SCOTTS VALLEY
FIRE PROTECTION DISTRICT

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

Board of Directors
Agenda
Wednesday, October 10, 2018, 6:30 P.M.
Scotts Valley City Hall
One Civic Center Drive, Scotts Valley CA 95066

Board meetings are televised on Community Television, Channel 25. Agendas and Board Packets are available on the District's web site @ 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 Steve M. Kovacs, 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 8, 2018

4.2 Payroll: Approve August Payroll 16, 17 and 18 in the amount of: $ 673,887.86

4.3 Payroll: Approve September Payroll 19 and 20 in the amount of: $ 328,720.02

4.4 Expenditures: Approve Expenditures for August in the Amount of:

General Fund:	$ 139,940.47
Zone A:	$ 1,102.87
SCHMIT:	$ 167.46
TOTAL:	$ 141,210.80

4.5 Expenditures: Approve Expenditures for September in the Amount of:

General Fund:	$ 134,353.46
SCHMIT:	$ 1,747.05
TOTAL:	$ 136,100.51

4.6 Approve Permit/Inspection Fee Waiver Request for the Scotts Valley High School's Haunted House

4.7 Review Four CalPERS Annual Valuation Reports as of June 30, 2017 (Classic & PEPRA Safety and Miscellaneous Plans)

5. Action Items

5.1 Adopt the Following Policies, Discussion/Action:

510 – Paid Call Firefighter (PCF) Duty Statement
515 – Volunteer Firefighter Duty Statement
1509 – Volunteer Hiring

6. Board of Directors and Administrative Reports – Information/Discussion

(No action will be taken on any questions raised by the Board at this time.)

6.1 Board of Directors Report – *Directors*

6.2 Administrative Report – *Chief Officers*

7. Correspondence – Information

7.1 Letter From the City of Scotts Valley Recreation Division Dated August 8, 2018

8. Request for Future Agenda Items

9. Adjournment

Next Regularly Scheduled Board Meeting:
<u>Wednesday, November 14, 2018 at 6:30 p.m.</u>

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 8, 2018

1. Call to Order

The Regular Meeting of the Board of Directors of the Scotts Valley Fire Protection District (SVFPD) was held on Wednesday, August 8, 2018 at the City of Scotts Valley Council Chambers. President Patterson called the meeting to order at 6:30 p.m. and thanked Community Television for Broadcasting the Meeting.

1.1 Pledge of Allegiance and Moment of Silence

President Patterson called for the Pledge of Allegiance and a Moment of Silence to follow.

1.2 Roll Call

A.	Directors Present:	Directors Campbell, Patterson, Pisciotta and Smith
B.	Directors Absent:	Director Warren
C.	Fire District Staff:	Chief Kovacs, Battalion Chief Theilen and Administrative Secretary Walton

2. Public Comment (GC §54954.3)

None

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

None

4. Consent Calendar

4.1 Minutes: Approve Regular Board Meeting Minutes of July 11, 2018

4.2 Payroll: Approve July Payroll 14 and 15 in the amount of: $391,075.50

4.3 Expenditures: Approve Expenditures for July in the Amount of:

General Fund:	$188,516.46
Capital Outlay:	$ 41,899.32
SCHMIT:	$ 10,593.68
TOTAL:	$241,009.46

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

AYES:	**Campbell, Patterson, Pisciotta and Smith**
NOES:	**None**
ABSENT:	**Warren**
ABSTAIN:	**None**

5. Public Hearing/Action Item –2018/2019 FY Final Budget

5.1 Scheduled Public Hearing on the District's 2018/2019 Final Budget:

685010 General Fund:	$ 9,068,265
685020 Zone A:	$ 1,209,137
685030 Capital Outlay:	$ 317,231
685040 SCHMIT:	$ 195,957

Chief Kovacs reviewed the Final Budget and noted the following:

General Fund – 685010

- The beginning fund balance is $1,844,145, which is an increase of $349,999 from last Fiscal Year (FY). The surplus is attributed to a 5.5% increase in Secured Property Tax, Plan Check and Inspection Fees and $523K in Strike Team reimbursement.
- An estimated 4% increase in property tax has been budgeted.
- Revenue from Plan Check and Inspection Fees for the 2018/2019 FY are estimated at $50,000.
- Strike Team Revenue is budgeted at $200,000 and offset in the budget as an overtime expenditure.
- The Salaries and Benefits budget includes a Cost of Living Adjustment (COLA) based on the current MOU's in place.
- Health insurance is budgeted for an 8.25% increase effective January 1, 2019. Retiree health insurance is budgeted at $84,816, which is a decrease of $6,652 over last FY due to one retiree coming off the plan.
- Workers Comp insurance is $194,845, which is an increase of $32,768 over last FY.
- The Services and Supplies budget is $724,400.
- A $200,000 transfer to Capital Outlay and $50,000 for Contingencies has been budgeted.
- The General Fund Final Budget is balanced by using $275,350 from the Fund Balance.
- Reserves Account 98695 was added to this year's budget with $500,000 in Emergency Reserves and $1,039,795 in an Economic Stability Fund for a total Reserves Account of $1,539,795.

Zone A – 685020

- The beginning fund balance is $1,084,241.
- A 4% increase in property tax revenue is estimated.
- Besides Auditing and Accounting costs, $18,000 is budgeted to complete the Fire Facilities Master Plan (carried over from the 2017/2018 FY).
- For future projects, $1,100,000 is budgeted and $89,437 for Contingencies.

Capital Outlay – 685030

- The beginning fund balance is $116,731.
- Revenue consists of a $200,000 transfer from the General Fund and $500 in interest.
- Fleet replacement is budgeted at $50,000 (staff vehicle carried over from the 2017/2018 FY), $35,000 for replacement of auto extrication equipment, $18,000 to upgrade the Erba Lane Kitchen stove, $161,324 for future capital outlay expenses and $27,500 for Contingencies.

SCHMIT – 685040

- The beginning fund balance is $45,906.
- The Service and Supplies budget is $63,457, which include a $4,500 charge for management of 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 $112,500 ($4,500 per team member), which accounts for 25 total members.

5.2 Receive Public Comment and Adopt Resolution 2018-6: Resolution Adopting Final Budget for Fiscal Year 2018/2019, Discussion/Action

President Patterson opened the Public Hearing. With no Public comment presented, the Public Hearing was closed.

On motion of Director Pisciotta seconded by Director Campbell to *Adopt Resolution 2018-6: Resolution Adopting Final Budget for Fiscal Year 2018/2019* was approved by the following vote:

AYES:	**Campbell, Patterson, Pisciotta and Smith**
NOES:	**None**
ABSENT:	**Warren**
ABSTAIN:	**None**

6. Action Item

6.1 Adopt Revised Policy 2000: Conflict of Interest Code and Biennial Review of the Conflict of Interest Code, Discussion/Action

Chief Kovacs stated that the Political Reform Act requires that every local government agency review its Conflict of Interest Code biennially. No later than October 1, 2018, each agency must submit to the County Board of Supervisors a notice indicating whether or not an amendment is necessary. There was a minor change to the Conflict of Interest Code to include the Administrative Captain and no amendment is required.

On motion of Director Smith seconded by Director Pisciotta to *Adopt Revised Policy 2000: Conflict of Interest Code and Biennial Review of the Conflict of Interest Code* was approved by the following vote:

AYES:	**Campbell, Patterson, Pisciotta and Smith**
NOES:	**None**
ABSENT:	**Warren**
ABSTAIN:	**None**

6.2 Adopt Revised Policy 1401: Hours of Work, Scheduling and Work Period Designation, Discussion/Action

Chief Kovacs explained that Policy 1401 was revised to include part-time employees. This is a Meet and Confer item and was discussed and approved by the Union.

On motion of Director Pisciotta seconded by Director Smith to *Adopt Revised Policy 1401: Hours of Work, Scheduling and Work Period Designation as Written* was approved by the following vote:

AYES:	**Campbell, Patterson, Pisciotta and Smith**
NOES:	**None**
ABSENT:	**Warren**
ABSTAIN:	**None**

6.3 Appointment of a Board Member and Alternate to Serve on an Interagency Advisory Committee, Discussion/Action

Chief Kovacs stated that based on cooperative efforts, a Committee is being put together with representatives from the local Scotts Valley Agencies to include the City of Scotts Valley, the Scotts Valley Fire Protection District, the School District and the Water District to discuss the future of Scotts Valley.

