plan costs and funded ratio as of August 31, 2025 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 August 31, 2025	10% Lower Mortality Rates	Current Assumptions	10% Higher Mortality Rates
a) Total Normal Cost	28.10%	27.74%	27.40%
b) Accrued Liability	\$0	\$0	\$0
c) Market Value of Assets	\$0	\$0	\$0
d) Unfunded Liability/(Surplus) [(b) - (c)]	\$0	\$0	\$0
e) Funded Ratio	N/A	N/A	N/A

## 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 all 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%.

<b>Ratio of Retiree Accrued Liability to Total Accrued Liability</b>	<b>August 31, 2025</b>
1. Retired Accrued Liability	0
2. Total Accrued Liability	0
3. Ratio of Retiree AL to Total AL [(1) ÷ (2)]	N/A

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, 2022, was 0.77 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.

<b>Support Ratio</b>	<b>August 31, 2025</b>
1. Number of Actives	2
2. Number of Retirees	0
3. Support Ratio [(1) ÷ (2)]	N/A

## 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%.

<b>Contribution Volatility</b>	<b>August 31, 2025</b>
1. Market Value of Assets	\$0
2. Payroll	\$105,636
3. Asset Volatility Ratio (AVR) [(1) / (2)]	0.0
4. Accrued Liability	\$0
5. Liability Volatility Ratio (LVR) [(4) / (2)]	0.0

## 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 August 31, 2025. The accrued liability on a termination basis (termination liability) is calculated differently from 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 remainder of the PERF and consequently, a lower discount rate assumption. The lower discount rate for the Terminated Agency Pool results in higher liabilities for terminated plans.

The discount rate used for actual termination valuations is a weighted average of the 10-year and 30-year Treasury yields where the weights are based on matching asset and liability durations as of the termination date. The discount rates used in the following analysis is based on 20-year Treasury bonds, which is a good proxy for most plans. The discount rate upon contract termination will depend on actual Treasury rates on the date of termination, which varies over time, as shown below.

<u>Valuation Date</u>	<u>20-Year Treasury Rate</u>	<u>Valuation Date</u>	<u>20-Year Treasury Rate</u>
06/30/2014	3.08%	06/30/2019	2.31%
06/30/2015	2.83%	06/30/2020	1.18%
06/30/2016	1.86%	06/30/2021	2.00%
06/30/2017	2.61%	06/30/2022	3.38%
06/30/2018	2.91%	06/30/2023	4.06%

As Treasury rates are variable, the table below shows a range for the termination liability using discount rates 1% below and above the 20-year Treasury rate on the valuation date. The price inflation assumption is the 20-year Treasury breakeven inflation rate, that is, the difference between the 20-year inflation indexed bond and the 20-year fixed-rate bond.

The Market Value of Assets (MVA) also varies with interest rates and will fluctuate depending on other market conditions on the date of termination. Since it is not possible to approximate how the MVA will change in different interest rate environments, the results below use the MVA as of the valuation date.

	<b>Discount Rate: 3.06%</b> <b>Price Inflation: 2.50%</b>	<b>Discount Rate: 5.06%</b> <b>Price Inflation: 2.50%</b>
1. Termination Liability <sup>1</sup>	\$0	\$0
2. Market Value of Assets (MVA)	0	0
3. Unfunded Termination Liability [(1) – (2)]	\$0	\$0
4. Funded Ratio [(2) ÷ (1)]	N/A	N/A

<sup>1</sup> 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.

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 a CalPERS actuary to provide a preliminary termination valuation with a more up-to-date estimate of the plan's assets and liabilities. Before beginning this process, please consult with a CalPERS actuary.

## Funded Status – Low-Default-Risk Basis

Actuarial Standard of Practice (ASOP) No. 4, *Measuring Pension Obligations and Determining Pension Plan Costs or Contributions*, requires the disclosure of a low-default-risk obligation measure (LDRM) of benefit costs accrued as of the valuation date using a discount rate based on the yields of high quality fixed income securities with cash flows that replicate expected benefit payments. Conceptually, this measure represents the level at which financial markets would value the accrued plan costs, and would be approximately equal to the cost of a portfolio of low-default-risk bonds with similar financial characteristics to accrued plan costs.

