



## **Item No. 7 Town of Atherton**

### **FINANCE COMMITTEE STAFF REPORT**

**TO: FINANCE COMMITTEE**

**FROM: ROBERT BARRON III, FINANCE DIRECTOR**

**DATE: MARCH 21, 2017**

**SUBJECT: BRIEF REVIEW AND DISCUSSION OF CALPERS ACTUARIAL REPORTS AS OF JUNE 30, 2015, WITH REVIEW OF DISCOUNT RATE ASSUMPTIONS USING GOVINVEST FINANCIAL CALCULATION TOOL TO PROVIDE FUTURE ANALYSIS FOR CITY COUNCIL REVIEW**

### **RECOMMENDATION**

Brief review and discussion of CalPERS actuarial reports as of June 30, 2015.

### **BACKGROUND**

At the January 10, 2017 Finance Committee meeting staff presented for review the June 30, 2015 CalPERS actuarial reports and letter from League of California Cities addressing CalPERS potential reduction of the discount rate from 7.5% to 7% for the next three years. The letter from the League of Cities discussed that the CalPERS Board of Administration approved lowering the discount rate assumptions, the long term rate of return. As discussed in prior Finance Committee meetings, focus on the Town's CalPER's pension liability revolved on the discount rate and what would happened to the Town liabilities if the discount rate changed. As the committee recalls, we had a presentation by GovInvest in September 2016 of the pension calculation tool that would allow the Town to do a scenario analysis on a number of assumptions. Town staff has been working with GovInvest on updating the town data on a recently updated version of the calculation tool. Staff believes we now have the capability to develop an analysis for City Council consideration with respect to changes in the discount rate and have a forecasting ability on how to reduce the Town's CalPERS unfunded liability.

**FINDINGS**

Beginning in FY 2015/16 CalPERS began collecting the employer contributions toward amortization of unfunded liabilities as dollar amounts instead of through the contribution rate while each agency plan’s normal cost contribution continued to be collected as a percentage of payroll. Below is the FY 2017/18 unfunded liability payments due.

<b>CalPERS Employer Payment of Unfunded Liability</b>	<b>Unfunded Liability Payment FY 2015/16</b>	<b>Unfunded Liability Payment FY 2016/17</b>	<b>Unfunded Liability Payment FY 2017/18</b>
<b>Miscellaneous Employees</b>	\$116,323	\$146,085	\$183,236
<b>Public Safety Employees</b>	\$325,906	\$402,865	\$496,462
<b>Total Contribution</b>	<b>\$442,229</b>	<b>\$548,950</b>	<b>\$679,698</b>

Each agency has an employer normal cost rate that it will pay as a percentage of payroll. The current normal cost for FY 2015/16, FY 2016/17, and FY 2017/18 are listed below.

<b>CalPERS Contribution Rates</b>	<b>Employer Required Contribution FY 2015/16</b>	<b>Employer Required Contribution FY 2016/17</b>	<b>Employer Required Contribution FY 2017/18</b>
Miscellaneous Employees	8.844%	9.055%	9.096%
Public Safety Employees	20.230%	21.230%	21.418%

Within the actuarial reports are projected employer contribution rates through FY 2022/23 so agencies can see changes in the contribution rates over the years. These rates could change as each valuation period CalPERS reassess investment returns in rate calculations. Estimated projections of employer contribution rates will be based on the most recent information CalPERS has available. Staff worked to update the GovInvest pension calculation tool to assist us in pension liability projections.

As was communicated earlier, the CalPERS Board of Administration approved lowering the discount rate assumptions over the next three years. It is likely that this will increase public agency employer contribution costs beginning in FY 2018-19. Below is the anticipated phase in for discount rate reductions:

<b>Valuation Date</b>	<b>FY for Required Contribution</b>	<b>Discount Rate</b>
June 30, 2016	2018-19	7.375%
June 30, 2017	2019-20	7.25%
June 30, 2018	2020-21	7.00%

The CalPERS actuarial reports and the GovInvest calculation tool provide tools that can help us create a plan to set aside funds to pay down unfunded liabilities and mitigate increase in discount rate costs. *At today's meeting, staff will use the calculation portal to highlight the assumption changes to the discount rate above and conduct what if scenarios to the effects on the Town's pension liability.* There is anticipation that lowering the discount rate means agency plans will see increases in the normal cost or the cost of pension benefits accruing in one year for active members and the accrued liabilities. A result of will be higher required employer contributions. Below is a projection of the impact of the first reduction to the discount rate.

Valuation Date	Fiscal Year Impact	Normal Cost		UAL Payments	
		Misc. Plans	Safety Plans	Misc. Plans	Safety Plans
06/30/16	2018-19	0.25% - 0.75%	0.5%-1.25%	2% - 3%	2% - 3%

Some benefits of reducing the discount rate include:

- Strengthening long-term sustainability of the fund
- Reduction of negative cash flows; additional contributions will help offset the cost to pay pensions
- Reducing the long-term probability of funded ratios falling below undesirable levels
- Improves the prospect of CalPERS investments earning the assumed rate of return.
- Reduces the risk of contribution increases in the future from volatile investment markets.

**FISCAL IMPACT**

None

**PUBLIC NOTICE**

Public notification was achieved by posting the agenda, with this agenda item being listed, at least 72 hours prior to the meeting in print and electronically. Information about the project is also disseminated via the Town's electronic News Flash and Atherton Online. There are approximately 1,200 subscribers to the Town's electronic News Flash publications. Subscribers include residents as well as stakeholders – to include, but be not limited to, media outlets, school districts, Menlo Park Fire District, service providers (water, power, and sewer), and regional elected officials.

**ATTACHMENTS**

CalPERS Miscellaneous Employees Valuation Report as of June 30, 2015

CalPERS Public Safety Employees Valuation Report as of June 30, 2015



California Public Employees' Retirement System  
 Actuarial Office  
 P.O. Box 942709  
 Sacramento, CA 94229-2709  
 TTY: (916) 795-3240  
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**August 2016**

**MISCELLANEOUS PLAN OF THE TOWN OF ATHERTON  
 (CalPERS ID: 1382390535)  
 Annual Valuation Report as of June 30, 2015**

Dear Employer,

As an attachment to this letter, you will find a copy of the June 30, 2015 actuarial valuation report of the pension plan.

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

- Section 1 contains specific information for the plan including the development of the current and projected employer contributions, and
- Section 2 contains the Risk Pool Actuarial Valuation appropriate to the plan as of June 30, 2015.

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

Your June 30, 2015 actuarial valuation report contains important actuarial information about your pension plan at CalPERS. Your assigned CalPERS staff actuary, whose signature appears in the Actuarial Certification section on page 1, is available to discuss the report with you after August 31, 2016.

**Future Employer Contribution**

Fiscal Year	Employer Normal Cost Rate	+	Employer Payment of Unfunded Liability
2017-18	9.096%		\$183,236
2018-19 (projected)	9.1%		\$237,748

The exhibit above displays the minimum employer contributions, before any cost sharing, for Fiscal Year 2017-18 along with estimates of the contributions for Fiscal Year 2018-19. The total employer contribution is the sum of a Normal Cost Rate applied to reported payroll plus an Unfunded Liability dollar payment. The estimated contributions for Fiscal Year 2018-19 are based on a projection of the most recent information we have available, including an estimated 0.0 percent investment return for Fiscal Year 2015-16 (based on the year to date return through April 30, 2016).

For a projection of employer contributions beyond Fiscal Year 2018-19, please refer to the "Projected Employer Contributions" in the "Highlights and Executive Summary" section. This 5-year projection of future employer contributions supersedes any previous projections we have provided. The "Risk Analysis" section of the valuation report also contains estimated employer contributions in future years under a variety of investment return scenarios. Member contributions, other than cost sharing, are in addition to the above amounts. The employer contributions in this report do not reflect any cost sharing arrangements you may have with your employees.

The estimates for Fiscal Year 2018-19 also assume that there are no future contract amendments and no liability gains or losses (such as larger than expected pay increases, more retirements than expected, etc.) This is an important assumption because these gains and losses do occur and can have a significant effect on required contributions. Even for the largest plans or pools, such gains and losses can impact the employer's contributions. These gains and losses cannot be predicted in advance so the projected employer contributions are estimates. The actual required employer contribution for Fiscal Year 2018-19 will be provided in next year's valuation report.

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

The CalPERS Board of Administration adopted a Risk Mitigation Policy which is designed to reduce funding risk over time. The policy establishes a mechanism whereby CalPERS investment performance that significantly outperforms the discount rate triggers adjustments to the discount rate, expected investment return and strategic asset allocation targets. A minimum excess investment return of 4% above the existing discount rate is necessary to cause a funding risk mitigation event. The policy has no impact on the current year valuation results but is expected to have an impact in future years. More details on the Risk Mitigation Policy can be found on our website.

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

Further descriptions of general changes are included in the "Highlights and Executive Summary" section and in Appendix A, "Statement of Actuarial Data, Methods and Assumptions" of the Section 2 report. We understand that you might have a number of questions about these results. While we are very interested in discussing these results with your agency, in the interest of allowing us to give every public agency their results, we ask that you wait until after August 31 to contact us with actuarial related questions.

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

Sincerely,



ALAN MILLIGAN  
Chief Actuary



**ACTUARIAL VALUATION**

as of June 30, 2015

**for the  
MISCELLANEOUS PLAN  
of the  
TOWN OF ATHERTON  
(CalPERS ID: 1382390535)**

**REQUIRED CONTRIBUTIONS  
FOR FISCAL YEAR**

**July 1, 2017 - June 30, 2018**

# **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 MISCELLANEOUS PLAN of the TOWN OF ATHERTON**

**(CalPERS ID: 1382390535)  
(Rate Plan: 64)**

# TABLE OF CONTENTS

<b>ACTUARIAL CERTIFICATION</b>	<b>1</b>
<b>HIGHLIGHTS AND EXECUTIVE SUMMARY</b>	
• INTRODUCTION	3
• PURPOSE OF SECTION 1	3
• REQUIRED EMPLOYER CONTRIBUTION	4
• PLAN'S FUNDED STATUS	5
• PROJECTED EMPLOYER CONTRIBUTIONS	5
• CHANGES SINCE THE PRIOR YEAR VALUATION	5
• SUBSEQUENT EVENTS	5
<b>ASSETS AND LIABILITIES</b>	
• ALLOCATION OF PLAN'S SHARE OF POOL'S EXPERIENCE/ASSUMPTION CHANGE	7
• DEVELOPMENT OF PLAN'S SHARE OF POOL'S MVA	7
• SCHEDULE OF PLAN'S SIDE FUND & OTHER AMORTIZATION BASES	8
• 30-YEAR AMORTIZATION SCHEDULE AND ALTERNATIVES	9
• EMPLOYER CONTRIBUTION HISTORY	11
• FUNDING HISTORY	11
<b>RISK ANALYSIS</b>	
• ANALYSIS OF FUTURE INVESTMENT RETURN SCENARIOS	13
• ANALYSIS OF DISCOUNT RATE SENSITIVITY	14
• VOLATILITY RATIOS	15
• HYPOTHETICAL TERMINATION LIABILITY	16
<b>PARTICIPANT DATA</b>	<b>17</b>
<b>LIST OF CLASS 1 BENEFIT PROVISIONS</b>	<b>17</b>
<b>PLAN'S MAJOR BENEFIT OPTIONS</b>	<b>18</b>

## ACTUARIAL CERTIFICATION

Section 1 of this report is based on the member and financial data contained in our records as of June 30, 2015 which was provided by your agency and the benefit provisions under your contract with CalPERS. Section 2 of this report is based on the member and financial data as of June 30, 2015 provided by employers participating in the Miscellaneous Risk Pool to which the plan belongs and benefit provisions under the CalPERS contracts for those agencies.

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

Having relied upon the information set forth in Section 2 of this report and based on the census and benefit provision information for the plan, it is my opinion as the plan actuary that the side fund and other Unfunded Accrued Liability bases as of June 30, 2015 and employer contribution as of July 1, 2017, have been properly and accurately determined in accordance with the principles and standards stated above.

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



JULIAN ROBINSON, FSA, EA, MAAA  
Senior Pension Actuary, CalPERS  
Plan Actuary

# HIGHLIGHTS AND EXECUTIVE SUMMARY

- **INTRODUCTION**
- **PURPOSE OF SECTION 1**
- **REQUIRED EMPLOYER CONTRIBUTION**
- **PLAN'S FUNDED STATUS**
- **PROJECTED EMPLOYER CONTRIBUTIONS**
- **CHANGES SINCE THE PRIOR YEAR VALUATION**
- **SUBSEQUENT EVENTS**

## Introduction

This report presents the results of the June 30, 2015 actuarial valuation of the MISCELLANEOUS PLAN of the TOWN OF ATHERTON of the California Public Employees' Retirement System (CalPERS). This actuarial valuation sets the required employer contributions for Fiscal Year 2017-18.

The CalPERS Board of Administration adopted a Risk Mitigation Policy which is designed to reduce funding risk over time. The policy establishes a mechanism whereby CalPERS investment performance that significantly outperforms the discount rate triggers adjustments to the discount rate, expected investment return and strategic asset allocation targets. A minimum excess investment return of 4% above the existing discount rate is necessary to cause a funding risk mitigation event. The Risk Mitigation Policy does not have an impact on the current year actuarial valuation. More details on the Risk Mitigation Policy can be found on our website.

## Purpose of Section 1

This Section 1 report for the MISCELLANEOUS PLAN of the TOWN OF ATHERTON of the California Public Employees' Retirement System (CalPERS) was prepared by the plan actuary in order to:

- Set forth the assets and accrued liabilities of this plan as of June 30, 2015;
- Determine the required employer contribution for this plan for the fiscal year July 1, 2017 through June 30, 2018; and
- Provide actuarial information as of June 30, 2015 to the CalPERS Board of Administration and other interested parties.

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

The use of this report for any other purposes may be inappropriate. In particular, this report does not contain information applicable to alternative benefit costs. The employer should contact their actuary before disseminating any portion of this report for any reason that is not explicitly described above.

### California Actuarial Advisory Panel Recommendations

This report includes all the basic disclosure elements as described in the *Model Disclosure Elements for Actuarial Valuation Reports* recommended in 2011 by the California Actuarial Advisory Panel (CAAP), with the exception of including the original base amounts of the various components of the unfunded liability in the Schedule of Amortization Bases shown on page 8.

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

- A "Deterministic Stress Test," projecting future results under different investment income scenarios
- A "Sensitivity Analysis," showing the impact on current valuation results using a 1 percent plus or minus change in the discount rate.

## Required Employer Contribution

	Fiscal Year		Fiscal Year	
Required Employer Contribution	2016-17 <sup>1</sup>		2017-18	
Employer Normal Cost Rate	9.055%		9.096%	
<i>Plus Either</i>				
1) Monthly Employer Dollar UAL Payment	\$	12,173.75	\$	15,269.69
<i>Or</i>				
2) Annual Lump Sum Prepayment Option	\$	140,897	\$	176,729

*The total minimum required employer contribution is the **sum** of the Plan's Employer Normal Cost Rate (expressed as a percentage of payroll) **plus** the Employer Unfunded Accrued Liability (UAL) Contribution Amount (billed monthly in dollars). Only the UAL portion of the employer contribution can be prepaid (which must be received in full no later than July 31). Plan Normal Cost contributions will be made as part of the payroll reporting process. If there is contractual cost sharing or other change, this amount will change. § 20572 of the Public Employees' Retirement Law assesses interest at an annual rate of 10 percent if a contracting agency fails to remit the required contributions when due.*

	Fiscal Year		Fiscal Year	
	2016-17 <sup>1</sup>		2017-18	
<b>Development of Normal Cost as a Percentage of Payroll</b>				
Base Total Normal Cost for Formula		15.263%		15.314%
Surcharge for Class 1 Benefits <sup>3</sup>				
a) PRSA		0.678%		0.678%
Phase out of Normal Cost Difference <sup>4</sup>		0.000%		0.000%
Plan's Total Normal Cost		15.941%		15.992%
Formula's Expected Employee Contribution Rate		6.886%		6.896%
Employer Normal Cost Rate		9.055%		9.096%
Projected Payroll for the Contribution Fiscal Year	\$	1,525,324	\$	1,587,020
<b>Estimated Employer Contributions Based on Projected Payroll</b>				
Plan's Estimated Employer Normal Cost	\$	138,113	\$	144,355
Plan's Payment on Amortization Bases <sup>2</sup>		146,085		183,236
Total Employer Contribution <sup>5</sup>	\$	284,198	\$	327,591

<sup>1</sup> The results shown for Fiscal Year 2016-17 reflect the prior year valuation and do not take into account any lump sum payment, side fund payoff, or rate adjustment made after June 30, 2015.

