SCOTTS VALLEY
FIRE PROTECTION DISTRICT

7 Erba Lane, Scotts Valley, California 95066 (831) 438-0211 Fax (831) 438-0383

Board of Directors
Agenda
Wednesday, September 8, 2021, 6:00 P.M.
Scotts Valley City Hall
One Civic Center Drive, Scotts Valley CA 95066

Agendas and Board Packets are available on the Scotts Valley Fire Protection District website at www.scottsvalleyfire.com.

Any person who requires a disability related modification or accommodation in order to participate in a public meeting should make such a request to Ron Whittle, Board Secretary, for immediate consideration.

1. Call to Order

1.1 Pledge of Allegiance and Moment of Silence

1.2 Roll Call

2. Public Comment (GC §54954.3)
This portion of the meeting is reserved for persons wishing to address the Board on any matter not on the agenda. Any matter that requires Board action will be referred to staff for a report and action at a subsequent Board meeting.

3. Agenda Amendments (GC §54954.2) – Discussion/Action

4. Consent Calendar
(Consent calendar items will be enacted upon by one motion. There will be no separate discussion on items unless a Board Member, Staff, or member of the public requests removal of the item for separate action.)

4.1 Minutes: Approve Regular Board Meeting Minutes of August 11, 2021

4.2 Approve SVFPD Claims Disbursements for the Month of August 1, 2021 through August 31, 2021 in the Amount of:

Payroll and Benefits:	$561,375.68
General Fund:	$ 24,149.69
Capital Outlay:	$ 0.00
SCHMIT:	$ 3,063.69
TOTAL:	$588,589.06

4.3 Review SVFPD CalPERS Safety Plans Annual Valuation Reports as of June 30, 2020 (Classic and PEPRA)

4.4 Review SVFPD CalPERS Miscellaneous Plans Annual Valuation Reports as of June 30, 2020 (Classic and PEPRA)

4.5 Review SVFPD CERBT and CEPPT Account Update Summary as of June 30, 2021

4.6 Approve Budgeted Payment of $155,000 to the CERBT and $150,000 to the CEPPT

5. Discussion Items

5.1 None

6. Action Items – Discussion/Action

6.1 None

7. Board of Directors and Administrative Reports – Information/Discussion
(No action will be taken on any questions raised by the Board at this time.)

7.1 Board of Directors Report – *Directors*

7.2 Administrative Report – *Chief Officers*

7.3 Administration of Fire Services Agreement with the Branciforte Fire Protection District Report

8. Correspondence

8.1 None

9. Request for Future Agenda Items

10. Adjournment

Next Regularly Scheduled Board Meeting:
Wednesday, October 13, 2021 at 6:00 p.m.

SCOTTS VALLEY FIRE PROTECTION DISTRICT

7 Erba Lane, Scotts Valley, California 95066 (831) 438-0211 Fax (831) 438-0383

MINUTES OF THE
SCOTTS VALLEY FIRE PROTECTION DISTRICT
BOARD OF DIRECTORS
REGULAR MEETING OF
August 11, 2021

Notice of Teleconferenced Meeting

Pursuant to Governor Newsom's Executive Order N-25-20 regarding COVID-19, members of the Scotts Valley Fire Protection District Board of Directors and staff may participate in this meeting by teleconference. To reduce the spread of COVID-19, members of the public are encouraged to listen to the meeting from their homes via teleconference by calling +1 408-638-0968, enter the meeting number when prompted (9018843055) and entering Access Code 119495 or connecting to the meeting online via their computer, smart phone or tablet at the following link:
https://zoom.us/j/9018843055?pwd=SG5zQzI3MTZmVFI5ZStwMWxSdEc4Zz09

1. **Call to Order**

   1.1 Pledge of Allegiance and Moment of Silence

   At 6:01 p.m., President Parker called for the Pledge of Allegiance and a Moment of Silence to follow.

   1.2 Roll Call

A.	Directors Present:	Directors Campbell, Harmon, Parker, Patterson and Pisciotta
B.	Directors Absent:	None
C.	Fire District Staff:	Chief Whittle, Battalion Chiefs McNeil and Stubendorff and Administrative Services Manager Walton

2. **Public Comment (GC §54954.3)**
   None

3. **Agenda Amendments (GC §54954.2) – Discussion/Action**
   None

4. **Consent Calendar**

   4.1 Approve Regular Board Meeting Minutes of July 14, 2021

   4.2 Approve July Payroll 13, 14 and 15 in the amount of: $551,627.09

   4.3 Approve July Expenditures in the Amount of:

General Fund:	$536,980.55
SCHMIT:	$ 6,318.25
TOTAL:	$543,298.80

   On motion of Director Campbell seconded by Director Pisciotta to *Approve Consent Calendar Items 4.1 through 4.3 as presented* was approved by the following vote:

AYES:	**Campbell, Harmon, Parker, Patterson and Pisciotta**
NOES:	**None**
ABSENT:	**None**
ABSTAIN:	**None**

5. **Discussion Items**

   5.1 None

6. **Action Items – Discussion/Action**

6.1 Scheduled Public Hearing for the SVFPD Final Budget for Fiscal Year 2021/2022:

685010 General Fund:	$10,514,444
685030 Capital Outlay Zone A:	$ 1,685,352
685040 SCHMIT:	$ 483,836

Chief Whittle stated that the Board of Directors must pass a preliminary budget before June 30th and a final budget by October 1st each year. Chief Whittle presented the final budget as follows:

General Fund – 685010

- The beginning fund balance is $2,403,094.
- As recommended by the Auditor's Office, an estimated 4% increase in property tax has been budgeted.
- Revenue from Plan Check and Inspection Fees are estimated at $15,000, while the estimated expenditures for contract plan check and inspection services are $5,000.
- Revenue from the BFPD administrative contract is $27,700 and the SCHMIT administrative cost is $6,000.
- Strike team revenue is budgeted at $64,494, which reflects the known amount due from the 2020/2021 FY.
- The salaries and benefits budget includes the cost of the recently negotiated labor contracts.
- The Overtime and Callback have been combined into one Overtime account, broken down by type and the budgeted amount reflects the trend over the last few years. Overtime for Strike Teams and Prepositioning is budgeted at $500,000 and expenses are reimbursed according to the California Fire Assistance Agreement.
- The budgeted amount for CalPERS is $1,582,641, which is an increase of $132,209 from last FY.
- Employee health insurance is budgeted at $655,694 for an overall increase of 11.58% effective 1/1/2022, which is due to CalPERS eliminating the health plan that the SVFPD uses as the benchmark for employee contributions. Retiree health insurance is budgeted at $84,671, an increase of $3,646 from last FY.
- The Workers Comp insurance is $362,850, which is an increase of $10,161 from last FY.
- The Services and Supplies budget is $842,959, which is a $76,319 increase from last FY.
- The contribution to Other Agencies is the SVFPD share of LAFCO, which is budgeted at $9,000; as well as, contributions of $155,000 to the OPEB Trust and $150,000 to the Pension Prefunding Trust.
- A $400,000 transfer to Capital Outlay/Zone A is budgeted and $225,000 in Contingencies.
- The General Reserves is budgeted at $1,113,588 in accordance with SVFPD Policy 1608.

Capital Outlay/Zone A – 685030

- The beginning fund balance is $1,139,363.
- A 4% increase in property tax revenue is estimated.
- Besides Auditing and Accounting costs, $75,000 is budgeted for facility maintenance, $265,000 for facility upgrades and improvements, $35,000 for a training building and $70,000 for a new SCBA filling station.
- The General Reserves is budgeted at $1,077,152 for future projects and $100,000 for Contingencies.
- Revenue consists of Zone A Tax collection of $136,478, transfer-in from the General Fund in the amount of $400,000 and interest in the amount of $8,000.

SCHMIT – 685040

- The beginning fund balance is $167,864.
- The Service and Supplies budget is $83,395, which includes a $6,000 charge to manage the program.
- The budget includes $20,000 to reimburse response agencies in the event of an activation.
- The Differential cost for the response agencies is budgeted at $150,000.
- A grant was awarded last FY in the amount of $105,800 for an Atmospheric Monitoring System but the money has not been received and will be carried forward to the 2021/2022 FY.
- Due to the Covid-19 Pandemic and revenue losses to SCHMIT stakeholders, there was no increase last FY. For the 2021/2022 FY, a 15% increase has been budgeted.

President Parker stated that the majority of the overtime budget is due to strike team response, which is reimbursed by the State.

Director Harmon inquired about where the sale of the La Madrona property would be included in the budget. Chief Whittle stated that when the property is sold, the Board will approve a resolution to accept the unanticipated revenue.

6.2 Receive Public Comment and Adopt Resolution 2021-8: Resolution Adopting Final Budget for Fiscal Year 2021/2022

At 6:23 p.m., President Parker opened the Public Hearing. With no Public comment presented, the Public Hearing was closed.

On motion of Director Harmon seconded by Director Campbell to *Adopt Resolution 2021-8: Resolution Adopting Final Budget for Fiscal Year 2021/2022* was approved by the following vote:

AYES:	**Campbell, Harmon, Parker, Patterson and Pisciotta**
NOES:	**None**
ABSENT:	**None**
ABSTAIN:	**None**

7. Board of Directors and Administrative Reports – Information/Discussion
(No action will be taken on any questions raised by the Board at this time.)

7.1 Board of Directors Report – *Directors*

Director Pisciotta reported that the Facilities Committee met and toured the SVFPD stations.

7.2 Administrative Report – *Chief Officers*

The Administrative Report was included in the board packet and Chief Whittle and Battalion Chiefs McNeil and Stubendorff reported on the following:

- **Strike Team:** BC McNeil lead the Santa Cruz County Type 3 engine strike team assigned to the Dixie Fire (XCZ2325-C). E2538 was staffed by Captain Sundermier, Engineer Duncan, Engineer Bridges and Firefighter Smiley. The strike team has performed well and assigned to the more active areas of the fire.
- **Mutual aid response to a wildland fire:** E2537 staffed by Captain Petteys, Engineer Green and Firefighter Vandiver responded to a mutual aid wildland fire incident in Santa Cruz City. The fire was located in the Pogonip area. The fire was contained to an approximate 50 x 50 foot spot. Our crew assisted in hose deployment, containment, extinguishment and mop up.
- **Structure Fire, Henry Cowell Drive:** E2510 staffed by Captain Todd, Engineer Laine, and Firefighter Shaughnessy responded to a fire alarm at a residence on Henry Cowell Drive. Shortly after arrival they noticed smoke coming from the building and water coming out the garage. During the initial 360 size up Captain Todd noted significant smoke in the building and sprinkler activation. At the rear of the structure Captain Todd saw a woman inside the structure standing near the fires origin in the kitchen. The woman appeared disoriented and unable to follow commands. E2510's crew initiated a rescue and made a forcible entry to access the victim. The resident was quickly removed from the structure by E2510's crew. The resident did not appear to have any physical injuries but was transported to a local emergency room for further evaluation. The origin of the fire appears to have started on a couch in a family room. The home's sprinkler system extinguished the fire isolating fire damage to the couch and immediate area of origin. The structure did suffer significant water damage at the floor level throughout the residence.
- **Self-Contained Breathing Apparatus (SCBA):** Captain Cortes received the final shipment of the remaining Scott SCBA's. All of the apparatus and command vehicles are now equipped and in service.
- **Apparatus:** E2512 had its radiator replaced and is back in-service. E2511 is getting new brake pads and had new rear tires installed. E2510 is in the process of being equipped with gear to match what is on the lead engines. This will eliminate the need for our crews to strip equipment from one engine to the other in the event of strike teams, mutual aid incidents and engines out of service.
- **Radios:** Two different types of portable radios are currently being evaluated by on duty crews. Viking/Kenwood VS6000 and BK Relm KNG2 – CMD. The radios are on loan from Central Fire and Boulder Creek Fire. Crews are evaluating functionality, ease of use, programming capabilities, and transmission. Once the portable radios have been evaluated BC Stubendorff will determine a consensus as to which portable radio the District will consider for future purchase.
- **Academy and PCF Hiring:** Due to the staffing needs of the Santa Cruz County Volunteer Fire Organizations, the academy has been shortened to a Cal Fire Basic instead of a FF 1 certified program.

This will shorten the time commitment by several hundred hours thus getting trained firefighters on the line quicker. SVFPD and Central Fire have decide to continue with requiring Firefighter 1. We are launching on a joint endeavor to hold a certified Firefighter 1 academy. The tentative start date is scheduled for Oct 9th. SVFPD has 5 Candidates headed to backgrounds and physicals with hopes that all 5 will pass.

- The County Fire Chiefs are continuing to work with the Sheriff's office, police agencies and other County government entities to come up with a recommendation to present to the County Supervisors to replace our ailing radio infrastructure. We have decide to partner with the County to have an outside consultant come in and evaluate the system and provide a recommendation. The County Fire Chiefs have agreed to share the cost of the consultant with all involved agencies.
- Chief Whittle met with Joe Serrano, the Executive Officer for LAFCO regarding our agreement with Branciforte and discussed the past, present and future relationship opportunities. LAFCO has prepared a draft fire service report that encompasses all county fire agencies, which has not been reviewed yet. The final report should be released in October.
- On the evening of July 28, Chief Whittle attended the Fire Awareness and Education meeting at Happy Valley School in Branciforte. Following the Fire Awareness presentation by Captain Vandervoort, BRN Board Chair O'Connell talked to the residents about the status of Branciforte Fire, and their future. The meeting was also attended by LAFCO Executive Officer Joe Serrano and approximately130 residents.
- Chief Stipes from Zayante Fire and Chief Hajduk from Santa Cruz Fire are retiring. Chief Larkin from Cal Fire will be retiring in November.
- A second round strike team was sent to the Dixie Fire and BC LoFranco the Strike Team Leader Trainee.
- Chief Whittle spoke with a Real Estate Attorney regarding the sale of the La Madrona Property and the process to sale public agency land. To start the process will require Board action at the next Board Meeting.
- The Dominican Sisters have contacted Chief Whittle regarding purchasing back the Marywood Property and will be a discussion item at the next Board Meeting.
- BC McNeil was the strike team leader for a two week assignment. The fire went through fast and the crew saved the small town of Paxton. Santa Cruz County was well represented and the crews did an amazing job.
- The Glenwood Station men's bathroom remodel has been completed and the women's bathroom remodel is underway.
- The Erba Station Admin Office front door has been received and will be installed shortly.
- The proposal to identify the seismic and structural upgrade construction details and cost estimates has been received and will be emailed to the Facilities Committee.
- Firefighter Smith has completed Driver-Operator testing to drive a Type 1 engine. Firefighter Shaughnessy is working on his SC County Paramedic Accreditation.

7.3 Administration of Fire Services Agreement with the Branciforte Fire Protection District Report

Chief Whittle stated that the BFPD is making slow progress and that the end of the Agreement on September 30th is quickly approaching. Chief Whittle stated that he spoke with the BFPD Board President today and expressed frustration with the way the BFPD Board is handling the process. The BFPD Board Meeting is next week and hopefully they will have a decision but regardless, the SVFPD is working on the transition plan on our end.

President Parker stated that if Chief Whittle needed any assistance meeting with the BFPD Board, he would be available.

8. Correspondence – Information

8.1 None

9. Request for Future Agenda Items

None

10. Adjournment

The meeting was adjourned at 7:05 p.m.

ATTEST ____________________________ ____________________________

Joe Parker
Board President

Ron Whittle
Board Secretary

Expenditure Actual Transactions

Criteria: PostOn = 8/1/2021..8/31/2021; EntryDate = 8/1/2021..8/31/2021; GLKey = 685010, 685020, 685030, 685040; Summarize by = GLKey,Character,Object

FY	FM	Posted	Document	Doc Ref	GLKey	Fund	Organization	GL Obj	Amount	Description	Vendor No	Vendor Name
GL Key 685010 – SCOTTS VALLEY FIRE PROT SVC												
Character 50 – SALARIES AND EMPLOYEE BENEF												
Object 51000 – REGULAR PAY-PERMANENT												
2022	02	8/11/2021	PAYPERIOD		685010	76585	68500000	51000	132,711.75	PAYPERIOD 16PAYDATE 08132021		
2022	02	8/25/2021	PAYPERIOD		685010	76585	68500000	51000	132,688.87	PAYPERIOD 17PAYDATE 08272021		
Total Object 51000									265,400.62			
Object 51005 – OVERTIME PAY-PERMANENT												
2022	02	8/25/2021	PAYPERIOD		685010	76585	68500000	51005	56,781.41	PAYPERIOD 17PAYDATE 08272021		
2022	02	8/12/2021	DU80744	DU80744	685010	76585	68500000	51005	(2,712.62)	Cahir W/Comp 7/22-8/4/2021	C99999	DEP
2022	02	8/26/2021	DU81080	DU81080	685010	76585	68500000	51005	(2,712.62)	WC Cahir 8/5-8/1/21 CK#874629	C99999	DEP
2022	02	8/11/2021	PAYPERIOD		685010	76585	68500000	51005	87,406.52	PAYPERIOD 16PAYDATE 08132021		
Total Object 51005									138,762.69			
Object 51010 – REGULAR PAY-EXTRA HELP												
2022	02	8/11/2021	PAYPERIOD		685010	76585	68500000	51010	2,014.46	PAYPERIOD 16PAYDATE 08132021		
Total Object 51010									2,014.46			
Object 51035 – HOLIDAY PAY												
2022	02	8/11/2021	PAYPERIOD		685010	76585	68500000	51035	5,169.26	PAYPERIOD 16PAYDATE 08132021		
2022	02	8/25/2021	PAYPERIOD		685010	76585	68500000	51035	5,169.26	PAYPERIOD 17PAYDATE 08272021		
Total Object 51035									10,338.52			
Object 51040 – DIFFERENTIAL PAY												
2022	02	8/25/2021	PAYPERIOD		685010	76585	68500000	51040	8,005.96	PAYPERIOD 17PAYDATE 08272021		
2022	02	8/11/2021	PAYPERIOD		685010	76585	68500000	51040	8,005.96	PAYPERIOD 16PAYDATE 08132021		
Total Object 51040									16,011.92			
Object 52010 – OASDI-SOCIAL SECURITY												
2022	02	8/11/2021	PAYPERIOD		685010	76585	68500000	52010	3,608.62	PAYPERIOD 16PAYDATE 08132021		
2022	02	8/25/2021	PAYPERIOD		685010	76585	68500000	52010	2,986.59	PAYPERIOD 17PAYDATE 08272021		
Total Object 52010									6,595.21			
Object 52015 – PERS												
2022	02	8/25/2021	PAYPERIOD		685010	76585	68500000	52015	25,020.89	PAYPERIOD 17PAYDATE 08272021		
2022	02	8/13/2021	GASB68-21		685010	76585	68500000	52015	1,400.00	BT FOR GASB-68 FEES DUE 9/2021	V128431	BANK OF THE WEST
2022	02	8/11/2021	PAYPERIOD		685010	76585	68500000	52015	25,367.92	PAYPERIOD 16PAYDATE 08132021		
Total Object 52015									51,788.81			
Object 53010 – EMPLOYEE INSURANCE & BENEFITS												
2022	02	8/11/2021	PAYPERIOD		685010	76585	68500000	53010	(1,126.60)	PAYPERIOD 16PAYDATE 08132021		
2022	02	8/2/2021	0821SVFD		685010	76585	68500000	53010	1,055.73	BIDDLE, MIKE SVFD 8/2021	V105980	BIDDLE, MIKE
2022	02	8/2/2021	0821SVFD		685010	76585	68500000	53010	535.94	LOFRANCO, SAL SVFD 8/2021	V105221	LOFRANCO, SAL
2022	02	8/2/2021	0821SVFD		685010	76585	68500000	53010	1,728.68	MCMURRY, MICHAE SVFD 8/2021	V105430	MCMURRY, MICHAEL
2022	02	8/2/2021	0821SVFD		685010	76585	68500000	53010	393.04	PHINN, MIKE SVFD 8/2021	V103782	PHINN, MIKE
2022	02	8/2/2021	0821SVFD		685010	76585	68500000	53010	617.17	THEILEN, LOTHAR SVFD 8/2021	V117701	THEILEN, LOTHAR
2022	02	8/2/2021	0821SVFD		685010	76585	68500000	53010	762.67	THEILEN, TIM SVFD 8/2021	V120594	THEILEN, TIM

Expenditure Actual Transactions

Criteria: PostOn = 8/1/2021..8/31/2021; EntryDate = 8/1/2021..8/31/2021; GLKey = 685010, 685020, 685030, 685040; Summarize by = GLKey,Character,Object