As permitted in ASOP No. 4, the Actuarial Office uses the Entry Age Actuarial Cost Method to calculate the LDRM. This methodology is in line with the measure of “benefit entitlements” calculated by the Bureau of Economic Analysis and used by the Federal Reserve to report the indebtedness due to pensions of plan sponsors and, conversely, the household wealth due to pensions of plan members.

As shown below, the discount rate used for the LDRM is 4.82%, which is the Standard FTSE Pension Liability Index<sup>1</sup> discount rate as of June 30, 2023, net of assumed administrative expenses.

Selected Measures on a Low-Default-Risk Basis	August 31, 2025
Discount Rate	4.82%
1. Accrued Liability <sup>2</sup> – Low-Default-Risk Basis (LDRM)	
a) Active Members	\$0
b) Transferred Members	0
c) Separated Members	0
d) Members and Beneficiaries Receiving Payments	0
e) Total	\$0
2. Market Value of Assets (MVA)	0
3. Unfunded Accrued Liability – Low-Default-Risk Basis [(1e) – (2)]	\$0
4. Unfunded Accrued Liability – Funding Policy Basis	0
5. Present Value of Unearned Investment Risk Premium [(3) – (4)]	\$0

The difference between the unfunded liabilities on a low-default-risk basis and on the funding policy basis represents the present value of the investment risk premium that must be earned in future years to keep future contributions for currently accrued plan costs at the levels anticipated by the funding policy.

Benefit security for members of the plan relies on a combination of the assets in the plan, the investment income generated from those assets, and the ability of the plan sponsor to make necessary future contributions. If future returns fall short of 6.8%, benefit security could be at risk without higher than currently anticipated future contributions.

The funded status on a low-default-risk basis is not appropriate for assessing the sufficiency of plan assets to cover the cost of settling the plan’s benefit obligations (see [Funded Status – Termination Basis](#)), nor is it appropriate for assessing the need for future contributions (see [Funded Status – Funding Policy Basis](#)).

<sup>1</sup> This index is based on a yield curve of hypothetical AA-rated zero coupon corporate bonds whose maturities range from 6 months to 30 years. The index represents the single discount rate that would produce the same present value as discounting a standardized set of liability cash flows for a fully open pension plan using the yield curve. The liability cash flows are reasonably consistent with the pattern of benefits expected to be paid from the entire Public Employees’ Retirement Fund for current and former plan members. A different index, hence a different discount rate, may be needed to measure the LDRM for a subset of the fund, such as a single rate plan or a group of retirees.

<sup>2</sup> If plan assets were invested entirely in the AA fixed income securities used to determine the discount rate of 4.82%, the CalPERS discount rate could, at various times, be below 4.5% or 5.25%, and some automatic annual retiree COLAs could be suspended (Gov. Code sections 21329 and 21335). Since there is currently no proposal to adopt an asset allocation entirely comprised of fixed income securities, the automatic COLAs have been fully valued in the measures above based on the assumptions used for plan funding. Removing future COLAs from the measurement would understate the statutory obligation.

## Participant Data

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

	<b>August 31, 2025</b>
Reported Payroll	\$105,636
Projected Payroll for Contribution Purposes	\$108,594
Number of Members	
Active	2
Transferred	0
Separated	0
Retired	0

## 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 your agency's proposed major optional benefits. A description of principal standard and optional plan provisions can be found in Appendix B of Section 2.

Benefit Provision	Benefit Group	
	Fire	
Benefit Formula	2.7% @ 57	
Social Security Coverage	No	
Full/Modified	Full	
Employee Contribution Rate	13.75%	
Final Average Compensation Period	Three Year	
Sick Leave Credit	Yes	
Non-Industrial Disability	Standard	
Industrial Disability	Standard	
Pre-Retirement Death Benefits		
Optional Settlement 2W	Yes	
1959 Survivor Benefit Level	Level 4	
Special	Yes	
Alternate (firefighters)	No	
Post-Retirement Death Benefits		
Lump Sum	\$2000	
Survivor Allowance (PRSA)	No	
COLA	2%	

\* 1959 Survivor Benefit is provided by a separate program and will be billed separately.

# Section 2

CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

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**Section 2 may be found on the CalPERS website  
([www.calpers.ca.gov](http://www.calpers.ca.gov)) in the Forms and  
Publications section**