<sup>2</sup> See page 8 for a breakdown of the Amortization Bases.

<sup>3</sup> Section 2 of this report contains a list of Class 1 benefits and corresponding surcharges for each benefit.

<sup>4</sup> The normal cost difference is phased out over a five year period. The phase out of normal cost difference is 100 percent for the first year of pooling, and is incrementally reduced by 20 percent of the original normal cost difference for each subsequent year. This is non-zero only for plans that joined a pool within the past 5 years. Most plans joined a pool June 30, 2003, when risk pooling was implemented.

<sup>5</sup> As a percentage of projected payroll the UAL contribution is 11.546 percent for an estimated total employer contribution rate of 20.642 percent.

## Plan's Funded Status

		<b>June 30, 2014</b>		<b>June 30, 2015</b>
1. Present Value of Projected Benefits (PVB)	\$	17,542,842	\$	17,924,145
2. Entry Age Normal Accrued Liability (AL)		15,466,674		15,806,251
3. Plan's Market Value of Assets (MVA)		13,003,838		12,571,337
4. Unfunded Accrued Liability (UAL) [(2) - (3)]		2,462,836		3,234,914
5. Funded Ratio [(3) / (2)]		84.1%		79.5%

## Projected Employer Contributions

The estimate for Fiscal Year 2018-19 is based on a projection of the most recent information we have available, including an estimated 0.0 percent investment return for Fiscal Year 2015-16 (based on year to date return through April 30, 2016).

The table below shows projected employer contributions (before cost sharing) for the next five fiscal years, **assuming CalPERS earns 0.0 percent for Fiscal Year 2015-16 and 7.50 percent every fiscal year thereafter**, and assuming that all other actuarial assumptions will be realized and that no further changes to assumptions, contributions, benefits, or funding will occur between now and the beginning of the projection period.

	<b>Required Contribution</b>	<b>Projected Future Employer Contributions</b>				
<b>Fiscal Year</b>	<b>2017-18</b>	<b>2018-19</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>
<b>Normal Cost %</b>	9.096%	9.1%	9.1%	9.1%	9.1%	9.1%
<b>UAL \$</b>	\$183,236	\$237,748	\$295,366	\$328,452	\$366,524	\$394,699

## Changes since the Prior Year's Valuation

### Benefits

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

### Actuarial Methods and Assumptions

None.

## Subsequent Events

### Risk Mitigation

The CalPERS Board of Administration adopted a Risk Mitigation Policy which is designed to reduce funding risk over time. The policy establishes a mechanism whereby CalPERS investment performance that significantly outperforms the discount rate triggers adjustments to the discount rate, expected investment return and strategic asset allocation targets. A minimum excess investment return of 4% above the existing discount rate is necessary to cause a funding risk mitigation event. More details on the Risk Mitigation Policy can be found on our website.

## **ASSETS AND LIABILITIES**

- **ALLOCATION OF PLAN'S SHARE OF POOL'S EXPERIENCE/ASSUMPTION CHANGE**
- **DEVELOPMENT OF PLAN'S SHARE OF POOL'S MVA**
- **SCHEDULE OF PLAN'S SIDE FUND & OTHER AMORTIZATION BASES**
- **30-YEAR AMORTIZATION SCHEDULE AND ALTERNATIVES**
- **EMPLOYER CONTRIBUTION HISTORY**
- **FUNDING HISTORY**

## 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	\$	15,806,251
2.	Projected UAL balance at 6/30/15		2,604,070
3.	Pool's Accrued Liability	\$	13,889,938,645
4.	Sum of Pool's Individual Plan UAL Balances at 6/30/15		2,423,468,906
5.	Pool's 2014/15 Investment & Asset (Gain)/Loss		596,365,421
6.	Pool's 2014/15 Other (Gain)/Loss		(49,030,273)
7.	Plan's Share of Pool's Asset (Gain)/Loss $[(1)-(2)]/[(3)-(4)] * (5)$		686,639
8.	Plan's Share of Pool's Other (Gain)/Loss $[(1)]/[(3)] * (6)$		(55,795)
9.	Plan's New (Gain)/Loss as of 6/30/2015 $[(7)+(8)]$	\$	630,844
10.	Increase in Pool's Accrued Liability due to Change in Assumptions		0
11.	Plan's Share of Pool's Change in Assumptions $[(1)]/[(3)] * (10)$	\$	0

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

1.	Plan's Accrued Liability	\$	15,806,251
2.	Plan's UAL	\$	3,234,914
3.	Plan's Share of Pool's MVA $[(1)-(2)]$	\$	<b>12,571,337</b>

## Schedule of Plan's Side Fund and Other Amortization Bases

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

- The assets, liabilities, and funded status of the plan are measured as of the valuation date: June 30, 2015.
- The employer contribution determined by the valuation is for the fiscal year beginning two years after the valuation date: Fiscal Year 2017-18.

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

The Unfunded Accrued Liability (UAL) is used to determine the employer contribution and therefore must be rolled forward two years from the valuation date to the first day of the fiscal year for which the contribution is being determined. The UAL is rolled forward each year by subtracting the payment on the UAL for the fiscal year and adjusting for interest.

Reason for Base	Date Established	Amortization Period	Balance 6/30/15	Payment 2015-16	Balance 6/30/16	Payment 2016-17	Amounts for Fiscal 2017-18	
							Balance 6/30/17	Scheduled Payment for 2017-18
SHARE OF PRE-2013 POOL UAL	06/30/13	20	\$1,357,629	\$96,648	\$1,359,244	\$99,548	\$1,357,974	\$102,534
ASSET (GAIN)/LOSS	06/30/13	28	\$1,719,969	\$24,191	\$1,823,885	\$49,834	\$1,909,007	\$76,994
NON-ASSET (GAIN)/LOSS	06/30/13	28	\$(16,534)	\$(233)	\$(17,532)	\$(479)	\$(18,350)	\$(740)
ASSET (GAIN)/LOSS	06/30/14	29	\$(1,196,059)	\$0	\$(1,285,763)	\$(18,084)	\$(1,363,445)	\$(37,254)
ASSUMPTION CHANGE	06/30/14	19	\$737,768	\$(7,071)	\$800,432	\$15,246	\$844,657	\$31,408
NON-ASSET (GAIN)/LOSS	06/30/14	29	\$1,297	\$0	\$1,394	\$20	\$1,478	\$40
ASSET (GAIN)/LOSS	06/30/15	30	\$686,639	\$0	\$738,137	\$0	\$793,497	\$11,161
NON-ASSET (GAIN)/LOSS	06/30/15	30	\$(55,795)	\$0	\$(59,979)	\$0	\$(64,478)	\$(907)
<b>TOTAL</b>			<b>\$3,234,914</b>	<b>\$113,535</b>	<b>\$3,359,818</b>	<b>\$146,085</b>	<b>\$3,460,340</b>	<b>\$183,236</b>

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

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

## 30-Year Amortization Schedule and Alternatives

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

Shown on the following page are future year amortization payments based on 1) the current amortization schedule reflecting the individual bases and remaining periods shown on the previous page, and 2) alternate "fresh start" amortization schedules using two sample periods that would both result in interest savings relative to the current amortization schedule. Note that the payments under each alternate scenario increase by 3 percent for each year into the future. The schedules do not attempt to reflect any experience after June 30, 2015 that may deviate from the actuarial assumptions. Therefore, future amortization payments displayed in the Current Amortization Schedule may not match projected amortization payments shown in connection with Projected Employer Contributions provided elsewhere in this report.

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

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

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

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

## 30-Year Amortization Schedule and Alternatives

Date	<u>Current Amortization Schedule</u>		<u>Alternate Schedules</u>			
	Balance	Payment	20 Year Amortization		15 Year Amortization	
	Balance	Payment	Balance	Payment	Balance	Payment
6/30/2017	3,460,340	183,236	3,460,340	261,274	3,460,340	317,208
6/30/2018	3,529,882	222,485	3,448,971	269,113	3,390,978	326,724
6/30/2019	3,563,946	263,924	3,428,621	277,186	3,306,546	336,526
6/30/2020	3,557,599	279,874	3,398,375	285,502	3,205,620	346,622
6/30/2021	3,534,239	299,811	3,357,239	294,067	3,086,657	357,020
6/30/2022	3,488,456	308,806	3,304,137	302,889	2,947,990	367,731
6/30/2023	3,429,914	318,070	3,237,906	311,975	2,787,817	378,763
6/30/2024	3,357,376	327,612	3,157,286	321,335	2,604,194	390,126
6/30/2025	3,269,503	337,440	3,060,915	330,975	2,395,018	401,829
6/30/2026	3,164,851	347,563	2,947,322	340,904	2,158,019	413,884
6/30/2027	3,041,853	357,990	2,814,915	351,131	1,890,746	426,301
6/30/2028	2,898,820	368,730	2,661,973	361,665	1,590,554	439,090
6/30/2029	2,733,924	379,792	2,486,638	372,515	1,254,588	452,262
6/30/2030	2,545,191	391,186	2,286,905	383,690	879,766	465,830
6/30/2031	2,330,491	402,921	2,060,604	395,201	462,765	479,805
6/30/2032	2,087,520	390,543	1,805,396	407,057		
6/30/2033	1,839,160	377,059	1,518,755	419,269		
6/30/2034	1,586,154	362,415	1,197,954	431,847		
6/30/2035	1,329,355	346,553	840,052	444,802		
6/30/2036	1,069,743	329,413	441,876	458,146		
6/30/2037	808,431	154,107				
6/30/2038	709,282	158,730				
6/30/2039	597,903	163,492				
6/30/2040	473,234	168,397				
6/30/2041	334,129	121,779				
6/30/2042	232,926	111,171				
6/30/2043	135,131	77,704				
6/30/2044	64,701	42,128				
6/30/2045	25,874	4,349				
6/30/2046	23,305	24,163				
<b>Totals</b>		<b>7,621,445</b>		<b>7,020,543</b>		<b>5,899,720</b>
<b>Estimated Savings</b>				<b>600,902</b>		<b>1,721,724</b>

Current CalPERS Board policy prioritizes the order for which lump sum contributions in excess of the required employer contribution shall be applied. Excess contributions shall first be applied toward payment on the plan's side fund, and any remainder shall then be applied toward the plan's share of the pool's unfunded accrued liability.

Please contact the plan actuary before making such a payment to ensure that the payment is applied correctly.

## Employer Contribution History

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

<b>Fiscal Year</b>	<b>Employer Normal Cost</b>	<b>Unfunded Liability Payment (\$)</b>
2016 - 17	9.055%	146,085
2017 - 18	9.096%	183,236

## Funding History

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

<b>Valuation Date</b>	<b>Accrued Liability (AL)</b>	<b>Share of Pool's Market Value of Assets (MVA)</b>	<b>Plan's Share of Pool's Unfunded Liability</b>	<b>Funded Ratio</b>	<b>Annual Covered Payroll</b>
06/30/2011	\$ 14,126,030	\$ 10,943,760	\$ 3,182,270	77.5%	\$ 2,098,024
06/30/2012	14,084,104	10,326,106	3,757,998	73.3%	1,062,063
06/30/2013	14,539,412	11,816,121	2,723,291	81.3%	1,369,806
06/30/2014	15,466,674	13,003,838	2,462,836	84.1%	1,395,887
06/30/2015	15,806,251	12,571,337	3,234,914	79.5%	1,452,348

## **RISK ANALYSIS**

- **ANALYSIS OF FUTURE INVESTMENT RETURN SCENARIOS**
- **ANALYSIS OF DISCOUNT RATE SENSITIVITY**
- **VOLATILITY RATIOS**
- **HYPOTHETICAL TERMINATION LIABILITY**

## Analysis of Future Investment Return Scenarios

The investment return for Fiscal Year 2015-16 was not known at the time this report was produced. The investment return in Fiscal Year 2015-16 as of April 30, 2016 is 0.0 percent before administrative expenses. For purposes of projecting future employer contributions, we are assuming a 0.0 percent investment return for Fiscal Year 2015-16.

The investment return realized during a fiscal year first affects the contribution for the fiscal year two years later. For example, the investment return for Fiscal Year 2015-16 will first be reflected in the June 30, 2016 actuarial valuation that will be used to set the Fiscal Year 2018-19 employer contributions, the Fiscal Year 2016-17 investment return will first be reflected in the June 30, 2017 actuarial valuation that will be used to set the Fiscal Year 2019-20 employer contributions, and so forth.

A sensitivity analysis was performed to determine the effects of various investment returns during fiscal years 2016-17, 2017-18, and 2018-19 on the employer contributions for fiscal years 2019-20, 2020-21, and 2021-22. The projected contributions assume that all other actuarial assumptions will be realized and that no further changes to assumptions, contributions, benefits, or funding will occur.

Five different investment return scenarios were selected.

- The first scenario is a -3.8 percent return for each of the 2016-17, 2017-18, and 2018-19 fiscal years. Based on the current investment allocation, this is what one would expect if the markets were to give us about a 5<sup>th</sup> percentile return from July 1, 2016 through June 30, 2019.
- The second scenario is a 2.8 percent return for each of the 2016-17, 2017-18, and 2018-19 fiscal years. Based on the current investment allocation, this is what one would expect if the markets were to give us about a 25<sup>th</sup> percentile return from July 1, 2016 through June 30, 2019.
- The third scenario is a 7.5 percent return for each of the 2016-17, 2017-18, and 2018-19 fiscal years. Based on the current investment allocation, this is what one would expect if the markets were to give us about a 49<sup>th</sup> percentile return from July 1, 2016 through June 30, 2019.
- The fourth scenario is a 12.0 percent return for each of the 2016-17, 2017-18, and 2018-19 fiscal years. Based on the current investment allocation, this is what one would expect if the markets were to give us about a 75<sup>th</sup> percentile return from July 1, 2016 through June 30, 2019.
- Finally, the last scenario is an 18.9 percent return for each of the 2016-17, 2017-18, and 2018-19 fiscal years. Based on the current investment allocation, this is what one would expect if the markets were to give us about a 95<sup>th</sup> percentile return from July 1, 2016 through June 30, 2019.

The table below shows the estimated projected contributions and the estimated increases for the plan under the five different scenarios.

2016-19 Investment Return Scenario	Fiscal Year			Estimated Change Between 2018-19 and 2021-22
	2019-20	2020-21	2021-22	
<b>(3.8%)</b>				
Normal Cost	9.1%	9.1%	9.1%	0.0%
UAL Contribution	\$318,264	\$397,536	\$505,568	\$267,820
<b>2.8%</b>				
Normal Cost	9.1%	9.1%	9.1%	0.0%
UAL Contribution	\$304,890	\$357,816	\$426,901	\$189,153
<b>7.5%</b>				
Normal Cost	9.1%	9.1%	9.1%	0.0%
UAL Contribution	\$295,366	\$328,452	\$366,524	\$128,776
<b>12.0%</b>				
Normal Cost	9.3%	9.5%	9.7%	0.6%
UAL Contribution	\$286,717	\$302,331	\$312,353	\$74,605
<b>18.9%</b>				
Normal Cost	9.7%	10.2%	10.8%	1.7%
UAL Contribution	\$273,894	\$263,403	\$0	\$(237,748)

For the last two scenarios in the table above the results incorporate the impact of CalPERS Risk Mitigation Policy. A 12.0% return would result in a reduction of the discount rate by 0.05% and a return of 18.9% would reduce the discount rate by 0.15%. Reducing the discount rate increases both the plan's accrued liability and normal cost. More details about Risk Mitigation policy can be found on our website.

## Analysis of Discount Rate Sensitivity

The following analysis looks at the Fiscal Year 2017-18 total normal cost rates and liabilities under two different discount rate scenarios. Shown below are the total normal cost rates assuming discount rates that are 1 percent lower and 1 percent higher than the current valuation discount rate. This analysis shows the potential plan impacts if the Public Employees' Retirement Fund (PERF) were to realize investment returns of 6.50 percent or 8.50 percent over the long-term.