FY	FM	Posted	Document	Doc Ref	GLKey	Fund	Organization	GL Obj	Amount	Description	Vendor No	Vendor Name
GL Key 685010 – SCOTTS VALLEY FIRE PROT SVC												
Character 50 – SALARIES AND EMPLOYEE BENEF												
Object 53010 – EMPLOYEE INSURANCE & BENEFITS												
2022	02	8/5/2021	DU80577	DU80577	685010	76585	68500000	53010	(51.01)	M.Pasquini Aug21 Dental,CK#686	C99999	DEP
2022	02	8/5/2021	DU80577	DU80577	685010	76585	68500000	53010	(145.09)	S.Kovacs Aug21 Dental	C99999	DEP
2022	02	8/6/2021	0821SVFD		685010	76585	68500000	53010	4,516.47	HEALTH CARE EMP SVFD Group 367	V108670	HEALTH CARE EMPLOYEES/EMPLOYER
2022	02	8/19/2021	DU80910	DU80910	685010	76585	68500000	53010	(96.58)	M.TheodosisAug21Dental,CK#1074	C99999	DEP
2022	02	8/13/2021	0821SVFD		685010	76585	68500000	53010	1,130.87	FDAC EBA SVFD 9/2021	V33857	FIRE DISTRICTS ASSOC OF CA
2022	02	8/12/2021	DU80744	DU80744	685010	76585	68500000	53010	(51.01)	S.Downey Aug21 Dental,CK#2283	C99999	DEP
2022	02	8/12/2021	DU80744	DU80744	685010	76585	68500000	53010	(51.01)	M.Marsano Aug21 Dental,CCK#812	C99999	DEP
2022	02	8/25/2021	PAYPERIOD		685010	76585	68500000	53010	(1,126.60)	PAYPERIOD 17PAYDATE 08272021		
2022	02	8/26/2021	0921SVFD		685010	76585	68500000	53010	1,055.73	BIDDLE, MIKE SVFD Health Ins.	V105980	BIDDLE, MIKE
2022	02	8/26/2021	0921SVFD		685010	76585	68500000	53010	4,516.47	HEALTH CARE EMP SVFD Group 367	V108670	HEALTH CARE EMPLOYEES/EMPLOYER
2022	02	8/26/2021	0921SVFD		685010	76585	68500000	53010	535.94	LOFRANCO, SAL SVFD Health Ins.	V105221	LOFRANCO, SAL
2022	02	8/26/2021	0921SVFD		685010	76585	68500000	53010	1,728.68	MCMURRY, MICHAE SVFD Health In	V105430	MCMURRY, MICHAEL
2022	02	8/26/2021	0921SVFD		685010	76585	68500000	53010	393.04	PHINN, MIKE SVFD Health Ins.-	V103782	PHINN, MIKE
2022	02	8/26/2021	0921SVFD		685010	76585	68500000	53010	617.17	THEILEN, LOTHAR SVFD Health In	V117701	THEILEN, LOTHAR
2022	02	8/10/2021	AUG21HLTH		685010	76585	68500000	53010	49,541.34	SV FIRE AUG 2021	V116512	US BANK
Total Object 53010									66,481.04			
Object 53015 – UNEMPLOYMENT INSURANCE												
2022	02	8/11/2021	PAYPERIOD		685010	76585	68500000	53015	36.27	PAYPERIOD 16PAYDATE 08132021		
Total Object 53015									36.27			
Object 55021 – OTHER BENEFITS MISC												
2022	02	8/11/2021	PAYPERIOD		685010	76585	68500000	55021	1,973.07	PAYPERIOD 16PAYDATE 08132021		
2022	02	8/25/2021	PAYPERIOD		685010	76585	68500000	55021	1,973.07	PAYPERIOD 17PAYDATE 08272021		
Total Object 55021									3,946.14			
Total Character 50									561,375.68			
Character 60 – SERVICES AND SUPPLIES												
Object 61221 – TELEPHONE-NON TELECOM 1099												
2022	02	8/24/2021	0921SVFD		685010	76585	68500000	61221	1,855.33	U S BANK CORPOR SVFD 4246-0445	V992019	U S BANK CORPORATE PAYMENT
Total Object 61221									1,855.33			
Object 61310 – FOOD												
2022	02	8/24/2021	0921SVFD		685010	76585	68500000	61310	42.54	U S BANK CORPOR SVFD 4246-0445	V992019	U S BANK CORPORATE PAYMENT
Total Object 61310									42.54			
Object 61425 – OTHER HOUSEHOLD EXP-SERVICES												
2022	02	8/24/2021	0921SVFD		685010	76585	68500000	61425	293.14	U S BANK CORPOR SVFD 4246-0445	V992019	U S BANK CORPORATE PAYMENT
Total Object 61425									293.14			
Object 61720 – MAINT-MOBILE EQUIPMENT-SERV												
2022	02	8/24/2021	0921SVFD		685010	76585	68500000	61720	2,045.83	U S BANK CORPOR SVFD 4246-0445	V992019	U S BANK CORPORATE PAYMENT
2022	02	8/6/2021	029473		685010	76585	68500000	61720	764.02	GOLDEN STATE EM SVFD PIE-0143	V129826	GOLDEN STATE EMERGENCY VEHICLE

Expenditure Actual Transactions

Criteria: PostOn = 8/1/2021..8/31/2021; EntryDate = 8/1/2021..8/31/2021; GLKey = 685010, 685020, 685030, 685040; Summarize by = GLKey,Character,Object

FY	FM	Posted	Document	Doc Ref	GLKey	Fund	Organization	GL Obj	Amount	Description	Vendor No	Vendor Name
GL Key 685010 -- SCOTTS VALLEY FIRE PROT SVC												
Character 60 -- SERVICES AND SUPPLIES												
Object 61720 -- MAINT-MOBILE EQUIPMENT-SERV												
2022	02	8/17/2021	7770		685010	76585	68500000	61720	1,354.38	CENTRAL FIRE PR SVFD	V116886	CENTRAL FIRE PROTECTION DIST
Total Object 61720									4,164.23			
Object 61725 -- MAINT-OFFICE EQUIPMNT-SERVICES												
2022	02	8/6/2021	13581		685010	76585	68500000	61725	1,780.12	PAGODA TECHNOLO SVFD 8/2021	V125184	PAGODA TECHNOLOGIES INC
Total Object 61725									1,780.12			
Object 61730 -- MAINT-OTH EQUIP-SERVICES												
2022	02	8/24/2021	0921SVFD		685010	76585	68500000	61730	45.85	U S BANK CORPOR SVFD 4246-0445	V992019	U S BANK CORPORATE PAYMENT
2022	02	8/26/2021	412128		685010	76585	68500000	61730	1,317.38	BK TECHNOLOGIES SVFD	V39436	BK TECHNOLOGIES INC
Total Object 61730									1,363.23			
Object 61845 -- MAINT-STRUCT/IMPS/GRDS-OTH-SRV												
2022	02	8/26/2021	8690338		685010	76585	68500000	61845	57.50	WESTERN EXTERMI SVFD	V15766	WESTERN EXTERMINATOR COMPANY
2022	02	8/26/2021	8691359		685010	76585	68500000	61845	57.50	WESTERN EXTERMI SVFD	V15766	WESTERN EXTERMINATOR COMPANY
2022	02	8/13/2021	210804		685010	76585	68500000	61845	1,800.00	LAZROVICH, JAME SVFD	V42518	LAZROVICH, JAMES
2022	02	8/24/2021	0921SVFD		685010	76585	68500000	61845	261.06	U S BANK CORPOR SVFD 4246-0445	V992019	U S BANK CORPORATE PAYMENT
Total Object 61845									2,176.06			
Object 61920 -- MEDICAL, DENTAL & LAB SUPPLIES												
2022	02	8/24/2021	0921SVFD		685010	76585	68500000	61920	824.65	U S BANK CORPOR SVFD 4246-0445	V992019	U S BANK CORPORATE PAYMENT
2022	02	8/26/2021	84165501		685010	76585	68500000	61920	655.14	BOUND TREE MEDI SVFD	V12149	BOUND TREE MEDICAL
2022	02	8/26/2021	84767306		685010	76585	68500000	61920	599.55	BOUND TREE MEDI SVFD	V12149	BOUND TREE MEDICAL
Total Object 61920									2,079.34			
Object 62020 -- MEMBERSHIPS												
2022	02	8/13/2021	000131374		685010	76585	68500000	62020	260.00	INTERNATIONAL A SVFD	V42190	INTERNATIONAL ASSOCIATION OF FIRE
2022	02	8/24/2021	0921SVFD		685010	76585	68500000	62020	400.00	U S BANK CORPOR SVFD 4246-0445	V992019	U S BANK CORPORATE PAYMENT
2022	02	8/6/2021	202108		685010	76585	68500000	62020	250.00	SANTA CRUZ CO E SVFD	V120732	SANTA CRUZ CO EMS INTEGRATION
Total Object 62020									910.00			
Object 62219 -- PC SOFTWARE PURCHASES												
2022	02	8/9/2021	0021098		685010	76585	68500000	62219	754.74	CREWSENSE LLC SVFD	V38655	CREWSENSE LLC
Total Object 62219									754.74			
Object 62223 -- SUPPLIES												
2022	02	8/24/2021	0921SVFD		685010	76585	68500000	62223	671.61	U S BANK CORPOR SVFD 4246-0445	V992019	U S BANK CORPORATE PAYMENT
Total Object 62223									671.61			
Object 62367 -- MEDICAL SERVICES-OTHER												
2022	02	8/17/2021	19914		685010	76585	68500000	62367	360.00	EMERYVILLE OCCU SVFD	V127749	EMERYVILLE OCCUPATIONAL MEDICAL
Total Object 62367									360.00			
Object 62381 -- PROF & SPECIAL SERV-OTHER												
2022	02	8/6/2021	37771		685010	76585	68500000	62381	50.00	CSG CONSULTANTS SVFD	V121100	CSG CONSULTANTS INC

Expenditure Actual Transactions

Criteria: PostOn = 8/1/2021..8/31/2021; EntryDate = 8/1/2021..8/31/2021; GLKey = 685010, 685020, 685030, 685040; Summarize by = GLKey,Character,Object

FY	FM	Posted	Document	Doc Ref	GLKey	Fund	Organization	GL Obj	Amount	Description	Vendor No	Vendor Name
GL Key 685010 -- SCOTTS VALLEY FIRE PROT SVC												
Character 60 -- SERVICES AND SUPPLIES												
Object 62381 -- PROF & SPECIAL SERV-OTHER												
2022	02	8/26/2021	166168		685010	76585	68500000	62381	187.50	VOYA RETIREMENT SVFD	V31933	VOYA RETIREMENT INSURANCE AND
2022	02	8/26/2021	38263		685010	76585	68500000	62381	200.00	CSG CONSULTANTS SVFD	V121100	CSG CONSULTANTS INC
2022	02	8/26/2021	DU81080	DU81080	685010	76585	68500000	62381	(187.50)	VOYA Fee Subendorff R#3876	C99999	DEP
2022	02	8/26/2021	DU81080	DU81080	685010	76585	68500000	62381	(187.50)	VOYA Fee Stubendorff R#3875	C99999	DEP
Total Object 62381									62.50			
Object 62420 -- LEGAL NOTICES												
2022	02	8/24/2021	0921SVFD		685010	76585	68500000	62420	96.00	U S BANK CORPOR SVFD 4246-0445	V992019	U S BANK CORPORATE PAYMENT
Total Object 62420									96.00			
Object 62715 -- SMALL TOOLS & INSTRUMENTS												
2022	02	8/24/2021	0921SVFD		685010	76585	68500000	62715	1,824.63	U S BANK CORPOR SVFD 4246-0445	V992019	U S BANK CORPORATE PAYMENT
Total Object 62715									1,824.63			
Object 62888 -- SPEC DIST EXP-SERVICES												
2022	02	8/24/2021	0921SVFD		685010	76585	68500000	62888	25.00	U S BANK CORPOR SVFD 4246-0445	V992019	U S BANK CORPORATE PAYMENT
Total Object 62888									25.00			
Object 62914 -- EDUCATION & TRAINING(REPT)												
2022	02	8/24/2021	0921SVFD		685010	76585	68500000	62914	20.84	U S BANK CORPOR SVFD 4246-0445	V992019	U S BANK CORPORATE PAYMENT
Total Object 62914									20.84			
Object 62920 -- GAS, OIL, FUEL												
2022	02	8/24/2021	0921SVFD		685010	76585	68500000	62920	65.30	U S BANK CORPOR SVFD 4246-0445	V992019	U S BANK CORPORATE PAYMENT
2022	02	8/26/2021	820829		685010	76585	68500000	62920	3,804.73	WESTERN STATES SVFD	V39738	TOP LOPES DISTRIBUTING
2022	02	8/12/2021	DU80744	DU80744	685010	76585	68500000	62920	(806.34)	B40 Fuel Reimb. CK#283532	C99999	DEP
Total Object 62920									3,063.69			
Object 63070 -- UTILITIES												
2022	02	8/24/2021	0921SVFD		685010	76585	68500000	63070	466.12	U S BANK CORPOR SVFD 4246-0445	V992019	U S BANK CORPORATE PAYMENT
2022	02	8/6/2021	0821SVFD		685010	76585	68500000	63070	185.25	CITY OF SCOTTS SVFD	V102713	CITY OF SCOTTS VALLEY
2022	02	8/6/2021	0821SVFD1		685010	76585	68500000	63070	197.51	CITY OF SCOTTS SVFD	V102713	CITY OF SCOTTS VALLEY
2022	02	8/17/2021	00821SVFD		685010	76585	68500000	63070	57.47	PACIFIC GAS AND SVFD	V129169	PACIFIC GAS AND ELECTRIC CO
2022	02	8/17/2021	0821SVFD1		685010	76585	68500000	63070	62.89	PACIFIC GAS AND SVFD	V129169	PACIFIC GAS AND ELECTRIC CO
2022	02	8/17/2021	0821SVFD2		685010	76585	68500000	63070	831.47	PACIFIC GAS AND SVFD	V129169	PACIFIC GAS AND ELECTRIC CO
2022	02	8/17/2021	0821SVFD3		685010	76585	68500000	63070	805.98	PACIFIC GAS AND SVFD	V129169	PACIFIC GAS AND ELECTRIC CO
Total Object 63070									2,606.69			
Total Character 60									24,149.69			
Total GL Key 685010									585,525.37			

Expenditure Actual Transactions

Criteria: PostOn = 8/1/2021..8/31/2021; EntryDate = 8/1/2021..8/31/2021; GLKey = 685010, 685020, 685030, 685040; Summarize by = GLKey,Character,Object

FY	FM	Posted	Document	Doc Ref	GLKey	Fund	Organization	GL Obj	Amount	Description	Vendor No	Vendor Name
GL Key 685040 -- SV FIRE DIST-REGIONAL HAZ RESP												
Character 60 -- SERVICES AND SUPPLIES												
Object 61221 -- TELEPHONE-NON TELECOM 1099												
2022	02	8/24/2021	0921SVFD		685040	76597	68500000	61221	76.25	U S BANK CORPOR SVFD 4246-0445	V992019	U S BANK CORPORATE PAYMENT
Total Object 61221									76.25			
Object 61720 -- MAINT-MOBILE EQUIPMENT-SERV												
2022	02	8/24/2021	0921SVFD		685040	76597	68500000	61720	788.62	U S BANK CORPOR SVFD 4246-0445	V992019	U S BANK CORPORATE PAYMENT
Total Object 61720									788.62			
Object 62219 -- PC SOFTWARE PURCHASES												
2022	02	8/13/2021	2021071		685040	76597	68500000	62219	1,661.94	RIGHTANSWER.COM SVFD	V127994	RIGHTANSWER.COM INC
Total Object 62219									1,661.94			
Object 62715 -- SMALL TOOLS & INSTRUMENTS												
2022	02	8/24/2021	0921SVFD		685040	76597	68500000	62715	478.73	U S BANK CORPOR SVFD 4246-0445	V992019	U S BANK CORPORATE PAYMENT
Total Object 62715									478.73			
Object 62920 -- GAS, OIL, FUEL												
2022	02	8/24/2021	0921SVFD		685040	76597	68500000	62920	58.15	U S BANK CORPOR SVFD 4246-0445	V992019	U S BANK CORPORATE PAYMENT
Total Object 62920									58.15			
Total Character 60									3,063.69			
Total GL Key 685040									3,063.69			

CalPERS

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

July 2021

Safety Plan of the Scotts Valley Fire Protection District
(CalPERS ID: 4027652040)
Annual Valuation Report as of June 30, 2020

Dear Employer,

Attached to this letter, you will find the June 30, 2020 actuarial valuation report of your CalPERS pension plan. **Provided in this report is the determination of the minimum required employer contributions for fiscal year 2022-23.** In addition, the report contains important information regarding the current financial status of the plan as well as projections and risk measures to aid in planning for the future.

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

- Section 1 contains specific information for the plan including the development of the current and projected employer contributions, and
- Section 2 contains the Risk Pool Actuarial Valuation appropriate to the plan as of June 30, 2020.

Section 2 can be found on the CalPERS website (calpers.ca.gov). From the home page, go to *"Forms & Publications"* and select *"View All"*. In the search box, enter *"Risk Pool"* and from the results list download the Safety Risk Pool Actuarial Valuation Report for June 30, 2020.

Your June 30, 2020 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.

Actuarial valuations are based on assumptions regarding future plan experience including investment return and payroll growth, eligibility for the types of benefits provided, and longevity among retirees. The CalPERS Board of Administration adopts these assumptions after considering the advice of CalPERS actuarial and investment teams and other professionals. Each actuarial valuation reflects all prior differences between actual and assumed experience and adjusts the contribution rates as needed. This valuation is based on an investment return assumption of 7.0% which was adopted by the board in December 2016. Other assumptions used in this report are those recommended in the CalPERS Experience Study and Review of Actuarial Assumptions report from December 2017.

Required Contribution

The exhibit below displays the minimum employer contributions for fiscal year 2022-23 along with estimates of the required contributions for fiscal year 2023-24. Member contributions other than cost sharing (whether paid by the employer or the employee) are in addition to the results shown below. **The employer contributions in this report do not reflect any cost sharing arrangements you may have with your employees.**

Fiscal Year	Employer Normal Cost Rate	Employer Amortization of Unfunded Accrued Liability
2022-23	21.84%	$1,045,950
Projected Results		
2023-24	*21.8%*	*$1,131,000*

The actual investment return for fiscal year 2020-21 was not known at the time this report was prepared. The projections above assume the investment return for that year would be 7.00%. ***To the extent the actual investment return for fiscal year 2020-21 differs from 7.00%, the actual contribution requirements for fiscal year 2023-24 will differ from those shown above.*** For additional details regarding the assumptions and methods used for these projections please refer to the "Projected Employer Contributions" in the "Highlights and Executive Summary" section. This section also contains projected required contributions through fiscal year 2027-28.

Changes from Previous Year's Valuation

There are no significant changes in actuarial assumptions or policies in your 2020 actuarial valuation. Your annual valuation report is an important tool for monitoring the health of your CalPERS pension plan. Your report contains useful information about future required contributions and ways to control your plan's funding progress. In addition to your annual actuarial report my office has developed tools for employers to plan, project and protect the retirement benefits of your employees. Pension Outlook is a tool to help plan and budget pension costs into the future with easy to understand results and charts.

You will be able to view the projected funded status and required employer contributions for pension plans in different potential scenarios for up to 30 years into the future — which will make budgeting more predictable. While Pension Outlook can't predict the future, it can provide valuable planning information based on a variety of future scenarios that you select.

Pension Outlook can help you answer specific questions about your plans, including:

- When is my plan's funded status expected to increase?
- What happens to my required contributions in a down market?
- How does the discount rate assumption affect my contributions?
- What is the impact of making an additional discretionary payment to my plan?

To get started, visit our Pension Outlook page at www.calpers.ca.gov/page/employers/actuarial-resources/pension-outlook-overview and take the steps to register online.

CalPERS will be completing an Asset Liability Management (ALM) review process in November 2021 that will review the capital market assumptions and the strategic asset allocation and ascertain whether a change in the discount rate and other economic assumptions is warranted. In addition, the Actuarial Office will be completing its Experience Study to review the demographic experience within the pension system and make recommendations to modify future assumptions where appropriate.

Furthermore, this valuation does not reflect any impacts from the COVID-19 pandemic on your pension plan. The impact of COVID-19 on retirement plans is not yet known and CalPERS actuaries will continue to monitor the effects and where necessary make future adjustments to actuarial assumptions.

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

Questions

We understand that you might have questions about these results, and your assigned CalPERS actuary whose signature is on the valuation report is available to discuss. If you have other questions, you may call the Customer Contact Center at (888)-CalPERS or **(888-225-7377)**.

Sincerely,

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

CalPERS

Actuarial Valuation as of June 30, 2020

for the Safety Plan of the Scotts Valley Fire Protection District

(CalPERS ID: 4027652040)

Required Contributions for Fiscal Year July 1, 2022 - June 30, 2023

Table of Contents

Section 1

Plan Specific Information
for the
Safety Plan
of the
Scotts Valley Fire Protection District

(CalPERS ID: 4027652040)
(Rate Plan ID: 904)

Table of Contents

Actuarial Certification

Section 1 of this report is based on the member and financial data contained in our records as of June 30, 2020 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, 2020 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 actuaries have 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 Unfunded Accrued Liability amortization bases as of June 30, 2020 and employer contribution as of July 1, 2022 have been properly and accurately determined in accordance with the principles and standards stated above.

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

David Clement

DAVID CLEMENT, ASA, MAAA, EA
Senior Pension Actuary, CalPERS

Highlights and Executive Summary

- Introduction
- Purpose of Section 1
- Required Employer Contributions
- Additional Discretionary Employer Contributions
- Plan's Funded Status
- Projected Employer Contributions
- Other Pooled Safety Risk Pool Rate Plans
- Cost
- Changes Since the Prior Year's Valuation
- Subsequent Events

Introduction

This report presents the results of the June 30, 2020 actuarial valuation of the Safety Plan of the Scotts Valley Fire Protection District of the California Public Employees' Retirement System (CalPERS). This actuarial valuation sets the required employer contributions for fiscal year 2022-23.

Purpose of Section 1

This Section 1 report for the Safety Plan of the Scotts Valley Fire Protection District of CalPERS was prepared by the plan actuary in order to:

- Set forth the assets and accrued liabilities of this plan as of June 30, 2020;
- Determine the minimum required employer contribution for this plan for the fiscal year July 1, 2022 through June 30, 2023; and
- Provide actuarial information as of June 30, 2020 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 Governmental Accounting Standards Board (GASB) Statement No. 68 for a Cost Sharing Employer Defined Benefit Pension Plan. A separate accounting valuation report for such purposes is available on the CalPERS website.

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

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; changes in actuarial policies; and changes in plan provisions or applicable law.

Assessment and Disclosure of Risk

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

- A "Scenario Test," projecting future results under different investment income returns.
- A "Sensitivity Analysis," showing the impact on current valuation results using alternative discount rates of 6.0% and 8.0%.
- A "Sensitivity Analysis," showing the impact on current valuation results assuming rates of mortality are 10% lower or 10% higher than our current post- retirement mortality assumptions adopted in 2017.
- Pension Plan maturity measures quantifying the risks the employer bears.

Required Employer Contributions

	Fiscal Year
Required Employer Contributions	**2022-23**
Employer Normal Cost Rate	**21.84%**
Plus	
Required Payment on Amortization Bases[1]	**$1,045,950**
Paid either as	
1) Monthly Payment	**$87,162.50**
Or	
2) Annual Prepayment Option*	**$1,011,158**

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

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

	Fiscal Year 2021-22	Fiscal Year 2022-23
Development of Normal Cost as a Percentage of Payroll		
Base Total Normal Cost for Formula	29.63%	29.63%
Surcharge for Class 1 Benefits[2]		
a) FAC 1	1.15%	1.20%
Phase out of Normal Cost Difference[3]	0.00%	0.00%
Plan's Total Normal Cost	30.78%	30.83%
Formula's Expected Employee Contribution Rate	8.99%	8.99%
Employer Normal Cost Rate	21.79%	21.84%

1 The required payment on amortization bases does not take into account any additional discretionary payment made after April 30, 2021.

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

3 The normal cost change is phased out over a five-year period in accordance with the CalPERS contribution allocation policy.

Additional Discretionary Employer Contributions

The minimum required employer contribution towards the Unfunded Accrued Liability (UAL) for this rate plan for the 2022-23 fiscal year is $1,045,950. CalPERS allows employers to make additional discretionary payments (ADPs) at any time and in any amount. These optional payments serve to reduce the UAL and future required contributions and can result in significant long-term savings. Employers can also use ADPs to stabilize annual contributions as a fixed dollar amount, percent of payroll or percent of revenue.

Provided below are select ADP options for consideration. Making such an ADP during fiscal year 2022-23 does not require an ADP be made in any future year, nor does it change the remaining amortization period of any portion of unfunded liability. For information on permanent changes to amortization periods, see the "Amortization Schedule and Alternatives" section of the report.

If you are considering making an ADP, please contact your actuary for additional information.