President Patterson appointed himself to the Interagency Advisory Committee and Director Pisciotta as the Alternate Board Member.

6.4 Certify the Entry Level Firefighter/Paramedic Eligibility List, per Policy 1501, Discussion/Action

Chief Kovacs stated that the Firefighter/Paramedic testing has been completed and the list and rankings have been included in the Board Packet. Policy 1501 requires the list be certified by the Board.

On motion of Director Pisciotta seconded by Director Campbell to *Certify the Firefighter/Paramedic Eligibility List Dated August 1, 2018 per Policy 1501* was approved by the following vote:

AYES:	**Campbell, Patterson, Pisciotta and Smith**
NOES:	**None**
ABSENT:	**Warren**
ABSTAIN:	**None**

6.5 Consider Cancellation of the September 12, 2018 Regular Board Meeting, Discussion/Action

Chief Kovacs stated that there is no pending business in September and there are Board Members not able to attend.

On motion of Director Campbell seconded by Director Pisciotta to *Cancel the September 12, 2018 Regular Board Meeting* was approved by the following vote:

AYES:	**Campbell, Patterson, Pisciotta and Smith**
NOES:	**None**
ABSENT:	**Warren**
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*

None

7.2 Administrative Report – *Chief Officers*

The full Administrative Report was included in the Board Packet and Chief Kovacs added the following:

- On Friday, Engine 2511 will crew swap unless they are demobed. E2537 is covering the Fall Creek Station and will crew swap this weekend.
- Last Saturday, Captain Pete Stelling retired after 38 years of service.
- I will be attending the Cal Chiefs Conference with Battalion Chief McNeil at the end of September.
- On Monday, I will be in Sacramento for a FDAC EBA Meeting.
- The California Fire Chiefs DRiSC Committee will be testifying to lay ground work for pre-positing strike team responses to secure funding.

8. Correspondence – Information

8.1 Letter From Aptos/La Selva Fire Protection District and Central Fire Protection District

The Board received and filed the correspondence.

9. Request for Future Agenda Items

If completed, the Facilities Study Report will be include on the October Regular Board Meeting Agenda.

10. Adjournment

The meeting was adjourned at 6:52 p.m.

ATTEST ____________________________
Russ Patterson
Board President

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Steve M. Kovacs
Board Secretary

	Date Range from 07/14/2018 To 08/25/2018		
PAYROLL	**ACCT.#**	**PP**	**TOTALS**
Regular Pay	51000	16	$122,394.80
		17	$119,924.88
		18	$114,014.18
Overtime	51005	16	$13,940.76
		17	$81,214.01
		18	$37,321.94
Regular Pay, Extra Help (PCF)	51010	16	$0.00
		17	$11,591.00
		18	$0.00
Regular Pay, Sick Leave	51015	16	$0.00
		17	$0.00
		18	$0.00
Regular Callback Pay	51025	16	$24,199.16
		17	$63,973.68
		18	$36,118.76
Holiday Pay	51035	16	$0.00
		17	$0.00
		18	$0.00
Differential Pay	51040	16	$5,565.32
		17	$5,565.32
		18	$5,232.55
Regular Pay, Sick Leave Reserve	55020	16	$0.00
		17	$0.00
		18	$0.00
Misc Benefits, Vacation Payoff	55021	16	$4,232.59
		17	$24,597.08
		18	$4,001.83
Directors Fees	62327	16	$0.00
		17	$0.00
		18	$0.00
TOTAL PAYROLL			**$673,887.86**

	Date Range from 08/25/2018 To 09/21/2018		
PAYROLL	**ACCT.#**	**PP**	**TOTALS**
Regular Pay	51000	19	$120,783.88
		20	$121,044.21
Overtime	51005	19	$1,708.18
		20	$30,190.71
Regular Pay, Extra Help (PCF)	51010	19	$8,663.38
		20	$0.00
Regular Pay, Sick Leave	51015	19	$0.00
		20	$0.00
Regular Callback Pay	51025	19	$12,159.12
		20	$13,851.50
Holiday Pay	51035	19	$0.00
		20	$0.00
Differential Pay	51040	19	$5,898.09
		20	$5,898.09
Regular Pay, Sick Leave Reserve	55020	19	$0.00
		20	$0.00
Misc Benefits, Vacation Payoff	55021	19	$4,261.43
		20	$4,261.43
Directors Fees	62327	19	$0.00
		20	$0.00
TOTAL PAYROLL			**$328,720.02**

09/27/2018

CLAIMS BY GL OBJ

09/06/2018

Filter: (Claim Date is between 08/01/2018 and 08/31/2018)(Pre-Approved Excluded)

Claim Date	Vendor	Message	Amount
GL Key: 685010			
GL Obj: 51025 Regular Callback Pay			
08/23/2018	CSAC EXCESS INSURANCE AUTHORITY PWC-CMI	Overpayment Work Comp- Owens N. 7/18-7/31/18	$1,215.27
		SubObject Total	$1,215.27
GL Obj: 53010 Group Health - Dental Insurance			
08/10/2018	CAL PERS RETIREMENT SYSTEM	Health Ins- 8/2018	$51,367.96
08/23/2018	FDAC EBA	Life & Vision Ins.- 9/2018	$1,118.20
08/23/2018	HEALTH CARE EMPLOYEES/EMPLOYER DENTAL TRUST	Dental Ins.- 9/2018	$4,789.68
		SubObject Total	$57,275.84
GL Obj: 61110 Clothing & Personal Supplies			
08/03/2018	U.S. BANK CORPORATE PAYMENT SYSTEM	LN Curtis- Turnout cleaner Amazon- Red stickers, wildland helmet Amazon- Boots- B.Theilen	$814.99
08/23/2018	L.N. CURTIS & SONS	Wildland pants (33)	$5,601.56
08/29/2018	L.N. CURTIS & SONS	Turnout boots- Lofranco	$365.15
		SubObject Total	$6,781.70
GL Obj: 61125 Uniform Clothing Allowance			
08/03/2018	U.S. BANK CORPORATE PAYMENT SYSTEM	HookFast- PCF's name tags	$107.95
		SubObject Total	$107.95
GL Obj: 61221 Telephone & Telegraph			
08/03/2018	U.S. BANK CORPORATE PAYMENT SYSTEM	Comcast- VF1 Internet & Phones 6/20-7/19/18 Comcast- VF2 Internet & Phones 6/21-7/20/18 Verizon- Cellular 6/5-7/4/18 Kadence Themes- Website fee Network Solutions- Wordpress upgrade, tech support	$1,592.00
		SubObject Total	$1,592.00
GL Obj: 61310 Food			
08/03/2018	U.S. BANK CORPORATE PAYMENT SYSTEM	Costco- Water & gatorade Safeway- Crew dinner- July 4th staffing Shoreline Coffee Shop- Crew meal- Strike team	$582.08
		SubObject Total	$582.08

CLAIMS BY GL OBJ

09/06/2018

Filter: (Claim Date is between 08/01/2018 and 08/31/2018)(Pre-Approved Excluded)