This analysis is intended to illustrate the long-term risk to the contribution rates.

<b>Sensitivity Analysis</b>			
<b>As of June 30, 2015</b>	<b>6.50% Discount Rate (-1%)</b>	<b>7.50% Discount Rate (assumed rate)</b>	<b>8.50% Discount Rate (+1%)</b>
Plan's Total Normal Cost	19.8%	16.0%	13.1%
Accrued Liability	\$17,777,072	\$15,806,251	\$14,177,599
Unfunded Accrued Liability	\$5,205,735	\$3,234,914	\$1,606,262

## Volatility Ratios

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

### Asset Volatility Ratio (AVR)

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

### Liability Volatility Ratio (LVR)

Plans that have higher liability-to-payroll ratios experience more volatile employer contributions (as a percentage of payroll) due to investment return and changes in liability. For example, a plan with a liability-to-payroll ratio of 8 is expected to have twice the contribution volatility of a plan with a liability-to-payroll ratio of 4. The liability volatility ratio is also shown in the table below. It should be noted that this ratio indicates a longer-term potential for contribution volatility. The asset volatility ratio, described above, will tend to move closer to the liability volatility ratio as the plan matures.

<b>Rate Volatility</b>	<b>As of June 30, 2015</b>	
1. Market Value of Assets	\$	12,571,337
2. Payroll		1,452,348
3. Asset Volatility Ratio (AVR) [(1) / (2)]		8.7
4. Accrued Liability	\$	15,806,251
5. Liability Volatility Ratio (LVR) [(4) / (2)]		10.9

## Hypothetical Termination Liability

The hypothetical termination liability is an estimate of the financial position of the plan had the contract with CalPERS been terminated as of June 30, 2015. The plan liability on a termination basis is calculated differently compared to the plan's ongoing funding liability. For the hypothetical termination liability calculation, both compensation and service are frozen as of the valuation date and no future pay increases or service accruals are assumed.

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

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

<b>Market Value of Assets (MVA)</b>	<b>Hypothetical Termination Liability<sup>1,2</sup> @ 2.00%</b>	<b>Funded Status</b>	<b>Unfunded Termination Liability @ 2.00%</b>	<b>Hypothetical Termination Liability<sup>1,2</sup> @ 3.25%</b>	<b>Funded Status</b>	<b>Unfunded Termination Liability @ 3.25%</b>
\$12,571,337	\$32,383,425	38.8%	\$19,812,088	\$27,224,358	46.2%	\$14,653,021

<sup>1</sup> The hypothetical liabilities calculated above include a 7 percent mortality contingency load in accordance with Board policy. Other actuarial assumptions, such as wage and inflation assumptions, can be found in Appendix A.

<sup>2</sup> The current discount rate assumption used for termination valuations is a weighted average of the 10-year and 30-year U.S. Treasury yields where the weights are based on matching asset and liability durations as of the termination date. The discount rates used in the table are based on 20-year Treasury bonds, rounded to the nearest quarter percentage point, which is a good proxy for most plans. The 20-year Treasury yield was 2.75 percent on June 30, 2015.

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

## Participant Data

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

	<b>June 30, 2014</b>	<b>June 30, 2015</b>
Reported Payroll	\$ 1,395,887	\$ 1,452,348
Projected Payroll for Contribution Purposes	\$ 1,525,324	\$ 1,587,020
Number of Members		
Active	16	16
Transferred	13	13
Separated	27	26
Retired	54	54

## List of Class 1 Benefit Provisions

This plan has the additional Class 1 Benefit Provisions:

- Post-Retirement Survivor Allowance (PRSA)

## **PLAN'S MAJOR BENEFIT OPTIONS**

**SECTION 1 – PLAN SPECIFIC INFORMATION FOR THE MISCELLANEOUS PLAN OF THE TOWN OF ATHERTON**

**Plan’s Major Benefit Options**

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

Benefit Provision	Contract package	
	Active Misc	Receiving Misc
Benefit Formula	2.0% @ 55	
Social Security Coverage	No	
Full/Modified	Full	
Employee Contribution Rate	7.00%	
Final Average Compensation Period	Three Year	
Sick Leave Credit	Yes	
Non-Industrial Disability	Standard	
Industrial Disability	No	
Pre-Retirement Death Benefits		
Optional Settlement 2W	Yes	
1959 Survivor Benefit Level	level 3	
Special	No	
Alternate (firefighters)	No	No
Post-Retirement Death Benefits		
Lump Sum	\$500	\$500
Survivor Allowance (PRSA)	Yes	Yes
COLA	2%	2%

# Section 2

CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

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



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

**August 2016**

**SAFETY PLAN OF THE TOWN OF ATHERTON  
 (CalPERS ID: 1382390535)  
 Annual Valuation Report as of June 30, 2015**

Dear Employer,

As an attachment to this letter, you will find a copy of the June 30, 2015 actuarial valuation report of the pension plan.

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

- Section 1 contains specific information for the plan including the development of the current and projected employer contributions, and
- Section 2 contains the Risk Pool Actuarial Valuation appropriate to the plan as of June 30, 2015.

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

Your June 30, 2015 actuarial valuation report contains important actuarial information about your pension plan at CalPERS. Your assigned CalPERS staff actuary, whose signature appears in the Actuarial Certification section on page 1, is available to discuss the report with you after August 31, 2016.

**Future Employer Contribution**

Fiscal Year	Employer Normal Cost Rate	+	Employer Payment of Unfunded Liability
2017-18	21.418%		\$496,462
2018-19 (projected)	21.4%		\$629,363

The exhibit above displays the minimum employer contributions, before any cost sharing, for Fiscal Year 2017-18 along with estimates of the contributions for Fiscal Year 2018-19. The total employer contribution is the sum of a Normal Cost Rate applied to reported payroll plus an Unfunded Liability dollar payment. The estimated contributions for Fiscal Year 2018-19 are based on a projection of the most recent information we have available, including an estimated 0.0 percent investment return for Fiscal Year 2015-16 (based on the year to date return through April 30, 2016).

For a projection of employer contributions beyond Fiscal Year 2018-19, please refer to the "Projected Employer Contributions" in the "Highlights and Executive Summary" section. This 5-year projection of future employer contributions supersedes any previous projections we have provided. The "Risk Analysis" section of the valuation report also contains estimated employer contributions in future years under a variety of investment return scenarios. Member contributions, other than cost sharing, are in addition to the above amounts. The employer contributions in this report do not reflect any cost sharing arrangements you may have with your employees.

The estimates for Fiscal Year 2018-19 also assume that there are no future contract amendments and no liability gains or losses (such as larger than expected pay increases, more retirements than expected, etc.) This is an important assumption because these gains and losses do occur and can have a significant effect on required contributions. Even for the largest plans or pools, such gains and losses can impact the employer's contributions. These gains and losses cannot be predicted in advance so the projected employer contributions are estimates. The actual required employer contribution for Fiscal Year 2018-19 will be provided in next year's valuation report.

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

The CalPERS Board of Administration adopted a Risk Mitigation Policy which is designed to reduce funding risk over time. The policy establishes a mechanism whereby CalPERS investment performance that significantly outperforms the discount rate triggers adjustments to the discount rate, expected investment return and strategic asset allocation targets. A minimum excess investment return of 4% above the existing discount rate is necessary to cause a funding risk mitigation event. The policy has no impact on the current year valuation results but is expected to have an impact in future years. More details on the Risk Mitigation Policy can be found on our website.

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

Further descriptions of general changes are included in the "Highlights and Executive Summary" section and in Appendix A, "Statement of Actuarial Data, Methods and Assumptions" of the Section 2 report. We understand that you might have a number of questions about these results. While we are very interested in discussing these results with your agency, in the interest of allowing us to give every public agency their results, we ask that you wait until after August 31 to contact us with actuarial related questions.

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

Sincerely,



ALAN MILLIGAN  
Chief Actuary



# **ACTUARIAL VALUATION**

as of June 30, 2015

**for the  
SAFETY PLAN  
of the  
TOWN OF ATHERTON  
(CalPERS ID: 1382390535)**

**REQUIRED CONTRIBUTIONS  
FOR FISCAL YEAR  
July 1, 2017 - June 30, 2018**

# **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 SAFETY PLAN of the TOWN OF ATHERTON**

**(CalPERS ID: 1382390535)  
(Rate Plan: 65)**

# TABLE OF CONTENTS

<b>ACTUARIAL CERTIFICATION</b>	<b>1</b>
<b>HIGHLIGHTS AND EXECUTIVE SUMMARY</b>	
• <b>INTRODUCTION</b>	<b>3</b>
• <b>PURPOSE OF SECTION 1</b>	<b>3</b>
• <b>REQUIRED EMPLOYER CONTRIBUTION</b>	<b>4</b>
• <b>PLAN'S FUNDED STATUS</b>	<b>5</b>
• <b>PROJECTED EMPLOYER CONTRIBUTIONS</b>	<b>5</b>
• <b>CHANGES SINCE THE PRIOR YEAR VALUATION</b>	<b>5</b>
• <b>SUBSEQUENT EVENTS</b>	<b>5</b>
<b>ASSETS AND LIABILITIES</b>	
• <b>ALLOCATION OF PLAN'S SHARE OF POOL'S EXPERIENCE/ASSUMPTION CHANGE</b>	<b>7</b>
• <b>DEVELOPMENT OF PLAN'S SHARE OF POOL'S MVA</b>	<b>7</b>
• <b>SCHEDULE OF PLAN'S SIDE FUND &amp; OTHER AMORTIZATION BASES</b>	<b>8</b>
• <b>30-YEAR AMORTIZATION SCHEDULE AND ALTERNATIVES</b>	<b>9</b>
• <b>EMPLOYER CONTRIBUTION HISTORY</b>	<b>11</b>
• <b>FUNDING HISTORY</b>	<b>11</b>
<b>RISK ANALYSIS</b>	
• <b>ANALYSIS OF FUTURE INVESTMENT RETURN SCENARIOS</b>	<b>13</b>
• <b>ANALYSIS OF DISCOUNT RATE SENSITIVITY</b>	<b>14</b>
• <b>VOLATILITY RATIOS</b>	<b>15</b>
• <b>HYPOTHETICAL TERMINATION LIABILITY</b>	<b>16</b>
<b>PARTICIPANT DATA</b>	<b>17</b>
<b>LIST OF CLASS 1 BENEFIT PROVISIONS</b>	<b>17</b>
<b>PLAN'S MAJOR BENEFIT OPTIONS</b>	<b>18</b>

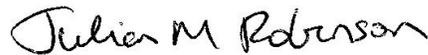
## ACTUARIAL CERTIFICATION

Section 1 of this report is based on the member and financial data contained in our records as of June 30, 2015 which was provided by your agency and the benefit provisions under your contract with CalPERS. Section 2 of this report is based on the member and financial data as of June 30, 2015 provided by employers participating in the Safety Risk Pool to which the plan belongs and benefit provisions under the CalPERS contracts for those agencies.

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

Having relied upon the information set forth in Section 2 of this report and based on the census and benefit provision information for the plan, it is my opinion as the plan actuary that the side fund and other Unfunded Accrued Liability bases as of June 30, 2015 and employer contribution as of July 1, 2017, have been properly and accurately determined in accordance with the principles and standards stated above.

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



JULIAN ROBINSON, FSA, EA, MAAA  
Senior Pension Actuary, CalPERS  
Plan Actuary

# **HIGHLIGHTS AND EXECUTIVE SUMMARY**

- **INTRODUCTION**
- **PURPOSE OF SECTION 1**
- **REQUIRED EMPLOYER CONTRIBUTION**
- **PLAN'S FUNDED STATUS**
- **PROJECTED EMPLOYER CONTRIBUTIONS**
- **CHANGES SINCE THE PRIOR YEAR VALUATION**
- **SUBSEQUENT EVENTS**

## Introduction

This report presents the results of the June 30, 2015 actuarial valuation of the SAFETY PLAN of the TOWN OF ATHERTON of the California Public Employees' Retirement System (CalPERS). This actuarial valuation sets the required employer contributions for Fiscal Year 2017-18.

The CalPERS Board of Administration adopted a Risk Mitigation Policy which is designed to reduce funding risk over time. The policy establishes a mechanism whereby CalPERS investment performance that significantly outperforms the discount rate triggers adjustments to the discount rate, expected investment return and strategic asset allocation targets. A minimum excess investment return of 4% above the existing discount rate is necessary to cause a funding risk mitigation event. The Risk Mitigation Policy does not have an impact on the current year actuarial valuation. More details on the Risk Mitigation Policy can be found on our website.

## Purpose of Section 1

This Section 1 report for the SAFETY PLAN of the TOWN OF ATHERTON of the California Public Employees' Retirement System (CalPERS) was prepared by the plan actuary in order to:

- Set forth the assets and accrued liabilities of this plan as of June 30, 2015;
- Determine the required employer contribution for this plan for the fiscal year July 1, 2017 through June 30, 2018; and
- Provide actuarial information as of June 30, 2015 to the CalPERS Board of Administration and other interested parties.

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

The use of this report for any other purposes may be inappropriate. In particular, this report does not contain information applicable to alternative benefit costs. The employer should contact their actuary before disseminating any portion of this report for any reason that is not explicitly described above.

### California Actuarial Advisory Panel Recommendations

This report includes all the basic disclosure elements as described in the *Model Disclosure Elements for Actuarial Valuation Reports* recommended in 2011 by the California Actuarial Advisory Panel (CAAP), with the exception of including the original base amounts of the various components of the unfunded liability in the Schedule of Amortization Bases shown on page 8.

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

- A "Deterministic Stress Test," projecting future results under different investment income scenarios
- A "Sensitivity Analysis," showing the impact on current valuation results using a 1 percent plus or minus change in the discount rate.

## Required Employer Contribution

	Fiscal Year		Fiscal Year	
Required Employer Contribution	2016-17 <sup>1</sup>		2017-18	
<b>Employer Normal Cost Rate</b>	<b>21.230%</b>		<b>21.418%</b>	
<i>Plus Either</i>				
<b>1) Monthly Employer Dollar UAL Payment</b>	<b>\$</b>	<b>33,572.06</b>	<b>\$</b>	<b>41,371.86</b>
<i>Or</i>				
<b>2) Annual Lump Sum Prepayment Option</b>	<b>\$</b>	<b>388,557</b>	<b>\$</b>	<b>478,831</b>

*The total minimum required employer contribution is the **sum** of the Plan's Employer Normal Cost Rate (expressed as a percentage of payroll) **plus** the Employer Unfunded Accrued Liability (UAL) Contribution Amount (billed monthly in dollars). Only the UAL portion of the employer contribution can be prepaid (which must be received in full no later than July 31). Plan Normal Cost contributions will be made as part of the payroll reporting process. If there is contractual cost sharing or other change, this amount will change. § 20572 of the Public Employees' Retirement Law assesses interest at an annual rate of 10 percent if a contracting agency fails to remit the required contributions when due.*

	Fiscal Year		Fiscal Year	
	2016-17 <sup>1</sup>		2017-18	
<b>Development of Normal Cost as a Percentage of Payroll</b>				
Base Total Normal Cost for Formula	27.415%		27.603%	
Surcharge for Class 1 Benefits <sup>3</sup>				
a) FAC 1	1.108%		1.108%	
b) PRSA	1.695%		1.695%	
Phase out of Normal Cost Difference <sup>4</sup>	0.000%		0.000%	
Plan's Total Normal Cost	30.217%		30.406%	
Formula's Expected Employee Contribution Rate	8.987%		8.988%	
Employer Normal Cost Rate	21.230%		21.418%	
Projected Payroll for the Contribution Fiscal Year	<b>\$</b>	<b>2,011,027</b>	<b>\$</b>	<b>2,236,138</b>
<b>Estimated Employer Contributions Based on Projected Payroll</b>				
Plan's Estimated Employer Normal Cost	<b>\$</b>	<b>426,945</b>	<b>\$</b>	<b>478,936</b>
Plan's Payment on Amortization Bases <sup>2</sup>		<u>402,865</u>		<u>496,462</u>
Total Employer Contribution <sup>5</sup>	<b>\$</b>	<b>829,810</b>	<b>\$</b>	<b>975,398</b>

<sup>1</sup> The results shown for Fiscal Year 2016-17 reflect the prior year valuation and do not take into account any lump sum payment, side fund payoff, or rate adjustment made after June 30, 2015.