Minimum Required Employer Contribution for Fiscal Year 2022-23

Estimated Normal Cost	Minimum UAL Payment	ADP	Total UAL Contribution	Estimated Total Contribution
$434,050	$1,045,950	$0	$1,045,950	$1,480,000

Alternative Fiscal Year 2022-23 Employer Contributions for Greater UAL Reduction

Funding Target	Estimated Normal Cost	Minimum UAL Payment	ADP[1]	Total UAL Contribution	Estimated Total Contribution
20 years	$434,050	$1,045,950	$183,059	$1,229,009	$1,663,059
15 years	$434,050	$1,045,950	$383,591	$1,429,541	$1,863,591
10 years	$434,050	$1,045,950	$807,824	$1,853,774	$2,287,824
5 years	$434,050	$1,045,950	$2,129,540	$3,175,490	$3,609,540

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

Note that the calculations above are based on the projected Unfunded Accrued Liability as of June 30, 2022 as determined in the June 30, 2020 actuarial valuation. New unfunded liabilities can emerge in future years due to assumption or method changes, changes in plan provisions and actuarial experience different than assumed. Making an ADP illustrated above for the indicated number of years will not result in a plan that is exactly 100% funded in the indicated number of years. Valuation results will vary from one year to the next and can diverge significantly from projections over a period of several years.

Plan's Funded Status

	June 30, 2019	June 30, 2020
1. Present Value of Projected Benefits (PVB)	$49,202,691	$50,695,159
2. Entry Age Accrued Liability (AL)	45,731,110	47,484,681
3. Plan's Market Value of Assets (MVA)	33,562,959	34,165,434
4. Unfunded Accrued Liability (UAL) [(2) - (3)]	12,168,151	13,319,247
5. Funded Ratio [(3) / (2)]	73.4%	72.0%

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

Projected Employer Contributions

The table below shows the required and projected employer contributions (before cost sharing) for the next six fiscal years. The projection assumes that all actuarial assumptions will be realized and that no further changes to assumptions, contributions, benefits, or funding will occur during the projection period. Actual contribution rates during this projection period could be significantly higher or lower than the projection shown below.

	Required Contribution	Projected Future Employer Contributions (Assumes 7.00% Return for Fiscal Year 2020-21)				
Fiscal Year	**2022-23**	**2023-24**	**2024-25**	**2025-26**	**2026-27**	**2027-28**
	Rate Plan 904 Results					
Normal Cost %	21.84%	21.8%	21.8%	21.8%	21.8%	21.8%
UAL Payment	$1,045,950	$1,131,000	$1,217,000	$1,272,000	$1,323,000	$1,356,000

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

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

Our online pension plan modeling and projection tool, Pension Outlook, is available in the Employers section of the CalPERS website. Pension Outlook is a tool to help plan and budget pension costs into the future with results and charts that are easy to understand.

Other Pooled Safety Risk Pool Rate Plans

All of the results presented in this Section 1 report, except those shown below, correspond to rate plan 904. In many cases, employers have additional rate plans within the same risk pool. For cost analysis and budgeting it is useful to consider contributions for these rate plans as a whole rather than individually. The estimated contribution amounts and rates for all of the employer's rate plans in the Safety Risk Pool are shown below and assume that the payroll for each rate plan will grow according to the overall payroll growth assumption of 2.75% per year for three years.

	Fiscal Year 2021-22	Fiscal Year 2022-23
Estimated Combined Employer Contributions for all Pooled Safety Rate Plans		
Projected Payroll for the Contribution Year	\$3,346,719	\$3,511,697
Estimated Employer Normal Cost	\$623,075	\$628,854
Required Payment on Amortization Bases	928,737	1,046,865
Estimated Total Employer Contributions	\$1,551,812	\$1,675,719
Estimated Total Employer Contribution Rate (illustrative only)	46.37%	47.72%

Cost

Actuarial Determination of Pension Plan Cost

Contributions to fund the pension plan are comprised of two components:

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

For fiscal years prior to 2016-17, the Amortization of UAL component was expressed as a percentage of total active payroll. Starting with fiscal year 2016-17, the Amortization of UAL component was expressed as a dollar amount and invoiced on a monthly basis. There continues to be an option to prepay this amount during July of each fiscal year.

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

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

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

These assumptions reflect CalPERS' best estimate of future experience of the plan and are long term in nature. We recognize that all assumptions will not be realized in any given year. For example, the investment earnings at CalPERS have averaged 5.5% over the 20 years ending June 30, 2020, yet individual fiscal year returns have ranged from -23.6% to +20.7%. In addition, CalPERS reviews all actuarial assumptions by conducting in-depth experience studies every four years, with the most recent experience study completed in 2017.

Changes Since the Prior Year's Valuation

Benefits

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

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

Actuarial Methods and Assumptions

The are no significant changes to the actuarial methods or assumptions for the 2020 actuarial valuation.

Subsequent Events

The contribution requirements determined in this actuarial valuation report are based on demographic and financial information as of June 30, 2020. Changes in the value of assets subsequent to that date are not reflected. Investment returns below the assumed rate of return will increase future required contributions while investment returns above the assumed rate of return will decrease future required contributions.

CalPERS will be completing an Asset Liability Management (ALM) process in November 2021 that will review the capital market assumptions and the strategic asset allocation and ascertain whether a change in the discount rate and other economic assumptions is warranted. As part of the ALM process the Actuarial Office will be completing an Experience Study to review the demographic experience of the retirement system and make recommendations to modify future assumptions where appropriate.

Furthermore, this valuation does not reflect any impacts from the COVID-19 pandemic on your pension plan. The impact of COVID-19 on retirement plans is not yet known and CalPERS actuaries will continue to monitor the effects and where necessary make future adjustments to actuarial assumptions.

The projected employer contributions on Page 6 are calculated under the assumption that the discount rate remains at 7.0% going forward and that the realized rate of return on assets for fiscal year 2020-21 is 7.0%.

This actuarial valuation report reflects statutory changes, regulatory changes and CalPERS Board actions through January 2021. Any subsequent changes or actions are not reflected.

Assets and Liabilities

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

Breakdown of Entry Age Accrued Liability

Active Members	$13,177,123
Transferred Members	2,042,448
Terminated Members	311,062
Members and Beneficiaries Receiving Payments	31,954,048
Total	$47,484,681

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	$47,484,681
2.	Projected UAL balance at 6/30/2020	12,370,355
3.	Pool's Accrued Liability[1]	25,304,654,410
4.	Sum of Pool's Individual Plan UAL Balances at 6/30/2020[1]	6,693,257,955
5.	Pool's 2019/20 Investment (Gain)/Loss[1]	427,980,555
6.	Pool's 2019/20 Non-Investment (Gain)/Loss[1]	75,360,952
7.	Plan's Share of Pool's Investment (Gain)/Loss: [(1) - (2)] ÷ [(3) - (4)] × (5)	807,476
8.	Plan's Share of Pool's Non-Investment (Gain)/Loss: (1) ÷ (3) × (6)	141,416
9.	Plan's New (Gain)/Loss as of 6/30/2020: (7) + (8)	948,892

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

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

10.	Plan's UAL: (2) + (9)	$13,319,247
11.	Plan's Share of Pool's MVA: (1) - (10)	$34,165,434

Schedule of Plan's Amortization Bases

Note that 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, 2020.
- The required employer contributions determined by the valuation are for the fiscal year beginning two years after the valuation date: fiscal year 2022-23.

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

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

Reason for Base	Date Est.	Ramp Level 2022-23	Ramp Shape	Escala-tion Rate	Amort. Period	Balance 6/30/20	Expected Payment 2020-21	Balance 6/30/21	Expected Payment 2021-22	Balance 6/30/22	Minimum Required Payment 2022-23
Share of Pre-2013 Pool UAL	6/30/13	No Ramp		2.75%	15	2,938,526	242,472	2,893,408	249,140	2,838,234	255,991
Non-Investment (Gain)/Loss	6/30/13	100%	Up/Down	2.75%	23	(267,756)	(18,164)	(267,710)	(18,663)	(267,145)	(19,177)
Investment (Gain)/Loss	6/30/13	100%	Up/Down	2.75%	23	4,406,072	298,895	4,405,318	307,114	4,396,009	315,560
Non-Investment (Gain)/Loss	6/30/14	100%	Up/Down	2.75%	24	38,337	2,535	38,398	2,605	38,391	2,676
Investment (Gain)/Loss	6/30/14	100%	Up/Down	2.75%	24	(3,152,652)	(208,475)	(3,157,689)	(214,208)	(3,157,149)	(220,099)
Assumption Change	6/30/14	100%	Up/Down	2.75%	14	2,000,154	190,193	1,943,428	195,423	1,877,321	200,798
Non-Investment (Gain)/Loss	6/30/15	100%	Up/Down	2.75%	25	(6,879)	(360)	(6,988)	(462)	(6,999)	(475)
Investment (Gain)/Loss	6/30/15	100%	Up/Down	2.75%	25	1,907,838	99,788	1,938,165	128,165	1,941,262	131,689
Non-Investment (Gain)/Loss	6/30/16	100%	Up/Down	2.75%	26	(394,196)	(15,491)	(405,766)	(21,223)	(412,216)	(27,259)
Investment (Gain)/Loss	6/30/16	100%	Up/Down	2.75%	26	2,452,005	96,361	2,523,969	132,014	2,564,090	169,555
Assumption Change	6/30/16	100%	Up/Down	2.75%	16	750,956	40,886	761,230	56,013	756,576	71,942
Non-Investment (Gain)/Loss	6/30/17	80%	Up/Down	2.75%	27	29,892	795	31,162	1,225	32,076	1,678
Investment (Gain)/Loss	6/30/17	80%	Up/Down	2.75%	27	(1,200,709)	(31,917)	(1,251,743)	(49,192)	(1,288,480)	(67,393)
Assumption Change	6/30/17	80%	Up/Down	2.75%	17	956,868	34,893	987,755	53,778	1,001,269	73,676
Non-Investment (Gain)/Loss	6/30/18	60%	Up/Down	2.75%	28	172,041	2,350	181,653	4,829	189,374	7,442
Investment (Gain)/Loss	6/30/18	60%	Up/Down	2.75%	28	(368,349)	(5,031)	(388,929)	(10,338)	(405,460)	(15,934)
Method Change	6/30/18	60%	Up/Down	2.75%	18	317,353	5,917	333,447	12,159	344,211	18,741
Assumption Change	6/30/18	60%	Up/Down	2.75%	18	1,407,767	26,247	1,479,161	53,938	1,526,908	83,132
Non-Investment (Gain)/Loss	6/30/19	No Ramp		0.00%	19	206,390	0	220,837	20,152	215,450	20,152

Schedule of Plan's Amortization Bases (continued)

Reason for Base	Date Est.	Ramp Level 2022-23	Ramp Shape	Escala-tion Rate	Amort. Period	Balance 6/30/20	Expected Payment 2020-21	Balance 6/30/21	Expected Payment 2021-22	Balance 6/30/22	Minimum Required Payment 2022-23
Investment (Gain)/Loss	6/30/19	40%	Up Only	0.00%	19	176,697	0	189,066	4,134	198,024	8,267
Non-Investment (Gain)/Loss	6/30/20	No Ramp		0.00%	20	141,416	0	151,315	0	161,907	14,775
Investment (Gain)/Loss	6/30/20	20%	Up Only	0.00%	20	807,476	0	863,999	0	924,479	20,213
Total						**13,319,247**	**761,894**	**13,463,486**	**906,603**	**13,468,132**	**1,045,950**

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

Amortization Schedule and Alternatives

The amortization schedule on the previous page shows the minimum contributions required according to the CalPERS amortization policy. Many agencies have expressed a desire for a more stable pattern of payments or have indicated interest in paying off the unfunded accrued liabilities more quickly than required. As such, we have provided alternative amortization schedules to help analyze the current amortization schedule and illustrate the potential savings of accelerating unfunded liability payments.

Shown on the following page are future year amortization payments based on 1) the current amortization schedule reflecting the individual bases and remaining periods shown on the previous page, and 2) alternative "fresh start" amortization schedules using two sample periods that would both result in interest savings relative to the current amortization schedule. To initiate a Fresh Start, please consult with your plan actuary.

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

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

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

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

Amortization Schedule and Alternatives (continued)

	Current Amortization Schedule		Alternate Schedules: 15 Year Amortization		Alternate Schedules: 10 Year Amortization	
Date	**Balance**	**Payment**	**Balance**	**Payment**	**Balance**	**Payment**
6/30/2022	13,468,132	1,045,950	13,468,132	1,429,541	13,468,132	1,853,774
6/30/2023	13,328,961	1,131,345	12,932,173	1,429,541	12,493,343	1,853,774
6/30/2024	13,091,716	1,217,254	12,358,696	1,429,541	11,450,318	1,853,774
6/30/2025	12,748,997	1,271,992	11,745,076	1,429,541	10,334,282	1,853,775
6/30/2026	12,325,669	1,323,431	11,088,503	1,429,541	9,140,122	1,853,774
6/30/2027	11,819,500	1,355,519	10,385,970	1,429,541	7,862,372	1,853,775
6/30/2028	11,244,707	1,388,489	9,634,259	1,429,541	6,495,178	1,853,774
6/30/2029	10,595,571	1,422,363	8,829,928	1,429,541	5,032,282	1,853,775
6/30/2030	9,865,958	1,457,171	7,969,294	1,429,540	3,466,982	1,853,775
6/30/2031	9,049,265	1,492,935	7,048,417	1,429,541	1,792,111	1,853,774
6/30/2032	8,138,410	1,477,005	6,063,077	1,429,540		
6/30/2033	7,180,272	1,459,189	5,008,765	1,429,541		
6/30/2034	6,173,493	1,419,477	3,880,650	1,429,540		
6/30/2035	5,137,320	1,350,379	2,673,568	1,429,541		
6/30/2036	4,100,091	1,226,883	1,381,989	1,429,541		
6/30/2037	3,118,001	771,472				
6/30/2038	2,538,245	685,325				
6/30/2039	2,007,015	616,797				
6/30/2040	1,509,488	574,117				
6/30/2041	1,021,280	445,521				
6/30/2042	631,919	311,581				
6/30/2043	353,852	245,842				
6/30/2044	124,319	124,559				
6/30/2045	4,178	4,322				
6/30/2046						
6/30/2047						
6/30/2048						
6/30/2049						
6/30/2050						
6/30/2051						
Total		**23,818,918**		**21,443,112**		**18,537,744**
Interest Paid		**10,350,786**		**7,974,980**		**5,069,612**
Estimated Savings				**2,375,806**		**5,281,174**

Employer Contribution History

The table below provides a recent history of the required employer contributions for the plan. The amounts are based on the actuarial valuation from two years prior and does not account for prepayments or benefit changes made during a fiscal year. Additional discretionary payments before July 1, 2019 or after June 30, 2020 are not included.

Fiscal Year	Employer Normal Cost	Unfunded Liability Payment ($)	Additional Discretionary Payments
2016 - 17	17.689%	$322,155	N/A
2017 - 18	17.875%	405,353	N/A
2018 - 19	18.677%	526,104	N/A
2019 - 20	20.073%	659,149	0
2020 - 21	21.746%	761,892	
2021 - 22	21.79%	906,603	
2022 - 23	21.84%	1,045,950	

Funding History

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

Valuation Date	Accrued Liability (AL)	Share of Pool's Market Value of Assets (MVA)	Unfunded Accrued Liability (UAL)	Funded Ratio	Annual Covered Payroll
06/30/2011	$28,067,226	$22,531,125	$5,536,101	80.3%	$2,880,482
06/30/2012	28,624,917	21,696,782	6,928,135	75.8%	2,606,560
06/30/2013	30,838,361	24,852,115	5,986,246	80.6%	2,645,863
06/30/2014	32,340,790	26,848,441	5,492,349	83.0%	2,467,173
06/30/2015	33,840,258	26,630,798	7,209,460	78.7%	2,601,363
06/30/2016	36,711,005	27,023,432	9,687,573	73.6%	2,597,650
06/30/2017	39,096,059	29,243,555	9,852,504	74.8%	2,469,719
06/30/2018	42,761,498	31,278,777	11,482,721	73.1%	2,266,398
06/30/2019	45,731,110	33,562,959	12,168,151	73.4%	1,954,922
06/30/2020	47,484,681	34,165,434	13,319,247	72.0%	1,832,070

Risk Analysis

- **Future Investment Return Scenarios**
- **Discount Rate Sensitivity**
- **Mortality Rate Sensitivity**
- **Maturity Measures**
- **Maturity Measures History**
- **Hypothetical Termination Liability**

Future Investment Return Scenarios

Analysis was performed to determine the effects of various future investment returns on required employer contributions. The projections below provide a range of results based on five investment return scenarios assumed to occur during the next four fiscal years (2020-21, 2021-22, 2022-23 and 2023-24). The projections also assume that all other actuarial assumptions will be realized and that no further changes to assumptions, contributions, benefits, or funding will occur.

For fiscal years 2020-21, 2021-22, 2022-23, and 2023-24, each scenario assumes an alternate fixed annual return. The fixed return assumptions for the five scenarios are 1.0%, 4.0%, 7.0%, 9.0% and 12.0%.

These alternate investment returns were chosen based on stochastic analysis of possible future investment returns over the four-year period ending June 30, 2024. Using the expected returns and volatility of the asset classes in which the funds are invested, we produced five thousand stochastic outcomes for this period based on the most recently completed Asset Liability Management process. We then selected annual returns that approximate the 5th, 25th, 50th, 75th, and 95th percentiles for these outcomes. For example, of all the 4-year outcomes generated in the stochastic analysis, approximately 25% had an average annual return of 4.0% or less.

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

Assumed Annual Return From 2020-21 through 2023-24	Projected Employer Contributions			
	2023-24	2024-25	2025-26	2026-27
1.0%				
Normal Cost	21.8%	21.8%	21.8%	21.8%
UAL Contribution	$1,182,000	$1,371,000	$1,579,000	$1,835,000
4.0%				
Normal Cost	21.8%	21.8%	21.8%	21.8%
UAL Contribution	$1,157,000	$1,295,000	$1,429,000	$1,587,000
7.0%				
Normal Cost	21.8%	21.8%	21.8%	21.8%
UAL Contribution	$1,131,000	$1,217,000	$1,272,000	$1,323,000
9.0%				
Normal Cost	22.2%	22.6%	23.0%	23.4%
UAL Contribution	$1,118,000	$1,180,000	$1,198,000	$1,200,000
12.0%				
Normal Cost	22.2%	22.6%	23.0%	23.4%
UAL Contribution	$1,092,000	$1,100,000	$1,033,000	$914,000

Discount Rate Sensitivity

The discount rate assumption is calculated as the sum of the assumed real rate of return and the assumed annual price inflation, currently 4.50% and 2.50%, respectively. Changing either the price inflation assumption or the real rate of return assumption will change the discount rate. The sensitivity of the valuation results to the discount rate assumption depends on which component of the discount rate is changed. Shown below are various valuation results as of June 30, 2020 assuming alternate discount rates by changing the two components independently. Results are shown using the current discount rate of 7.0% as well as alternate discount rates of 6.0% and 8.0%. The rates of 6.0% and 8.0% were selected since they illustrate the impact of a 1.0% increase or decrease to the 7.0% assumption.

Sensitivity to the Real Rate of Return Assumption

As of June 30, 2020	1% Lower Real Return Rate	Current Assumptions	1% Higher Real Return Rate
Discount Rate	**6.0%**	**7.0%**	**8.0%**
Inflation	2.5%	2.5%	2.5%
Real Rate of Return	**3.5%**	**4.5%**	**5.5%**
a) Total Normal Cost	38.45%	30.83%	24.98%
b) Accrued Liability	$53,583,690	$47,484,681	$42,428,100
c) Market Value of Assets	$34,165,434	$34,165,434	$34,165,434
d) Unfunded Liability/(Surplus) [(b) - (c)]	$19,418,256	$13,319,247	$8,262,666
e) Funded Status	63.8%	72.0%	80.5%

Sensitivity to the Price Inflation Assumption

As of June 30, 2020	1% Lower Inflation Rate	Current Assumptions	1% Higher Inflation Rate
Discount Rate	**6.0%**	**7.0%**	**8.0%**
Inflation	**1.5%**	**2.5%**	**3.5%**
Real Rate of Return	4.5%	4.5%	4.5%
a) Total Normal Cost	33.01%	30.83%	28.35%
b) Accrued Liability	$50,099,121	$47,484,681	$44,275,922
c) Market Value of Assets	$34,165,434	$34,165,434	$34,165,434
d) Unfunded Liability/(Surplus) [(b) - (c)]	$15,933,687	$13,319,247	$10,110,488
e) Funded Status	68.2%	72.0%	77.2%

Mortality Rate Sensitivity

The following table looks at the change in the June 30, 2020 plan costs and funded status under two different longevity scenarios, namely assuming post-retirement rates of mortality are 10% lower or 10% higher than our current mortality assumptions adopted in 2017. This type of analysis highlights the impact on the plan of improving or worsening mortality over the long-term.

As of June 30, 2020	10% Lower Mortality Rates	Current Assumptions	10% Higher Mortality Rates
a) Total Normal Cost	31.27%	30.83%	30.42%
b) Accrued Liability	$48,316,480	$47,484,681	$46,714,743
c) Market Value of Assets	$34,165,434	$34,165,434	$34,165,434
d) Unfunded Liability/(Surplus) [(b) - (c)]	$14,151,046	$13,319,247	$12,549,309
e) Funded Status	70.7%	72.0%	73.1%

Maturity Measures

As pension plans mature they become more sensitive to risks. Understanding plan maturity and how it affects the ability of a pension plan sponsor to tolerate risk is important in understanding how the pension plan is impacted by investment return volatility, other economic variables and changes in longevity or other demographic assumptions. Since it is the employer that bears the risk, it is appropriate to perform this analysis on a pension plan level considering all rate plans. The following measures are for one rate plan only.

One way to look at the maturity level of CalPERS and its plans is to look at the ratio of a plan's retiree liability to its total liability. A pension plan in its infancy will have a very low ratio of retiree liability to total liability. As the plan matures, the ratio starts increasing. A mature plan will often have a ratio above 60%-65%.

Ratio of Retiree Accrued Liability to Total Accrued Liability	June 30, 2019	June 30, 2020
1. Retired Accrued Liability	28,969,766	31,954,048
2. Total Accrued Liability	45,731,110	47,484,681
3. Ratio of Retiree AL to Total AL [(1) / (2)]	0.63	0.67

Another measure of maturity level of CalPERS and its plans is to look at the ratio of actives to retirees, also called the Support Ratio. A pension plan in its infancy will have a very high ratio of active to retired members. As the plan matures, and members retire, the ratio starts declining. A mature plan will often have a ratio near or below one. The average support ratio for CalPERS public agency plans is 1.25.