Claim Date	Vendor	Message	Amount
GL Obj: 61425	**Household Expense**		
08/03/2018	U.S. BANK CORPORATE PAYMENT SYSTEM	Costco- Station supplies Amazon- American flags(2) CA (2)	$257.43
08/03/2018	SCARBOROUGH LUMBER & BUILDING	Salad spinner- VF1	$34.87
		SubObject Total	$292.30
GL Obj: 61720	**Maintenance - Mobile Equipment**		
08/03/2018	U.S. BANK CORPORATE PAYMENT SYSTEM	Weingart- E2537- Replace engine for aux pump Polar Radiator- E2537- Aux pump flush Batteries Plus- U2592- Battery	$5,177.42
08/03/2018	SCARBOROUGH LUMBER & BUILDING	Fuel hose, filters	$59.91
08/10/2018	GOLDEN STATE EMERGENCY VEHICLE SERVICE	E2510- Rear side window	$355.90
08/10/2018	WINCHESTER AUTO STORES	Air filter panel, fuel filter, brush	$269.11
08/23/2018	GOLDEN STATE EMERGENCY VEHICLE SERVICE	E2511- Air filters (2)	$493.95
		SubObject Total	$6,356.29
GL Obj: 61725	**Maintenance - Office Equipment**		
08/03/2018	PAGODA TECHNOLOGIES INC.	Fire house, sonicwall, internet issues	$225.00
08/03/2018	PAGODA TECHNOLOGIES INC.	Computer Management- 8/2018	$1,011.12
08/03/2018	U.S. BANK CORPORATE PAYMENT SYSTEM	Amazon- APC battery backup for server	$389.12
08/10/2018	PAGODA TECHNOLOGIES INC.	Upgrade FH autopopulate for CAD system	$1,200.00
		SubObject Total	$2,825.24
GL Obj: 61730	**Maintenance - Other Equipment**		
08/03/2018	SCARBOROUGH LUMBER & BUILDING	Hex nut, tape	$20.03
08/03/2018	U.S. BANK CORPORATE PAYMENT SYSTEM	Batteries Plus- CR123 batteries Costco- Batteries	$67.86
08/23/2018	ZAYANTE FIRE DISTRICT	Chipper repair- 50%split	$829.33
08/29/2018	SAN LORENZO VALLEY FIRE DISTRICTS COUNCIL	JPA- 2018/2019 FY Breathing support	$2,000.00
		SubObject Total	$2,917.22
GL Obj: 61845	**Maintenance - Buildings & Grounds**		
08/03/2018	GREG BELLOWS PLUMBING INC	Blow out A/C Line- VF2	$79.00
08/03/2018	U.S. BANK CORPORATE PAYMENT SYSTEM	Rayne of SC- Monthly water softner exchange	$117.50
08/03/2018	SCARBOROUGH LUMBER & BUILDING	Ground switch, salt softner, silicon, trim kit	$225.34
08/10/2018	COUNTY OF SANTA CRUZ - PUBLIC WORKS DEPARTMENT	Dump woodwaste	$7.50
08/23/2018	R & S ERECTION MONTEREY BAY	Temporary repair- Bay door VF2	$328.00
08/23/2018	WESTERN EXTERMINATOR COMPANY	Bug Service- VF1 7/2018	$54.50
08/23/2018	WESTERN EXTERMINATOR COMPANY	Bug Service- VF2 7/2018	$54.50
08/23/2018	GREG BELLOWS PLUMBING INC	HVAC service- VF1	$293.00

Claim Date	Vendor	Message	Amount
		SubObject Total	$1,159.34
GL Obj: 61920	**Medical Supplies**		
08/03/2018	BOUND TREE MEDICAL, LLC	Medical Supplies- Statpack	$54.23
08/03/2018	U.S. BANK CORPORATE PAYMENT SYSTEM	ElecoTek- Lifepak 12 printer roller part(2) Amazon- BP cuffs(4), stethoscopes(4) Medic supplies, vacumn seal bags Amazon- Narcotic locks- EMS	$576.78
08/03/2018	BOUND TREE MEDICAL, LLC	Medical Supplies-Glucose test strips, meter	$130.50
		SubObject Total	$761.51
GL Obj: 62020	**Memberships**		
08/03/2018	U.S. BANK CORPORATE PAYMENT SYSTEM	Amazon- Annual prime membership	$129.71
08/29/2018	IAFC MEMBERSHIP	IAFC Membership- 2018/2019 FY	$304.00
		SubObject Total	$433.71
GL Obj: 62219	**PC Software**		
08/03/2018	CALLBACK STAFFING SOLUTIONS LLC	Pro Quarterly Support- 8/3-11/2/18	$700.83
		SubObject Total	$700.83
GL Obj: 62223	**Office Supplies**		
08/03/2018	U.S. BANK CORPORATE PAYMENT SYSTEM	Otterbox- Warranty- iPad holder Amazon- iPad holder & strap- E2511 BW Printworks- Shift calendars 2019 Costco- Chair-Evans, staplers Costco- Fireking insulated file cabinet	$4,099.25
		SubObject Total	$4,099.25
GL Obj: 62367	**Medical Services**		
08/03/2018	CARDIOVASCULAR ASSOC OF SANTA CRUZ	Medical Physical	$325.00
08/10/2018	EMERYVILLE OCCUPATIONAL MEDICAL CENTER	Medical Physical	$635.00
		SubObject Total	$960.00
GL Obj: 62381	**Professional & Specialized Services**		
08/10/2018	GENE MICHALAK	BRD Video- 8/8/18	$110.00
08/10/2018	VOYA NATIONAL TRUST COMPANY	Voya Loan Program- 4/1-6/30/18 (Employee paid)	$187.50
08/10/2018	GROUP 4 ARCHITECTURE RESEARCH & PLANNING	Facilities study	$1,102.88
08/10/2018	LIEBERT CASSIDY WHITMORE	Legal services	$175.00
08/23/2018	API SERVICES	New hire background investigation	$978.50
08/29/2018	LIEBERT CASSIDY WHITMORE	Legal services	$420.00
08/29/2018	COMMAND STRATEGIES CONSULTING	Legal services- Investigator	$11,264.00
08/29/2018	LIEBERT CASSIDY WHITMORE	Legal services	$14,267.29
08/29/2018	LIEBERT CASSIDY WHITMORE	Legal services	$265.25

Claim Date	Vendor	Message	Amount
08/29/2018	LIEBERT CASSIDY WHITMORE	Legal services	$3,798.40
08/29/2018	LIEBERT CASSIDY WHITMORE	Legal services	$3,445.36
08/29/2018	LIEBERT CASSIDY WHITMORE	Legal services	$234.00
		SubObject Total	$36,248.18
GL Obj: 62420	**Publications & Legal Notices**		
08/03/2018	U.S. BANK CORPORATE PAYMENT SYSTEM	Press Banner- Publish public notice 18/19 FY	$24.20
		SubObject Total	$24.20
GL Obj: 62715	**Small Tools & Equipment**		
08/03/2018	U.S. BANK CORPORATE PAYMENT SYSTEM	Amazon- iPhone case- P2580 REI- Jetboil- U2594 Amazon- Jetboil stove fuel canisters- E2537	$197.26
		SubObject Total	$197.26
GL Obj: 62890	**Subscriptions**		
08/03/2018	U.S. BANK CORPORATE PAYMENT SYSTEM	Fleetio- Software subscription	$580.94
		SubObject Total	$580.94
GL Obj: 62914	**Education & Training**		
08/03/2018	U.S. BANK CORPORATE PAYMENT SYSTEM	SJ Airport- OES meeting parking LCW- Seminal PERB case webinar Supply Cache- Pocket guides(50) Helping Hand- AHA CPR cards (8)	$392.95
08/03/2018	SCARBOROUGH LUMBER & BUILDING	Strand BD 4x8	$215.43
08/10/2018	ACTIVE WELLNESS LLC	Yoga- 7/2018	$360.00
08/29/2018	ALICIA WALTON	Fuel Reimbursement- Walton Record retention workshop	$16.38
		SubObject Total	$984.76
GL Obj: 62920	**Gas, Oil & Fuel**		
08/10/2018	FLYERS ENERGY LLC	Fuel/Diesel	$1,560.77
08/23/2018	FLYERS ENERGY LLC	Fuel/Diesel	$581.80
		SubObject Total	$2,142.57
GL Obj: 62930	**Conference Tuition - Registrations**		
08/03/2018	U.S. BANK CORPORATE PAYMENT SYSTEM	Cal Chief's- 2018 Registration Kovacs, McNeil	$600.00
		SubObject Total	$600.00
GL Obj: 63070	**Utilities**		
08/03/2018	U.S. BANK CORPORATE PAYMENT SYSTEM	SV Water District- RW VF2 6/1-6/29/18 Greenwaste- VF1 Trash & Recycle 6/1-6/30/18 Greenwaste- VF2 Trash & Recycle 7/1-9/30/18	$459.15
08/10/2018	PG&E	Gas- VF2 7/6-8/3/18	$49.88
08/10/2018	PG&E	Gas- VF1 7/6-8/3/18	$72.70
08/23/2018	PG&E	Electric- VF1 7/5-8/2/18	$1,269.00

Claim Date	Vendor	Message	Amount
08/23/2018	PG&E	Electric- VF2 7/5-8/2/18	$554.03
		SubObject Total	$2,404.76

GL Obj: 75231 Contributions to Other Agencies

Claim Date	Vendor	Message	Amount
08/23/2018	COUNTY OF SANTA CRUZ - AUDITOR/CONTROLLER	2018/2019 FY LAFCO Fees	$8,697.27
		SubObject Total	$8,697.27
		Index Total	$139,940.47