<sup>2</sup> See page 8 for a breakdown of the Amortization Bases.

<sup>3</sup> Section 2 of this report contains a list of Class 1 benefits and corresponding surcharges for each benefit.

<sup>4</sup> The normal cost difference is phased out over a five year period. The phase out of normal cost difference is 100 percent for the first year of pooling, and is incrementally reduced by 20 percent of the original normal cost difference for each subsequent year. This is non-zero only for plans that joined a pool within the past 5 years. Most plans joined a pool June 30, 2003, when risk pooling was implemented.

<sup>5</sup> As a percentage of projected payroll the UAL contribution is 22.202 percent for an estimated total employer contribution rate of 43.620 percent.

## Plan's Funded Status

		<b>June 30, 2014</b>		<b>June 30, 2015</b>
1. Present Value of Projected Benefits (PVB)	\$	40,470,443	\$	42,461,709
2. Entry Age Normal Accrued Liability (AL)		35,213,417		36,891,116
3. Plan's Market Value of Assets (MVA)		28,436,146		28,263,430
4. Unfunded Accrued Liability (UAL) [(2) - (3)]		6,777,271		8,627,686
5. Funded Ratio [(3) / (2)]		80.8%		76.6%

## Projected Employer Contributions

The estimate for Fiscal Year 2018-19 is based on a projection of the most recent information we have available, including an estimated 0.0 percent investment return for Fiscal Year 2015-16 (based on year to date return through April 30, 2016).

The table below shows projected employer contributions (before cost sharing) for the next five fiscal years, **assuming CalPERS earns 0.0 percent for Fiscal Year 2015-16 and 7.50 percent every fiscal year thereafter**, and assuming that all other actuarial assumptions will be realized and that no further changes to assumptions, contributions, benefits, or funding will occur between now and the beginning of the projection period.

	<b>Required Contribution</b>	<b>Projected Future Employer Contributions</b>				
<b>Fiscal Year</b>	<b>2017-18</b>	<b>2018-19</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>
<b>Normal Cost %</b>	21.418%	21.4%	21.4%	21.4%	21.4%	21.4%
<b>UAL \$</b>	\$496,462	\$629,363	\$769,790	\$853,294	\$944,291	\$1,010,942

## Changes since the Prior Year's Valuation

### Benefits

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

### Actuarial Methods and Assumptions

None.

## Subsequent Events

### Risk Mitigation

The CalPERS Board of Administration adopted a Risk Mitigation Policy which is designed to reduce funding risk over time. The policy establishes a mechanism whereby CalPERS investment performance that significantly outperforms the discount rate triggers adjustments to the discount rate, expected investment return and strategic asset allocation targets. A minimum excess investment return of 4% above the existing discount rate is necessary to cause a funding risk mitigation event. More details on the Risk Mitigation Policy can be found on our website.

## **ASSETS AND LIABILITIES**

- **ALLOCATION OF PLAN'S SHARE OF POOL'S EXPERIENCE/ASSUMPTION CHANGE**
- **DEVELOPMENT OF PLAN'S SHARE OF POOL'S MVA**
- **SCHEDULE OF PLAN'S SIDE FUND & OTHER AMORTIZATION BASES**
- **30-YEAR AMORTIZATION SCHEDULE AND ALTERNATIVES**
- **EMPLOYER CONTRIBUTION HISTORY**
- **FUNDING HISTORY**

## 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	\$	36,891,116
2.	Projected UAL balance at 6/30/15		7,086,680
3.	Pool's Accrued Liability	\$	18,467,886,519
4.	Sum of Pool's Individual Plan UAL Balances at 6/30/15		3,713,009,355
5.	Pool's 2014/15 Investment & Asset (Gain)/Loss		765,720,345
6.	Pool's 2014/15 Other (Gain)/Loss		(2,867,161)
7.	Plan's Share of Pool's Asset (Gain)/Loss $[(1)-(2)]/[(3)-(4)] * (5)$		1,546,734
8.	Plan's Share of Pool's Other (Gain)/Loss $[(1)]/[(3)] * (6)$		(5,727)
9.	Plan's New (Gain)/Loss as of 6/30/2015 $[(7)+(8)]$	\$	1,541,006
10.	Increase in Pool's Accrued Liability due to Change in Assumptions		0
11.	Plan's Share of Pool's Change in Assumptions $[(1)]/[(3)] * (10)$	\$	0

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

1.	Plan's Accrued Liability	\$	36,891,116
2.	Plan's UAL	\$	8,627,686
3.	Plan's Share of Pool's MVA $[(1)-(2)]$	\$	<b>28,263,430</b>

## Schedule of Plan's Side Fund and Other Amortization Bases

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

- The assets, liabilities, and funded status of the plan are measured as of the valuation date: June 30, 2015.
- The employer contribution determined by the valuation is for the fiscal year beginning two years after the valuation date: Fiscal Year 2017-18.

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

The Unfunded Accrued Liability (UAL) is used to determine the employer contribution and therefore must be rolled forward two years from the valuation date to the first day of the fiscal year for which the contribution is being determined. The UAL is rolled forward each year by subtracting the payment on the UAL for the fiscal year and adjusting for interest.

Reason for Base	Date Established	Amortization Period	Balance 6/30/15	Payment 2015-16	Balance 6/30/16	Payment 2016-17	Amounts for Fiscal 2017-18	
							Balance 6/30/17	Scheduled Payment for 2017-18
SHARE OF PRE-2013 POOL UAL	06/30/13	20	\$3,961,634	\$282,025	\$3,966,347	\$290,486	\$3,962,641	\$299,201
ASSET (GAIN)/LOSS	06/30/13	28	\$4,018,765	\$56,524	\$4,261,567	\$116,440	\$4,460,457	\$179,899
NON-ASSET (GAIN)/LOSS	06/30/13	28	\$(45,622)	\$(642)	\$(48,378)	\$(1,322)	\$(50,636)	\$(2,042)
ASSET (GAIN)/LOSS	06/30/14	29	\$(2,693,560)	\$0	\$(2,895,577)	\$(40,726)	\$(3,070,520)	\$(83,896)
ASSUMPTION CHANGE	06/30/14	19	\$1,811,842	\$(19,192)	\$1,967,629	\$37,479	\$2,076,342	\$77,206
NON-ASSET (GAIN)/LOSS	06/30/14	29	\$33,621	\$0	\$36,143	\$508	\$38,327	\$1,047
ASSET (GAIN)/LOSS	06/30/15	30	\$1,546,734	\$0	\$1,662,739	\$0	\$1,787,444	\$25,140
NON-ASSET (GAIN)/LOSS	06/30/15	30	\$(5,727)	\$0	\$(6,157)	\$0	\$(6,619)	\$(93)
<b>TOTAL</b>			<b>\$8,627,687</b>	<b>\$318,715</b>	<b>\$8,944,313</b>	<b>\$402,865</b>	<b>\$9,197,436</b>	<b>\$496,462</b>

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

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

## 30-Year Amortization Schedule and Alternatives

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

Shown on the following page are future year amortization payments based on 1) the current amortization schedule reflecting the individual bases and remaining periods shown on the previous page, and 2) alternate "fresh start" amortization schedules using two sample periods that would both result in interest savings relative to the current amortization schedule. Note that the payments under each alternate scenario increase by 3 percent for each year into the future. The schedules do not attempt to reflect any experience after June 30, 2015 that may deviate from the actuarial assumptions. Therefore, future amortization payments displayed in the Current Amortization Schedule may not match projected amortization payments shown in connection with Projected Employer Contributions provided elsewhere in this report.

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

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

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

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

## 30-Year Amortization Schedule and Alternatives

Date	<u>Current Amortization Schedule</u>		<u>Alternate Schedules</u>			
	Balance	Payment	20 Year Amortization		15 Year Amortization	
			Balance	Payment	Balance	Payment
6/30/2017	9,197,437	496,462	9,197,437	694,456	9,197,437	843,125
6/30/2018	9,372,502	595,313	9,167,217	715,290	9,013,075	868,419
6/30/2019	9,458,206	699,648	9,113,130	736,749	8,788,660	894,471
6/30/2020	9,442,161	744,924	9,032,737	758,851	8,520,402	921,305
6/30/2021	9,377,969	795,463	8,923,399	781,617	8,204,202	948,944
6/30/2022	9,256,563	819,327	8,782,256	805,065	7,835,631	977,413
6/30/2023	9,101,308	843,907	8,606,216	829,217	7,409,900	1,006,735
6/30/2024	8,908,925	869,224	8,391,931	854,094	6,921,838	1,036,937
6/30/2025	8,675,864	895,301	8,135,783	879,717	6,365,856	1,068,045
6/30/2026	8,398,286	922,160	7,833,857	906,108	5,735,922	1,100,087
6/30/2027	8,072,042	949,825	7,481,923	933,291	5,025,523	1,133,089
6/30/2028	7,692,646	978,319	7,075,410	961,290	4,227,625	1,167,082
6/30/2029	7,255,251	1,007,669	6,609,379	990,129	3,334,640	1,202,094
6/30/2030	6,754,621	1,037,899	6,078,495	1,019,833	2,338,381	1,238,157
6/30/2031	6,185,101	1,069,036	5,476,997	1,050,428	1,230,010	1,275,302
6/30/2032	5,540,584	1,040,965	4,798,666	1,081,940		
6/30/2033	4,876,833	1,010,247	4,036,786	1,114,399		
6/30/2034	4,195,149	976,749	3,184,112	1,147,831		
6/30/2035	3,497,070	940,332	2,232,824	1,182,266		
6/30/2036	2,784,393	900,852	1,174,487	1,217,734		
6/30/2037	2,059,200	387,487				
6/30/2038	1,811,884	399,112				
6/30/2039	1,533,968	411,085				
6/30/2040	1,222,794	423,417				
6/30/2041	875,495	315,605				
6/30/2042	613,931	287,676				
6/30/2043	361,708	203,770				
6/30/2044	177,562	114,571				
6/30/2045	72,090	19,837				
6/30/2046	56,930	59,026				
<b>Totals</b>		<b>20,215,207</b>		<b>18,660,304</b>		<b>15,681,205</b>
<b>Estimated Savings</b>				<b>1,554,902</b>		<b>4,534,001</b>

Current CalPERS Board policy prioritizes the order for which lump sum contributions in excess of the required employer contribution shall be applied. Excess contributions shall first be applied toward payment on the plan's side fund, and any remainder shall then be applied toward the plan's share of the pool's unfunded accrued liability.

Please contact the plan actuary before making such a payment to ensure that the payment is applied correctly.

## Employer Contribution History

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

<b>Fiscal Year</b>	<b>Employer Normal Cost</b>	<b>Unfunded Liability Payment (\$)</b>
2016 - 17	21.230%	402,865
2017 - 18	21.418%	496,462

## Funding History

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

<b>Valuation Date</b>	<b>Accrued Liability (AL)</b>	<b>Share of Pool's Market Value of Assets (MVA)</b>	<b>Plan's Share of Pool's Unfunded Liability</b>	<b>Funded Ratio</b>	<b>Annual Covered Payroll</b>
06/30/2011	\$ 28,919,573	\$ 21,722,502	\$ 7,197,071	75.1%	\$ 1,942,071
06/30/2012	30,999,471	22,860,016	8,139,455	73.7%	1,824,609
06/30/2013	32,050,359	24,846,630	7,203,729	77.5%	1,971,765
06/30/2014	35,213,417	28,436,146	6,777,271	80.8%	1,840,375
06/30/2015	36,891,116	28,263,430	8,627,686	76.6%	2,046,383

## **RISK ANALYSIS**

- **ANALYSIS OF FUTURE INVESTMENT RETURN SCENARIOS**
- **ANALYSIS OF DISCOUNT RATE SENSITIVITY**
- **VOLATILITY RATIOS**
- **HYPOTHETICAL TERMINATION LIABILITY**

## Analysis of Future Investment Return Scenarios

The investment return for Fiscal Year 2015-16 was not known at the time this report was produced. The investment return in Fiscal Year 2015-16 as of April 30, 2016 is 0.0 percent before administrative expenses. For purposes of projecting future employer contributions, we are assuming a 0.0 percent investment return for Fiscal Year 2015-16.

The investment return realized during a fiscal year first affects the contribution for the fiscal year two years later. For example, the investment return for Fiscal Year 2015-16 will first be reflected in the June 30, 2016 actuarial valuation that will be used to set the Fiscal Year 2018-19 employer contributions, the Fiscal Year 2016-17 investment return will first be reflected in the June 30, 2017 actuarial valuation that will be used to set the Fiscal Year 2019-20 employer contributions, and so forth.

A sensitivity analysis was performed to determine the effects of various investment returns during fiscal years 2016-17, 2017-18, and 2018-19 on the employer contributions for fiscal years 2019-20, 2020-21, and 2021-22. The projected contributions assume that all other actuarial assumptions will be realized and that no further changes to assumptions, contributions, benefits, or funding will occur.

Five different investment return scenarios were selected.

- The first scenario is a -3.8 percent return for each of the 2016-17, 2017-18, and 2018-19 fiscal years. Based on the current investment allocation, this is what one would expect if the markets were to give us about a 5<sup>th</sup> percentile return from July 1, 2016 through June 30, 2019.
- The second scenario is a 2.8 percent return for each of the 2016-17, 2017-18, and 2018-19 fiscal years. Based on the current investment allocation, this is what one would expect if the markets were to give us about a 25<sup>th</sup> percentile return from July 1, 2016 through June 30, 2019.
- The third scenario is a 7.5 percent return for each of the 2016-17, 2017-18, and 2018-19 fiscal years. Based on the current investment allocation, this is what one would expect if the markets were to give us about a 49<sup>th</sup> percentile return from July 1, 2016 through June 30, 2019.
- The fourth scenario is a 12.0 percent return for each of the 2016-17, 2017-18, and 2018-19 fiscal years. Based on the current investment allocation, this is what one would expect if the markets were to give us about a 75<sup>th</sup> percentile return from July 1, 2016 through June 30, 2019.
- Finally, the last scenario is an 18.9 percent return for each of the 2016-17, 2017-18, and 2018-19 fiscal years. Based on the current investment allocation, this is what one would expect if the markets were to give us about a 95<sup>th</sup> percentile return from July 1, 2016 through June 30, 2019.

The table below shows the estimated projected contributions and the estimated increases for the plan under the five different scenarios.

2016-19 Investment Return Scenario	Fiscal Year			Estimated Change Between 2018-19 and 2021-22
	2019-20	2020-21	2021-22	
<b>(3.8%)</b>				
Normal Cost	21.4%	21.4%	21.4%	0.0%
UAL Contribution	\$820,091	\$1,004,391	\$1,247,077	\$617,714
<b>2.8%</b>				
Normal Cost	21.4%	21.4%	21.4%	0.0%
UAL Contribution	\$790,715	\$917,530	\$1,075,814	\$446,451
<b>7.5%</b>				
Normal Cost	21.4%	21.4%	21.4%	0.0%
UAL Contribution	\$769,790	\$853,294	\$944,291	\$314,928
<b>12.0%</b>				
Normal Cost	21.8%	22.2%	22.6%	1.2%
UAL Contribution	\$750,460	\$795,683	\$825,945	\$196,582
<b>18.9%</b>				
Normal Cost	22.6%	23.8%	25.0%	3.6%
UAL Contribution	\$721,620	\$709,526	\$646,110	\$16,747

For the last two scenarios in the table above the results incorporate the impact of CalPERS Risk Mitigation Policy. A 12.0% return would result in a reduction of the discount rate by 0.05% and a return of 18.9% would reduce the discount rate by 0.15%. Reducing the discount rate increases both the plan's accrued liability and normal cost. More details about Risk Mitigation policy can be found on our website.

## Analysis of Discount Rate Sensitivity

The following analysis looks at the Fiscal Year 2017-18 total normal cost rates and liabilities under two different discount rate scenarios. Shown below are the total normal cost rates assuming discount rates that are 1 percent lower and 1 percent higher than the current valuation discount rate. This analysis shows the potential plan impacts if the Public Employees' Retirement Fund (PERF) were to realize investment returns of 6.50 percent or 8.50 percent over the long-term.

This analysis is intended to illustrate the long-term risk to the contribution rates.