Support Ratio	June 30, 2019	June 30, 2020
1. Number of Actives	15	13
2. Number of Retirees	32	35
3. Support Ratio [(1) / (2)]	0.47	0.37

Maturity Measures (Continued)

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

Shown in the table below is the asset volatility ratio (AVR), which is the ratio of market value of assets to payroll. Plans that have higher AVR experience more volatile employer contributions (as a percentage of payroll) due to investment return. For example, a plan with 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. 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)

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

Contribution Volatility	June 30, 2019	June 30, 2020
1. Market Value of Assets	$33,562,959	$34,165,434
2. Payroll	1,954,922	1,832,070
3. Asset Volatility Ratio (AVR) [(1) / (2)]	17.2	18.6
4. Accrued Liability	$45,731,110	$47,484,681
5. Liability Volatility Ratio (LVR) [(4) / (2)]	23.4	25.9

Maturity Measures History

Valuation Date	Ratio of Retiree Accrued Liability to Total Accrued Liability	Support Ratio	Asset Volatility Ratio	Liability Volatility Ratio
06/30/2017	0.50	0.77	11.8	15.8
06/30/2018	0.53	0.64	13.8	18.9
06/30/2019	0.63	0.47	17.2	23.4
06/30/2020	0.67	0.37	18.6	25.9

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, 2020. The plan liability on a termination basis is calculated differently compared to the plan's ongoing funding liability. For the hypothetical termination liability calculation, both compensation and service are frozen as of the valuation date and no future pay increases or service accruals are assumed. This measure of funded status is not appropriate for assessing the need for future employer contributions in the case of an ongoing plan, that is, for an employer that continues to provide CalPERS retirement benefits to active employees.

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

The effective termination discount rate will depend on actual market rates of return for risk-free securities on the date of termination. As market discount rates are variable, the table below shows a range for the hypothetical termination liability based on the lowest and highest interest rates observed during an approximate 19-month period from 12 months before the valuation date to 7 months after.

Market Value of Assets (MVA)	Hypothetical Termination Liability[1,2] at 0.75%	Funded Status	Unfunded Termination Liability at 0.75%	Hypothetical Termination Liability[1,2] at 2.50%	Funded Status	Unfunded Termination Liability at 2.50%
$34,165,434	$115,412,388	29.6%	$81,246,954	$88,393,128	38.7%	$54,227,694

[1] The hypothetical liabilities calculated above include a 5% mortality contingency load in accordance with Board policy. Other actuarial assumptions can be found in Appendix A of the Section 2 report.

[2] The current discount rate assumption used for termination valuations is a weighted average of the 10-year and 30-year U.S. Treasury yields where the weights are based on matching asset and liability durations as of the termination date. The discount rates used in the table are based on 20-year Treasury bonds, rounded to the nearest quarter percentage point, which is a good proxy for most plans. The 20-year Treasury yield was 1.18% on June 30, 2020, and was 1.68% on January 31, 2021.

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

Participant Data

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

	June 30, 2019	June 30, 2020
Active Members		
Counts	15	13
Average Attained Age	N/A	49.0
Average Entry Age to Rate Plan	N/A	28.1
Average Years of Credited Service	N/A	20.2
Average Annual Covered Pay	$130,328	$140,928
Annual Covered Payroll	$1,954,922	$1,832,070
Projected Annual Payroll for Contribution Year	$2,120,679	$1,987,410
Present Value of Future Payroll	$12,854,325	$11,856,788
Transferred Members	9	8
Separated Members	2	2
Retired Members and Beneficiaries		
Counts*	32	35
Average Annual Benefits*	N/A	$65,345

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

* Values include community property settlements.

List of Class 1 Benefit Provisions

This plan has the additional Class 1 Benefit Provisions:

- One Year Final Compensation (FAC 1)

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 Section 2.

	Benefit Group		
Member Category	Fire	Fire	
Demographics			
Actives	Yes	No	
Transfers/Separated	Yes	No	
Receiving	Yes	Yes	
Benefit Provision			
Benefit Formula	3% @ 55		
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	Standard		
Pre-Retirement Death Benefits			
Optional Settlement 2	Yes		
1959 Survivor Benefit Level	Indexed		
Special	Yes		
Alternate (firefighters)	No		
Post-Retirement Death Benefits			
Lump Sum	$500	$500	
Survivor Allowance (PRSA)	No	No	
COLA	2%	2%	

Section 2

CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

Risk Pool Actuarial Valuation Information

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

CalPERS

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

July 2021

PEPRA Safety Fire Plan of the Scotts Valley Fire Protection District
(CalPERS ID: 4027652040)
Annual Valuation Report as of June 30, 2020

Dear Employer,

Attached to this letter, you will find the June 30, 2020 actuarial valuation report of your CalPERS pension plan. **Provided in this report is the determination of the minimum required employer contributions for fiscal year 2022-23**. In addition, the report contains important information regarding the current financial status of the plan as well as projections and risk measures to aid in planning for the future.

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

- Section 1 contains specific information for the plan including the development of the current and projected employer contributions, and
- Section 2 contains the Risk Pool Actuarial Valuation appropriate to the plan as of June 30, 2020.

Section 2 can be found on the CalPERS website (calpers.ca.gov). From the home page, go to *"Forms & Publications"* and select *"View All"*. In the search box, enter *"Risk Pool"* and from the results list download the Safety Risk Pool Actuarial Valuation Report for June 30, 2020.

Your June 30, 2020 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.

Actuarial valuations are based on assumptions regarding future plan experience including investment return and payroll growth, eligibility for the types of benefits provided, and longevity among retirees. The CalPERS Board of Administration adopts these assumptions after considering the advice of CalPERS actuarial and investment teams and other professionals. Each actuarial valuation reflects all prior differences between actual and assumed experience and adjusts the contribution rates as needed. This valuation is based on an investment return assumption of 7.0% which was adopted by the board in December 2016. Other assumptions used in this report are those recommended in the CalPERS Experience Study and Review of Actuarial Assumptions report from December 2017.

Required Contribution

The exhibit below displays the minimum employer contributions and the Employee PEPRA Rate for fiscal year 2022-23 along with estimates of the required contributions for fiscal year 2023-24. Member contributions other than cost sharing (whether paid by the employer or the employee) are in addition to the results shown below. **The employer contributions in this report do not reflect any cost sharing arrangements you may have with your employees.**

Fiscal Year	Employer Normal Cost Rate	Employer Amortization of Unfunded Accrued Liability	PEPRA Employee Rate
2022-23	12.78%	$915	13.00%
Projected Results			
2023-24	*12.8%*	*$1,500*	*TBD*

The actual investment return for fiscal year 2020-21 was not known at the time this report was prepared. The projections above assume the investment return for that year would be 7.00%. ***To the extent the actual investment return for fiscal year 2020-21 differs from 7.00%, the actual contribution requirements for fiscal year 2023-24 will differ from those shown above.*** For additional details regarding the assumptions and methods used for these projections please refer to the "Projected Employer Contributions" in the "Highlights and Executive Summary" section. This section also contains projected required contributions through fiscal year 2027-28.

Changes from Previous Year's Valuation

There are no significant changes in actuarial assumptions or policies in your 2020 actuarial valuation. Your annual valuation report is an important tool for monitoring the health of your CalPERS pension plan. Your report contains useful information about future required contributions and ways to control your plan's funding progress. In addition to your annual actuarial report my office has developed tools for employers to plan, project and protect the retirement benefits of your employees. Pension Outlook is a tool to help plan and budget pension costs into the future with easy to understand results and charts.

You will be able to view the projected funded status and required employer contributions for pension plans in different potential scenarios for up to 30 years into the future — which will make budgeting more predictable. While Pension Outlook can't predict the future, it can provide valuable planning information based on a variety of future scenarios that you select.

Pension Outlook can help you answer specific questions about your plans, including:

- When is my plan's funded status expected to increase?
- What happens to my required contributions in a down market?
- How does the discount rate assumption affect my contributions?
- What is the impact of making an additional discretionary payment to my plan?

To get started, visit our Pension Outlook page at www.calpers.ca.gov/page/employers/actuarial-resources/pension-outlook-overview and take the steps to register online.

CalPERS will be completing an Asset Liability Management (ALM) review process in November 2021 that will review the capital market assumptions and the strategic asset allocation and ascertain whether a change in the discount rate and other economic assumptions is warranted. In addition, the Actuarial Office will be completing its Experience Study to review the demographic experience within the pension system and make recommendations to modify future assumptions where appropriate.

Furthermore, this valuation does not reflect any impacts from the COVID-19 pandemic on your pension plan. The impact of COVID-19 on retirement plans is not yet known and CalPERS actuaries will continue to monitor the effects and where necessary make future adjustments to actuarial assumptions.

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

Questions

We understand that you might have questions about these results, and your assigned CalPERS actuary whose signature is on the valuation report is available to discuss. If you have other questions, you may call the Customer Contact Center at (888)-CalPERS or (**888-225-7377**).

Sincerely,

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

CalPERS

Actuarial Valuation as of June 30, 2020

for the PEPRA Safety Fire Plan of the Scotts Valley Fire Protection District

(CalPERS ID: 4027652040)

Required Contributions for Fiscal Year July 1, 2022 - June 30, 2023

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Section 1

CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

Plan Specific Information
for the
PEPRA Safety Fire Plan
of the
Scotts Valley Fire Protection District

(CalPERS ID: 4027652040)
(Rate Plan ID: 25848)

Table of Contents

Actuarial Certification

Section 1 of this report is based on the member and financial data contained in our records as of June 30, 2020 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, 2020 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 actuaries have certified that, in their opinion, the valuation of the risk pool containing your PEPRA Safety Fire 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 Unfunded Accrued Liability amortization bases as of June 30, 2020 and employer contribution as of July 1, 2022 have been properly and accurately determined in accordance with the principles and standards stated above.

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

DAVID CLEMENT, ASA, MAAA, EA
Senior Pension Actuary, CalPERS

Highlights and Executive Summary

- Introduction
- Purpose of Section 1
- Required Employer Contributions
- Additional Discretionary Employer Contributions
- Plan's Funded Status
- Projected Employer Contributions
- Other Pooled Safety Risk Pool Rate Plans
- Cost
- Changes Since the Prior Year's Valuation
- Subsequent Events

Introduction

This report presents the results of the June 30, 2020 actuarial valuation of the PEPRA Safety Fire Plan of the Scotts Valley Fire Protection District of the California Public Employees' Retirement System (CalPERS). This actuarial valuation sets the required employer contributions for fiscal year 2022-23.

Purpose of Section 1

This Section 1 report for the PEPRA Safety Fire Plan of the Scotts Valley Fire Protection District of CalPERS was prepared by the plan actuary in order to:

- Set forth the assets and accrued liabilities of this plan as of June 30, 2020;
- Determine the minimum required employer contribution for this plan for the fiscal year July 1, 2022 through June 30, 2023; and
- Provide actuarial information as of June 30, 2020 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 Governmental Accounting Standards Board (GASB) Statement No. 68 for a Cost Sharing Employer Defined Benefit Pension Plan. A separate accounting valuation report for such purposes is available on the CalPERS website.

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

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; changes in actuarial policies; and changes in plan provisions or applicable law.

Assessment and Disclosure of Risk

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

- A "Scenario Test," projecting future results under different investment income returns.
- A "Sensitivity Analysis," showing the impact on current valuation results using alternative discount rates of 6.0% and 8.0%.
- A "Sensitivity Analysis," showing the impact on current valuation results assuming rates of mortality are 10% lower or 10% higher than our current post- retirement mortality assumptions adopted in 2017.
- Pension Plan maturity measures quantifying the risks the employer bears.

Required Employer Contributions

	Fiscal Year
Required Employer Contributions	**2022-23**
Employer Normal Cost Rate	**12.78%**
Plus	
Required Payment on Amortization Bases[1]	**$915**
Paid either as	
1) Monthly Payment	**$76.25**
Or	
2) Annual Prepayment Option*	**$885**

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

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

	Fiscal Year 2021-22	Fiscal Year 2022-23
Development of Normal Cost as a Percentage of Payroll		
Base Total Normal Cost for Formula	26.13%	25.78%
Surcharge for Class 1 Benefits[2]		
None	0.00%	0.00%
Phase out of Normal Cost Difference[3]	0.00%	0.00%
Plan's Total Normal Cost	26.13%	25.78%
Plan's Employee Contribution Rate[4]	13.00%	13.00%
Employer Normal Cost Rate	13.13%	12.78%

[1] The required payment on amortization bases does not take into account any additional discretionary payment made after April 30, 2021.

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

[3] The normal cost change is phased out over a five-year period in accordance with the CalPERS contribution allocation policy.

[4] For detail regarding the determination of the required PEPRA employee contribution rate see Section on PEPRA Member Contribution Rates.

Additional Discretionary Employer Contributions

The minimum required employer contribution towards the Unfunded Accrued Liability (UAL) for this rate plan for the 2022-23 fiscal year is $915. CalPERS allows employers to make additional discretionary payments (ADPs) at any time and in any amount. These optional payments serve to reduce the UAL and future required contributions and can result in significant long-term savings. Employers can also use ADPs to stabilize annual contributions as a fixed dollar amount, percent of payroll or percent of revenue.

Provided below are select ADP options for consideration. Making such an ADP during fiscal year 2022-23 does not require an ADP be made in any future year, nor does it change the remaining amortization period of any portion of unfunded liability. For information on permanent changes to amortization periods, see the "Amortization Schedule and Alternatives" section of the report.

If you are considering making an ADP, please contact your actuary for additional information.

Minimum Required Employer Contribution for Fiscal Year 2022-23

Estimated Normal Cost	Minimum UAL Payment	ADP	Total UAL Contribution	Estimated Total Contribution
$194,804	$915	$0	$915	$195,719

The minimum required contribution above is less than interest on the UAL. With no ADP the UAL is projected to increase over the following year. If the minimum UAL payment were split between interest and principal, the principal portion would be negative. This situation is referred to as "negative amortization."

Fiscal Year 2022-23 Employer Contribution Necessary to Avoid Negative Amortization

Estimated Normal Cost	Minimum UAL Payment	ADP[1]	Total UAL Contribution	Estimated Total Contribution
$194,804	$915	$1,135	$2,050	$196,854

Alternative Fiscal Year 2022-23 Employer Contributions for Greater UAL Reduction

Funding Target	Estimated Normal Cost	Minimum UAL Payment	ADP[1]	Total UAL Contribution	Estimated Total Contribution
20 years	$194,804	$915	$1,849	$2,764	$197,568
15 years	$194,804	$915	$2,300	$3,215	$198,019
10 years	$194,804	$915	$3,254	$4,169	$198,973
5 years	$194,804	$915	$6,226	$7,141	$201,945

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

Note that the calculations above are based on the projected Unfunded Accrued Liability as of June 30, 2022 as determined in the June 30, 2020 actuarial valuation. New unfunded liabilities can emerge in future years due to assumption or method changes, changes in plan provisions and actuarial experience different than assumed. Making an ADP illustrated above for the indicated number of years will not result in a plan that is exactly 100% funded in the indicated number of years. Valuation results will vary from one year to the next and can diverge significantly from projections over a period of several years.

Plan's Funded Status

	June 30, 2019	June 30, 2020
1. Present Value of Projected Benefits (PVB)	$4,641,659	$5,774,606
2. Entry Age Accrued Liability (AL)	679,096	1,067,907
3. Plan's Market Value of Assets (MVA)	632,618	985,610
4. Unfunded Accrued Liability (UAL) [(2) - (3)]	46,478	82,297
5. Funded Ratio [(3) / (2)]	93.2%	92.3%

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

Projected Employer Contributions

The table below shows the required and projected employer contributions (before cost sharing) for the next six fiscal years. The projection assumes that all actuarial assumptions will be realized and that no further changes to assumptions, contributions, benefits, or funding will occur during the projection period. Actual contribution rates during this projection period could be significantly higher or lower than the projection shown below.

	Required Contribution	Projected Future Employer Contributions (Assumes 7.00% Return for Fiscal Year 2020-21)				
Fiscal Year	**2022-23**	**2023-24**	**2024-25**	**2025-26**	**2026-27**	**2027-28**
	Rate Plan 25848 Results					
Normal Cost %	12.78%	12.8%	12.8%	12.8%	12.8%	12.8%
UAL Payment	$915	$1,500	$2,100	$2,700	$3,200	$3,200

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

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

Our online pension plan modeling and projection tool, Pension Outlook, is available in the Employers section of the CalPERS website. Pension Outlook is a tool to help plan and budget pension costs into the future with results and charts that are easy to understand.

Other Pooled Safety Risk Pool Rate Plans

All of the results presented in this Section 1 report, except those shown below, correspond to rate plan 25848. In many cases, employers have additional rate plans within the same risk pool. For cost analysis and budgeting it is useful to consider contributions for these rate plans as a whole rather than individually. The estimated contribution amounts and rates for all of the employer's rate plans in the Safety Risk Pool are shown below and assume that the payroll for each rate plan will grow according to the overall payroll growth assumption of 2.75% per year for three years.

	Fiscal Year 2021-22	Fiscal Year 2022-23
Estimated Combined Employer Contributions for all Pooled Safety Rate Plans		
Projected Payroll for the Contribution Year	$3,346,719	$3,511,697
Estimated Employer Normal Cost	$623,075	$628,854
Required Payment on Amortization Bases	928,737	1,046,865
Estimated Total Employer Contributions	$1,551,812	$1,675,719
Estimated Total Employer Contribution Rate (illustrative only)	46.37%	47.72%

Cost

Actuarial Determination of Pension Plan Cost

Contributions to fund the pension plan are comprised of two components:

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

For fiscal years prior to 2016-17, the Amortization of UAL component was expressed as a percentage of total active payroll. Starting with fiscal year 2016-17, the Amortization of UAL component was expressed as a dollar amount and invoiced on a monthly basis. There continues to be an option to prepay this amount during July of each fiscal year.

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

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

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

These assumptions reflect CalPERS' best estimate of future experience of the plan and are long term in nature. We recognize that all assumptions will not be realized in any given year. For example, the investment earnings at CalPERS have averaged 5.5% over the 20 years ending June 30, 2020, yet individual fiscal year returns have ranged from -23.6% to +20.7%. In addition, CalPERS reviews all actuarial assumptions by conducting in-depth experience studies every four years, with the most recent experience study completed in 2017.

Changes Since the Prior Year's Valuation

Benefits

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

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

Actuarial Methods and Assumptions

The are no significant changes to the actuarial methods or assumptions for the 2020 actuarial valuation.

Subsequent Events

The contribution requirements determined in this actuarial valuation report are based on demographic and financial information as of June 30, 2020. Changes in the value of assets subsequent to that date are not reflected. Investment returns below the assumed rate of return will increase future required contributions while investment returns above the assumed rate of return will decrease future required contributions.

CalPERS will be completing an Asset Liability Management (ALM) process in November 2021 that will review the capital market assumptions and the strategic asset allocation and ascertain whether a change in the discount rate and other economic assumptions is warranted. As part of the ALM process the Actuarial Office will be completing an Experience Study to review the demographic experience of the retirement system and make recommendations to modify future assumptions where appropriate.

Furthermore, this valuation does not reflect any impacts from the COVID-19 pandemic on your pension plan. The impact of COVID-19 on retirement plans is not yet known and CalPERS actuaries will continue to monitor the effects and where necessary make future adjustments to actuarial assumptions.

The projected employer contributions on Page 6 are calculated under the assumption that the discount rate remains at 7.0% going forward and that the realized rate of return on assets for fiscal year 2020-21 is 7.0%.

This actuarial valuation report reflects statutory changes, regulatory changes and CalPERS Board actions through January 2021. Any subsequent changes or actions are not reflected.

Assets and Liabilities

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

Breakdown of Entry Age Accrued Liability

Active Members	$1,059,638
Transferred Members	8,269
Terminated Members	0
Members and Beneficiaries Receiving Payments	0
Total	$1,067,907

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	$1,067,907
2.	Projected UAL balance at 6/30/2020	55,844
3.	Pool's Accrued Liability[1]	25,304,654,410
4.	Sum of Pool's Individual Plan UAL Balances at 6/30/2020[1]	6,693,257,955
5.	Pool's 2019/20 Investment (Gain)/Loss[1]	427,980,555
6.	Pool's 2019/20 Non-Investment (Gain)/Loss[1]	75,360,952
7.	Plan's Share of Pool's Investment (Gain)/Loss: [(1) - (2)] ÷ [(3) - (4)] × (5)	23,273
8.	Plan's Share of Pool's Non-Investment (Gain)/Loss: (1) ÷ (3) × (6)	3,180
9.	Plan's New (Gain)/Loss as of 6/30/2020: (7) + (8)	26,453

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

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

10.	Plan's UAL: (2) + (9)	$82,297
11.	Plan's Share of Pool's MVA: (1) - (10)	$985,610

Schedule of Plan's Amortization Bases

Note that 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, 2020.
- The required employer contributions determined by the valuation are for the fiscal year beginning two years after the valuation date: fiscal year 2022-23.

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

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

Reason for Base	Date Est.	Ramp Level 2022-23	Ramp Shape	Escala-tion Rate	Amort. Period	Balance 6/30/20	Expected Payment 2020-21	Balance 6/30/21	Expected Payment 2021-22	Balance 6/30/22	Minimum Required Payment 2022-23
Fresh Start	6/30/19	No Ramp		0.00%	1	55,844	57,765	0	0	0	0
Non-Investment (Gain)/Loss	6/30/20	No Ramp		0.00%	20	3,180	0	3,403	0	3,641	332
Investment (Gain)/Loss	6/30/20	20%	Up Only	0.00%	20	23,273	0	24,902	0	26,645	583
Total						**82,297**	**57,765**	**28,305**	**0**	**30,286**	**915**

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

Amortization Schedule and Alternatives

The amortization schedule on the previous page shows the minimum contributions required according to the CalPERS amortization policy. Many agencies have expressed a desire for a more stable pattern of payments or have indicated interest in paying off the unfunded accrued liabilities more quickly than required. As such, we have provided alternative amortization schedules to help analyze the current amortization schedule and illustrate the potential savings of accelerating unfunded liability payments.

Shown on the following page are future year amortization payments based on 1) the current amortization schedule reflecting the individual bases and remaining periods shown on the previous page, and 2) alternative "fresh start" amortization schedules using two sample periods that would both result in interest savings relative to the current amortization schedule. To initiate a Fresh Start, please consult with your plan actuary.