Claim Date	Vendor	Message	Amount
GL Key: 685020			
GL Obj: 62381 Professional & Specialized Services			
08/10/2018	GROUP 4 ARCHITECTURE RESEARCH & PLANNING	Facilities study	$1,102.87
		SubObject Total	$1,102.87
		Index Total	$1,102.87

CLAIMS BY GL OBJ

09/06/2018

Filter: (Claim Date is between 08/01/2018 and 08/31/2018)(Pre-Approved Excluded)

Claim Date	Vendor	Message		Amount

GL Key: 685040

GL Obj: 61221 Telephone & Telegraph

Claim Date	Vendor	Message		Amount
08/03/2018	U.S. BANK CORPORATE PAYMENT SYSTEM	Verizon- SCHMIT Cellular 6/5-7/4/18		$38.19
			SubObject Total	$38.19

GL Obj: 61730 Maintenance - Other Equipment

Claim Date	Vendor	Message		Amount
08/03/2018	U.S. BANK CORPORATE PAYMENT SYSTEM	Batteries Plus- SCHMIT hazmat battery		$67.57
			SubObject Total	$67.57

GL Obj: 62920 Fuel

Claim Date	Vendor	Message		Amount
08/03/2018	U.S. BANK CORPORATE PAYMENT SYSTEM	7 Eleven- Fuel- E2560		$61.70
			SubObject Total	$61.70
			Index Total	$167.46
			Grand Total	$141,210.80

CLAIMS BY GL OBJ

10/01/2018

Filter: (Claim Date is between 09/01/2018 and 09/30/2018)(Pre-Approved Excluded)

Claim Date	Vendor	Message	Amount
GL Key: 685010			
GL Obj: 53010 Group Health - Dental Insurance			
09/07/2018	CALPERS RETIREMENT SYSTEM	Health Ins.- 9/2018	$51,367.96
09/10/2018	MICHAEL MCMURRY	Retiree Health Ins.- 9/2018	$1,480.29
09/10/2018	MIKE BIDDLE	Retiree Health Ins.- 9/2018	$1,378.37
09/10/2018	MIKE PHINN	Retiree Health Ins.- 9/2018	$447.56
09/10/2018	SAL LOFRANCO	Retiree Health Ins.- 9/2018	$538.18
09/10/2018	JIM DELUCCHI	Retiree Health Ins.- 9/2018 #21 of 30	$776.26
09/12/2018	HEALTH CARE EMPLOYEES/EMPLOYER DENTAL TRUST	Dental Ins.- 10/2018	$5,219.46
09/20/2018	FDAC EBA	Life & Vision Ins.- 10/2018	$1,190.12
09/25/2018	SAL LOFRANCO	Retiree Health Ins.- 10/2018	$538.18
09/25/2018	MICHAEL MCMURRY	Retiree Health Ins.- 10/2018	$1,480.29
09/25/2018	MIKE PHINN	Retiree Health Ins.- 10/2018	$447.56
09/25/2018	MIKE BIDDLE	Retiree Health Ins.- 10/2018	$924.95
09/25/2018	JIM DELUCCHI	Retiree Health Ins.- 10/2018 #22 of 30	$776.26
		SubObject Total	$66,565.44
GL Obj: 61110 Clothing & Personal Supplies			
09/06/2018	U.S. BANK CORPORATE PAYMENT SYSTEM	Redback Boots- Station Boots- Petteys Paul Conway- Helmet Shields Amazon- Helmet Light replacement Amazon- Wolfpack cases (2)	$748.18
09/12/2018	L.N. CURTIS & SONS	Wildland gloves- 22	$1,030.90
09/12/2018	L.N. CURTIS & SONS	Structure gloves- 10	$818.04
09/12/2018	L.N. CURTIS & SONS	Pants- Nehf J.	$206.01
		SubObject Total	$2,803.13
GL Obj: 61125 Uniform Clothing Allowance			
09/06/2018	HOOK-FAST SPECIALTIES, INC	New Hire- Name tags	$90.59
09/06/2018	U.S. BANK CORPORATE PAYMENT SYSTEM	Amazon- Station Belts- N.Owens C.Stubendorff	$71.63
09/06/2018	SPORTS DESIGN	Uniform Replacement- T-shirts, hats, sweatshirts	$7,864.62
09/12/2018	SUMMIT UNIFORMS	Class A Uniform- Kovacs	$527.68
		SubObject Total	$8,554.52
GL Obj: 61215 Radio Services: Dispatch NetCom Fees			
09/06/2018	SILVERADO AVIONICS, INC.	Programming software for mobile radios- 50% split BFPD	$275.09
		SubObject Total	$275.09

CLAIMS BY GL OBJ

10/01/2018

Filter: (Claim Date is between 09/01/2018 and 09/30/2018)(Pre-Approved Excluded)

Claim Date	Vendor	Message	Amount
GL Obj: 61221	**Telephone & Telegraph**		
09/06/2018	U.S. BANK CORPORATE PAYMENT SYSTEM	Comcast- VF1 Internet & phone 7/20-8/19/18 Comcast- VF2 Internet & phone 7/21-8/20/18	$447.96
		SubObject Total	$447.96
GL Obj: 61310	**Food**		
09/06/2018	U.S. BANK CORPORATE PAYMENT SYSTEM	Costco- Coffee, water Denny's- Crew meal- Cranston Fire	$225.66
09/25/2018	STEVE KOVACS	Petty Cash- Pacific Cookie Co.- Refreshments for Badge Pinning	$25.00
09/25/2018	SANDIE EVANS	Reimbursement- Badge Pinning refreshments	$63.91
		SubObject Total	$314.57
GL Obj: 61425	**Household Expense**		
09/06/2018	U.S. BANK CORPORATE PAYMENT SYSTEM	Mid Valley Supply- Cleaning supplies Costco- Station supplies Amazon- Car wash soap (6)	$419.76
09/06/2018	SCARBOROUGH LUMBER & BUILDING	Station supplies	$4.21
		SubObject Total	$423.97
GL Obj: 61720	**Maintenance - Mobile Equipment**		
09/06/2018	U.S. BANK CORPORATE PAYMENT SYSTEM	A Sign- U2595- Vinyl lettering Tehama Tires- E2511- Rear tires Darley- E2537 parts for aux pump Amazon- Earseals (4) Weingartz- Aux pump overcharge credit	$2,384.12
09/06/2018	SCARBOROUGH LUMBER & BUILDING	Blades, Distilled water	$290.36
09/12/2018	WINCHESTER AUTO STORES	Air, fuel filters, car wash, antifreeze Marker assembly, distilled water, lift support	$506.83
09/20/2018	CENTRAL FIRE DISTRICT	E2512- Repairs, replace wheel sensor	$1,216.94
09/20/2018	CENTRAL FIRE DISTRICT	E2510- Complete annual service, repairs	$11,149.76
09/20/2018	GOLDEN STATE EMERGENCY VEHICLE SERVICE	E2512- Headlight switch(3)	$58.96
		SubObject Total	$15,606.97
GL Obj: 61725	**Maintenance - Office Equipment**		
09/20/2018	PAGODA TECHNOLOGIES INC.	Network Printer issues SCO Admin Wireless password issues	$50.00
09/20/2018	PAGODA TECHNOLOGIES INC.	Computer Management- 9/2018	$1,011.12
09/20/2018	PAGODA TECHNOLOGIES INC.	Sonicwall upgrade- VF1 & VF2	$650.00
		SubObject Total	$1,711.12

CLAIMS BY GL OBJ

10/01/2018

Filter: (Claim Date is between 09/01/2018 and 09/30/2018)(Pre-Approved Excluded)