<b>Sensitivity Analysis</b>			
<b>As of June 30, 2015</b>	<b>6.50% Discount Rate (-1%)</b>	<b>7.50% Discount Rate (assumed rate)</b>	<b>8.50% Discount Rate (+1%)</b>
Plan's Total Normal Cost	38.3%	30.4%	24.4%
Accrued Liability	\$42,086,600	\$36,891,116	\$32,680,723
Unfunded Accrued Liability	\$13,823,170	\$8,627,686	\$4,417,293

## Volatility Ratios

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

### Asset Volatility Ratio (AVR)

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

### Liability Volatility Ratio (LVR)

Plans that have higher liability-to-payroll ratios experience more volatile employer contributions (as a percentage of payroll) due to investment return and changes in liability. For example, a plan with a liability-to-payroll ratio of 8 is expected to have twice the contribution volatility of a plan with a liability-to-payroll ratio of 4. The liability volatility ratio is also shown in the table below. It should be noted that this ratio indicates a longer-term potential for contribution volatility. The asset volatility ratio, described above, will tend to move closer to the liability volatility ratio as the plan matures.

<b>Rate Volatility</b>	<b>As of June 30, 2015</b>	
1. Market Value of Assets	\$	28,263,430
2. Payroll		2,046,383
3. Asset Volatility Ratio (AVR) [(1) / (2)]		13.8
4. Accrued Liability	\$	36,891,116
5. Liability Volatility Ratio (LVR) [(4) / (2)]		18.0

## Hypothetical Termination Liability

The hypothetical termination liability is an estimate of the financial position of the plan had the contract with CalPERS been terminated as of June 30, 2015. The plan liability on a termination basis is calculated differently compared to the plan's ongoing funding liability. For the hypothetical termination liability calculation, both compensation and service are frozen as of the valuation date and no future pay increases or service accruals are assumed.

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

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

<b>Market Value of Assets (MVA)</b>	<b>Hypothetical Termination Liability<sup>1,2</sup> @ 2.00%</b>	<b>Funded Status</b>	<b>Unfunded Termination Liability @ 2.00%</b>	<b>Hypothetical Termination Liability<sup>1,2</sup> @ 3.25%</b>	<b>Funded Status</b>	<b>Unfunded Termination Liability @ 3.25%</b>
\$28,263,430	\$81,803,682	34.6%	\$53,540,252	\$66,986,582	42.2%	\$38,723,152

<sup>1</sup> The hypothetical liabilities calculated above include a 7 percent mortality contingency load in accordance with Board policy. Other actuarial assumptions, such as wage and inflation assumptions, can be found in Appendix A.

<sup>2</sup> The current discount rate assumption used for termination valuations is a weighted average of the 10-year and 30-year U.S. Treasury yields where the weights are based on matching asset and liability durations as of the termination date. The discount rates used in the table are based on 20-year Treasury bonds, rounded to the nearest quarter percentage point, which is a good proxy for most plans. The 20-year Treasury yield was 2.75 percent on June 30, 2015.

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

## Participant Data

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

	<b>June 30, 2014</b>	<b>June 30, 2015</b>
Reported Payroll	\$ 1,840,375	\$ 2,046,383
Projected Payroll for Contribution Purposes	\$ 2,011,027	\$ 2,236,138
Number of Members		
Active	16	16
Transferred	17	20
Separated	10	10
Retired	52	53

## List of Class 1 Benefit Provisions

This plan has the additional Class 1 Benefit Provisions:

- One Year Final Compensation (FAC 1)
- Post-Retirement Survivor Allowance (PRSA)

## **PLAN'S MAJOR BENEFIT OPTIONS**

**SECTION 1 – PLAN SPECIFIC INFORMATION FOR THE SAFETY PLAN OF THE TOWN OF ATHERTON**

## Plan’s Major Benefit Options

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

Benefit Provision	Contract package	
	Active Police	Receiving Police
Benefit Formula	3.0% @ 50	
Social Security Coverage	No	
Full/Modified	Full	
Employee Contribution Rate	9.00%	
Final Average Compensation Period	One Year	
Sick Leave Credit	Yes	
Non-Industrial Disability	Standard	
Industrial Disability	Yes	
Pre-Retirement Death Benefits		
Optional Settlement 2W	Yes	
1959 Survivor Benefit Level	level 3	
Special	Yes	
Alternate (firefighters)	No	No
Post-Retirement Death Benefits		
Lump Sum	\$500	\$500
Survivor Allowance (PRSA)	Yes	Yes
COLA	2%	2%

# Section 2

CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

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



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

**August 2016**

**PEPRA MISCELLANEOUS PLAN OF THE TOWN OF ATHERTON  
 (CalPERS ID: 1382390535)  
 Annual Valuation Report as of June 30, 2015**

Dear Employer,

As an attachment to this letter, you will find a copy of the June 30, 2015 actuarial valuation report of the pension plan.

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

- Section 1 contains specific information for the plan including the development of the current and projected employer contributions, and
- Section 2 contains the Risk Pool Actuarial Valuation appropriate to the plan as of June 30, 2015.

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

Your June 30, 2015 actuarial valuation report contains important actuarial information about your pension plan at CalPERS. Your assigned CalPERS staff actuary, whose signature appears in the Actuarial Certification section on page 1, is available to discuss the report with you after August 31, 2016.

**Future Employer Contribution**

Fiscal Year	Employer Normal Cost Rate	+	Employer Payment of Unfunded Liability
2017-18	6.908%		\$412
2018-19 (projected)	6.9%		\$464

The exhibit above displays the minimum employer contributions, before any cost sharing, for Fiscal Year 2017-18 along with estimates of the contributions for Fiscal Year 2018-19. The total employer contribution is the sum of a Normal Cost Rate applied to reported payroll plus an Unfunded Liability dollar payment. The estimated contributions for Fiscal Year 2018-19 are based on a projection of the most recent information we have available, including an estimated 0.0 percent investment return for Fiscal Year 2015-16 (based on the year to date return through April 30, 2016).

For a projection of employer contributions beyond Fiscal Year 2018-19, please refer to the "Projected Employer Contributions" in the "Highlights and Executive Summary" section. This 5-year projection of future employer contributions supersedes any previous projections we have provided. The "Risk Analysis" section of the valuation report also contains estimated employer contributions in future years under a variety of investment return scenarios. Member contributions, other than cost sharing, are in addition to the above amounts. The employer contributions in this report do not reflect any cost sharing arrangements you may have with your employees.

The estimates for Fiscal Year 2018-19 also assume that there are no future contract amendments and no liability gains or losses (such as larger than expected pay increases, more retirements than expected, etc.) This is an important assumption because these gains and losses do occur and can have a significant effect on required contributions. Even for the largest plans or pools, such gains and losses can impact the employer's contributions. These gains and losses cannot be predicted in advance so the projected employer contributions are estimates. The actual required employer contribution for Fiscal Year 2018-19 will be provided in next year's valuation report.

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

The CalPERS Board of Administration adopted a Risk Mitigation Policy which is designed to reduce funding risk over time. The policy establishes a mechanism whereby CalPERS investment performance that significantly outperforms the discount rate triggers adjustments to the discount rate, expected investment return and strategic asset allocation targets. A minimum excess investment return of 4% above the existing discount rate is necessary to cause a funding risk mitigation event. The policy has no impact on the current year valuation results but is expected to have an impact in future years. More details on the Risk Mitigation Policy can be found on our website.

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

Further descriptions of general changes are included in the "Highlights and Executive Summary" section and in Appendix A, "Statement of Actuarial Data, Methods and Assumptions" of the Section 2 report. We understand that you might have a number of questions about these results. While we are very interested in discussing these results with your agency, in the interest of allowing us to give every public agency their results, we ask that you wait until after August 31 to contact us with actuarial related questions.

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

Sincerely,



ALAN MILLIGAN  
Chief Actuary



# **ACTUARIAL VALUATION**

as of June 30, 2015

**for the  
PEPRA MISCELLANEOUS PLAN  
of the  
TOWN OF ATHERTON  
(CalPERS ID: 1382390535)**

**REQUIRED CONTRIBUTIONS  
FOR FISCAL YEAR**

**July 1, 2017 - June 30, 2018**

# **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  
PEPRA MISCELLANEOUS PLAN  
of the  
TOWN OF ATHERTON**

**(CalPERS ID: 1382390535)  
(Rate Plan: 26036)**

# TABLE OF CONTENTS

<b>ACTUARIAL CERTIFICATION</b>	<b>1</b>
<b>HIGHLIGHTS AND EXECUTIVE SUMMARY</b>	
• INTRODUCTION	3
• PURPOSE OF SECTION 1	3
• REQUIRED EMPLOYER CONTRIBUTION	4
• PLAN'S FUNDED STATUS	5
• PROJECTED EMPLOYER CONTRIBUTIONS	5
• CHANGES SINCE THE PRIOR YEAR VALUATION	5
• SUBSEQUENT EVENTS	5
<b>ASSETS AND LIABILITIES</b>	
• ALLOCATION OF PLAN'S SHARE OF POOL'S EXPERIENCE/ASSUMPTION CHANGE	7
• DEVELOPMENT OF PLAN'S SHARE OF POOL'S MVA	7
• SCHEDULE OF PLAN'S SIDE FUND & OTHER AMORTIZATION BASES	8
• 30-YEAR AMORTIZATION SCHEDULE AND ALTERNATIVES	9
• EMPLOYER CONTRIBUTION HISTORY	11
• FUNDING HISTORY	11
<b>RISK ANALYSIS</b>	
• ANALYSIS OF FUTURE INVESTMENT RETURN SCENARIOS	13
• ANALYSIS OF DISCOUNT RATE SENSITIVITY	14
• VOLATILITY RATIOS	15
• HYPOTHETICAL TERMINATION LIABILITY	16
<b>PARTICIPANT DATA</b>	<b>17</b>
<b>LIST OF CLASS 1 BENEFIT PROVISIONS</b>	<b>17</b>
<b>PLAN'S MAJOR BENEFIT OPTIONS</b>	<b>18</b>

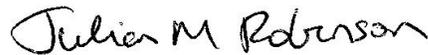
## ACTUARIAL CERTIFICATION

Section 1 of this report is based on the member and financial data contained in our records as of June 30, 2015 which was provided by your agency and the benefit provisions under your contract with CalPERS. Section 2 of this report is based on the member and financial data as of June 30, 2015 provided by employers participating in the Miscellaneous Risk Pool to which the plan belongs and benefit provisions under the CalPERS contracts for those agencies.

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

Having relied upon the information set forth in Section 2 of this report and based on the census and benefit provision information for the plan, it is my opinion as the plan actuary that the side fund and other Unfunded Accrued Liability bases as of June 30, 2015 and employer contribution as of July 1, 2017, have been properly and accurately determined in accordance with the principles and standards stated above.

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



JULIAN ROBINSON, FSA, EA, MAAA  
Senior Pension Actuary, CalPERS  
Plan Actuary

# **HIGHLIGHTS AND EXECUTIVE SUMMARY**

- **INTRODUCTION**
- **PURPOSE OF SECTION 1**
- **REQUIRED EMPLOYER CONTRIBUTION**
- **PLAN'S FUNDED STATUS**
- **PROJECTED EMPLOYER CONTRIBUTIONS**
- **CHANGES SINCE THE PRIOR YEAR VALUATION**
- **SUBSEQUENT EVENTS**

## Introduction

This report presents the results of the June 30, 2015 actuarial valuation of the PEPRA MISCELLANEOUS PLAN of the TOWN OF ATHERTON of the California Public Employees' Retirement System (CalPERS). This actuarial valuation sets the required employer contributions for Fiscal Year 2017-18.

The CalPERS Board of Administration adopted a Risk Mitigation Policy which is designed to reduce funding risk over time. The policy establishes a mechanism whereby CalPERS investment performance that significantly outperforms the discount rate triggers adjustments to the discount rate, expected investment return and strategic asset allocation targets. A minimum excess investment return of 4% above the existing discount rate is necessary to cause a funding risk mitigation event. The Risk Mitigation Policy does not have an impact on the current year actuarial valuation. More details on the Risk Mitigation Policy can be found on our website.

## Purpose of Section 1

This Section 1 report for the PEPRA MISCELLANEOUS PLAN of the TOWN OF ATHERTON of the California Public Employees' Retirement System (CalPERS) was prepared by the plan actuary in order to:

- Set forth the assets and accrued liabilities of this plan as of June 30, 2015;
- Determine the required employer contribution for this plan for the fiscal year July 1, 2017 through June 30, 2018; and
- Provide actuarial information as of June 30, 2015 to the CalPERS Board of Administration and other interested parties.

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

The use of this report for any other purposes may be inappropriate. In particular, this report does not contain information applicable to alternative benefit costs. The employer should contact their actuary before disseminating any portion of this report for any reason that is not explicitly described above.

### California Actuarial Advisory Panel Recommendations

This report includes all the basic disclosure elements as described in the *Model Disclosure Elements for Actuarial Valuation Reports* recommended in 2011 by the California Actuarial Advisory Panel (CAAP), with the exception of including the original base amounts of the various components of the unfunded liability in the Schedule of Amortization Bases shown on page 8.

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

- A "Deterministic Stress Test," projecting future results under different investment income scenarios
- A "Sensitivity Analysis," showing the impact on current valuation results using a 1 percent plus or minus change in the discount rate.

## Required Employer Contribution

	Fiscal Year		Fiscal Year	
Required Employer Contribution	2016-17 <sup>1</sup>		2017-18	
Employer Normal Cost Rate	6.930%		6.908%	
<i>Plus Either</i>				
1) Monthly Employer Dollar UAL Payment	\$	0.00	\$	34.32
<i>Or</i>				
2) Annual Lump Sum Prepayment Option	\$	0	\$	397

*The total minimum required employer contribution is the **sum** of the Plan's Employer Normal Cost Rate (expressed as a percentage of payroll) **plus** the Employer Unfunded Accrued Liability (UAL) Contribution Amount (billed monthly in dollars). Only the UAL portion of the employer contribution can be prepaid (which must be received in full no later than July 31). Plan Normal Cost contributions will be made as part of the payroll reporting process. If there is contractual cost sharing or other change, this amount will change. § 20572 of the Public Employees' Retirement Law assesses interest at an annual rate of 10 percent if a contracting agency fails to remit the required contributions when due.*

	Fiscal Year		Fiscal Year	
	2016-17 <sup>1</sup>		2017-18	
<b>Development of Normal Cost as a Percentage of Payroll</b>				
Base Total Normal Cost for Formula		12.805%		12.783%
Surcharge for Class 1 Benefits <sup>3</sup>				
a) PRSA		0.625%		0.625%
Phase out of Normal Cost Difference <sup>4</sup>		0.000%		0.000%
Plan's Total Normal Cost		13.430%		13.408%
Plan's Employee Contribution Rate		6.500%		6.500%
Employer Normal Cost Rate		6.930%		6.908%
Projected Payroll for the Contribution Fiscal Year	\$	70,838	\$	254,625
<b>Estimated Employer Contributions Based on Projected Payroll</b>				
Plan's Estimated Employer Normal Cost	\$	4,909	\$	17,590
Plan's Payment on Amortization Bases <sup>2</sup>		0		412
Total Employer Contribution <sup>5</sup>	\$	4,909	\$	18,002

<sup>1</sup> The results shown for Fiscal Year 2016-17 reflect the prior year valuation and do not take into account any lump sum payment, side fund payoff, or rate adjustment made after June 30, 2015.

<sup>2</sup> See page 8 for a breakdown of the Amortization Bases.

<sup>3</sup> Section 2 of this report contains a list of Class 1 benefits and corresponding surcharges for each benefit.

<sup>4</sup> The normal cost difference is phased out over a five year period. The phase out of normal cost difference is 100 percent for the first year of pooling, and is incrementally reduced by 20 percent of the original normal cost difference for each subsequent year. This is non-zero only for plans that joined a pool within the past 5 years. Most plans joined a pool June 30, 2003, when risk pooling was implemented.

<sup>5</sup> As a percentage of projected payroll the UAL contribution is 0.162 percent for an estimated total employer contribution rate of 7.070 percent.