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

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

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

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

Amortization Schedule and Alternatives (continued)

			Alternate Schedules			
	Current Amortization Schedule		20 Year Amortization		15 Year Amortization	
Date	Balance	Payment	Balance	Payment	Balance	Payment
6/30/2022	30,286	915	30,286	2,764	30,286	3,215
6/30/2023	31,459	1,497	29,547	2,764	29,080	3,215
6/30/2024	32,112	2,080	28,756	2,764	27,790	3,214
6/30/2025	32,209	2,662	27,910	2,764	26,411	3,215
6/30/2026	31,710	3,245	27,005	2,764	24,934	3,215
6/30/2027	30,573	3,245	26,036	2,764	23,354	3,214
6/30/2028	29,357	3,245	24,999	2,763	21,664	3,215
6/30/2029	28,055	3,245	23,891	2,763	19,855	3,214
6/30/2030	26,662	3,246	22,705	2,764	17,920	3,215
6/30/2031	25,171	3,245	21,435	2,763	15,849	3,214
6/30/2032	23,576	3,245	20,077	2,763	13,634	3,215
6/30/2033	21,870	3,246	18,624	2,763	11,263	3,215
6/30/2034	20,043	3,245	17,070	2,764	8,726	3,214
6/30/2035	18,089	3,244	15,406	2,764	6,012	3,215
6/30/2036	15,999	3,244	13,625	2,763	3,107	3,214
6/30/2037	13,763	3,245	11,721	2,764		
6/30/2038	11,369	3,245	9,682	2,763		
6/30/2039	8,808	3,244	7,502	2,764		
6/30/2040	6,069	3,245	5,168	2,763		
6/30/2041	3,137	3,245	2,672	2,764		
6/30/2042						
6/30/2043						
6/30/2044						
6/30/2045						
6/30/2046						
6/30/2047						
6/30/2048						
6/30/2049						
6/30/2050						
6/30/2051						
Total		**59,073**		**55,272**		**48,219**
Interest Paid		**28,787**		**24,986**		**17,933**
Estimated Savings				**3,801**		**10,854**

Employer Contribution History

The table below provides a recent history of the required employer contributions for the plan. The amounts are based on the actuarial valuation from two years prior and does not account for prepayments or benefit changes made during a fiscal year. Additional discretionary payments before July 1, 2019 or after June 30, 2020 are not included.

Fiscal Year	Employer Normal Cost	Unfunded Liability Payment ($)	Additional Discretionary Payments
2017 - 18	11.990%	$0	N/A
2018 - 19	12.141%	2,057	N/A
2019 - 20	13.034%	5,047	0
2020 - 21	13.044%	17,747	
2021 - 22	13.13%	22,134	
2022 - 23	12.78%	915	

Funding History

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

Valuation Date	Accrued Liability (AL)	Share of Pool's Market Value of Assets (MVA)	Unfunded Accrued Liability (UAL)	Funded Ratio	Annual Covered Payroll
06/30/2015	$65	$62	$3	94.8%	$108,822
06/30/2016	59,319	54,979	4,340	92.7%	234,586
06/30/2017	156,005	151,473	4,532	97.1%	433,524
06/30/2018	374,975	351,415	23,560	93.7%	796,211
06/30/2019	679,096	632,618	46,478	93.2%	1,130,210
06/30/2020	1,067,907	985,610	82,297	92.3%	1,405,145

Risk Analysis

- Future Investment Return Scenarios
- Discount Rate Sensitivity
- Mortality Rate Sensitivity
- Maturity Measures
- Maturity Measures History
- Hypothetical Termination Liability

Future Investment Return Scenarios

Analysis was performed to determine the effects of various future investment returns on required employer contributions. The projections below provide a range of results based on five investment return scenarios assumed to occur during the next four fiscal years (2020-21, 2021-22, 2022-23 and 2023-24). The projections also assume that all other actuarial assumptions will be realized and that no further changes to assumptions, contributions, benefits, or funding will occur.

For fiscal years 2020-21, 2021-22, 2022-23, and 2023-24, each scenario assumes an alternate fixed annual return. The fixed return assumptions for the five scenarios are 1.0%, 4.0%, 7.0%, 9.0% and 12.0%.

These alternate investment returns were chosen based on stochastic analysis of possible future investment returns over the four-year period ending June 30, 2024. Using the expected returns and volatility of the asset classes in which the funds are invested, we produced five thousand stochastic outcomes for this period based on the most recently completed Asset Liability Management process. We then selected annual returns that approximate the 5th, 25th, 50th, 75th, and 95th percentiles for these outcomes. For example, of all the 4-year outcomes generated in the stochastic analysis, approximately 25% had an average annual return of 4.0% or less.

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

Assumed Annual Return From 2020-21 through 2023-24	Projected Employer Contributions			
	2023-24	2024-25	2025-26	2026-27
1.0%				
Normal Cost	12.8%	12.8%	12.8%	12.8%
UAL Contribution	$3,000	$6,500	$12,000	$18,000
4.0%				
Normal Cost	12.8%	12.8%	12.8%	12.8%
UAL Contribution	$2,200	$4,300	$7,200	$11,000
7.0%				
Normal Cost	12.8%	12.8%	12.8%	12.8%
UAL Contribution	$1,500	$2,100	$2,700	$3,200
9.0%				
Normal Cost	13.1%	13.4%	13.7%	13.6%
UAL Contribution	$1,200	$1,300	$0	$0
12.0%				
Normal Cost	13.1%	13.4%	13.7%	13.6%
UAL Contribution	$0	$0	$0	$0

Discount Rate Sensitivity

The discount rate assumption is calculated as the sum of the assumed real rate of return and the assumed annual price inflation, currently 4.50% and 2.50%, respectively. Changing either the price inflation assumption or the real rate of return assumption will change the discount rate. The sensitivity of the valuation results to the discount rate assumption depends on which component of the discount rate is changed. Shown below are various valuation results as of June 30, 2020 assuming alternate discount rates by changing the two components independently. Results are shown using the current discount rate of 7.0% as well as alternate discount rates of 6.0% and 8.0%. The rates of 6.0% and 8.0% were selected since they illustrate the impact of a 1.0% increase or decrease to the 7.0% assumption.

Sensitivity to the Real Rate of Return Assumption

As of June 30, 2020	1% Lower Real Return Rate	Current Assumptions	1% Higher Real Return Rate
Discount Rate	**6.0%**	**7.0%**	**8.0%**
Inflation	2.5%	2.5%	2.5%
Real Rate of Return	**3.5%**	**4.5%**	**5.5%**
a) Total Normal Cost	32.19%	25.78%	20.90%
b) Accrued Liability	$1,300,181	$1,067,907	$884,587
c) Market Value of Assets	$985,610	$985,610	$985,610
d) Unfunded Liability/(Surplus) [(b) - (c)]	$314,571	$82,297	($101,023)
e) Funded Status	75.8%	92.3%	111.4%

Sensitivity to the Price Inflation Assumption

As of June 30, 2020	1% Lower Inflation Rate	Current Assumptions	1% Higher Inflation Rate
Discount Rate	**6.0%**	**7.0%**	**8.0%**
Inflation	**1.5%**	**2.5%**	**3.5%**
Real Rate of Return	4.5%	4.5%	4.5%
a) Total Normal Cost	27.73%	25.78%	23.62%
b) Accrued Liability	$1,139,692	$1,067,907	$980,947
c) Market Value of Assets	$985,610	$985,610	$985,610
d) Unfunded Liability/(Surplus) [(b) - (c)]	$154,082	$82,297	($4,663)
e) Funded Status	86.5%	92.3%	100.5%

Mortality Rate Sensitivity

The following table looks at the change in the June 30, 2020 plan costs and funded status under two different longevity scenarios, namely assuming post-retirement rates of mortality are 10% lower or 10% higher than our current mortality assumptions adopted in 2017. This type of analysis highlights the impact on the plan of improving or worsening mortality over the long-term.

As of June 30, 2020	10% Lower Mortality Rates	Current Assumptions	10% Higher Mortality Rates
a) Total Normal Cost	26.14%	25.78%	25.45%
b) Accrued Liability	$1,087,476	$1,067,907	$1,049,743
c) Market Value of Assets	$985,610	$985,610	$985,610
d) Unfunded Liability/(Surplus) [(b) - (c)]	$101,866	$82,297	$64,133
e) Funded Status	90.6%	92.3%	93.9%

Maturity Measures

As pension plans mature they become more sensitive to risks. Understanding plan maturity and how it affects the ability of a pension plan sponsor to tolerate risk is important in understanding how the pension plan is impacted by investment return volatility, other economic variables and changes in longevity or other demographic assumptions. Since it is the employer that bears the risk, it is appropriate to perform this analysis on a pension plan level considering all rate plans. The following measures are for one rate plan only.

One way to look at the maturity level of CalPERS and its plans is to look at the ratio of a plan's retiree liability to its total liability. A pension plan in its infancy will have a very low ratio of retiree liability to total liability. As the plan matures, the ratio starts increasing. A mature plan will often have a ratio above 60%-65%.

Ratio of Retiree Accrued Liability to Total Accrued Liability	June 30, 2019	June 30, 2020
1. Retired Accrued Liability	0	0
2. Total Accrued Liability	679,096	1,067,907
3. Ratio of Retiree AL to Total AL [(1) / (2)]	0.00	0.00

Another measure of maturity level of CalPERS and its plans is to look at the ratio of actives to retirees, also called the Support Ratio. A pension plan in its infancy will have a very high ratio of active to retired members. As the plan matures, and members retire, the ratio starts declining. A mature plan will often have a ratio near or below one. The average support ratio for CalPERS public agency plans is 1.25.

Support Ratio	June 30, 2019	June 30, 2020
1. Number of Actives	11	13
2. Number of Retirees	0	0
3. Support Ratio [(1) / (2)]	N/A	N/A

Maturity Measures (Continued)

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

Shown in the table below is the asset volatility ratio (AVR), which is the ratio of market value of assets to payroll. Plans that have higher AVR experience more volatile employer contributions (as a percentage of payroll) due to investment return. For example, a plan with 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. 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)

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

Contribution Volatility	June 30, 2019	June 30, 2020
1. Market Value of Assets	$632,618	$985,610
2. Payroll	1,130,210	1,405,145
3. Asset Volatility Ratio (AVR) [(1) / (2)]	0.6	0.7
4. Accrued Liability	$679,096	$1,067,907
5. Liability Volatility Ratio (LVR) [(4) / (2)]	0.6	0.8

Maturity Measures History

Valuation Date	Ratio of Retiree Accrued Liability to Total Accrued Liability	Support Ratio	Asset Volatility Ratio	Liability Volatility Ratio
06/30/2017	0.00	N/A	0.3	0.4
06/30/2018	0.00	N/A	0.4	0.5
06/30/2019	0.00	N/A	0.6	0.6
06/30/2020	0.00	N/A	0.7	0.8

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, 2020. The plan liability on a termination basis is calculated differently compared to the plan's ongoing funding liability. For the hypothetical termination liability calculation, both compensation and service are frozen as of the valuation date and no future pay increases or service accruals are assumed. This measure of funded status is not appropriate for assessing the need for future employer contributions in the case of an ongoing plan, that is, for an employer that continues to provide CalPERS retirement benefits to active employees.

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

The effective termination discount rate will depend on actual market rates of return for risk-free securities on the date of termination. As market discount rates are variable, the table below shows a range for the hypothetical termination liability based on the lowest and highest interest rates observed during an approximate 19-month period from 12 months before the valuation date to 7 months after.

Market Value of Assets (MVA)	Hypothetical Termination Liability[1,2] at 0.75%	Funded Status	Unfunded Termination Liability at 0.75%	Hypothetical Termination Liability[1,2] at 2.50%	Funded Status	Unfunded Termination Liability at 2.50%
$985,610	$2,970,393	33.2%	$1,984,783	$1,832,729	53.8%	$847,119

[1] The hypothetical liabilities calculated above include a 5% mortality contingency load in accordance with Board policy. Other actuarial assumptions can be found in Appendix A of the Section 2 report.

[2] The current discount rate assumption used for termination valuations is a weighted average of the 10-year and 30-year U.S. Treasury yields where the weights are based on matching asset and liability durations as of the termination date. The discount rates used in the table are based on 20-year Treasury bonds, rounded to the nearest quarter percentage point, which is a good proxy for most plans. The 20-year Treasury yield was 1.18% on June 30, 2020, and was 1.68% on January 31, 2021.

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

Participant Data

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

	June 30, 2019	June 30, 2020
Active Members		
Counts	11	13
Average Attained Age	N/A	37.3
Average Entry Age to Rate Plan	N/A	34.5
Average Years of Credited Service	N/A	2.9
Average Annual Covered Pay	$102,746	$108,088
Annual Covered Payroll	$1,130,210	$1,405,145
Projected Annual Payroll for Contribution Year	$1,226,040	$1,524,287
Present Value of Future Payroll	$16,051,673	$19,567,966
Transferred Members	1	1
Separated Members	0	0
Retired Members and Beneficiaries		
Counts*	0	0
Average Annual Benefits*	N/A	$0

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

* Values include community property settlements.

List of Class 1 Benefit Provisions

This plan has the additional Class 1 Benefit Provisions:

- None

Plan's Major Benefit Options

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

	Benefit Group	
Member Category	Fire	
Demographics		
Actives	Yes	
Transfers/Separated	Yes	
Receiving	No	
Benefit Provision		
Benefit Formula	2.7% @ 57	
Social Security Coverage	No	
Full/Modified	Full	
Employee Contribution Rate	13.00%	
Final Average Compensation Period	Three Year	
Sick Leave Credit	Yes	
Non-Industrial Disability	Standard	
Industrial Disability	Standard	
Pre-Retirement Death Benefits		
Optional Settlement 2	Yes	
1959 Survivor Benefit Level	Indexed	
Special	Yes	
Alternate (firefighters)	No	
Post-Retirement Death Benefits		
Lump Sum	$500	
Survivor Allowance (PRSA)	No	
COLA	2%	

PEPRA Member Contribution Rates

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

The table below shows the determination of the PEPRA member contribution rates effective July 1, 2022, based on 50% of the total normal cost rate as of the June 30, 2020 valuation.

		Basis for Current Rate		Rates Effective July 1, 2022			
Rate Plan Identifier	**Benefit Group Name**	**Total Normal Cost**	**Member Rate**	**Total Normal Cost**	**Change**	**Change Needed**	**Member Rate**
25848	Safety Fire PEPRA Level	26.044%	13.00%	25.78%	(0.264%)	No	13.00%

Section 2

CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

Risk Pool Actuarial Valuation Information

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

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

July 2021

Miscellaneous Plan of the Scotts Valley Fire Protection District
(CalPERS ID: 4027652040)
Annual Valuation Report as of June 30, 2020

Dear Employer,

Attached to this letter, you will find the June 30, 2020 actuarial valuation report of your CalPERS pension plan. **Provided in this report is the determination of the minimum required employer contributions for fiscal year 2022-23.** In addition, the report contains important information regarding the current financial status of the plan as well as projections and risk measures to aid in planning for the future.

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

- Section 1 contains specific information for the plan including the development of the current and projected employer contributions, and
- Section 2 contains the Risk Pool Actuarial Valuation appropriate to the plan as of June 30, 2020.

Section 2 can be found on the CalPERS website (calpers.ca.gov). From the home page, go to *"Forms & Publications"* and select *"View All"*. In the search box, enter *"Risk Pool"* and from the results list download the Miscellaneous Risk Pool Actuarial Valuation Report for June 30, 2020.

Your June 30, 2020 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.

Actuarial valuations are based on assumptions regarding future plan experience including investment return and payroll growth, eligibility for the types of benefits provided, and longevity among retirees. The CalPERS Board of Administration adopts these assumptions after considering the advice of CalPERS actuarial and investment teams and other professionals. Each actuarial valuation reflects all prior differences between actual and assumed experience and adjusts the contribution rates as needed. This valuation is based on an investment return assumption of 7.0% which was adopted by the board in December 2016. Other assumptions used in this report are those recommended in the CalPERS Experience Study and Review of Actuarial Assumptions report from December 2017.

Required Contribution

The exhibit below displays the minimum employer contributions for fiscal year 2022-23 along with estimates of the required contributions for fiscal year 2023-24. Member contributions other than cost sharing (whether paid by the employer or the employee) are in addition to the results shown below. **The employer contributions in this report do not reflect any cost sharing arrangements you may have with your employees.**

Fiscal Year	Employer Normal Cost Rate	Employer Amortization of Unfunded Accrued Liability
2022-23	10.87%	$24,780
Projected Results		
2023-24	*10.9%*	*$25,000*

The actual investment return for fiscal year 2020-21 was not known at the time this report was prepared. The projections above assume the investment return for that year would be 7.00%. ***To the extent the actual investment return for fiscal year 2020-21 differs from 7.00%, the actual contribution requirements for fiscal year 2023-24 will differ from those shown above.*** For additional details regarding the assumptions and methods used for these projections please refer to the "Projected Employer Contributions" in the "Highlights and Executive Summary" section. This section also contains projected required contributions through fiscal year 2027-28.

Changes from Previous Year's Valuation

There are no significant changes in actuarial assumptions or policies in your 2020 actuarial valuation. Your annual valuation report is an important tool for monitoring the health of your CalPERS pension plan. Your report contains useful information about future required contributions and ways to control your plan's funding progress. In addition to your annual actuarial report my office has developed tools for employers to plan, project and protect the retirement benefits of your employees. Pension Outlook is a tool to help plan and budget pension costs into the future with easy to understand results and charts.

You will be able to view the projected funded status and required employer contributions for pension plans in different potential scenarios for up to 30 years into the future — which will make budgeting more predictable. While Pension Outlook can't predict the future, it can provide valuable planning information based on a variety of future scenarios that you select.

Pension Outlook can help you answer specific questions about your plans, including:

- When is my plan's funded status expected to increase?
- What happens to my required contributions in a down market?
- How does the discount rate assumption affect my contributions?
- What is the impact of making an additional discretionary payment to my plan?

To get started, visit our Pension Outlook page at www.calpers.ca.gov/page/employers/actuarial-resources/pension-outlook-overview and take the steps to register online.

CalPERS will be completing an Asset Liability Management (ALM) review process in November 2021 that will review the capital market assumptions and the strategic asset allocation and ascertain whether a change in the discount rate and other economic assumptions is warranted. In addition, the Actuarial Office will be completing its Experience Study to review the demographic experience within the pension system and make recommendations to modify future assumptions where appropriate.

Furthermore, this valuation does not reflect any impacts from the COVID-19 pandemic on your pension plan. The impact of COVID-19 on retirement plans is not yet known and CalPERS actuaries will continue to monitor the effects and where necessary make future adjustments to actuarial assumptions.

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

Questions

We understand that you might have questions about these results, and your assigned CalPERS actuary whose signature is on the valuation report is available to discuss. If you have other questions, you may call the Customer Contact Center at (888)-CalPERS or (**888-225-7377**).

Sincerely,

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

CalPERS

Actuarial Valuation as of June 30, 2020

for the Miscellaneous Plan of the Scotts Valley Fire Protection District

(CalPERS ID: 4027652040)

Required Contributions for Fiscal Year July 1, 2022 - June 30, 2023

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Section 1

CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

Plan Specific Information
for the
Miscellaneous Plan
of the
Scotts Valley Fire Protection District

(CalPERS ID: 4027652040)
(Rate Plan ID: 903)

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Actuarial Certification

Section 1 of this report is based on the member and financial data contained in our records as of June 30, 2020 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, 2020 provided by employers participating in the Miscellaneous Risk Pool to which the plan belongs and benefit provisions under the CalPERS contracts for those agencies.

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

Having relied upon the information set forth in Section 2 of this report and based on the census and benefit provision information for the plan, it is my opinion as the plan actuary that the Unfunded Accrued Liability amortization bases as of June 30, 2020 and employer contribution as of July 1, 2022 have been properly and accurately determined in accordance with the principles and standards stated above.

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

David Clement

DAVID CLEMENT, ASA, MAAA, EA
Senior Pension Actuary, CalPERS

Highlights and Executive Summary

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

Introduction

This report presents the results of the June 30, 2020 actuarial valuation of the Miscellaneous Plan of the Scotts Valley Fire Protection District of the California Public Employees' Retirement System (CalPERS). This actuarial valuation sets the required employer contributions for fiscal year 2022-23.

Purpose of Section 1

This Section 1 report for the Miscellaneous Plan of the Scotts Valley Fire Protection District of CalPERS was prepared by the plan actuary in order to:

- Set forth the assets and accrued liabilities of this plan as of June 30, 2020;
- Determine the minimum required employer contribution for this plan for the fiscal year July 1, 2022 through June 30, 2023; and
- Provide actuarial information as of June 30, 2020 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 Governmental Accounting Standards Board (GASB) Statement No. 68 for a Cost Sharing Employer Defined Benefit Pension Plan. A separate accounting valuation report for such purposes is available on the CalPERS website.

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

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; changes in actuarial policies; and changes in plan provisions or applicable law.

Assessment and Disclosure of Risk

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

- A "Scenario Test," projecting future results under different investment income returns.
- A "Sensitivity Analysis," showing the impact on current valuation results using alternative discount rates of 6.0% and 8.0%.
- A "Sensitivity Analysis," showing the impact on current valuation results assuming rates of mortality are 10% lower or 10% higher than our current post- retirement mortality assumptions adopted in 2017.
- Pension Plan maturity measures quantifying the risks the employer bears.

Required Employer Contributions

	Fiscal Year
Required Employer Contributions	**2022-23**
Employer Normal Cost Rate	**10.87%**
Plus	
Required Payment on Amortization Bases[1]	**$24,780**
Paid either as	
1) Monthly Payment	**$2,065.00**
Or	
2) Annual Prepayment Option*	**$23,956**

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

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

	Fiscal Year 2021-22	Fiscal Year 2022-23
Development of Normal Cost as a Percentage of Payroll		
Base Total Normal Cost for Formula	17.25%	17.24%
Surcharge for Class 1 Benefits[2]		
a) FAC 1	0.54%	0.55%
Phase out of Normal Cost Difference[3]	0.00%	0.00%
Plan's Total Normal Cost	17.79%	17.79%
Formula's Expected Employee Contribution Rate	6.91%	6.92%
Employer Normal Cost Rate	10.88%	10.87%

[1] The required payment on amortization bases does not take into account any additional discretionary payment made after April 30, 2021.

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

[3] The normal cost change is phased out over a five-year period in accordance with the CalPERS contribution allocation policy.

Additional Discretionary Employer Contributions

The minimum required employer contribution towards the Unfunded Accrued Liability (UAL) for this rate plan for the 2022-23 fiscal year is $24,780. CalPERS allows employers to make additional discretionary payments (ADPs) at any time and in any amount. These optional payments serve to reduce the UAL and future required contributions and can result in significant long-term savings. Employers can also use ADPs to stabilize annual contributions as a fixed dollar amount, percent of payroll or percent of revenue.

Provided below are select ADP options for consideration. Making such an ADP during fiscal year 2022-23 does not require an ADP be made in any future year, nor does it change the remaining amortization period of any portion of unfunded liability. For information on permanent changes to amortization periods, see the "Amortization Schedule and Alternatives" section of the report.

If you are considering making an ADP, please contact your actuary for additional information.