Claim Date	Vendor	Message	Amount
GL Obj: 61730	**Maintenance - Other Equipment**		
09/06/2018	SCARBOROUGH LUMBER & BUILDING	Stihl Impulse hose	$15.24
09/06/2018	U.S. BANK CORPORATE PAYMENT SYSTEM	Costco- Batteries	$124.17
09/20/2018	FAILSAFE TESTING	Ladder Testing- 9/2018	$535.95
		SubObject Total	$675.36
GL Obj: 61845	**Maintenance - Buildings & Grounds**		
09/06/2018	U.S. BANK CORPORATE PAYMENT SYSTEM	Rayne of SC- Monthly water softner exchange	$117.50
09/06/2018	SCARBOROUGH LUMBER & BUILDING	Socket pole, carpet cleaner rental & supplies	$140.80
09/12/2018	PHIL ALLEGRI ELECTRIC, INC.	Replaced kitchen breaker- VF1	$176.97
09/12/2018	PHIL ALLEGRI ELECTRIC, INC.	Remove bad romex in wall- VF1	$474.36
09/20/2018	WESTERN EXTERMINATOR COMPANY	Bug Service- VF2 8/2018	$54.50
09/20/2018	WESTERN EXTERMINATOR COMPANY	Bug Service- VF1 8/2018	$54.50
09/20/2018	GREG BELLOWS PLUMBING INC	HVAC service- VF2	$277.00
09/25/2018	STEVE KOVACS	Petty Cash- BL Transfer Station- Yard waste disposal	$13.00
		SubObject Total	$1,308.63
GL Obj: 61920	**Medical Supplies**		
09/06/2018	U.S. BANK CORPORATE PAYMENT SYSTEM	Analgesic- Oxygen cylinder Amazon- Med kit IFAK pouch	$127.90
09/06/2018	BOUND TREE MEDICAL, LLC	Medical Supplies- Gloves	$1,284.43
		SubObject Total	$1,412.33
GL Obj: 62111	**Miscellaneous Expenses**		
09/06/2018	U.S. BANK CORPORATE PAYMENT SYSTEM	FasTrak- Toll credit, flex toll tag deposit	$85.00
		SubObject Total	$85.00
GL Obj: 62219	**PC Software**		
09/12/2018	AVENZA SYSTEMS INC.	PDF maps for iOS	$693.00
		SubObject Total	$693.00
GL Obj: 62223	**Office Supplies**		
09/06/2018	U.S. BANK CORPORATE PAYMENT SYSTEM	USPS- FasTrak toll tags postage Office Supply- Hanging file folders	$99.18
09/25/2018	STEVE KOVACS	Petty Cash- USPS- Postage	$1.03
09/25/2018	PAGODA TECHNOLOGIES INC.	SonicWall Firewall TZ400- VF1 SonicWall SOHO Wireless- VF2	$1,631.20
09/25/2018	PAGODA TECHNOLOGIES INC.	Cisco 48 Port switch	$883.64
		SubObject Total	$2,615.05

Claim Date	Vendor	Message	Amount
GL Obj: 62301	**Accounting & Auditing Fees**		
09/20/2018	TOTAL COMPENSATION SYSTEMS INC.	GASB 75 Valuation Services- 1st Installment	$855.00
		SubObject Total	$855.00
GL Obj: 62358	**Laundry Service**		
09/12/2018	SCOTTS VALLEY CLEANERS	Dry Cleaning & Alterations- 7/18-8/18	$87.00
		SubObject Total	$87.00
GL Obj: 62367	**Medical Services**		
09/20/2018	EMERYVILLE OCCUPATIONAL MEDICAL CENTER	New Hire Medical Screen	$72.00
09/20/2018	EMERYVILLE OCCUPATIONAL MEDICAL CENTER	New Hire Medical Screen	$72.00
09/20/2018	EMERYVILLE OCCUPATIONAL MEDICAL CENTER	OSHA Respirator Questionnaire Review	$30.00
		SubObject Total	$174.00
GL Obj: 62381	**Professional & Specialized Services**		
09/06/2018	DEPARTMENT OF JUSTICE ACCOUNTING OFFICE CASHIERING UNIT	Live Scans- New hires 18/19 FY	$147.00
09/06/2018	CSG CONSULTANTS, INC.	Fire Plan Review- Dunslee Way, 5030 SV Dr. 1 Hacienda, 904-918 Lundy, 123 S. Navarra 260 Mt.Hermon,12 Blake, 227 Southwood 3505 Bean Creek, 915 Disc Dr.	$1,187.50
09/12/2018	LIEBERT CASSIDY WHITMORE	Legal services	$8,139.75
09/12/2018	LIEBERT CASSIDY WHITMORE	Legal services	$185.00
09/12/2018	LIEBERT CASSIDY WHITMORE	Legal services	$10,515.09
09/25/2018	CSG CONSULTANTS, INC.	Fire Plan Review- Dunslee, 4859 SV Dr. 100 Enterprise, 266 & 260 Mt. Hermon 3100 Bean Creek, Hacienda, 349-359 Skyforest 337-347 Skyforest, 335 & 316 Skyforest 2980 El Rancho, Grove #7	$997.50
		SubObject Total	$21,171.84
GL Obj: 62715	**Small Tools & Equipment**		
09/06/2018	U.S. BANK CORPORATE PAYMENT SYSTEM	Zoro.com- Wolfpack day bag- sawpack	$190.31
		SubObject Total	$190.31
GL Obj: 62888	**District Special Expense**		
09/06/2018	U.S. BANK CORPORATE PAYMENT SYSTEM	Fire Safety- Pub Ed fire helmets (1000)	$800.00
		SubObject Total	$800.00

CLAIMS BY GL OBJ

10/01/2018

Filter: (Claim Date is between 09/01/2018 and 09/30/2018)(Pre-Approved Excluded)

Claim Date	Vendor	Message	Amount
GL Obj: 62914	**Education & Training**		
09/06/2018	U.S. BANK CORPORATE PAYMENT SYSTEM	Lorman- Public Contract & Bidding seminar- Kovacs Cabrillo- Excel & Word course- Evans American Health- Fire Inspector 1B- Vandervoort Jones & Bartlett- Text books- FF1 CA EMS- EMT Renewal- Todd	$1,889.68
09/12/2018	ACTIVE WELLNESS LLC	Yoga- 8/2018	$840.00
		SubObject Total	$2,729.68
GL Obj: 62920	**Gas, Oil & Fuel**		
09/06/2018	U.S. BANK CORPORATE PAYMENT SYSTEM	Shell- Fuel FDAC meeting in Sacramento Chevron- E2537 Fuel Chevron & Shell- Fuel- Cranston Fire	$596.05
09/12/2018	FLYERS ENERGY LLC	Fuel/Diesel	$1,110.32
		SubObject Total	$1,706.37
GL Obj: 62930	**Conference Tuition - Registrations**		
09/06/2018	U.S. BANK CORPORATE PAYMENT SYSTEM	Nor Cal Fire Prevention- FPO meeting Vandervoort	$35.00
		SubObject Total	$35.00
GL Obj: 63070	**Utilities**		
09/06/2018	SCOTTS VALLEY WATER DISTRICT	Water- VF1 FS 6/5-8/3/18	$18.75
09/06/2018	U.S. BANK CORPORATE PAYMENT SYSTEM	Greenwaste- VF1 Trash & Recycle 7/1-7/31/18 SV Water- VF2 RW 6/30-7/31/18	$262.80
09/06/2018	SCOTTS VALLEY WATER DISTRICT	Water- VF2 6/8-8/8/18	$295.34
09/06/2018	SCOTTS VALLEY WATER DISTRICT	Water- VF1 6/5-8/3/18	$367.23
09/06/2018	SCOTTS VALLEY WATER DISTRICT	Water- VF2 FS 6/8-8/8/18	$18.75
09/12/2018	PG&E	Gas- VF1 8/4-9/5/18	$91.57
09/12/2018	PG&E	Gas- VF2 8/4-9/5/18	$73.05
09/20/2018	PG&E	Electric- VF1 8/3-9/4/18	$1,209.33
09/20/2018	PG&E	Electric- VF2 8/3-9/4/18	$512.92
09/25/2018	CITY OF SCOTTS VALLEY	Sewer- VF2 7/15-9/15/18	$119.40
09/25/2018	CITY OF SCOTTS VALLEY	Sewer- VF1 7/15-9/15/18	$142.98
		SubObject Total	$3,112.12
		Index Total	$134,353.46

Claim Date	Vendor	Message	Amount
GL Key: 685040			
	GL Obj: 62219 PC Software		
09/20/2018	RIGHTANSWER.COM, INC.	TOMES Software- 11/15/18-11/14/19	$1,661.94
		SubObject Total	$1,661.94
	GL Obj: 62914 Education & Training		
09/25/2018	STEVE KOVACS	Petty Cash- Peet's Coffee- SCHMIT training	$22.00
		SubObject Total	$22.00
	GL Obj: 62920 Fuel		
09/06/2018	U.S. BANK CORPORATE PAYMENT SYSTEM	Valero- HM2560 fuel	$63.11
		SubObject Total	$63.11
		Index Total	$1,747.05
		Grand Total	$136,100.51

SCOTTS VALLEY HIGH SCHOOL

An International Baccalaureate World School

Dear Chief Kovacs, Captain Vandervoort, and SVFPD, **September 20, 2018**

Thank you for your continued support and advice for Scotts Valley Haunted House over the years and in particular your meeting with us earlier this month to discuss plans. We are in the process of putting together this year's event to run on the nights of October 25, 26, and 27. Prior to these dates, we have our safety training on October 18, our fire drill on October 22, our permit inspection on October 23, and our Preview Night on October 24.