## Plan's Funded Status

	<b>June 30, 2014</b>	<b>June 30, 2015</b>
1. Present Value of Projected Benefits (PVB)	\$ 116,119	\$ 331,042
2. Entry Age Normal Accrued Liability (AL)	12,473	34,451
3. Plan's Market Value of Assets (MVA)	13,179	33,187
4. Unfunded Accrued Liability (UAL) [(2) - (3)]	(706)	1,264
5. Funded Ratio [(3) / (2)]	105.7%	96.3%

## Projected Employer Contributions

The estimate for Fiscal Year 2018-19 is based on a projection of the most recent information we have available, including an estimated 0.0 percent investment return for Fiscal Year 2015-16 (based on year to date return through April 30, 2016).

The table below shows projected employer contributions (before cost sharing) for the next five fiscal years, **assuming CalPERS earns 0.0 percent for Fiscal Year 2015-16 and 7.50 percent every fiscal year thereafter**, and assuming that all other actuarial assumptions will be realized and that no further changes to assumptions, contributions, benefits, or funding will occur between now and the beginning of the projection period.

	<b>Required Contribution</b>	<b>Projected Future Employer Contributions</b>				
<b>Fiscal Year</b>	<b>2017-18</b>	<b>2018-19</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>
<b>Normal Cost %</b>	6.908%	6.9%	6.9%	6.9%	6.9%	6.9%
<b>UAL \$</b>	\$412	\$464	\$520	\$578	\$640	\$227

## Changes since the Prior Year's Valuation

### Benefits

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

### Actuarial Methods and Assumptions

None.

## Subsequent Events

### Risk Mitigation

The CalPERS Board of Administration adopted a Risk Mitigation Policy which is designed to reduce funding risk over time. The policy establishes a mechanism whereby CalPERS investment performance that significantly outperforms the discount rate triggers adjustments to the discount rate, expected investment return and strategic asset allocation targets. A minimum excess investment return of 4% above the existing discount rate is necessary to cause a funding risk mitigation event. More details on the Risk Mitigation Policy can be found on our website.

## **ASSETS AND LIABILITIES**

- **ALLOCATION OF PLAN'S SHARE OF POOL'S EXPERIENCE/ASSUMPTION CHANGE**
- **DEVELOPMENT OF PLAN'S SHARE OF POOL'S MVA**
- **SCHEDULE OF PLAN'S SIDE FUND & OTHER AMORTIZATION BASES**
- **30-YEAR AMORTIZATION SCHEDULE AND ALTERNATIVES**
- **EMPLOYER CONTRIBUTION HISTORY**
- **FUNDING HISTORY**

## 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	\$	34,451
2.	Projected UAL balance at 6/30/15		(428)
3.	Pool's Accrued Liability	\$	13,889,938,645
4.	Sum of Pool's Individual Plan UAL Balances at 6/30/15		2,423,468,906
5.	Pool's 2014/15 Investment & Asset (Gain)/Loss		596,365,421
6.	Pool's 2014/15 Other (Gain)/Loss		(49,030,273)
7.	Plan's Share of Pool's Asset (Gain)/Loss $[(1)-(2)]/[(3)-(4)] * (5)$		1,814
8.	Plan's Share of Pool's Other (Gain)/Loss $[(1)]/[(3)] * (6)$		(122)
9.	Plan's New (Gain)/Loss as of 6/30/2015 $[(7)+(8)]$	\$	1,692
10.	Increase in Pool's Accrued Liability due to Change in Assumptions		0
11.	Plan's Share of Pool's Change in Assumptions $[(1)]/[(3)] * (10)$	\$	0

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

1.	Plan's Accrued Liability	\$	34,451
2.	Plan's UAL	\$	1,264
3.	Plan's Share of Pool's MVA $[(1)-(2)]$	\$	<b>33,187</b>

## Schedule of Plan's Side Fund and Other Amortization Bases

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

- The assets, liabilities, and funded status of the plan are measured as of the valuation date: June 30, 2015.
- The employer contribution determined by the valuation is for the fiscal year beginning two years after the valuation date: Fiscal Year 2017-18.

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

The Unfunded Accrued Liability (UAL) is used to determine the employer contribution and therefore must be rolled forward two years from the valuation date to the first day of the fiscal year for which the contribution is being determined. The UAL is rolled forward each year by subtracting the payment on the UAL for the fiscal year and adjusting for interest.

Reason for Base	Date Established	Amortization Period	Balance 6/30/15	Payment 2015-16	Balance 6/30/16	Payment 2016-17	Amounts for Fiscal 2017-18	
							Balance 6/30/17	Scheduled Payment for 2017-18
FRESH START	06/30/15	5	\$1,264	\$(328)	\$1,699	\$0	\$1,827	\$412
<b>TOTAL</b>			<b>\$1,264</b>	<b>\$(328)</b>	<b>\$1,699</b>	<b>\$0</b>	<b>\$1,827</b>	<b>\$412</b>

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

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

## 30-Year Amortization Schedule and Alternatives

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

Shown on the following page are future year amortization payments based on 1) the current amortization schedule reflecting the individual bases and remaining periods shown on the previous page, and 2) alternate "fresh start" amortization schedules using two sample periods that would both result in interest savings relative to the current amortization schedule. Note that the payments under each alternate scenario increase by 3 percent for each year into the future. The schedules do not attempt to reflect any experience after June 30, 2015 that may deviate from the actuarial assumptions. Therefore, future amortization payments displayed in the Current Amortization Schedule may not match projected amortization payments shown in connection with Projected Employer Contributions provided elsewhere in this report.

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

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

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

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

## 30-Year Amortization Schedule and Alternatives

Date	<u>Current Amortization Schedule</u>		<u>Alternate Schedules</u>			
	Balance	Payment	0 Year Amortization		0 Year Amortization	
			Balance	Payment	Balance	Payment
6/30/2017	1,826	412	N/A	N/A	N/A	N/A
6/30/2018	1,536	424				
6/30/2019	1,212	437				
6/30/2020	850	450				
6/30/2021	447	463				
6/30/2022	0	0				
6/30/2023	0	0				
6/30/2024	0	0				
6/30/2025	0	0				
6/30/2026	0	0				
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6/30/2038	0	0				
6/30/2039	0	0				
6/30/2040	0	0				
6/30/2041	0	0				
6/30/2042	0	0				
6/30/2043	0	0				
6/30/2044	0	0				
6/30/2045	0	0				
6/30/2046	0	0				
<b>Totals</b>		<b>2,186</b>		<b>0</b>		<b>0</b>
<b>Estimated Savings</b>				<b>0</b>		<b>0</b>

Current CalPERS Board policy prioritizes the order for which lump sum contributions in excess of the required employer contribution shall be applied. Excess contributions shall first be applied toward payment on the plan's side fund, and any remainder shall then be applied toward the plan's share of the pool's unfunded accrued liability.

Please contact the plan actuary before making such a payment to ensure that the payment is applied correctly.

## Employer Contribution History

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

<b>Fiscal Year</b>	<b>Employer Normal Cost</b>	<b>Unfunded Liability Payment (\$)</b>
2016 - 17	6.930%	0
2017 - 18	6.908%	412

## Funding History

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

<b>Valuation Date</b>	<b>Accrued Liability (AL)</b>	<b>Share of Pool's Market Value of Assets (MVA)</b>	<b>Plan's Share of Pool's Unfunded Liability</b>	<b>Funded Ratio</b>	<b>Annual Covered Payroll</b>
06/30/2013	\$ 377	\$ 506	\$ (129)	134.2%	\$ 60,372
06/30/2014	12,473	13,179	(706)	105.7%	64,827
06/30/2015	34,451	33,187	1,264	96.3%	233,018

## **RISK ANALYSIS**

- **ANALYSIS OF FUTURE INVESTMENT RETURN SCENARIOS**
- **ANALYSIS OF DISCOUNT RATE SENSITIVITY**
- **VOLATILITY RATIOS**
- **HYPOTHETICAL TERMINATION LIABILITY**

## Analysis of Future Investment Return Scenarios

The investment return for Fiscal Year 2015-16 was not known at the time this report was produced. The investment return in Fiscal Year 2015-16 as of April 30, 2016 is 0.0 percent before administrative expenses. For purposes of projecting future employer contributions, we are assuming a 0.0 percent investment return for Fiscal Year 2015-16.

The investment return realized during a fiscal year first affects the contribution for the fiscal year two years later. For example, the investment return for Fiscal Year 2015-16 will first be reflected in the June 30, 2016 actuarial valuation that will be used to set the Fiscal Year 2018-19 employer contributions, the Fiscal Year 2016-17 investment return will first be reflected in the June 30, 2017 actuarial valuation that will be used to set the Fiscal Year 2019-20 employer contributions, and so forth.

A sensitivity analysis was performed to determine the effects of various investment returns during fiscal years 2016-17, 2017-18, and 2018-19 on the employer contributions for fiscal years 2019-20, 2020-21, and 2021-22. The projected contributions assume that all other actuarial assumptions will be realized and that no further changes to assumptions, contributions, benefits, or funding will occur.

Five different investment return scenarios were selected.

- The first scenario is a -3.8 percent return for each of the 2016-17, 2017-18, and 2018-19 fiscal years. Based on the current investment allocation, this is what one would expect if the markets were to give us about a 5<sup>th</sup> percentile return from July 1, 2016 through June 30, 2019.
- The second scenario is a 2.8 percent return for each of the 2016-17, 2017-18, and 2018-19 fiscal years. Based on the current investment allocation, this is what one would expect if the markets were to give us about a 25<sup>th</sup> percentile return from July 1, 2016 through June 30, 2019.
- The third scenario is a 7.5 percent return for each of the 2016-17, 2017-18, and 2018-19 fiscal years. Based on the current investment allocation, this is what one would expect if the markets were to give us about a 49<sup>th</sup> percentile return from July 1, 2016 through June 30, 2019.
- The fourth scenario is a 12.0 percent return for each of the 2016-17, 2017-18, and 2018-19 fiscal years. Based on the current investment allocation, this is what one would expect if the markets were to give us about a 75<sup>th</sup> percentile return from July 1, 2016 through June 30, 2019.
- Finally, the last scenario is an 18.9 percent return for each of the 2016-17, 2017-18, and 2018-19 fiscal years. Based on the current investment allocation, this is what one would expect if the markets were to give us about a 95<sup>th</sup> percentile return from July 1, 2016 through June 30, 2019.

The table below shows the estimated projected contributions and the estimated increases for the plan under the five different scenarios.

2016-19 Investment Return Scenario	Fiscal Year			Estimated Change Between 2018-19 and 2021-22
	2019-20	2020-21	2021-22	
<b>(3.8%)</b>				
Normal Cost	6.9%	6.9%	6.9%	0.0%
UAL Contribution	\$580	\$761	\$1,007	\$543
<b>2.8%</b>				
Normal Cost	6.9%	6.9%	6.9%	0.0%
UAL Contribution	\$545	\$656	\$799	\$335
<b>7.5%</b>				
Normal Cost	6.9%	6.9%	6.9%	0.0%
UAL Contribution	\$520	\$578	\$640	\$176
<b>12.0%</b>				
Normal Cost	6.8%	6.9%	6.9%	0.0%
UAL Contribution	\$499	\$514	\$0	\$(464)
<b>18.9%</b>				
Normal Cost	6.9%	7.2%	7.4%	0.5%
UAL Contribution	\$471	\$0	\$0	\$(464)

For the last two scenarios in the table above the results incorporate the impact of CalPERS Risk Mitigation Policy. A 12.0% return would result in a reduction of the discount rate by 0.05% and a return of 18.9% would reduce the discount rate by 0.15%. Reducing the discount rate increases both the plan's accrued liability and normal cost. More details about Risk Mitigation policy can be found on our website.

## Analysis of Discount Rate Sensitivity

The following analysis looks at the Fiscal Year 2017-18 total normal cost rates and liabilities under two different discount rate scenarios. Shown below are the total normal cost rates assuming discount rates that are 1 percent lower and 1 percent higher than the current valuation discount rate. This analysis shows the potential plan impacts if the Public Employees' Retirement Fund (PERF) were to realize investment returns of 6.50 percent or 8.50 percent over the long-term.

This analysis is intended to illustrate the long-term risk to the contribution rates.

<b>Sensitivity Analysis</b>			
<b>As of June 30, 2015</b>	<b>6.50% Discount Rate (-1%)</b>	<b>7.50% Discount Rate (assumed rate)</b>	<b>8.50% Discount Rate (+1%)</b>
Plan's Total Normal Cost	16.5%	13.4%	11.0%
Accrued Liability	\$42,024	\$34,451	\$28,528
Unfunded Accrued Liability	\$8,837	\$1,264	\$(4,659)

## Volatility Ratios

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

### Asset Volatility Ratio (AVR)

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

### Liability Volatility Ratio (LVR)

Plans that have higher liability-to-payroll ratios experience more volatile employer contributions (as a percentage of payroll) due to investment return and changes in liability. For example, a plan with a liability-to-payroll ratio of 8 is expected to have twice the contribution volatility of a plan with a liability-to-payroll ratio of 4. The liability volatility ratio is also shown in the table below. It should be noted that this ratio indicates a longer-term potential for contribution volatility. The asset volatility ratio, described above, will tend to move closer to the liability volatility ratio as the plan matures.

<b>Rate Volatility</b>	<b>As of June 30, 2015</b>	
1. Market Value of Assets	\$	33,187
2. Payroll		233,018
3. Asset Volatility Ratio (AVR) [(1) / (2)]		0.1
4. Accrued Liability	\$	34,451
5. Liability Volatility Ratio (LVR) [(4) / (2)]		0.1

## Hypothetical Termination Liability

The hypothetical termination liability is an estimate of the financial position of the plan had the contract with CalPERS been terminated as of June 30, 2015. The plan liability on a termination basis is calculated differently compared to the plan's ongoing funding liability. For the hypothetical termination liability calculation, both compensation and service are frozen as of the valuation date and no future pay increases or service accruals are assumed.

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

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

Market Value of Assets (MVA)	Hypothetical Termination Liability <sup>1,2</sup> @ 2.00%	Funded Status	Unfunded Termination Liability @ 2.00%	Hypothetical Termination Liability <sup>1,2</sup> @ 3.25%	Funded Status	Unfunded Termination Liability @ 3.25%
\$33,187	\$18,215	182.2%	\$(14,972)	\$18,215	182.2%	\$(14,972)

**For plans where active members have little service the hypothetical termination liability methodology used does not fully vest active members upon termination. In these cases the hypothetical termination liability is understated.**

<sup>1</sup> The hypothetical liabilities calculated above include a 7 percent mortality contingency load in accordance with Board policy. Other actuarial assumptions, such as wage and inflation assumptions, can be found in Appendix A.

<sup>2</sup> The current discount rate assumption used for termination valuations is a weighted average of the 10-year and 30-year U.S. Treasury yields where the weights are based on matching asset and liability durations as of the termination date. The discount rates used in the table are based on 20-year Treasury bonds, rounded to the nearest quarter percentage point, which is a good proxy for most plans. The 20-year Treasury yield was 2.75 percent on June 30, 2015.

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

## Participant Data

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

	<b>June 30, 2014</b>	<b>June 30, 2015</b>
Reported Payroll	\$ 64,827	\$ 233,018
Projected Payroll for Contribution Purposes	\$ 70,838	\$ 254,625
Number of Members		
Active	1	3
Transferred	0	0
Separated	0	0
Retired	0	0

## List of Class 1 Benefit Provisions

This plan has the additional Class 1 Benefit Provisions:

- Post-Retirement Survivor Allowance (PRSA)

## **PLAN'S MAJOR BENEFIT OPTIONS**

**SECTION 1 – PLAN SPECIFIC INFORMATION FOR THE PEPRA MISCELLANEOUS PLAN OF THE TOWN OF ATHERTON**

## Plan’s Major Benefit Options

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

	Contract package	
<b>Benefit Provision</b>	Active Misc	
Benefit Formula	2.0% @ 62	
Social Security Coverage	No	
Full/Modified	Full	
Employee Contribution Rate	6.50%	
Final Average Compensation Period	Three Year	
Sick Leave Credit	Yes	
Non-Industrial Disability	Standard	
Industrial Disability	No	
Pre-Retirement Death Benefits		
Optional Settlement 2W	Yes	
1959 Survivor Benefit Level	level 3	
Special	No	
Alternate (firefighters)	No	
Post-Retirement Death Benefits		
Lump Sum	\$500	
Survivor Allowance (PRSA)	Yes	
COLA	2%	

# Section 2

CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

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



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

**August 2016**

**PEPRA SAFETY POLICE PLAN OF THE TOWN OF ATHERTON  
(CalPERS ID: 1382390535)  
Annual Valuation Report as of June 30, 2015**

Dear Employer,

As an attachment to this letter, you will find a copy of the June 30, 2015 actuarial valuation report of the pension plan.