Minimum Required Employer Contribution for Fiscal Year 2022-23

Estimated Normal Cost	Minimum UAL Payment	ADP	Total UAL Contribution	Estimated Total Contribution
$12,255	$24,780	$0	$24,780	$37,035

Alternative Fiscal Year 2022-23 Employer Contributions for Greater UAL Reduction

Funding Target	Estimated Normal Cost	Minimum UAL Payment	ADP[1]	Total UAL Contribution	Estimated Total Contribution
10 years	$12,255	$24,780	$5,495	$30,275	$42,530
5 years	$12,255	$24,780	$27,081	$51,861	$64,116

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

Note that the calculations above are based on the projected Unfunded Accrued Liability as of June 30, 2022 as determined in the June 30, 2020 actuarial valuation. New unfunded liabilities can emerge in future years due to assumption or method changes, changes in plan provisions and actuarial experience different than assumed. Making an ADP illustrated above for the indicated number of years will not result in a plan that is exactly 100% funded in the indicated number of years. Valuation results will vary from one year to the next and can diverge significantly from projections over a period of several years.

Plan's Funded Status

	June 30, 2019	June 30, 2020
1. Present Value of Projected Benefits (PVB)	$1,035,885	$1,074,613
2. Entry Age Accrued Liability (AL)	886,830	932,678
3. Plan's Market Value of Assets (MVA)	672,279	699,915
4. Unfunded Accrued Liability (UAL) [(2) - (3)]	214,551	232,763
5. Funded Ratio [(3) / (2)]	75.8%	75.0%

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

Projected Employer Contributions

The table below shows the required and projected employer contributions (before cost sharing) for the next six fiscal years. The projection assumes that all actuarial assumptions will be realized and that no further changes to assumptions, contributions, benefits, or funding will occur during the projection period. Actual contribution rates during this projection period could be significantly higher or lower than the projection shown below.

	Required Contribution	**Projected Future Employer Contributions (Assumes 7.00% Return for Fiscal Year 2020-21)**				
Fiscal Year	**2022-23**	**2023-24**	**2024-25**	**2025-26**	**2026-27**	**2027-28**
	Rate Plan 903 Results					
Normal Cost %	10.87%	10.9%	10.9%	10.9%	10.9%	10.9%
UAL Payment	$24,780	$25,000	$26,000	$26,000	$26,000	$26,000

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

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

Our online pension plan modeling and projection tool, Pension Outlook, is available in the Employers section of the CalPERS website. Pension Outlook is a tool to help plan and budget pension costs into the future with results and charts that are easy to understand.

Other Pooled Miscellaneous Risk Pool Rate Plans

All of the results presented in this Section 1 report, except those shown below, correspond to rate plan 903. In many cases, employers have additional rate plans within the same risk pool. For cost analysis and budgeting it is useful to consider contributions for these rate plans as a whole rather than individually. The estimated contribution amounts and rates for all of the employer's rate plans in the Miscellaneous Risk Pool are shown below and assume that the payroll for each rate plan will grow according to the overall payroll growth assumption of 2.75% per year for three years.

	Fiscal Year 2021-22	Fiscal Year 2022-23
Estimated Combined Employer Contributions for all Pooled Miscellaneous Rate Plans		
Projected Payroll for the Contribution Year	$167,736	$171,836
Estimated Employer Normal Cost	$16,416	$16,669
Required Payment on Amortization Bases	$24,157	$25,562
Estimated Total Employer Contributions	$40,573	$42,231
Estimated Total Employer Contribution Rate (illustrative only)	24.19%	24.58%

Cost

Actuarial Determination of Pension Plan Cost

Contributions to fund the pension plan are comprised of two components:

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

For fiscal years prior to 2016-17, the Amortization of UAL component was expressed as a percentage of total active payroll. Starting with fiscal year 2016-17, the Amortization of UAL component was expressed as a dollar amount and invoiced on a monthly basis. There continues to be an option to prepay this amount during July of each fiscal year.

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

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

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

These assumptions reflect CalPERS' best estimate of future experience of the plan and are long term in nature. We recognize that all assumptions will not be realized in any given year. For example, the investment earnings at CalPERS have averaged 5.5% over the 20 years ending June 30, 2020, yet individual fiscal year returns have ranged from -23.6% to +20.7%. In addition, CalPERS reviews all actuarial assumptions by conducting in-depth experience studies every four years, with the most recent experience study completed in 2017.

Changes Since the Prior Year's Valuation

Benefits

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

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

Actuarial Methods and Assumptions

The are no significant changes to the actuarial methods or assumptions for the 2020 actuarial valuation.

Subsequent Events

The contribution requirements determined in this actuarial valuation report are based on demographic and financial information as of June 30, 2020. Changes in the value of assets subsequent to that date are not reflected. Investment returns below the assumed rate of return will increase future required contributions while investment returns above the assumed rate of return will decrease future required contributions.

CalPERS will be completing an Asset Liability Management (ALM) process in November 2021 that will review the capital market assumptions and the strategic asset allocation and ascertain whether a change in the discount rate and other economic assumptions is warranted. As part of the ALM process the Actuarial Office will be completing an Experience Study to review the demographic experience of the retirement system and make recommendations to modify future assumptions where appropriate.

Furthermore, this valuation does not reflect any impacts from the COVID-19 pandemic on your pension plan. The impact of COVID-19 on retirement plans is not yet known and CalPERS actuaries will continue to monitor the effects and where necessary make future adjustments to actuarial assumptions.

The projected employer contributions on Page 6 are calculated under the assumption that the discount rate remains at 7.0% going forward and that the realized rate of return on assets for fiscal year 2020-21 is 7.0%.

This actuarial valuation report reflects statutory changes, regulatory changes and CalPERS Board actions through January 2021. Any subsequent changes or actions are not reflected.

Assets and Liabilities

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

Breakdown of Entry Age Accrued Liability

Active Members	$491,652
Transferred Members	0
Terminated Members	57,590
Members and Beneficiaries Receiving Payments	383,436
Total	$932,678

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	$932,678
2.	Projected UAL balance at 6/30/2020	213,310
3.	Pool's Accrued Liability[1]	19,314,480,060
4.	Sum of Pool's Individual Plan UAL Balances at 6/30/2020[1]	4,306,566,797
5.	Pool's 2019/20 Investment (Gain)/Loss[1]	344,968,792
6.	Pool's 2019/20 Non-Investment (Gain)/Loss[1]	60,428,629
7.	Plan's Share of Pool's Investment (Gain)/Loss: [(1) - (2)] ÷ [(3) - (4)] × (5)	16,535
8.	Plan's Share of Pool's Non-Investment (Gain)/Loss: (1) ÷ (3) × (6)	2,918
9.	Plan's New (Gain)/Loss as of 6/30/2020: (7) + (8)	19,453

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

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

10.	Plan's UAL: (2) + (9)	$232,763
11.	Plan's Share of Pool's MVA: (1) - (10)	$699,915

Schedule of Plan's Amortization Bases

Note that 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, 2020.
- The required employer contributions determined by the valuation are for the fiscal year beginning two years after the valuation date: fiscal year 2022-23.

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

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

Reason for Base	Date Est.	Ramp Level 2022-23	Ramp Shape	Escala-tion Rate	Amort. Period	Balance 6/30/20	Expected Payment 2020-21	Balance 6/30/21	Expected Payment 2021-22	Balance 6/30/22	Minimum Required Payment 2022-23
Fresh Start	6/30/19	No Ramp		0.00%	12	213,310	19,557	208,012	24,061	197,684	24,061
Non-Investment (Gain)/Loss	6/30/20	No Ramp		0.00%	20	2,918	0	3,122	0	3,341	305
Investment (Gain)/Loss	6/30/20	20%	Up Only	0.00%	20	16,535	0	17,692	0	18,930	414
Total						**232,763**	**19,557**	**228,826**	**24,061**	**219,955**	**24,780**

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

Amortization Schedule and Alternatives

The amortization schedule on the previous page shows the minimum contributions required according to the CalPERS amortization policy. Many agencies have expressed a desire for a more stable pattern of payments or have indicated interest in paying off the unfunded accrued liabilities more quickly than required. As such, we have provided alternative amortization schedules to help analyze the current amortization schedule and illustrate the potential savings of accelerating unfunded liability payments.

Shown on the following page are future year amortization payments based on 1) the current amortization schedule reflecting the individual bases and remaining periods shown on the previous page, and 2) alternative "fresh start" amortization schedules using two sample periods that would both result in interest savings relative to the current amortization schedule. To initiate a Fresh Start, please consult with your plan actuary.

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

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

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

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

Amortization Schedule and Alternatives (continued)

	Current Amortization Schedule		Alternate Schedules: 10 Year Amortization		Alternate Schedules: 5 Year Amortization	
Date	Balance	Payment	Balance	Payment	Balance	Payment
6/30/2022	219,955	24,780	219,955	30,275	219,955	51,861
6/30/2023	209,719	25,194	204,035	30,275	181,706	51,860
6/30/2024	198,338	25,608	187,001	30,275	140,781	51,860
6/30/2025	185,733	26,021	168,774	30,275	96,991	51,861
6/30/2026	171,818	26,435	149,271	30,275	50,135	51,860
6/30/2027	156,500	26,435	128,403	30,275		
6/30/2028	140,111	26,435	106,075	30,275		
6/30/2029	122,574	26,434	82,184	30,275		
6/30/2030	103,810	26,435	56,620	30,274		
6/30/2031	83,732	26,435	29,268	30,275		
6/30/2032	62,248	26,434				
6/30/2033	39,262	26,434				
6/30/2034	14,666	2,375				
6/30/2035	13,236	2,375				
6/30/2036	11,705	2,374				
6/30/2037	10,069	2,374				
6/30/2038	8,318	2,374				
6/30/2039	6,444	2,374				
6/30/2040	4,439	2,373				
6/30/2041	2,295	2,374				
6/30/2042						
6/30/2043						
6/30/2044						
6/30/2045						
6/30/2046						
6/30/2047						
6/30/2048						
6/30/2049						
6/30/2050						
6/30/2051						
Total		**332,073**		**302,749**		**259,302**
Interest Paid		**112,118**		**82,794**		**39,347**
Estimated Savings				**29,324**		**72,771**

Employer Contribution History

The table below provides a recent history of the required employer contributions for the plan. The amounts are based on the actuarial valuation from two years prior and does not account for prepayments or benefit changes made during a fiscal year. Additional discretionary payments before July 1, 2019 or after June 30, 2020 are not included.

Fiscal Year	Employer Normal Cost	Unfunded Liability Payment ($)	Additional Discretionary Payments
2016 - 17	8.880%	$8,629	N/A
2017 - 18	8.921%	10,186	N/A
2018 - 19	9.409%	12,435	N/A
2019 - 20	10.221%	16,476	0
2020 - 21	11.031%	19,557	
2021 - 22	10.88%	24,061	
2022 - 23	10.87%	24,780	

Funding History

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

Valuation Date	Accrued Liability (AL)	Share of Pool's Market Value of Assets (MVA)	Unfunded Accrued Liability (UAL)	Funded Ratio	Annual Covered Payroll
06/30/2011	$509,811	$400,210	$109,601	78.5%	$109,164
06/30/2012	536,773	399,282	137,491	74.4%	104,664
06/30/2013	576,213	453,796	122,417	78.8%	113,226
06/30/2014	605,694	495,736	109,958	81.9%	104,818
06/30/2015	635,438	499,065	136,373	78.5%	91,548
06/30/2016	673,254	493,089	180,165	73.2%	93,102
06/30/2017	739,373	562,619	176,754	76.1%	98,248
06/30/2018	834,584	629,773	204,811	75.5%	97,867
06/30/2019	886,830	672,279	214,551	75.8%	103,229
06/30/2020	932,678	699,915	232,763	75.0%	103,928

Risk Analysis

- **Future Investment Return Scenarios**
- **Discount Rate Sensitivity**
- **Mortality Rate Sensitivity**
- **Maturity Measures**
- **Maturity Measures History**
- **Hypothetical Termination Liability**

Future Investment Return Scenarios

Analysis was performed to determine the effects of various future investment returns on required employer contributions. The projections below provide a range of results based on five investment return scenarios assumed to occur during the next four fiscal years (2020-21, 2021-22, 2022-23 and 2023-24). The projections also assume that all other actuarial assumptions will be realized and that no further changes to assumptions, contributions, benefits, or funding will occur.

For fiscal years 2020-21, 2021-22, 2022-23, and 2023-24, each scenario assumes an alternate fixed annual return. The fixed return assumptions for the five scenarios are 1.0%, 4.0%, 7.0%, 9.0% and 12.0%.

These alternate investment returns were chosen based on stochastic analysis of possible future investment returns over the four-year period ending June 30, 2024. Using the expected returns and volatility of the asset classes in which the funds are invested, we produced five thousand stochastic outcomes for this period based on the most recently completed Asset Liability Management process. We then selected annual returns that approximate the 5th, 25th, 50th, 75th, and 95th percentiles for these outcomes. For example, of all the 4-year outcomes generated in the stochastic analysis, approximately 25% had an average annual return of 4.0% or less.

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

Assumed Annual Return From 2020-21 through 2023-24	Projected Employer Contributions			
	2023-24	2024-25	2025-26	2026-27
1.0%				
Normal Cost	10.9%	10.9%	10.9%	10.9%
UAL Contribution	$26,000	$29,000	$32,000	$37,000
4.0%				
Normal Cost	10.9%	10.9%	10.9%	10.9%
UAL Contribution	$26,000	$27,000	$29,000	$32,000
7.0%				
Normal Cost	10.9%	10.9%	10.9%	10.9%
UAL Contribution	$25,000	$26,000	$26,000	$26,000
9.0%				
Normal Cost	11.1%	11.3%	11.5%	11.8%
UAL Contribution	$25,000	$25,000	$24,000	$24,000
12.0%				
Normal Cost	11.1%	11.3%	11.5%	11.8%
UAL Contribution	$24,000	$23,000	$21,000	$18,000

Discount Rate Sensitivity

The discount rate assumption is calculated as the sum of the assumed real rate of return and the assumed annual price inflation, currently 4.50% and 2.50%, respectively. Changing either the price inflation assumption or the real rate of return assumption will change the discount rate. The sensitivity of the valuation results to the discount rate assumption depends on which component of the discount rate is changed. Shown below are various valuation results as of June 30, 2020 assuming alternate discount rates by changing the two components independently. Results are shown using the current discount rate of 7.0% as well as alternate discount rates of 6.0% and 8.0%. The rates of 6.0% and 8.0% were selected since they illustrate the impact of a 1.0% increase or decrease to the 7.0% assumption.

Sensitivity to the Real Rate of Return Assumption

As of June 30, 2020	1% Lower Real Return Rate	Current Assumptions	1% Higher Real Return Rate
Discount Rate	**6.0%**	**7.0%**	**8.0%**
Inflation	2.5%	2.5%	2.5%
Real Rate of Return	**3.5%**	**4.5%**	**5.5%**
a) Total Normal Cost	22.18%	17.79%	14.42%
b) Accrued Liability	$1,076,115	$932,678	$815,635
c) Market Value of Assets	$699,915	$699,915	$699,915
d) Unfunded Liability/(Surplus) [(b) - (c)]	$376,200	$232,763	$115,720
e) Funded Status	65.0%	75.0%	85.8%

Sensitivity to the Price Inflation Assumption

As of June 30, 2020	1% Lower Inflation Rate	Current Assumptions	1% Higher Inflation Rate
Discount Rate	**6.0%**	**7.0%**	**8.0%**
Inflation	**1.5%**	**2.5%**	**3.5%**
Real Rate of Return	4.5%	4.5%	4.5%
a) Total Normal Cost	18.96%	17.79%	16.39%
b) Accrued Liability	$981,511	$932,678	$867,573
c) Market Value of Assets	$699,915	$699,915	$699,915
d) Unfunded Liability/(Surplus) [(b) - (c)]	$281,596	$232,763	$167,658
e) Funded Status	71.3%	75.0%	80.7%

Mortality Rate Sensitivity

The following table looks at the change in the June 30, 2020 plan costs and funded status under two different longevity scenarios, namely assuming post-retirement rates of mortality are 10% lower or 10% higher than our current mortality assumptions adopted in 2017. This type of analysis highlights the impact on the plan of improving or worsening mortality over the long-term.

As of June 30, 2020	10% Lower Mortality Rates	Current Assumptions	10% Higher Mortality Rates
a) Total Normal Cost	18.10%	17.79%	17.50%
b) Accrued Liability	$950,301	$932,678	$916,359
c) Market Value of Assets	$699,915	$699,915	$699,915
d) Unfunded Liability/(Surplus) [(b) - (c)]	$250,386	$232,763	$216,444
e) Funded Status	73.7%	75.0%	76.4%

Maturity Measures

As pension plans mature they become more sensitive to risks. Understanding plan maturity and how it affects the ability of a pension plan sponsor to tolerate risk is important in understanding how the pension plan is impacted by investment return volatility, other economic variables and changes in longevity or other demographic assumptions. Since it is the employer that bears the risk, it is appropriate to perform this analysis on a pension plan level considering all rate plans. The following measures are for one rate plan only.

One way to look at the maturity level of CalPERS and its plans is to look at the ratio of a plan's retiree liability to its total liability. A pension plan in its infancy will have a very low ratio of retiree liability to total liability. As the plan matures, the ratio starts increasing. A mature plan will often have a ratio above 60%-65%.

Ratio of Retiree Accrued Liability to Total Accrued Liability	June 30, 2019	June 30, 2020
1. Retired Accrued Liability	385,649	383,436
2. Total Accrued Liability	886,830	932,678
3. Ratio of Retiree AL to Total AL [(1) / (2)]	0.44	0.41

Another measure of maturity level of CalPERS and its plans is to look at the ratio of actives to retirees, also called the Support Ratio. A pension plan in its infancy will have a very high ratio of active to retired members. As the plan matures, and members retire, the ratio starts declining. A mature plan will often have a ratio near or below one. The average support ratio for CalPERS public agency plans is 1.25.

Support Ratio	June 30, 2019	June 30, 2020
1. Number of Actives	2	2
2. Number of Retirees	1	1
3. Support Ratio [(1) / (2)]	2.00	2.00

Maturity Measures (Continued)

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

Shown in the table below is the asset volatility ratio (AVR), which is the ratio of market value of assets to payroll. Plans that have higher AVR experience more volatile employer contributions (as a percentage of payroll) due to investment return. For example, a plan with 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. 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)

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

Contribution Volatility	June 30, 2019	June 30, 2020
1. Market Value of Assets	$672,279	$699,915
2. Payroll	103,229	103,928
3. Asset Volatility Ratio (AVR) [(1) / (2)]	6.5	6.7
4. Accrued Liability	$886,830	$932,678
5. Liability Volatility Ratio (LVR) [(4) / (2)]	8.6	9.0

Maturity Measures History

Valuation Date	Ratio of Retiree Accrued Liability to Total Accrued Liability	Support Ratio	Asset Volatility Ratio	Liability Volatility Ratio
06/30/2017	0.50	2.00	5.7	7.5
06/30/2018	0.46	2.00	6.4	8.5
06/30/2019	0.44	2.00	6.5	8.6
06/30/2020	0.41	2.00	6.7	9.0

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, 2020. The plan liability on a termination basis is calculated differently compared to the plan's ongoing funding liability. For the hypothetical termination liability calculation, both compensation and service are frozen as of the valuation date and no future pay increases or service accruals are assumed. This measure of funded status is not appropriate for assessing the need for future employer contributions in the case of an ongoing plan, that is, for an employer that continues to provide CalPERS retirement benefits to active employees.

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

The effective termination discount rate will depend on actual market rates of return for risk-free securities on the date of termination. As market discount rates are variable, the table below shows a range for the hypothetical termination liability based on the lowest and highest interest rates observed during an approximate 19-month period from 12 months before the valuation date to 7 months after.

Market Value of Assets (MVA)	Hypothetical Termination Liability[1,2] at 0.75%	Funded Status	Unfunded Termination Liability at 0.75%	Hypothetical Termination Liability[1,2] at 2.50%	Funded Status	Unfunded Termination Liability at 2.50%
$699,915	$2,162,783	32.4%	$1,462,868	$1,554,033	45.0%	$854,118

[1] The hypothetical liabilities calculated above include a 5% mortality contingency load in accordance with Board policy. Other actuarial assumptions can be found in Appendix A of the Section 2 report.

[2] The current discount rate assumption used for termination valuations is a weighted average of the 10-year and 30-year U.S. Treasury yields where the weights are based on matching asset and liability durations as of the termination date. The discount rates used in the table are based on 20-year Treasury bonds, rounded to the nearest quarter percentage point, which is a good proxy for most plans. The 20-year Treasury yield was 1.18% on June 30, 2020, and was 1.68% on January 31, 2021.

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

Participant Data

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

	June 30, 2019	June 30, 2020
Active Members		
Counts	2	2
Average Attained Age	N/A	42.0
Average Entry Age to Rate Plan	N/A	25.7
Average Years of Credited Service	N/A	14.5
Average Annual Covered Pay	$51,615	$51,964
Annual Covered Payroll	$103,229	$103,928
Projected Annual Payroll for Contribution Year	$111,982	$112,740
Present Value of Future Payroll	$969,849	$924,291
Transferred Members	0	0
Separated Members	1	1
Retired Members and Beneficiaries		
Counts*	1	1
Average Annual Benefits*	N/A	$30,739

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

* Values include community property settlements.

List of Class 1 Benefit Provisions

This plan has the additional Class 1 Benefit Provisions:

- One Year Final Compensation (FAC 1)

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 Section 2.

	Benefit Group	
Member Category	Misc	
Demographics		
Actives	Yes	
Transfers/Separated	Yes	
Receiving	Yes	
Benefit Provision		
Benefit Formula	2% @ 55	
Social Security Coverage	No	
Full/Modified	Full	
Employee Contribution Rate	7.00%	
Final Average Compensation Period	One Year	
Sick Leave Credit	Yes	
Non-Industrial Disability	Standard	
Industrial Disability	No	
Pre-Retirement Death Benefits		
Optional Settlement 2	Yes	
1959 Survivor Benefit Level	Indexed	
Special	No	
Alternate (firefighters)	No	
Post-Retirement Death Benefits		
Lump Sum	$500	
Survivor Allowance (PRSA)	No	
COLA	2%	

Section 2

CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

Risk Pool Actuarial Valuation Information

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

CalPERS

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

July 2021

PEPRA Miscellaneous Plan of the Scotts Valley Fire Protection District
(CalPERS ID: 4027652040)
Annual Valuation Report as of June 30, 2020

Dear Employer,

Attached to this letter, you will find the June 30, 2020 actuarial valuation report of your CalPERS pension plan. **Provided in this report is the determination of the minimum required employer contributions for fiscal year 2022-23.** In addition, the report contains important information regarding the current financial status of the plan as well as projections and risk measures to aid in planning for the future.

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

- Section 1 contains specific information for the plan including the development of the current and projected employer contributions, and
- Section 2 contains the Risk Pool Actuarial Valuation appropriate to the plan as of June 30, 2020.

Section 2 can be found on the CalPERS website (calpers.ca.gov). From the home page, go to *"Forms & Publications"* and select *"View All"*. In the search box, enter *"Risk Pool"* and from the results list download the Miscellaneous Risk Pool Actuarial Valuation Report for June 30, 2020.