As in past years, we would like to request a fee waiver of $110 from SVFPD for the permit application. All of our proceeds go to the Leukemia & Lymphoma Society.

Warm regards,

Erik Wyner	**Ryan Bariteau**	**Natalie Cellucci**	**Michael Hanson**
Ringleader	*Ringleader*	*Safety Manager*	*SVHS Principal*

RECEIVED
SEP 25 2018
SCOTTS VALLEY FIRE PROTECTION DISTRICT

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

August 2018

Safety Plan of the Scotts Valley Fire Protection District
(CalPERS ID: 4027652040)
Annual Valuation Report as of June 30, 2017

Dear Employer,

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

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

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

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

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

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

Required Contribution

Fiscal Year	Employer Normal Cost Rate	Employer Payment of Unfunded Liability
2019-20	20.073%	$659,149
Projected Results		
2020-21	*21.3%*	*$758,000*

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

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

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

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

Changes since the Prior Year's Valuation

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

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

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

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

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

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

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

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

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

Sincerely,

SCOTT TERANDO
Chief Actuary

Actuarial Valuation
as of June 30, 2017

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

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

Table of Contents

Section 1

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

(CalPERS ID: 4027652040)
(Rate Plan: 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, 2017 which was provided by your agency and the benefit provisions under your contract with CalPERS. Section 2 of this report is based on the member and financial data as of June 30, 2017 provided by employers participating in the 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 Unfunded Accrued Liability amortization bases as of June 30, 2017 and employer contribution as of July 1, 2019, have been properly and accurately determined in accordance with the principles and standards stated above.

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

David Clement

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

Highlights and Executive Summary

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

Introduction

This report presents the results of the June 30, 2017 actuarial valuation of the 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 2019-20.

Purpose of Section 1

This Section 1 report for the Safety Plan of the Scotts Valley Fire Protection District of the California Public Employees' Retirement System (CalPERS) was prepared by the plan actuary in order to:

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

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

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

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

California Actuarial Advisory Panel Recommendations

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

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

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

Required Employer Contributions

		Fiscal Year
Required Employer Contributions		**2019-20**
Employer Normal Cost Rate		**20.073%**
Plus, Either		
1) Monthly Employer Dollar UAL Payment	**$**	**54,929.08**
Or		
2) Annual Lump Sum Prepayment Option	**$**	**636,480**

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

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

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

		Fiscal Year 2018-19		Fiscal Year 2019-20
Development of Normal Cost as a Percentage of Payroll[1]				
Base Total Normal Cost for Formula		26.598%		27.914%
Surcharge for Class 1 Benefits[2]				
a) FAC 1		1.063%		1.145%
Phase out of Normal Cost Difference[3]		0.000%		0.000%
Plan's Total Normal Cost		27.661%		29.059%
Formula's Expected Employee Contribution Rate		8.984%		8.986%
Employer Normal Cost Rate		18.677%		20.073%
Projected Payroll for the Contribution Fiscal Year	$	2,838,522	$	2,688,915
Estimated Employer Contributions Based on Projected Payroll				
Plan's Estimated Employer Normal Cost	$	530,151	$	539,746
Plan's Payment on Amortization Bases[4]		526,104		659,149
% of Projected Payroll (illustrative only)		18.534%		24.514%
Estimated Total Employer Contribution	$	1,056,255	$	1,198,895
% of Projected Payroll (illustrative only)		37.211%		44.587%

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

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

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

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

Plan's Funded Status

		June 30, 2016		June 30, 2017
1. Present Value of Projected Benefits (PVB)	$	41,048,852	$	43,197,490
2. Entry Age Normal Accrued Liability (AL)		36,711,005		39,096,059
3. Plan's Market Value of Assets (MVA)		27,023,432		29,243,555
4. Unfunded Accrued Liability (UAL) [(2) - (3)]		9,687,573		9,852,504
5. Funded Ratio [(3) / (2)]		73.6%		74.8%

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

Projected Employer Contributions

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

	Required Contribution	Projected Future Employer Contributions (Assumes 7.25% Return for Fiscal Year 2017-18)				
Fiscal Year	**2019-20**	**2020-21**	**2021-22**	**2022-23**	**2023-24**	**2024-25**
Normal Cost %	20.073%	21.3%	21.3%	21.3%	21.3%	21.3%
UAL Payment	$659,149	$758,000	$873,000	$969,000	$1,025,000	$1,081,000

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

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

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

Changes since the Prior Year's Valuation

Benefits

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

Actuarial Methods and Assumptions

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

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

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

Subsequent Events

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

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

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

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

Assets and Liabilities

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

Breakdown of Entry Age Normal Accrued Liability

Active Members	$	16,457,746
Transferred Members		2,695,370
Terminated Members		218,156
Members and Beneficiaries Receiving Payments		19,724,787
Total	$	39,096,059

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	$	39,096,059
2.	Projected UAL balance at 6/30/17		10,090,018
3.	Pool's Accrued Liability[1]	$	20,966,498,823
4.	Sum of Pool's Individual Plan UAL Balances at 6/30/17[1]		5,939,788,240
5.	Pool's 2016/17 Investment & Asset (Gain)/Loss		(513,476,842)
6.	Pool's 2016/17 Other (Gain)/Loss		13,232,897
7.	Plan's Share of Pool's Asset (Gain)/Loss [(1) - (2)] / [(3) - (4)] * (5)		(991,164)
8.	Plan's Share of Pool's Other (Gain)/Loss [(1)] / [(3)] * (6)		24,675
9.	Plan's New (Gain)/Loss as of 6/30/2017 [(7) + (8)]	$	(966,488)
10.	Increase in Pool's Accrued Liability due to Change in Assumptions[1]		390,935,533
11.	Plan's Share of Pool's Change in Assumptions [(1)] / [(3)] * (10)	$	728,974

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

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

12.	Plan's UAL [(2) + (9) + (11)]	$	9,852,504
13.	Plan's Share of Pool's MVA [(1) - (12)]	$	**29,243,555**

Schedule of Plan's Amortization Bases

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

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

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

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

								Amounts for Fiscal 2019-20	
Reason for Base	Date Established	Ramp Up/Down 2019-20	Amortization Period	Balance 6/30/17	Payment 2017-18	Balance 6/30/18	Payment 2018-19	Balance 6/30/19	Scheduled Payment for 2019-20
SHARE OF PRE-2013 POOL UAL	06/30/13	No Ramp	18	$3,025,075	$228,686	$3,007,562	$232,711	$2,984,611	$239,038
ASSET (GAIN)/LOSS	06/30/13	100% →	26	$4,208,512	$169,938	$4,337,639	$229,997	$4,413,929	$295,364
NON-ASSET (GAIN)/LOSS	06/30/13	100% →	26	$(255,750)	$(10,327)	$(263,597)	$(13,977)	$(268,233)	$(17,949)
ASSET (GAIN)/LOSS	06/30/14	80% ↗	27	$(2,891,235)	$(79,090)	$(3,018,943)	$(120,346)	$(3,113,184)	$(164,862)
NON-ASSET (GAIN)/LOSS	06/30/14	80% ↗	27	$35,158	$962	$36,711	$1,463	$37,857	$2,005
ASSUMPTION CHANGE	06/30/14	80% ↗	17	$1,922,816	$71,582	$1,988,089	$109,373	$2,018,957	$149,799
ASSET (GAIN)/LOSS	06/30/15	60% ↗	28	$1,682,243	$23,688	$1,779,674	$48,022	$1,858,968	$74,013
NON-ASSET (GAIN)/LOSS	06/30/15	60% ↗	28	$(6,065)	$(85)	$(6,417)	$(173)	$(6,703)	$(267)
ASSET (GAIN)/LOSS	06/30/16	40% ↗	29	$2,078,332	$0	$2,229,011	$30,931	$2,358,582	$63,567
NON-ASSET (GAIN)/LOSS	06/30/16	40% ↗	29	$(334,123)	$0	$(358,347)	$(4,973)	$(379,177)	$(10,219)
ASSUMPTION CHANGE	06/30/16	40% ↗	19	$625,055	$(21,680)	$692,824	$13,074	$729,514	$26,864
ASSET (GAIN)/LOSS	06/30/17	20% ↗	30	$(991,164)	$0	$(1,063,023)	$0	$(1,140,092)	$(15,803)
NON-ASSET (GAIN)/LOSS	06/30/17	20% ↗	30	$24,675	$0	$26,464	$0	$28,383	$393
ASSUMPTION CHANGE	06/30/17	20% ↗	20	$728,974	$(34,227)	$817,271	$(35,211)	$912,988	$17,206
TOTAL				**$9,852,503**	**$349,447**	**$10,204,918**	**$490,891**	**$10,436,400**	**$659,149**