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

- Section 1 contains specific information for the plan including the development of the current and projected employer contributions, and
- Section 2 contains the Risk Pool Actuarial Valuation appropriate to the plan as of June 30, 2015.

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

Your June 30, 2015 actuarial valuation report contains important actuarial information about your pension plan at CalPERS. Your assigned CalPERS staff actuary, whose signature appears in the Actuarial Certification section on page 1, is available to discuss the report with you after August 31, 2016.

**Future Employer Contribution**

Fiscal Year	Employer Normal Cost Rate	+	Employer Payment of Unfunded Liability
2017-18	12.729%		\$1,974
2018-19 (projected)	12.7%		\$2,112

The exhibit above displays the minimum employer contributions, before any cost sharing, for Fiscal Year 2017-18 along with estimates of the contributions for Fiscal Year 2018-19. The total employer contribution is the sum of a Normal Cost Rate applied to reported payroll plus an Unfunded Liability dollar payment. The estimated contributions for Fiscal Year 2018-19 are based on a projection of the most recent information we have available, including an estimated 0.0 percent investment return for Fiscal Year 2015-16 (based on the year to date return through April 30, 2016).

For a projection of employer contributions beyond Fiscal Year 2018-19, please refer to the "Projected Employer Contributions" in the "Highlights and Executive Summary" section. This 5-year projection of future employer contributions supersedes any previous projections we have provided. The "Risk Analysis" section of the valuation report also contains estimated employer contributions in future years under a variety of investment return scenarios. Member contributions, other than cost sharing, are in addition to the above amounts. The employer contributions in this report do not reflect any cost sharing arrangements you may have with your employees.

The estimates for Fiscal Year 2018-19 also assume that there are no future contract amendments and no liability gains or losses (such as larger than expected pay increases, more retirements than expected, etc.) This is an important assumption because these gains and losses do occur and can have a significant effect on required contributions. Even for the largest plans or pools, such gains and losses can impact the employer's contributions. These gains and losses cannot be predicted in advance so the projected employer contributions are estimates. The actual required employer contribution for Fiscal Year 2018-19 will be provided in next year's valuation report.

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

The CalPERS Board of Administration adopted a Risk Mitigation Policy which is designed to reduce funding risk over time. The policy establishes a mechanism whereby CalPERS investment performance that significantly outperforms the discount rate triggers adjustments to the discount rate, expected investment return and strategic asset allocation targets. A minimum excess investment return of 4% above the existing discount rate is necessary to cause a funding risk mitigation event. The policy has no impact on the current year valuation results but is expected to have an impact in future years. More details on the Risk Mitigation Policy can be found on our website.

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

Further descriptions of general changes are included in the "Highlights and Executive Summary" section and in Appendix A, "Statement of Actuarial Data, Methods and Assumptions" of the Section 2 report. We understand that you might have a number of questions about these results. While we are very interested in discussing these results with your agency, in the interest of allowing us to give every public agency their results, we ask that you wait until after August 31 to contact us with actuarial related questions.

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

Sincerely,



ALAN MILLIGAN  
Chief Actuary



# **ACTUARIAL VALUATION**

as of June 30, 2015

**for the  
PEPRA SAFETY POLICE PLAN  
of the  
TOWN OF ATHERTON  
(CalPERS ID: 1382390535)**

**REQUIRED CONTRIBUTIONS  
FOR FISCAL YEAR**

**July 1, 2017 - June 30, 2018**

# **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 PEPRA SAFETY POLICE PLAN of the TOWN OF ATHERTON**

**(CalPERS ID: 1382390535)  
(Rate Plan: 25053)**

# TABLE OF CONTENTS

<b>ACTUARIAL CERTIFICATION</b>	<b>1</b>
<b>HIGHLIGHTS AND EXECUTIVE SUMMARY</b>	
• <b>INTRODUCTION</b>	<b>3</b>
• <b>PURPOSE OF SECTION 1</b>	<b>3</b>
• <b>REQUIRED EMPLOYER CONTRIBUTION</b>	<b>4</b>
• <b>PLAN'S FUNDED STATUS</b>	<b>5</b>
• <b>PROJECTED EMPLOYER CONTRIBUTIONS</b>	<b>5</b>
• <b>CHANGES SINCE THE PRIOR YEAR VALUATION</b>	<b>5</b>
• <b>SUBSEQUENT EVENTS</b>	<b>5</b>
<b>ASSETS AND LIABILITIES</b>	
• <b>ALLOCATION OF PLAN'S SHARE OF POOL'S EXPERIENCE/ASSUMPTION CHANGE</b>	<b>7</b>
• <b>DEVELOPMENT OF PLAN'S SHARE OF POOL'S MVA</b>	<b>7</b>
• <b>SCHEDULE OF PLAN'S SIDE FUND &amp; OTHER AMORTIZATION BASES</b>	<b>8</b>
• <b>30-YEAR AMORTIZATION SCHEDULE AND ALTERNATIVES</b>	<b>9</b>
• <b>EMPLOYER CONTRIBUTION HISTORY</b>	<b>11</b>
• <b>FUNDING HISTORY</b>	<b>11</b>
<b>RISK ANALYSIS</b>	
• <b>ANALYSIS OF FUTURE INVESTMENT RETURN SCENARIOS</b>	<b>13</b>
• <b>ANALYSIS OF DISCOUNT RATE SENSITIVITY</b>	<b>14</b>
• <b>VOLATILITY RATIOS</b>	<b>15</b>
• <b>HYPOTHETICAL TERMINATION LIABILITY</b>	<b>16</b>
<b>PARTICIPANT DATA</b>	<b>17</b>
<b>LIST OF CLASS 1 BENEFIT PROVISIONS</b>	<b>17</b>
<b>PLAN'S MAJOR BENEFIT OPTIONS</b>	<b>18</b>

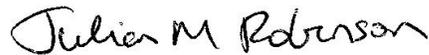
## ACTUARIAL CERTIFICATION

Section 1 of this report is based on the member and financial data contained in our records as of June 30, 2015 which was provided by your agency and the benefit provisions under your contract with CalPERS. Section 2 of this report is based on the member and financial data as of June 30, 2015 provided by employers participating in the Safety Risk Pool to which the plan belongs and benefit provisions under the CalPERS contracts for those agencies.

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

Having relied upon the information set forth in Section 2 of this report and based on the census and benefit provision information for the plan, it is my opinion as the plan actuary that the side fund and other Unfunded Accrued Liability bases as of June 30, 2015 and employer contribution as of July 1, 2017, have been properly and accurately determined in accordance with the principles and standards stated above.

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



JULIAN ROBINSON, FSA, EA, MAAA  
Senior Pension Actuary, CalPERS  
Plan Actuary

# HIGHLIGHTS AND EXECUTIVE SUMMARY

- **INTRODUCTION**
- **PURPOSE OF SECTION 1**
- **REQUIRED EMPLOYER CONTRIBUTION**
- **PLAN'S FUNDED STATUS**
- **PROJECTED EMPLOYER CONTRIBUTIONS**
- **CHANGES SINCE THE PRIOR YEAR VALUATION**
- **SUBSEQUENT EVENTS**

## Introduction

This report presents the results of the June 30, 2015 actuarial valuation of the PEPRA SAFETY POLICE PLAN of the TOWN OF ATHERTON of the California Public Employees' Retirement System (CalPERS). This actuarial valuation sets the required employer contributions for Fiscal Year 2017-18.

The CalPERS Board of Administration adopted a Risk Mitigation Policy which is designed to reduce funding risk over time. The policy establishes a mechanism whereby CalPERS investment performance that significantly outperforms the discount rate triggers adjustments to the discount rate, expected investment return and strategic asset allocation targets. A minimum excess investment return of 4% above the existing discount rate is necessary to cause a funding risk mitigation event. The Risk Mitigation Policy does not have an impact on the current year actuarial valuation. More details on the Risk Mitigation Policy can be found on our website.

## Purpose of Section 1

This Section 1 report for the PEPRA SAFETY POLICE PLAN of the TOWN OF ATHERTON of the California Public Employees' Retirement System (CalPERS) was prepared by the plan actuary in order to:

- Set forth the assets and accrued liabilities of this plan as of June 30, 2015;
- Determine the required employer contribution for this plan for the fiscal year July 1, 2017 through June 30, 2018; and
- Provide actuarial information as of June 30, 2015 to the CalPERS Board of Administration and other interested parties.

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

The use of this report for any other purposes may be inappropriate. In particular, this report does not contain information applicable to alternative benefit costs. The employer should contact their actuary before disseminating any portion of this report for any reason that is not explicitly described above.

### California Actuarial Advisory Panel Recommendations

This report includes all the basic disclosure elements as described in the *Model Disclosure Elements for Actuarial Valuation Reports* recommended in 2011 by the California Actuarial Advisory Panel (CAAP), with the exception of including the original base amounts of the various components of the unfunded liability in the Schedule of Amortization Bases shown on page 8.

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

- A "Deterministic Stress Test," projecting future results under different investment income scenarios
- A "Sensitivity Analysis," showing the impact on current valuation results using a 1 percent plus or minus change in the discount rate.

## Required Employer Contribution

	Fiscal Year		Fiscal Year	
Required Employer Contribution	2016-17 <sup>1</sup>		2017-18	
<b>Employer Normal Cost Rate</b>	<b>12.821%</b>		<b>12.729%</b>	
<i>Plus Either</i>				
<b>1) Monthly Employer Dollar UAL Payment</b>	<b>\$</b>	<b>6.99</b>	<b>\$</b>	<b>164.47</b>
<i>Or</i>				
<b>2) Annual Lump Sum Prepayment Option</b>	<b>\$</b>	<b>81</b>	<b>\$</b>	<b>1,903</b>

*The total minimum required employer contribution is the **sum** of the Plan's Employer Normal Cost Rate (expressed as a percentage of payroll) **plus** the Employer Unfunded Accrued Liability (UAL) Contribution Amount (billed monthly in dollars). Only the UAL portion of the employer contribution can be prepaid (which must be received in full no later than July 31). Plan Normal Cost contributions will be made as part of the payroll reporting process. If there is contractual cost sharing or other change, this amount will change. § 20572 of the Public Employees' Retirement Law assesses interest at an annual rate of 10 percent if a contracting agency fails to remit the required contributions when due.*

	Fiscal Year		Fiscal Year	
	2016-17 <sup>1</sup>		2017-18	
<b>Development of Normal Cost as a Percentage of Payroll</b>				
Base Total Normal Cost for Formula		23.582%		23.490%
Surcharge for Class 1 Benefits <sup>3</sup>				
a) PRSA		1.489%		1.489%
Phase out of Normal Cost Difference <sup>4</sup>		0.000%		0.000%
Plan's Total Normal Cost		<u>25.071%</u>		<u>24.979%</u>
Plan's Employee Contribution Rate		<u>12.250%</u>		<u>12.250%</u>
Employer Normal Cost Rate		12.821%		12.729%
Projected Payroll for the Contribution Fiscal Year	\$	219,679	\$	484,226
<b>Estimated Employer Contributions Based on Projected Payroll</b>				
Plan's Estimated Employer Normal Cost	\$	28,165	\$	61,637
Plan's Payment on Amortization Bases <sup>2</sup>		<u>84</u>		<u>1,974</u>
Total Employer Contribution <sup>5</sup>	\$	28,249	\$	63,611

<sup>1</sup> The results shown for Fiscal Year 2016-17 reflect the prior year valuation and do not take into account any lump sum payment, side fund payoff, or rate adjustment made after June 30, 2015.

<sup>2</sup> See page 8 for a breakdown of the Amortization Bases.

<sup>3</sup> Section 2 of this report contains a list of Class 1 benefits and corresponding surcharges for each benefit.

<sup>4</sup> The normal cost difference is phased out over a five year period. The phase out of normal cost difference is 100 percent for the first year of pooling, and is incrementally reduced by 20 percent of the original normal cost difference for each subsequent year. This is non-zero only for plans that joined a pool within the past 5 years. Most plans joined a pool June 30, 2003, when risk pooling was implemented.

<sup>5</sup> As a percentage of projected payroll the UAL contribution is 0.408 percent for an estimated total employer contribution rate of 13.137 percent.

## Plan's Funded Status

	<b>June 30, 2014</b>	<b>June 30, 2015</b>
1. Present Value of Projected Benefits (PVB)	\$ 681,674	\$ 1,558,619
2. Entry Age Normal Accrued Liability (AL)	1,842	71,655
3. Plan's Market Value of Assets (MVA)	1,920	66,027
4. Unfunded Accrued Liability (UAL) [(2) - (3)]	(78)	5,628
5. Funded Ratio [(3) / (2)]	104.2%	92.1%

## Projected Employer Contributions

The estimate for Fiscal Year 2018-19 is based on a projection of the most recent information we have available, including an estimated 0.0 percent investment return for Fiscal Year 2015-16 (based on year to date return through April 30, 2016).

The table below shows projected employer contributions (before cost sharing) for the next five fiscal years, **assuming CalPERS earns 0.0 percent for Fiscal Year 2015-16 and 7.50 percent every fiscal year thereafter**, and assuming that all other actuarial assumptions will be realized and that no further changes to assumptions, contributions, benefits, or funding will occur between now and the beginning of the projection period.

Fiscal Year	Required Contribution	Projected Future Employer Contributions				
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Normal Cost %	12.729%	12.7%	12.7%	12.7%	12.7%	12.7%
UAL \$	\$1,974	\$2,112	\$2,258	\$2,410	\$2,569	\$448

## Changes since the Prior Year's Valuation

### Benefits

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

### Actuarial Methods and Assumptions

None.

## Subsequent Events

### Risk Mitigation

The CalPERS Board of Administration adopted a Risk Mitigation Policy which is designed to reduce funding risk over time. The policy establishes a mechanism whereby CalPERS investment performance that significantly outperforms the discount rate triggers adjustments to the discount rate, expected investment return and strategic asset allocation targets. A minimum excess investment return of 4% above the existing discount rate is necessary to cause a funding risk mitigation event. More details on the Risk Mitigation Policy can be found on our website.

## **ASSETS AND LIABILITIES**

- **ALLOCATION OF PLAN'S SHARE OF POOL'S EXPERIENCE/ASSUMPTION CHANGE**
- **DEVELOPMENT OF PLAN'S SHARE OF POOL'S MVA**
- **SCHEDULE OF PLAN'S SIDE FUND & OTHER AMORTIZATION BASES**
- **30-YEAR AMORTIZATION SCHEDULE AND ALTERNATIVES**
- **EMPLOYER CONTRIBUTION HISTORY**
- **FUNDING HISTORY**

## 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	\$	71,655
2.	Projected UAL balance at 6/30/15		2,026
3.	Pool's Accrued Liability	\$	18,467,886,519
4.	Sum of Pool's Individual Plan UAL Balances at 6/30/15		3,713,009,355
5.	Pool's 2014/15 Investment & Asset (Gain)/Loss		765,720,345
6.	Pool's 2014/15 Other (Gain)/Loss		(2,867,161)
7.	Plan's Share of Pool's Asset (Gain)/Loss $[(1)-(2)]/[(3)-(4)] * (5)$		3,613
8.	Plan's Share of Pool's Other (Gain)/Loss $[(1)]/[(3)] * (6)$		(11)
9.	Plan's New (Gain)/Loss as of 6/30/2015 $[(7)+(8)]$	\$	3,602
10.	Increase in Pool's Accrued Liability due to Change in Assumptions		0
11.	Plan's Share of Pool's Change in Assumptions $[(1)]/[(3)] * (10)$	\$	0

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

1.	Plan's Accrued Liability	\$	71,655
2.	Plan's UAL	\$	5,628
3.	Plan's Share of Pool's MVA $[(1)-(2)]$	\$	<b>66,027</b>

## Schedule of Plan's Side Fund and Other Amortization Bases

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

- The assets, liabilities, and funded status of the plan are measured as of the valuation date: June 30, 2015.
- The employer contribution determined by the valuation is for the fiscal year beginning two years after the valuation date: Fiscal Year 2017-18.