Your June 30, 2020 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.

Actuarial valuations are based on assumptions regarding future plan experience including investment return and payroll growth, eligibility for the types of benefits provided, and longevity among retirees. The CalPERS Board of Administration adopts these assumptions after considering the advice of CalPERS actuarial and investment teams and other professionals. Each actuarial valuation reflects all prior differences between actual and assumed experience and adjusts the contribution rates as needed. This valuation is based on an investment return assumption of 7.0% which was adopted by the board in December 2016. Other assumptions used in this report are those recommended in the CalPERS Experience Study and Review of Actuarial Assumptions report from December 2017.

Required Contribution

The exhibit below displays the minimum employer contributions and the Employee PEPRA Rate for fiscal year 2022-23 along with estimates of the required contributions for fiscal year 2023-24. Member contributions other than cost sharing (whether paid by the employer or the employee) are in addition to the results shown below. **The employer contributions in this report do not reflect any cost sharing arrangements you may have with your employees.**

Fiscal Year	Employer Normal Cost Rate	Employer Amortization of Unfunded Accrued Liability	PEPRA Employee Rate
2022-23	7.47%	$782	6.75%
Projected Results			
2023-24	*7.5%*	*$0*	*TBD*

The actual investment return for fiscal year 2020-21 was not known at the time this report was prepared. The projections above assume the investment return for that year would be 7.00%. ***To the extent the actual investment return for fiscal year 2020-21 differs from 7.00%, the actual contribution requirements for fiscal year 2023-24 will differ from those shown above.*** For additional details regarding the assumptions and methods used for these projections please refer to the "Projected Employer Contributions" in the "Highlights and Executive Summary" section. This section also contains projected required contributions through fiscal year 2027-28.

Changes from Previous Year's Valuation

There are no significant changes in actuarial assumptions or policies in your 2020 actuarial valuation. Your annual valuation report is an important tool for monitoring the health of your CalPERS pension plan. Your report contains useful information about future required contributions and ways to control your plan's funding progress. In addition to your annual actuarial report my office has developed tools for employers to plan, project and protect the retirement benefits of your employees. Pension Outlook is a tool to help plan and budget pension costs into the future with easy to understand results and charts.

You will be able to view the projected funded status and required employer contributions for pension plans in different potential scenarios for up to 30 years into the future — which will make budgeting more predictable. While Pension Outlook can't predict the future, it can provide valuable planning information based on a variety of future scenarios that you select.

Pension Outlook can help you answer specific questions about your plans, including:

- When is my plan's funded status expected to increase?
- What happens to my required contributions in a down market?
- How does the discount rate assumption affect my contributions?
- What is the impact of making an additional discretionary payment to my plan?

To get started, visit our Pension Outlook page at www.calpers.ca.gov/page/employers/actuarial-resources/pension-outlook-overview and take the steps to register online.

CalPERS will be completing an Asset Liability Management (ALM) review process in November 2021 that will review the capital market assumptions and the strategic asset allocation and ascertain whether a change in the discount rate and other economic assumptions is warranted. In addition, the Actuarial Office will be completing its Experience Study to review the demographic experience within the pension system and make recommendations to modify future assumptions where appropriate.

Furthermore, this valuation does not reflect any impacts from the COVID-19 pandemic on your pension plan. The impact of COVID-19 on retirement plans is not yet known and CalPERS actuaries will continue to monitor the effects and where necessary make future adjustments to actuarial assumptions.

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

Questions

We understand that you might have questions about these results, and your assigned CalPERS actuary whose signature is on the valuation report is available to discuss. If you have other questions, you may call the Customer Contact Center at (888)-CalPERS or (**888-225-7377**).

Sincerely,

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

Actuarial Valuation
as of June 30, 2020

for the
PEPRA Miscellaneous Plan
of the
Scotts Valley Fire Protection District
(CalPERS ID: 4027652040)

Required Contributions
for Fiscal Year
July 1, 2022 - June 30, 2023

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Section 1

Plan Specific Information for the PEPRA Miscellaneous Plan of the Scotts Valley Fire Protection District

(CalPERS ID: 4027652040)
(Rate Plan ID: 27417)

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Actuarial Certification

Section 1 of this report is based on the member and financial data contained in our records as of June 30, 2020 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, 2020 provided by employers participating in the Miscellaneous Risk Pool to which the plan belongs and benefit provisions under the CalPERS contracts for those agencies.

As set forth in Section 2 of this report, the pool actuaries have certified that, in their opinion, the valuation of the risk pool containing your 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 Unfunded Accrued Liability amortization bases as of June 30, 2020 and employer contribution as of July 1, 2022 have been properly and accurately determined in accordance with the principles and standards stated above.

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

David Clement

DAVID CLEMENT, ASA, MAAA, EA
Senior Pension Actuary, CalPERS

Highlights and Executive Summary

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

Introduction

This report presents the results of the June 30, 2020 actuarial valuation of the PEPRA Miscellaneous Plan of the Scotts Valley Fire Protection District of the California Public Employees' Retirement System (CalPERS). This actuarial valuation sets the required employer contributions for fiscal year 2022-23.

Purpose of Section 1

This Section 1 report for the PEPRA Miscellaneous Plan of the Scotts Valley Fire Protection District of CalPERS was prepared by the plan actuary in order to:

- Set forth the assets and accrued liabilities of this plan as of June 30, 2020;
- Determine the minimum required employer contribution for this plan for the fiscal year July 1, 2022 through June 30, 2023; and
- Provide actuarial information as of June 30, 2020 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 Governmental Accounting Standards Board (GASB) Statement No. 68 for a Cost Sharing Employer Defined Benefit Pension Plan. A separate accounting valuation report for such purposes is available on the CalPERS website.

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

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; changes in actuarial policies; and changes in plan provisions or applicable law.

Assessment and Disclosure of Risk

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

- A "Scenario Test," projecting future results under different investment income returns.
- A "Sensitivity Analysis," showing the impact on current valuation results using alternative discount rates of 6.0% and 8.0%.
- A "Sensitivity Analysis," showing the impact on current valuation results assuming rates of mortality are 10% lower or 10% higher than our current post- retirement mortality assumptions adopted in 2017.
- Pension Plan maturity measures quantifying the risks the employer bears.

Required Employer Contributions

	Fiscal Year
Required Employer Contributions	**2022-23**
Employer Normal Cost Rate	**7.47%**
Plus	
Required Payment on Amortization Bases[1]	**$782**
Paid either as	
1) Monthly Payment	**$65.17**
Or	
2) Annual Prepayment Option*	**$756**

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

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

	Fiscal Year 2021-22	Fiscal Year 2022-23
Development of Normal Cost as a Percentage of Payroll		
Base Total Normal Cost for Formula	14.34%	14.22%
Surcharge for Class 1 Benefits[2]		
None	0.00%	0.00%
Phase out of Normal Cost Difference[3]	0.00%	0.00%
Plan's Total Normal Cost	14.34%	14.22%
Plan's Employee Contribution Rate[4]	6.75%	6.75%
Employer Normal Cost Rate	7.59%	7.47%

[1] The required payment on amortization bases does not take into account any additional discretionary payment made after April 30, 2021.

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

[3] The normal cost change is phased out over a five-year period in accordance with the CalPERS contribution allocation policy.

[4] For detail regarding the determination of the required PEPRA employee contribution rate see Section on PEPRA Member Contribution Rates.

Additional Discretionary Employer Contributions

The minimum required employer contribution towards the Unfunded Accrued Liability (UAL) for this rate plan for the 2022-23 fiscal year is $782. CalPERS allows employers to make additional discretionary payments (ADPs) at any time and in any amount. These optional payments serve to reduce the UAL and future required contributions and can result in significant long-term savings. Employers can also use ADPs to stabilize annual contributions as a fixed dollar amount, percent of payroll or percent of revenue.

Provided below are select ADP options for consideration. Making such an ADP during fiscal year 2022-23 does not require an ADP be made in any future year, nor does it change the remaining amortization period of any portion of unfunded liability. For information on permanent changes to amortization periods, see the "Amortization Schedule and Alternatives" section of the report.

If you are considering making an ADP, please contact your actuary for additional information.

Minimum Required Employer Contribution for Fiscal Year 2022-23

Estimated Normal Cost	Minimum UAL Payment	ADP	Total UAL Contribution	Estimated Total Contribution
$4,414	$782	$0	$782	$5,196

Alternative Fiscal Year 2022-23 Employer Contributions for Greater UAL Reduction

Funding Target	Estimated Normal Cost	Minimum UAL Payment	ADP[1]	Total UAL Contribution	Estimated Total Contribution
5 years	N/A	N/A	N/A	N/A	N/A

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

Note that the calculations above are based on the projected Unfunded Accrued Liability as of June 30, 2022 as determined in the June 30, 2020 actuarial valuation. New unfunded liabilities can emerge in future years due to assumption or method changes, changes in plan provisions and actuarial experience different than assumed. Making an ADP illustrated above for the indicated number of years will not result in a plan that is exactly 100% funded in the indicated number of years. Valuation results will vary from one year to the next and can diverge significantly from projections over a period of several years.

Plan's Funded Status

	June 30, 2019	June 30, 2020
1. Present Value of Projected Benefits (PVB)	$77,193	$101,227
2. Entry Age Accrued Liability (AL)	10,054	26,311
3. Plan's Market Value of Assets (MVA)	8,563	24,507
4. Unfunded Accrued Liability (UAL) [(2) - (3)]	1,491	1,804
5. Funded Ratio [(3) / (2)]	85.2%	93.1%

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

Projected Employer Contributions

The table below shows the required and projected employer contributions (before cost sharing) for the next six fiscal years. The projection assumes that all actuarial assumptions will be realized and that no further changes to assumptions, contributions, benefits, or funding will occur during the projection period. Actual contribution rates during this projection period could be significantly higher or lower than the projection shown below.

	Required Contribution	Projected Future Employer Contributions (Assumes 7.00% Return for Fiscal Year 2020-21)				
Fiscal Year	**2022-23**	**2023-24**	**2024-25**	**2025-26**	**2026-27**	**2027-28**
	Rate Plan 27417 Results					
Normal Cost %	7.47%	7.5%	7.5%	7.5%	7.5%	7.5%
UAL Payment	$782	$0	$0	$0	$0	$0

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

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

Our online pension plan modeling and projection tool, Pension Outlook, is available in the Employers section of the CalPERS website. Pension Outlook is a tool to help plan and budget pension costs into the future with results and charts that are easy to understand.

Other Pooled Miscellaneous Risk Pool Rate Plans

All of the results presented in this Section 1 report, except those shown below, correspond to rate plan 27417. In many cases, employers have additional rate plans within the same risk pool. For cost analysis and budgeting it is useful to consider contributions for these rate plans as a whole rather than individually. The estimated contribution amounts and rates for all of the employer's rate plans in the Miscellaneous Risk Pool are shown below and assume that the payroll for each rate plan will grow according to the overall payroll growth assumption of 2.75% per year for three years.

	Fiscal Year 2021-22	Fiscal Year 2022-23
Estimated Combined Employer Contributions for all Pooled Miscellaneous Rate Plans		
Projected Payroll for the Contribution Year	$167,736	$171,836
Estimated Employer Normal Cost	$16,416	$16,669
Required Payment on Amortization Bases	$24,157	$25,562
Estimated Total Employer Contributions	$40,573	$42,231
Estimated Total Employer Contribution Rate (illustrative only)	24.19%	24.58%

Cost

Actuarial Determination of Pension Plan Cost

Contributions to fund the pension plan are comprised of two components:

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

For fiscal years prior to 2016-17, the Amortization of UAL component was expressed as a percentage of total active payroll. Starting with fiscal year 2016-17, the Amortization of UAL component was expressed as a dollar amount and invoiced on a monthly basis. There continues to be an option to prepay this amount during July of each fiscal year.

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

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

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

These assumptions reflect CalPERS' best estimate of future experience of the plan and are long term in nature. We recognize that all assumptions will not be realized in any given year. For example, the investment earnings at CalPERS have averaged 5.5% over the 20 years ending June 30, 2020, yet individual fiscal year returns have ranged from -23.6% to +20.7%. In addition, CalPERS reviews all actuarial assumptions by conducting in-depth experience studies every four years, with the most recent experience study completed in 2017.

Changes Since the Prior Year's Valuation

Benefits

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

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

Actuarial Methods and Assumptions

The are no significant changes to the actuarial methods or assumptions for the 2020 actuarial valuation.

Subsequent Events

The contribution requirements determined in this actuarial valuation report are based on demographic and financial information as of June 30, 2020. Changes in the value of assets subsequent to that date are not reflected. Investment returns below the assumed rate of return will increase future required contributions while investment returns above the assumed rate of return will decrease future required contributions.

CalPERS will be completing an Asset Liability Management (ALM) process in November 2021 that will review the capital market assumptions and the strategic asset allocation and ascertain whether a change in the discount rate and other economic assumptions is warranted. As part of the ALM process the Actuarial Office will be completing an Experience Study to review the demographic experience of the retirement system and make recommendations to modify future assumptions where appropriate.

Furthermore, this valuation does not reflect any impacts from the COVID-19 pandemic on your pension plan. The impact of COVID-19 on retirement plans is not yet known and CalPERS actuaries will continue to monitor the effects and where necessary make future adjustments to actuarial assumptions.

The projected employer contributions on Page 6 are calculated under the assumption that the discount rate remains at 7.0% going forward and that the realized rate of return on assets for fiscal year 2020-21 is 7.0%.

This actuarial valuation report reflects statutory changes, regulatory changes and CalPERS Board actions through January 2021. Any subsequent changes or actions are not reflected.

Assets and Liabilities

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

Breakdown of Entry Age Accrued Liability

Active Members	$11,529
Transferred Members	14,782
Terminated Members	0
Members and Beneficiaries Receiving Payments	0
Total	$26,311

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	$26,311
2.	Projected UAL balance at 6/30/2020	1,143
3.	Pool's Accrued Liability[1]	19,314,480,060
4.	Sum of Pool's Individual Plan UAL Balances at 6/30/2020[1]	4,306,566,797
5.	Pool's 2019/20 Investment (Gain)/Loss[1]	344,968,792
6.	Pool's 2019/20 Non-Investment (Gain)/Loss[1]	60,428,629
7.	Plan's Share of Pool's Investment (Gain)/Loss: [(1) - (2)] ÷ [(3) - (4)] × (5)	579
8.	Plan's Share of Pool's Non-Investment (Gain)/Loss: (1) ÷ (3) × (6)	82
9.	Plan's New (Gain)/Loss as of 6/30/2020: (7) + (8)	661

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

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

10.	Plan's UAL: (2) + (9)	$1,804
11.	Plan's Share of Pool's MVA: (1) - (10)	$24,507

Schedule of Plan's Amortization Bases

Note that 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, 2020.
- The required employer contributions determined by the valuation are for the fiscal year beginning two years after the valuation date: fiscal year 2022-23.

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

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

Reason for Base	Date Est.	Ramp Level 2022-23	Ramp Shape	Escala-tion Rate	Amort. Period	Balance 6/30/20	Expected Payment 2020-21	Balance 6/30/21	Expected Payment 2021-22	Balance 6/30/22	Minimum Required Payment 2022-23
Fresh Start	6/30/20	No Ramp		0.00%	1	1,804	1,094	799	96	756	782
Total						**1,804**	**1,094**	**799**	**96**	**756**	**782**

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

Amortization Schedule and Alternatives

The amortization schedule on the previous page shows the minimum contributions required according to the CalPERS amortization policy. Many agencies have expressed a desire for a more stable pattern of payments or have indicated interest in paying off the unfunded accrued liabilities more quickly than required. As such, we have provided alternative amortization schedules to help analyze the current amortization schedule and illustrate the potential savings of accelerating unfunded liability payments.

Shown on the following page are future year amortization payments based on 1) the current amortization schedule reflecting the individual bases and remaining periods shown on the previous page, and 2) alternative "fresh start" amortization schedules using two sample periods that would both result in interest savings relative to the current amortization schedule. To initiate a Fresh Start, please consult with your plan actuary.

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

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

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

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

Amortization Schedule and Alternatives (continued)

			Alternate Schedules			
	Current Amortization Schedule		0 Year Amortization		0 Year Amortization	
Date	Balance	Payment	Balance	Payment	Balance	Payment
6/30/2022	756	782	N/A	N/A	N/A	N/A
6/30/2023						
6/30/2024						
6/30/2025						
6/30/2026						
6/30/2027						
6/30/2028						
6/30/2029						
6/30/2030						
6/30/2031						
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6/30/2041						
6/30/2042						
6/30/2043						
6/30/2044						
6/30/2045						
6/30/2046						
6/30/2047						
6/30/2048						
6/30/2049						
6/30/2050						
6/30/2051						
Total		**782**		**N/A**		**N/A**
Interest Paid		**26**		**N/A**		**N/A**
Estimated Savings				**N/A**		**N/A**

Employer Contribution History

The table below provides a recent history of the required employer contributions for the plan. The amounts are based on the actuarial valuation from two years prior and does not account for prepayments or benefit changes made during a fiscal year. Additional discretionary payments before July 1, 2019 or after June 30, 2020 are not included.

Fiscal Year	Employer Normal Cost	Unfunded Liability Payment ($)	Additional Discretionary Payments
2017 - 18	6.533%	$3	N/A
2018 - 19	6.842%	1,759	N/A
2019 - 20	6.985%	737	0
2020 - 21	7.732%	1,094	
2021 - 22	7.59%	96	
2022 - 23	7.47%	782	

Funding History

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

Valuation Date	Accrued Liability (AL)	Share of Pool's Market Value of Assets (MVA)	Unfunded Accrued Liability (UAL)	Funded Ratio	Annual Covered Payroll
06/30/2015	$3,878	$3,690	$188	95.2%	$42,494
06/30/2016	8,943	8,091	852	90.5%	73,877
06/30/2017	746	(521)	1,267	-69.9%	43,304
06/30/2018	12,945	10,530	2,415	81.3%	38,842
06/30/2019	10,054	8,563	1,491	85.2%	51,396
06/30/2020	26,311	24,507	1,804	93.1%	54,477

Risk Analysis

- **Future Investment Return Scenarios**
- **Discount Rate Sensitivity**
- **Mortality Rate Sensitivity**
- **Maturity Measures**
- **Maturity Measures History**
- **Hypothetical Termination Liability**

Future Investment Return Scenarios

Analysis was performed to determine the effects of various future investment returns on required employer contributions. The projections below provide a range of results based on five investment return scenarios assumed to occur during the next four fiscal years (2020-21, 2021-22, 2022-23 and 2023-24). The projections also assume that all other actuarial assumptions will be realized and that no further changes to assumptions, contributions, benefits, or funding will occur.

For fiscal years 2020-21, 2021-22, 2022-23, and 2023-24, each scenario assumes an alternate fixed annual return. The fixed return assumptions for the five scenarios are 1.0%, 4.0%, 7.0%, 9.0% and 12.0%.

These alternate investment returns were chosen based on stochastic analysis of possible future investment returns over the four-year period ending June 30, 2024. Using the expected returns and volatility of the asset classes in which the funds are invested, we produced five thousand stochastic outcomes for this period based on the most recently completed Asset Liability Management process. We then selected annual returns that approximate the 5th, 25th, 50th, 75th, and 95th percentiles for these outcomes. For example, of all the 4-year outcomes generated in the stochastic analysis, approximately 25% had an average annual return of 4.0% or less.

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

Assumed Annual Return From 2020-21 through 2023-24	Projected Employer Contributions			
	2023-24	2024-25	2025-26	2026-27
1.0%				
Normal Cost	7.5%	7.5%	7.5%	7.5%
UAL Contribution	$37	$110	$220	$370
4.0%				
Normal Cost	7.5%	7.5%	7.5%	7.5%
UAL Contribution	$18	$56	$110	$190
7.0%				
Normal Cost	7.5%	7.5%	7.5%	7.5%
UAL Contribution	$0	$0	$0	$0
9.0%				
Normal Cost	7.6%	7.8%	8.0%	7.4%
UAL Contribution	$0	$0	$0	$0
12.0%				
Normal Cost	7.6%	7.8%	8.0%	7.4%
UAL Contribution	$0	$0	$0	$0

Discount Rate Sensitivity

The discount rate assumption is calculated as the sum of the assumed real rate of return and the assumed annual price inflation, currently 4.50% and 2.50%, respectively. Changing either the price inflation assumption or the real rate of return assumption will change the discount rate. The sensitivity of the valuation results to the discount rate assumption depends on which component of the discount rate is changed. Shown below are various valuation results as of June 30, 2020 assuming alternate discount rates by changing the two components independently. Results are shown using the current discount rate of 7.0% as well as alternate discount rates of 6.0% and 8.0%. The rates of 6.0% and 8.0% were selected since they illustrate the impact of a 1.0% increase or decrease to the 7.0% assumption.

Sensitivity to the Real Rate of Return Assumption

As of June 30, 2020	1% Lower Real Return Rate	Current Assumptions	1% Higher Real Return Rate
Discount Rate	**6.0%**	**7.0%**	**8.0%**
Inflation	2.5%	2.5%	2.5%
Real Rate of Return	**3.5%**	**4.5%**	**5.5%**
a) Total Normal Cost	17.65%	14.22%	11.59%
b) Accrued Liability	$34,177	$26,311	$20,467
c) Market Value of Assets	$24,507	$24,507	$24,507
d) Unfunded Liability/(Surplus) [(b) - (c)]	$9,670	$1,804	($4,040)
e) Funded Status	71.7%	93.1%	119.7%

Sensitivity to the Price Inflation Assumption

As of June 30, 2020	1% Lower Inflation Rate	Current Assumptions	1% Higher Inflation Rate
Discount Rate	**6.0%**	**7.0%**	**8.0%**
Inflation	**1.5%**	**2.5%**	**3.5%**
Real Rate of Return	4.5%	4.5%	4.5%
a) Total Normal Cost	15.20%	14.22%	13.05%
b) Accrued Liability	$28,277	$26,311	$24,051
c) Market Value of Assets	$24,507	$24,507	$24,507
d) Unfunded Liability/(Surplus) [(b) - (c)]	$3,770	$1,804	($456)
e) Funded Status	86.7%	93.1%	101.9%

Mortality Rate Sensitivity

The following table looks at the change in the June 30, 2020 plan costs and funded status under two different longevity scenarios, namely assuming post-retirement rates of mortality are 10% lower or 10% higher than our current mortality assumptions adopted in 2017. This type of analysis highlights the impact on the plan of improving or worsening mortality over the long-term.