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

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

Amortization Schedule and Alternatives

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

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

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

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

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

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

Amortization Schedule and Alternatives

	Current Amortization Schedule		Alternate Schedules			
			20 Year Amortization		15 Year Amortization	
Date	**Balance**	**Payment**	**Balance**	**Payment**	**Balance**	**Payment**
6/30/2019	10,436,400	659,149	10,436,400	780,007	10,436,400	948,991
6/30/2020	10,510,414	743,137	10,385,252	802,432	10,210,249	976,275
6/30/2021	10,502,814	834,865	10,307,172	825,502	9,939,446	1,004,343
6/30/2022	10,399,670	904,488	10,199,539	849,235	9,619,943	1,033,218
6/30/2023	10,216,943	932,505	10,059,525	873,650	9,247,372	1,062,923
6/30/2024	9,991,955	959,315	9,884,074	898,768	8,817,027	1,093,482
6/30/2025	9,722,890	986,895	9,669,891	924,607	8,323,835	1,124,919
6/30/2026	9,405,756	1,015,268	9,413,420	951,190	7,762,329	1,157,261
6/30/2027	9,036,246	1,044,457	9,110,826	978,537	7,126,620	1,190,532
6/30/2028	8,609,717	1,074,485	8,757,973	1,006,670	6,410,366	1,224,760
6/30/2029	8,121,168	1,105,377	8,350,403	1,035,611	5,606,737	1,259,972
6/30/2030	7,565,207	1,137,156	7,883,312	1,065,385	4,708,379	1,296,196
6/30/2031	6,936,028	1,169,849	7,351,523	1,096,015	3,707,376	1,333,461
6/30/2032	6,227,376	1,149,348	6,749,458	1,127,525	2,595,207	1,371,798
6/30/2033	5,488,578	1,126,700	6,071,110	1,159,942	1,362,704	1,411,238
6/30/2034	4,719,671	1,081,252	5,310,012	1,193,290		
6/30/2035	3,942,085	1,005,180	4,459,198	1,227,597		
6/30/2036	3,186,905	923,841	3,511,171	1,262,891		
6/30/2037	2,461,212	501,223	2,457,861	1,299,199		
6/30/2038	2,120,575	463,135	1,290,585	1,336,551		
6/30/2039	1,794,687	446,120				
6/30/2040	1,462,792	458,946				
6/30/2041	1,093,553	368,632				
6/30/2042	791,074	350,886				
6/30/2043	485,044	283,279				
6/30/2044	226,841	157,316				
6/30/2045	80,369	56,074				
6/30/2046	28,125	29,126				
6/30/2047						
6/30/2048						
Totals		**20,968,006**		**20,694,602**		**17,489,367**
Interest Paid		**10,531,605**		**10,258,202**		**7,052,967**
Estimated Savings				**273,403**		**3,478,638**

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

Employer Contribution History

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

Fiscal Year	Employer Normal Cost	Unfunded Liability Payment ($)
2016 - 17	17.689%	$322,155
2017 - 18	17.875%	$405,353
2018 - 19	18.677%	$526,104
2019 - 20	20.073%	$659,149

Funding History

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

Valuation Date	Accrued Liability (AL)	Share of Pool's Market Value of Assets (MVA)	Plan's Share of Pool's Unfunded Liability	Funded Ratio	Annual Covered Payroll
06/30/2011	$ 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

Risk Analysis

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

Analysis of Future Investment Return Scenarios

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

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

The alternate investment returns were chosen based on stochastic analysis of possible future investment returns over the four-year period ending June 30, 2021. Using the expected returns and volatility of the asset classes in which the funds are invested, we produced five thousand stochastic outcomes for this period based on the recently completed Asset Liability Management process. We then selected annual returns that approximate the 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 percent of them had an average annual return of 4.0 percent or less.

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

Assumed Annual Return From 2018-19 through 2020-21	Projected Employer Contributions			
	2020-21	2021-22	2022-23	2023-24
1.0%				
Normal Cost	21.3%	21.3%	21.3%	21.3%
UAL Contribution	$758,000	$902,000	$1,057,000	$1,204,000
4.0%				
Normal Cost	21.3%	21.3%	21.3%	21.3%
UAL Contribution	$758,000	$888,000	$1,013,000	$1,116,000
7.0%				
Normal Cost	21.3%	21.3%	21.3%	21.3%
UAL Contribution	$758,000	$873,000	$969,000	$1,025,000
9.0%				
Normal Cost	21.3%	21.7%	22.1%	22.4%
UAL Contribution	$758,000	$865,000	$945,000	$979,000
12.0%				
Normal Cost	21.3%	21.7%	22.1%	22.4%
UAL Contribution	$758,000	$850,000	$900,000	$883,000

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

Analysis of Discount Rate Sensitivity

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

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

Sensitivity Analysis				
As of June 30, 2017	**Plan's Total Normal Cost**	**Accrued Liability**	**Unfunded Accrued Liability**	**Funded Status**
7.25% (current discount rate)	29.059%	$39,096,059	$9,852,504	74.8%
6.0%	37.923%	$45,567,281	$16,323,726	64.2%
7.0%	30.278%	$40,189,354	$10,945,799	72.8%
8.0%	24.428%	$35,736,386	$6,492,831	81.8%

Volatility Ratios

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

Asset Volatility Ratio (AVR)

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

Liability Volatility Ratio (LVR)

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

Rate Volatility		As of June 30, 2017
1. Market Value of Assets	$	29,243,555
2. Payroll		2,469,719
3. Asset Volatility Ratio (AVR) [(1) / (2)]		11.8
4. Accrued Liability	$	39,096,059
5. Liability Volatility Ratio (LVR) [(4) / (2)]		15.8
6. Accrued Liability (7.00% discount rate)		40,189,354
7. Projected Liability Volatility Ratio [(6) / (2)]		16.3

Hypothetical Termination Liability

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

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

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

Market Value of Assets (MVA)	Hypothetical Termination Liability[1,2] @ 1.75%	Funded Status	Unfunded Termination Liability @ 1.75%	Hypothetical Termination Liability[1,2] @ 3.00%	Funded Status	Unfunded Termination Liability @ 3.00%
$29,243,555	$81,115,272	36.1%	$51,871,717	$72,980,977	40.1%	$43,737,421

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

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

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

Participant Data

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

	June 30, 2016	June 30, 2017
Reported Payroll	$ 2,597,650	$ 2,469,719
Projected Payroll for Contribution Purposes	$ 2,838,522	$ 2,688,915
Number of Members		
Active	22	20
Transferred	8	10
Separated	2	2
Retired	26	26

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

Plan's Major Benefit Options

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

	Contract package		
Benefit Provision	Active Fire	Receiving Fire	
Benefit Formula	3.0% @ 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	Yes		
Pre-Retirement Death Benefits			
Optional Settlement 2	Yes		
1959 Survivor Benefit Level	Indexed		
Special	Yes		
Alternate (firefighters)	No	No	
Post-Retirement Death Benefits			
Lump Sum	$500	$500	
Survivor Allowance (PRSA)	No	No	
COLA	2%	2%	

Section 2

CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

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

CalPERS

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

August 2018

PEPRA Safety Fire Plan of the Scotts Valley Fire Protection District
(CalPERS ID: 4027652040)
Annual Valuation Report as of June 30, 2017

Dear Employer,

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

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

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

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

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

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

Required Contribution

Fiscal Year	Employer Normal Cost Rate	Employer Payment of Unfunded Liability
2019-20	13.034%	$5,047
Projected Results		
2020-21	*13.1%*	*$5,500*

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

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

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

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

Changes since the Prior Year's Valuation

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

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

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

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

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

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

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

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

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

Sincerely,

SCOTT TERANDO
Chief Actuary

CalPERS

Actuarial Valuation as of June 30, 2017

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

(CalPERS ID: 4027652040)

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

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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: 25848)

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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, 2017 which was provided by your agency and the benefit provisions under your contract with CalPERS. Section 2 of this report is based on the member and financial data as of June 30, 2017 provided by employers participating in the 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 Unfunded Accrued Liability amortization bases as of June 30, 2017 and employer contribution as of July 1, 2019, have been properly and accurately determined in accordance with the principles and standards stated above.