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

The Unfunded Accrued Liability (UAL) is used to determine the employer contribution and therefore must be rolled forward two years from the valuation date to the first day of the fiscal year for which the contribution is being determined. The UAL is rolled forward each year by subtracting the payment on the UAL for the fiscal year and adjusting for interest.

Reason for Base	Date Established	Amortization Period	Balance 6/30/15	Payment 2015-16	Balance 6/30/16	Payment 2016-17	Amounts for Fiscal 2017-18	
							Balance 6/30/17	Scheduled Payment for 2017-18
FRESH START	06/30/15	5	\$5,628	\$(2,096)	\$8,224	\$84	\$8,753	\$1,974
<b>TOTAL</b>			<b>\$5,628</b>	<b>\$(2,096)</b>	<b>\$8,224</b>	<b>\$84</b>	<b>\$8,753</b>	<b>\$1,974</b>

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

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

## 30-Year Amortization Schedule and Alternatives

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

Shown on the following page are future year amortization payments based on 1) the current amortization schedule reflecting the individual bases and remaining periods shown on the previous page, and 2) alternate "fresh start" amortization schedules using two sample periods that would both result in interest savings relative to the current amortization schedule. Note that the payments under each alternate scenario increase by 3 percent for each year into the future. The schedules do not attempt to reflect any experience after June 30, 2015 that may deviate from the actuarial assumptions. Therefore, future amortization payments displayed in the Current Amortization Schedule may not match projected amortization payments shown in connection with Projected Employer Contributions provided elsewhere in this report.

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

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

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

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

## 30-Year Amortization Schedule and Alternatives

Date	<u>Current Amortization Schedule</u>		<u>Alternate Schedules</u>			
	Balance	Payment	0 Year Amortization		0 Year Amortization	
			Balance	Payment	Balance	Payment
6/30/2017	8,754	1,974	N/A	N/A	N/A	N/A
6/30/2018	7,364	2,033				
6/30/2019	5,808	2,094				
6/30/2020	4,073	2,157				
6/30/2021	2,142	2,221				
6/30/2022	0	0				
6/30/2023	0	0				
6/30/2024	0	0				
6/30/2025	0	0				
6/30/2026	0	0				
6/30/2027	0	0				
6/30/2028	0	0				
6/30/2029	0	0				
6/30/2030	0	0				
6/30/2031	0	0				
6/30/2032	0	0				
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6/30/2037	0	0				
6/30/2038	0	0				
6/30/2039	0	0				
6/30/2040	0	0				
6/30/2041	0	0				
6/30/2042	0	0				
6/30/2043	0	0				
6/30/2044	0	0				
6/30/2045	0	0				
6/30/2046	0	0				
<b>Totals</b>		<b>10,478</b>		<b>0</b>		<b>0</b>
<b>Estimated Savings</b>				<b>0</b>		<b>0</b>

Current CalPERS Board policy prioritizes the order for which lump sum contributions in excess of the required employer contribution shall be applied. Excess contributions shall first be applied toward payment on the plan's side fund, and any remainder shall then be applied toward the plan's share of the pool's unfunded accrued liability.

Please contact the plan actuary before making such a payment to ensure that the payment is applied correctly.

## Employer Contribution History

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

<b>Fiscal Year</b>	<b>Employer Normal Cost</b>	<b>Unfunded Liability Payment (\$)</b>
2016 - 17	12.821%	84
2017 - 18	12.729%	1,974

## Funding History

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

<b>Valuation Date</b>	<b>Accrued Liability (AL)</b>	<b>Share of Pool's Market Value of Assets (MVA)</b>	<b>Plan's Share of Pool's Unfunded Liability</b>	<b>Funded Ratio</b>	<b>Annual Covered Payroll</b>
06/30/2014	\$ 1,842	\$ 1,920	\$ (78)	104.2%	\$ 201,037
06/30/2015	71,655	66,027	5,628	92.1%	443,135

## **RISK ANALYSIS**

- **ANALYSIS OF FUTURE INVESTMENT RETURN SCENARIOS**
- **ANALYSIS OF DISCOUNT RATE SENSITIVITY**
- **VOLATILITY RATIOS**
- **HYPOTHETICAL TERMINATION LIABILITY**

## Analysis of Future Investment Return Scenarios

The investment return for Fiscal Year 2015-16 was not known at the time this report was produced. The investment return in Fiscal Year 2015-16 as of April 30, 2016 is 0.0 percent before administrative expenses. For purposes of projecting future employer contributions, we are assuming a 0.0 percent investment return for Fiscal Year 2015-16.

The investment return realized during a fiscal year first affects the contribution for the fiscal year two years later. For example, the investment return for Fiscal Year 2015-16 will first be reflected in the June 30, 2016 actuarial valuation that will be used to set the Fiscal Year 2018-19 employer contributions, the Fiscal Year 2016-17 investment return will first be reflected in the June 30, 2017 actuarial valuation that will be used to set the Fiscal Year 2019-20 employer contributions, and so forth.

A sensitivity analysis was performed to determine the effects of various investment returns during fiscal years 2016-17, 2017-18, and 2018-19 on the employer contributions for fiscal years 2019-20, 2020-21, and 2021-22. The projected contributions assume that all other actuarial assumptions will be realized and that no further changes to assumptions, contributions, benefits, or funding will occur.

Five different investment return scenarios were selected.

- The first scenario is a -3.8 percent return for each of the 2016-17, 2017-18, and 2018-19 fiscal years. Based on the current investment allocation, this is what one would expect if the markets were to give us about a 5<sup>th</sup> percentile return from July 1, 2016 through June 30, 2019.
- The second scenario is a 2.8 percent return for each of the 2016-17, 2017-18, and 2018-19 fiscal years. Based on the current investment allocation, this is what one would expect if the markets were to give us about a 25<sup>th</sup> percentile return from July 1, 2016 through June 30, 2019.
- The third scenario is a 7.5 percent return for each of the 2016-17, 2017-18, and 2018-19 fiscal years. Based on the current investment allocation, this is what one would expect if the markets were to give us about a 49<sup>th</sup> percentile return from July 1, 2016 through June 30, 2019.
- The fourth scenario is a 12.0 percent return for each of the 2016-17, 2017-18, and 2018-19 fiscal years. Based on the current investment allocation, this is what one would expect if the markets were to give us about a 75<sup>th</sup> percentile return from July 1, 2016 through June 30, 2019.
- Finally, the last scenario is an 18.9 percent return for each of the 2016-17, 2017-18, and 2018-19 fiscal years. Based on the current investment allocation, this is what one would expect if the markets were to give us about a 95<sup>th</sup> percentile return from July 1, 2016 through June 30, 2019.

The table below shows the estimated projected contributions and the estimated increases for the plan under the five different scenarios.

2016-19 Investment Return Scenario	Fiscal Year			Estimated Change Between 2018-19 and 2021-22
	2019-20	2020-21	2021-22	
<b>(3.8%)</b>				
Normal Cost	12.7%	12.7%	12.7%	0.0%
UAL Contribution	\$2,375	\$2,763	\$3,276	\$1,164
<b>2.8%</b>				
Normal Cost	12.7%	12.7%	12.7%	0.0%
UAL Contribution	\$2,307	\$2,560	\$2,876	\$764
<b>7.5%</b>				
Normal Cost	12.7%	12.7%	12.7%	0.0%
UAL Contribution	\$2,258	\$2,410	\$2,569	\$457
<b>12.0%</b>				
Normal Cost	12.6%	12.8%	12.9%	0.2%
UAL Contribution	\$2,216	\$2,283	\$0	\$(2,112)
<b>18.9%</b>				
Normal Cost	12.9%	13.4%	13.8%	1.1%
UAL Contribution	\$2,157	\$0	\$0	\$(2,112)

For the last two scenarios in the table above the results incorporate the impact of CalPERS Risk Mitigation Policy. A 12.0% return would result in a reduction of the discount rate by 0.05% and a return of 18.9% would reduce the discount rate by 0.15%. Reducing the discount rate increases both the plan's accrued liability and normal cost. More details about Risk Mitigation policy can be found on our website.

## Analysis of Discount Rate Sensitivity

The following analysis looks at the Fiscal Year 2017-18 total normal cost rates and liabilities under two different discount rate scenarios. Shown below are the total normal cost rates assuming discount rates that are 1 percent lower and 1 percent higher than the current valuation discount rate. This analysis shows the potential plan impacts if the Public Employees' Retirement Fund (PERF) were to realize investment returns of 6.50 percent or 8.50 percent over the long-term.

This analysis is intended to illustrate the long-term risk to the contribution rates.

<b>Sensitivity Analysis</b>			
<b>As of June 30, 2015</b>	<b>6.50% Discount Rate (-1%)</b>	<b>7.50% Discount Rate (assumed rate)</b>	<b>8.50% Discount Rate (+1%)</b>
Plan's Total Normal Cost	31.0%	25.0%	20.4%
Accrued Liability	\$83,273	\$71,655	\$62,172
Unfunded Accrued Liability	\$17,246	\$5,628	\$(3,855)

## Volatility Ratios

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

### Asset Volatility Ratio (AVR)

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

### Liability Volatility Ratio (LVR)

Plans that have higher liability-to-payroll ratios experience more volatile employer contributions (as a percentage of payroll) due to investment return and changes in liability. For example, a plan with a liability-to-payroll ratio of 8 is expected to have twice the contribution volatility of a plan with a liability-to-payroll ratio of 4. The liability volatility ratio is also shown in the table below. It should be noted that this ratio indicates a longer-term potential for contribution volatility. The asset volatility ratio, described above, will tend to move closer to the liability volatility ratio as the plan matures.

<b>Rate Volatility</b>	<b>As of June 30, 2015</b>	
1. Market Value of Assets	\$	66,027
2. Payroll		443,135
3. Asset Volatility Ratio (AVR) [(1) / (2)]		0.1
4. Accrued Liability	\$	71,655
5. Liability Volatility Ratio (LVR) [(4) / (2)]		0.2

## Hypothetical Termination Liability

The hypothetical termination liability is an estimate of the financial position of the plan had the contract with CalPERS been terminated as of June 30, 2015. The plan liability on a termination basis is calculated differently compared to the plan's ongoing funding liability. For the hypothetical termination liability calculation, both compensation and service are frozen as of the valuation date and no future pay increases or service accruals are assumed.

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

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

Market Value of Assets (MVA)	Hypothetical Termination Liability <sup>1,2</sup> @ 2.00%	Funded Status	Unfunded Termination Liability @ 2.00%	Hypothetical Termination Liability <sup>1,2</sup> @ 3.25%	Funded Status	Unfunded Termination Liability @ 3.25%
\$66,027	\$56,267	117.4%	\$(9,760)	\$56,267	117.4%	\$(9,760)

**For plans where active members have little service the hypothetical termination liability methodology used does not fully vest active members upon termination. In these cases the hypothetical termination liability is understated.**

<sup>1</sup> The hypothetical liabilities calculated above include a 7 percent mortality contingency load in accordance with Board policy. Other actuarial assumptions, such as wage and inflation assumptions, can be found in Appendix A.

<sup>2</sup> The current discount rate assumption used for termination valuations is a weighted average of the 10-year and 30-year U.S. Treasury yields where the weights are based on matching asset and liability durations as of the termination date. The discount rates used in the table are based on 20-year Treasury bonds, rounded to the nearest quarter percentage point, which is a good proxy for most plans. The 20-year Treasury yield was 2.75 percent on June 30, 2015.

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

## Participant Data

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

	<b>June 30, 2014</b>	<b>June 30, 2015</b>
Reported Payroll	\$ 201,037	\$ 443,135
Projected Payroll for Contribution Purposes	\$ 219,679	\$ 484,226
Number of Members		
Active	2	4
Transferred	0	0
Separated	0	0
Retired	0	0

## List of Class 1 Benefit Provisions

This plan has the additional Class 1 Benefit Provisions:

- Post-Retirement Survivor Allowance (PRSA)

## **PLAN'S MAJOR BENEFIT OPTIONS**

**SECTION 1 – PLAN SPECIFIC INFORMATION FOR THE PEPRA SAFETY POLICE PLAN OF THE TOWN OF ATHERTON**

## Plan’s Major Benefit Options

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

	Contract package	
<b>Benefit Provision</b>	Active Police	
Benefit Formula	2.7% @ 57	
Social Security Coverage	No	
Full/Modified	Full	
Employee Contribution Rate	12.25%	
Final Average Compensation Period	Three Year	
Sick Leave Credit	Yes	
Non-Industrial Disability	Standard	
Industrial Disability	Yes	
Pre-Retirement Death Benefits		
Optional Settlement 2W	Yes	
1959 Survivor Benefit Level	level 3	
Special	Yes	
Alternate (firefighters)	No	
Post-Retirement Death Benefits		
Lump Sum	\$500	
Survivor Allowance (PRSA)	Yes	
COLA	2%	

# Section 2

CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

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

# CalPERS Board Approves Significant Lowering of Discount Rate

## Increased Employer and Employee Contributions Coming

*December 21, 2016*

The CalPERS board of directors on Wednesday morning approved a plan to lower its discount rate (the expected rate of return on portfolio investments) from the current 7.5 percent to 7 percent over the next three years with corresponding incremental increases in employer/employee payments over an eight-year smoothing period.

The action comes less than a day after the CalPERS Finance and Administration Committee approved the change and sent its recommendation to the full board. Negotiated between representatives from CalPERS, labor and Gov. Jerry Brown's Administration, the approved plan differs from the original CalPERS recommendation that would have lowered the discount rate immediately to 7 percent.

The League and the League Pension Task Force were well represented on Tuesday during the committee hearing with League staff testifying, as well as two city managers/fiscal officer(s) and one elected city official. The League and city officials communicated a clear message to the committee and CalPERS board members — lowering of the discount rate is a necessary step but it is by no means the solution to ensure the sustainability of the pension system. To do that, all stakeholders and the CalPERS board must rise to the challenge of difficult but necessary actions to ensure the viability of defined benefits for public employees.

Lowering the discount rate will mean higher contributions from city employers and employees. This is not easy for any CalPERS participating agency, however, stabilizing the fund ensures that the defined benefit promised to employees will be fulfilled. Standing League policy supports prudent policies to address the shortfall that recognize the impacts on local government. City officials are seeking a balance that brings stability to the pension fund while reducing spikes in employer contributions.

The plan provides three steps to incrementally move the discount rate from 7.5 to 7 percent. With each step, the impact of the rate change to unfunded liability payments will be phased-in over five years. This will process will occur over eight years. The steps are as follows:

- FY 2018-19: rate reduced from 7.5 percent to 7.375 percent;
- FY 2019-20: rate reduced from 7.375 percent to 7.25 percent; and
- FY 2020-21: rate reduced from 7.25 percent to 7 percent.

This action is being precipitated by investment returns that are well below the CalPERS assumed rate of return. The nation's largest pension fund reported just a 0.61 percent of return on investments for the fiscal year that ended on June 30, 2016, which is dramatically lower than the 7.5 percent assumed return. In addition, the overall CalPERS funded status has dropped from 73 percent funded to 68 percent in a short period of time. Absent any action, there is currently a 47 percent chance of the fund status dropping below 50 percent, which has been regarded as a point of no return since the grave negative cash flow will require assets to be liquidated and investments to stall.

### **League Cautions Optimism**

The League has taken an active role in representing city governments in discussions with CalPERS and the Administration. The League [reported on Dec. 9](#) that 240 cities had responded to the League's survey on proposed CalPERS discount rate changes.

Although, CalPERS has proactively reached out to local governments to solicit feedback on proposed changes, this proposal does not reflect a fully prudent plan for cities to meet their pension obligations. The plan does not account for two critical pieces of necessary reform. It lacks a mechanism to address employer/employee benefit structures. In addition, the extended phase-in period will result in local governments paying more to meet their pension obligations because of the accrued interest on their unfunded liabilities. However, the longer phase-in will be beneficial for cities facing budget challenges because the increased contributions will occur over a slower timeframe.

### **Next Steps**

The League will continue to be an active voice in pension system changes. In the coming months, CalPERS will be reviewing their risk mitigation protocols and investment priorities and decisions. In addition, League staff will work with CalPERS to deliver all the necessary information cities will need to plan for the expected contribution increases.