As of June 30, 2020	10% Lower Mortality Rates	Current Assumptions	10% Higher Mortality Rates
a) Total Normal Cost	14.49%	14.22%	13.97%
b) Accrued Liability	$26,753	$26,311	$25,903
c) Market Value of Assets	$24,507	$24,507	$24,507
d) Unfunded Liability/(Surplus) [(b) - (c)]	$2,246	$1,804	$1,396
e) Funded Status	91.6%	93.1%	94.6%

Maturity Measures

As pension plans mature they become more sensitive to risks. Understanding plan maturity and how it affects the ability of a pension plan sponsor to tolerate risk is important in understanding how the pension plan is impacted by investment return volatility, other economic variables and changes in longevity or other demographic assumptions. Since it is the employer that bears the risk, it is appropriate to perform this analysis on a pension plan level considering all rate plans. The following measures are for one rate plan only.

One way to look at the maturity level of CalPERS and its plans is to look at the ratio of a plan's retiree liability to its total liability. A pension plan in its infancy will have a very low ratio of retiree liability to total liability. As the plan matures, the ratio starts increasing. A mature plan will often have a ratio above 60%-65%.

Ratio of Retiree Accrued Liability to Total Accrued Liability	June 30, 2019	June 30, 2020
1. Retired Accrued Liability	0	0
2. Total Accrued Liability	10,054	26,311
3. Ratio of Retiree AL to Total AL [(1) / (2)]	0.00	0.00

Another measure of maturity level of CalPERS and its plans is to look at the ratio of actives to retirees, also called the Support Ratio. A pension plan in its infancy will have a very high ratio of active to retired members. As the plan matures, and members retire, the ratio starts declining. A mature plan will often have a ratio near or below one. The average support ratio for CalPERS public agency plans is 1.25.

Support Ratio	June 30, 2019	June 30, 2020
1. Number of Actives	1	1
2. Number of Retirees	0	0
3. Support Ratio [(1) / (2)]	N/A	N/A

Maturity Measures (Continued)

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

Shown in the table below is the asset volatility ratio (AVR), which is the ratio of market value of assets to payroll. Plans that have higher AVR experience more volatile employer contributions (as a percentage of payroll) due to investment return. For example, a plan with 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. 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)

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

Contribution Volatility	June 30, 2019	June 30, 2020
1. Market Value of Assets	$8,563	$24,507
2. Payroll	51,396	54,477
3. Asset Volatility Ratio (AVR) [(1) / (2)]	0.2	0.4
4. Accrued Liability	$10,054	$26,311
5. Liability Volatility Ratio (LVR) [(4) / (2)]	0.2	0.5

Maturity Measures History

Valuation Date	Ratio of Retiree Accrued Liability to Total Accrued Liability	Support Ratio	Asset Volatility Ratio	Liability Volatility Ratio
06/30/2017	0.00	N/A	0.0	0.0
06/30/2018	0.00	N/A	0.3	0.3
06/30/2019	0.00	N/A	0.2	0.2
06/30/2020	0.00	N/A	0.4	0.5

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, 2020. The plan liability on a termination basis is calculated differently compared to the plan's ongoing funding liability. For the hypothetical termination liability calculation, both compensation and service are frozen as of the valuation date and no future pay increases or service accruals are assumed. This measure of funded status is not appropriate for assessing the need for future employer contributions in the case of an ongoing plan, that is, for an employer that continues to provide CalPERS retirement benefits to active employees.

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

The effective termination discount rate will depend on actual market rates of return for risk-free securities on the date of termination. As market discount rates are variable, the table below shows a range for the hypothetical termination liability based on the lowest and highest interest rates observed during an approximate 19-month period from 12 months before the valuation date to 7 months after.

Market Value of Assets (MVA)	Hypothetical Termination Liability[1,2] at 0.75%	Funded Status	Unfunded Termination Liability at 0.75%	Hypothetical Termination Liability[1,2] at 2.50%	Funded Status	Unfunded Termination Liability at 2.50%
$24,507	$87,168	28.1%	$62,661	$50,156	48.9%	$25,649

[1] The hypothetical liabilities calculated above include a 5% mortality contingency load in accordance with Board policy. Other actuarial assumptions can be found in Appendix A of the Section 2 report.

[2] The current discount rate assumption used for termination valuations is a weighted average of the 10-year and 30-year U.S. Treasury yields where the weights are based on matching asset and liability durations as of the termination date. The discount rates used in the table are based on 20-year Treasury bonds, rounded to the nearest quarter percentage point, which is a good proxy for most plans. The 20-year Treasury yield was 1.18% on June 30, 2020, and was 1.68% on January 31, 2021.

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

Participant Data

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

	June 30, 2019	June 30, 2020
Active Members		
Counts	1	1
Average Attained Age	N/A	26.0
Average Entry Age to Rate Plan	N/A	24.4
Average Years of Credited Service	N/A	1.7
Average Annual Covered Pay	$51,396	$54,477
Annual Covered Payroll	$51,396	$54,477
Projected Annual Payroll for Contribution Year	$55,754	$59,096
Present Value of Future Payroll	$613,528	$684,597
Transferred Members	0	1
Separated Members	1	0
Retired Members and Beneficiaries		
Counts*	0	0
Average Annual Benefits*	N/A	$0

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

* Values include community property settlements.

List of Class 1 Benefit Provisions

This plan has the additional Class 1 Benefit Provisions:

- None

Plan's Major Benefit Options

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

	Benefit Group	
Member Category	Misc	
Demographics		
Actives	Yes	
Transfers/Separated	Yes	
Receiving	No	
Benefit Provision		
Benefit Formula	2% @ 62	
Social Security Coverage	No	
Full/Modified	Full	
Employee Contribution Rate	6.75%	
Final Average Compensation Period	Three Year	
Sick Leave Credit	Yes	
Non-Industrial Disability	Standard	
Industrial Disability	No	
Pre-Retirement Death Benefits		
Optional Settlement 2	Yes	
1959 Survivor Benefit Level	Indexed	
Special	No	
Alternate (firefighters)	No	
Post-Retirement Death Benefits		
Lump Sum	$500	
Survivor Allowance (PRSA)	No	
COLA	2%	

PEPRA Member Contribution Rates

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

The table below shows the determination of the PEPRA member contribution rates effective July 1, 2022, based on 50% of the total normal cost rate as of the June 30, 2020 valuation.

		Basis for Current Rate		Rates Effective July 1, 2022			
Rate Plan Identifier	Benefit Group Name	Total Normal Cost	Member Rate	Total Normal Cost	Change	Change Needed	Member Rate
27417	Miscellaneous PEPRA Level	13.735%	6.75%	14.22%	0.485%	No	6.75%

Section 2

CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

Risk Pool Actuarial Valuation Information

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

CERBT Account Update Summary

Scotts Valley Fire Protection District

as of June 30, 2021

CalPERS

OPEB Valuation Report Summary

OPEB Actuarial Valuation Report by Total Compensation Systems, Inc.	
Valuation Date	6/30/2020
Total OPEB Liability (TOL)	$1,868,590
Valuation Assets	$0
Net OPEB Liability (NOL)	$1,868,590
Funded Status	0%
Actuarially Determined Contribution (ADC)	$0
CERBT Asset Allocation Strategy	Strategy 2
Discount Rate	6.50%

CERBT Account Summary

As of June 30, 2021	Strategy 2
Initial contribution (05/20/2021)	$350,000
Additional contributions	$0
Disbursements	$0
CERBT expenses	($34)
Investment earnings	$10,043
Total assets	$360,009
Net rate of return (05/20/2021-06/30/2021 = .11 years)	2.87%

Cash Flow Summary by Fiscal Year

Fiscal Year	Contributions	Disbursements	Cumulative Investment Gains (Losses)	Cumulative Fees	Cumulative Ending Assets
2006-07	$0	$0	$0	$0	$0
2007-08	$0	$0	$0	$0	$0
2008-09	$0	$0	$0	$0	$0
2009-10	$0	$0	$0	$0	$0
2010-11	$0	$0	$0	$0	$0
2011-12	$0	$0	$0	$0	$0
2012-13	$0	$0	$0	$0	$0
2013-14	$0	$0	$0	$0	$0
2014-15	$0	$0	$0	$0	$0
2015-16	$0	$0	$0	$0	$0
2016-17	$0	$0	$0	$0	$0
2017-18	$0	$0	$0	$0	$0
2018-19	$0	$0	$0	$0	$0
2019-20	$0	$0	$0	$0	$0
2020-21	$350,000	$0	$10,043	($34)	$360,009

CERBT/CEPPT Investment Returns Outperform Benchmarks

Periods ended June 30, 2021

Fund	Assets	1 Month	3 Months	FYTD	1 Year	3 Years	5 Years	10 Years	ITD
CERBT Strategy 1 (Inception June 1, 2007)	$13,042,036,647	1.45%	6.59%	27.54%	27.54%	11.95%	10.88%	8.42%	6.29%
Benchmark		1.40%	6.54%	27.31%	27.31%	11.66%	10.49%	8.13%	5.86%
CERBT Strategy 2 (Inception October 1, 2011)	$1,815,456,223	1.59%	6.05%	19.71%	19.71%	10.57%	9.02%	-	8.44%
Benchmark		1.56%	6.00%	19.50%	19.50%	10.35%	8.66%	-	8.15%
CERBT Strategy 3 (Inception January 1, 2012)	$818,674,420	1.59%	5.49%	13.60%	13.60%	9.02%	7.16%	-	6.60%
Benchmark		1.57%	5.45%	13.45%	13.45%	8.84%	6.85%	-	6.29%
CERBT Total	$15,676,167,290								
CEPPT Strategy 1 (Inception October 1, 2019)	$38,556,782	1.02%	4.74%	18.31%	18.31%	-	-	-	12.14%
Benchmark		0.91%	4.63%	18.07%	18.07%	-	-	-	12.16%
CEPPT Strategy 2 (Inception January 1, 2020)	$19,387,858	0.79%	3.24%	8.00%	8.00%	-	-	-	7.19%
Benchmark		0.78%	3.24%	7.75%	7.75%	-	-	-	7.01%
CEPPT Total	$57,944,640								

CERBT Expected Rates of Return & Risk

Portfolios	CERBT Strategy 1	CERBT Strategy 2	CERBT Strategy 3
Expected Return	7.59%	7.01%	6.22%
Risk	11.83%	9.24%	7.28%

CERBT Portfolio Details

Asset Classification	Benchmark	CERBT Strategy 1	CERBT Strategy 2	CERBT Strategy 3
Global Equity	MSCI All Country World Index	59% ±5%	40% ±5%	22% ±5%
Fixed Income	Barclays Capital Long Liability Index (CERBT)	25% ±5%	43% ±5%	49% ±5%
Global Real Estate (REITs)	FTSE EPRA/NAREIT Developed Liquid Index	8% ±5%	8% ±5%	8% ±5%
Treasury Inflation Protected Securities (TIPS)	Barclays Capital Global Real: US TIPS Index	5% ±3%	5% ±3%	16% ±3%
Commodities	S&P GSCI Total Return Index	3% ±3%	4% ±3%	5% ±3%
Cash	3-Month Treasury Bill	0% +2%	0% +2%	0% +2%

Total Participation Cost Fee Rate

- Total <u>all-inclusive</u> cost of participation
  - Combines administrative, custodial, and investment fees
  - Separate trust funds
  - Self-funded, fee rate may change in the future
  - Fee is applied daily to assets under management
    - 10 basis points - CERBT
    - 25 basis points - CEPPT

CEPPT/CERBT Consistently Low Fee Rate History

Fiscal Year	CERBT	CEPPT
2007-2008	2.00 basis points	-
2008-2009	6.00 basis points	-
2009-2010	9.00 basis points	-
2010-2011	12.00 basis points	-
2011-2012	12.00 basis points	-
2012-2013	15.00 basis points	-
2013-2014	14.00 basis points	-
2014-2015	10.00 basis points	-
2015-2016	10.00 basis points	-
2016-2017	10.00 basis points	-
2017-2018	10.00 basis points	-
2018-2019	10.00 basis points	-
2019-2020	10.00 basis points	25.00 basis points
2020-2021	10.00 basis points	25.00 basis points
2021-2022	10.00 basis points	25.00 basis points

595 Prefunding Program Employers

585 CERBT and 43 CEPPT

- State of California
- 152 Cities or Towns
- 10 Counties
- 76 School Employers
- 31 Courts
- 325 Special Districts and other Public Agencies
  - (99 Water, 34 Sanitation, 33 Fire, 25 Transportation)

Financial Reporting

- CERBT is the Plan
  - Provides audited and compliant GASB 74 report in a Schedule of Changes in Fiduciary Net Position (FNP)
  - Published in February each year

FNP Fiscal Year	Availability
2015-16	Available at https://www.calpers.ca.gov/cerbt
2016-17	
2017-18	
2018-19	
2019-20	
2020-21	February 2022

Questions? Where to Get Trust Fund Information?

Name	Title	E-mail	Desk	Mobile
Matt Goss	Outreach & Support Program Manager	Matthew.Goss@calpers.ca.gov	(916) 795-9071	(916) 382-6487
Karen Lookingbill	Outreach & Support Manager	Karen.Lookingbill@calpers.ca.gov	(916) 795-1387	(916) 501-2219
Jasper Jacobs	Outreach & Support Analyst	Jasper.Jacobs@calpers.ca.gov	(916) 795-0432	(916) 717-3886
Jean MacDonald	Outreach & Support Analyst	Jean.MacDonald@calpers.ca.gov	(916) 795-0675	(916) 291-1325
Colleen Cain-Herrback	Administration & Reporting Program Manager	Colleen.Cain-Herrback@calpers.ca.gov	(916) 795-2474	(916) 505-2506
Robert Sharp	Assistant Division Chief	Robert.Sharp@calpers.ca.gov	(916) 795-3878	(916) 397-0756

Program E-mail Addresses	Prefunding Programs Webpages
CERBT4U@calpers.ca.gov – Questions & Document Submittal	www.calpers.ca.gov/CERBT
CEPPT4U@calpers.ca.gov – Questions & Document Submittal	www.calpers.ca.gov/CEPPT
CERBTACCOUNT@calpers.ca.gov – Online Record Keeping System	

CEPPT Account Update Summary

Scotts Valley Fire Protection District

as of June 30, 2021

CalPERS

CEPPT Account Summary

As of June 30, 2021	Strategy 1	Strategy 2	Total
Initial contribution (05/20/2021)	$0	$150,000	$150,000
Additional contributions	$0	$0	$0
Disbursements	$0	$0	$0
CEPPT expenses	$0	($39)	($39)
Investment earnings	$0	$2,231	$2,231
Total assets (05/20/2021-06/30/2021 = .11 years)	$0	$152,192	$152,192

CEPPT/CERBT Investment Returns Outperform Benchmarks

Periods ended June 30, 2021

Fund	Assets	1 Month	3 Months	FYTD	1 Year	3 Years	5 Years	10 Years	ITD
CERBT Strategy 1 (Inception June 1, 2007)	$13,042,036,647	1.45%	6.59%	27.54%	27.54%	11.95%	10.88%	8.42%	6.29%
Benchmark		1.40%	6.54%	27.31%	27.31%	11.66%	10.49%	8.13%	5.86%
CERBT Strategy 2 (Inception October 1, 2011)	$1,815,456,223	1.59%	6.05%	19.71%	19.71%	10.57%	9.02%	-	8.44%
Benchmark		1.56%	6.00%	19.50%	19.50%	10.35%	8.66%	-	8.15%
CERBT Strategy 3 (Inception January 1, 2012)	$818,674,420	1.59%	5.49%	13.60%	13.60%	9.02%	7.16%	-	6.60%
Benchmark		1.57%	5.45%	13.45%	13.45%	8.84%	6.85%	-	6.29%
CERBT Total	$15,676,167,290								
CEPPT Strategy 1 (Inception October 1, 2019)	$38,556,782	1.02%	4.74%	18.31%	18.31%	-	-	-	12.14%
Benchmark		0.91%	4.63%	18.07%	18.07%	-	-	-	12.16%
CEPPT Strategy 2 (Inception January 1, 2020)	$19,387,858	0.79%	3.24%	8.00%	8.00%	-	-	-	7.19%
Benchmark		0.78%	3.24%	7.75%	7.75%	-	-	-	7.01%
CEPPT Total	$57,944,640								

CEPPT Expected Rates of Return & Risk

Portfolios	CEPPT Strategy 1	CEPPT Strategy 2
Expected Return	5.0%	4.0%
Risk	8.2%	5.2%

CEPPT Portfolio Details

Asset Classification	Benchmark	CEPPT Strategy 1	CEPPT Strategy 2
Global Equity	MSCI All Country World Index	40% ±5%	14% ±5%
Fixed Income	Bloomberg Barclays U.S. Aggregate Bond Index	47% ±5%	73% ±5%
Global Real Estate (REITs)	FTSE EPRA/NAREIT Developed Liquid Index	8% ±5%	8% ±5%
Treasury Inflation Protected Securities (TIPS)	Barclays Capital Global Real: US TIPS Index	5% ±3%	5% ±3%
Cash	3-Month Treasury Bill	0% +2%	0% +2%

Total Participation Cost Fee Rate

- Total all-inclusive cost of participation
  - Combines administrative, custodial, and investment fees
  - Separate trust funds
  - Self-funded, fee rate may change in the future
  - Fee is applied daily to assets under management
    - 10 basis points - CERBT
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CERBT4U@calpers.ca.gov – Questions & Document Submittal	www.calpers.ca.gov/CERBT
CERBTACCOUNT@calpers.ca.gov – Online Record Keeping System	

CalPERS

P.O. Box 942715, Sacramento, CA 94229-2715
888 CalPERS (or 888-225-7377) | Fax: (800) 959-6545
TTY: (877) 249-7442
www.calpers.ca.gov

California Employers' Retiree Benefit Trust (CERBT, OPEB)

REMITTANCE ADVICE

August 30, 2021

Employer Name:	Scotts Valley Fire Protection District
Employer Address:	7 ERBA LANE SCOTTS VALLEY, CA 95066
CalPERS ID:	4027652040
Receivable ID:	100000016536945
Receivable Description:	CERBT Contributions, CERBT

Project Payment Date	Account Number	Strategy	Payment Amount
September 13, 2021	4027652040-001	SKB7-CERBT Strategy 2	$155,000.00
		Total Payment Amount:	$155,000.00

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0000000132713184

P.O. Box 942715, Sacramento, CA 94229-2715
888 CalPERS (or 888-225-7377) | Fax: (800) 959-6545
TTY: (877) 249-7442
www.calpers.ca.gov

California Employers' Pension Prefunding Trust (CEPPT)

REMITTANCE ADVICE

August 30, 2021

Employer Name: Scotts Valley Fire Protection District
Employer Address: 7 ERBA LANE
SCOTTS VALLEY, CA 95066
CalPERS ID: 4027652040
Receivable ID: 100000016536946
Receivable Description: CEPPT Contributions, CEPPT

Project Payment Date	Account Number	Strategy	Payment Amount
September 13, 2021	4027652040-501P	SKHE-CEPPT Strategy 2	$150,000.00
		Total Payment Amount:	$150,000.00

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SCOTTS VALLEY
FIRE PROTECTION DISTRICT

7 Erba Lane, Scotts Valley, California 95066 (831) 438-0211 Fax (831) 438-0383

Date: September 8, 2021

To: Board of Directors

From: Chief Whittle

Subject: August Administrative Report

Incident Type	June		July		August		Year To Date	
	2020	2021	2020	2021	2020	2021	2020	2021
Fires	5	12	7	4	10	8	52	51
Explosion / Rupture	0	0	0	0	0	0	0	1
EMS	82	107	91	115	78	109	717	858
Hazardous Condition	3	9	5	3	8	3	47	55
Service Calls	15	8	30	18	17	9	130	110
Good Intent	35	27	37	36	35	31	263	260
False Alarms	18	5	13	18	22	17	114	91
Severe Weather	0	0	0	1	0	0	3	1
Totals	158	168	183	195	170	177	1326	1427

Operations

E2538 is still out on a strike team assignment, currently at the Caldor Fire. The Engine began on the Dixie Fire on August 5, and were sent to the Caldor Fire on August 17th. Crew were rotated on August 18th and will be rotated again on September 2nd. Chief McNeil completed his second tour as the Strike Team leader, and Chief LoFranco is out on his second tour as a Trainee. Chief LoFranco should be signed off as a Strike Team Leader upon his return from this assignment.

On August 6th, SVFD responded to structure fire at 5252 Branciforte Dr. On arrival crews reported a fully involved barn structure with extension into the wildland. Numerous agencies from across the county assisted including, Cal Fire, Felton Fire, Central Fire, and Santa Cruz City Fire. Crews were able to contain the fire and stop the wildland threat. It wasn't until the following day until the fire could be extinguished due to the amount of debris and physical hazards. In total SVFD had 10 personnel respond to the fire. Cal Fire Prevention and Enforcement is following up with the property owner regarding the removal of hazardous debris on the property. Cause of the fire remains undetermined.

Crews have evaluated both Kenwood and BK portable radios. Unanimous decision is to go with the BK's. Will also be receiving two new BK mobile radios through a local grant.

Tablet Command is up and running. Crews are now utilizing Tablet Command for response status.

Training

We have 5 candidates are currently going through backgrounds for our next PCF academy, which should begin in January. We are going to continue to work with Cal Fire, however the academy will be scaled back to a basic academy rather than full Firefighter 1.

Engineer Pedemonte has initiated his Acting Captain taskbook, and Captain Petteys is nearing completion of his Acting Battalion Chief taskbook.

Quarterly SCHMIT training was well attended

EMS

The District secured Rapid Covid-19 tests which are available to employees and their family members.

The county recently approved agencies the utilization of a single resource ALS response. A list of minimum equipment is being determined. This would potentially allow the paramedic BC's to respond to medical calls when SCO units are unavailable or out of position.

Prevention

Completed 3 WUI/LE 100 inspections in Scotts Valley and another 4 in Branciforte.

Completed 5 new construction inspections including the final inspections for Kaiser and the Hangar.

Completed State Mandated Occupancy Inspections at Coast Redwoods Montessori Preschool, Circle of Friends Preschool, and the Best Western Plus Hotel.

Completed 7 plan check/permits.

Investigated 3 Fire Hazard Complaints and sent letters to 2 properties requesting overgrown vegetation mitigation.

Attended 6 meetings, including: Santa Cruz County Fire Prevention Officers meeting, Santa Cruz County Fire Investigation Task Force, Montevalle Safety Committee Chair, Rollins Fire Sprinklers regarding 440 Kings Village Rd (Aviza), new business owners preparing to move into 1500 Green Hills Rd.

Engine companies completed 1 Knox Box installation for residential properties.

Fire Chief

Two PCF's have resigned from our program. Alec Roumimper was accepted to the UCLA paramedic program and hopes to return here once he's finished. Mackenzie Avila accepted a Firefighter Paramedic position with the City of Santa Cruz Fire Department. We now have 8 active Paid Call Firefighters.

Met with a developer regarding the possible sale and future use of the La Madrona property.

Currently have 1 engineer and 1 captain out on Work Comp injuries. We have 1 PCF filling in to help keep overtime down.

We've been spending a lot of time working on the Branciforte transition plan.