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

David Clement

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

Highlights and Executive Summary

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

Introduction

This report presents the results of the June 30, 2017 actuarial valuation of the 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 2019-20.

Purpose of Section 1

This Section 1 report for the PEPRA Safety Fire Plan of the Scotts Valley Fire Protection District of the California Public Employees' Retirement System (CalPERS) was prepared by the plan actuary in order to:

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

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

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

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

California Actuarial Advisory Panel Recommendations

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

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

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

Required Employer Contributions

		Fiscal Year
Required Employer Contributions		**2019-20**
Employer Normal Cost Rate		**13.034%**
Plus, Either		
1) Monthly Employer Dollar UAL Payment	**$**	**420.55**
Or		
2) Annual Lump Sum Prepayment Option	**$**	**4,873**

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

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

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

		Fiscal Year 2018-19		Fiscal Year 2019-20
Development of Normal Cost as a Percentage of Payroll[1]				
Base Total Normal Cost for Formula		24.141%		25.034%
Surcharge for Class 1 Benefits[2]				
None		0.000%		0.000%
Phase out of Normal Cost Difference[3]		0.000%		0.000%
Plan's Total Normal Cost		24.141%		25.034%
Plan's Employee Contribution Rate		12.000%		12.000%
Employer Normal Cost Rate		12.141%		13.034%
Projected Payroll for the Contribution Fiscal Year	$	256,339	$	472,001
Estimated Employer Contributions Based on Projected Payroll				
Plan's Estimated Employer Normal Cost	$	31,122	$	61,521
Plan's Payment on Amortization Bases[4]		2,057		5,047
% of Projected Payroll (illustrative only)		0.802%		1.069%
Estimated Total Employer Contribution	$	33,179	$	66,568
% of Projected Payroll (illustrative only)		12.943%		14.103%

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

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

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

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

Plan's Funded Status

		June 30, 2016		June 30, 2017
1. Present Value of Projected Benefits (PVB)	$	906,283	$	1,760,539
2. Entry Age Normal Accrued Liability (AL)		59,319		156,005
3. Plan's Market Value of Assets (MVA)		54,979		151,473
4. Unfunded Accrued Liability (UAL) [(2) - (3)]		4,340		4,532
5. Funded Ratio [(3) / (2)]		92.7%		97.1%

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

Projected Employer Contributions

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

	Required Contribution	Projected Future Employer Contributions (Assumes 7.25% Return for Fiscal Year 2017-18)				
Fiscal Year	**2019-20**	**2020-21**	**2021-22**	**2022-23**	**2023-24**	**2024-25**
Normal Cost %	13.034%	13.1%	13.1%	13.1%	13.1%	13.1%
UAL Payment	$5,047	$5,500	$6,000	$6,500	$1,400	$1,800

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

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

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

Changes since the Prior Year's Valuation

Benefits

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

Actuarial Methods and Assumptions

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

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

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

Subsequent Events

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

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

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

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

Assets and Liabilities

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

Breakdown of Entry Age Normal Accrued Liability

Active Members	$	156,005
Transferred Members		0
Terminated Members		0
Members and Beneficiaries Receiving Payments		0
Total	$	156,005

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	$	156,005
2.	Projected UAL balance at 6/30/17		6,629
3.	Pool's Accrued Liability[1]	$	20,966,498,823
4.	Sum of Pool's Individual Plan UAL Balances at 6/30/17[1]		5,939,788,240
5.	Pool's 2016/17 Investment & Asset (Gain)/Loss		(513,476,842)
6.	Pool's 2016/17 Other (Gain)/Loss		13,232,897
7.	Plan's Share of Pool's Asset (Gain)/Loss [(1) - (2)] / [(3) - (4)] * (5)		(5,104)
8.	Plan's Share of Pool's Other (Gain)/Loss [(1)] / [(3)] * (6)		98
9.	Plan's New (Gain)/Loss as of 6/30/2017 [(7) + (8)]	$	(5,006)
10.	Increase in Pool's Accrued Liability due to Change in Assumptions[1]		390,935,533
11.	Plan's Share of Pool's Change in Assumptions [(1)] / [(3)] * (10)	$	2,909

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

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

12.	Plan's UAL [(2) + (9) + (11)]	$	4,532
13.	Plan's Share of Pool's MVA [(1) - (12)]	$	**151,473**

Schedule of Plan's Amortization Bases

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

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

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

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

								Amounts for Fiscal 2019-20	
Reason for Base	Date Established	Ramp Up/Down 2019-20	Amortization Period	Balance 6/30/17	Payment 2017-18	Balance 6/30/18	Payment 2018-19	Balance 6/30/19	Scheduled Payment for 2019-20
FRESH START	06/30/17	No Ramp	4	$4,532	$(7,966)	$13,110	$(4,124)	$18,331	$5,047
TOTAL				**$4,532**	**$(7,966)**	**$13,110**	**$(4,124)**	**$18,331**	**$5,047**

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

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

Amortization Schedule and Alternatives

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

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

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

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

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

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

Amortization Schedule and Alternatives

	Current Amortization Schedule		Alternate Schedules			
			0 Year Amortization		0 Year Amortization	
Date	**Balance**	**Payment**	**Balance**	**Payment**	**Balance**	**Payment**
6/30/2019	18,331	5,047	N/A	N/A	N/A	N/A
6/30/2020	14,434	5,192				
6/30/2021	10,104	5,341				
6/30/2022	5,305	5,494				
6/30/2023						
6/30/2024						
6/30/2025						
6/30/2026						
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6/30/2044						
6/30/2045						
6/30/2046						
6/30/2047						
6/30/2048						
Totals		**21,074**		**N/A**		**N/A**
Interest Paid		**2,742**		**N/A**		**N/A**
Estimated Savings				**N/A**		**N/A**

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

Employer Contribution History

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

Fiscal Year	Employer Normal Cost	Unfunded Liability Payment ($)
2017 - 18	11.990%	$0
2018 - 19	12.141%	$2,057
2019 - 20	13.034%	$5,047

Funding History

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

Valuation Date	Accrued Liability (AL)	Share of Pool's Market Value of Assets (MVA)	Plan's Share of Pool's Unfunded Liability	Funded Ratio	Annual Covered Payroll
06/30/2015	$ 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

Risk Analysis

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

Analysis of Future Investment Return Scenarios

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

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

The alternate investment returns were chosen based on stochastic analysis of possible future investment returns over the four-year period ending June 30, 2021. Using the expected returns and volatility of the asset classes in which the funds are invested, we produced five thousand stochastic outcomes for this period based on the recently completed Asset Liability Management process. We then selected annual returns that approximate the 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 percent of them had an average annual return of 4.0 percent or less.

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

Assumed Annual Return From 2018-19 through 2020-21	**Projected Employer Contributions**			
	2020-21	**2021-22**	**2022-23**	**2023-24**
1.0%				
Normal Cost	13.1%	13.1%	13.1%	13.1%
UAL Contribution	$5,500	$6,100	$6,900	$2,400
4.0%				
Normal Cost	13.1%	13.1%	13.1%	13.1%
UAL Contribution	$5,500	$6,000	$6,700	$1,900
7.0%				
Normal Cost	13.1%	13.1%	13.1%	13.1%
UAL Contribution	$5,500	$6,000	$6,500	$1,400
9.0%				
Normal Cost	13.1%	13.4%	13.7%	14.0%
UAL Contribution	$5,500	$5,900	$6,400	$1,200
12.0%				
Normal Cost	13.1%	13.4%	13.7%	14.0%
UAL Contribution	$5,500	$5,900	$1,900	$0

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

Analysis of Discount Rate Sensitivity

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

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

Sensitivity Analysis				
As of June 30, 2017	**Plan's Total Normal Cost**	**Accrued Liability**	**Unfunded Accrued Liability**	**Funded Status**
7.25% (current discount rate)	25.034%	$156,005	$4,532	97.1%
6.0%	32.466%	$199,474	$48,001	75.9%
7.0%	26.066%	$162,249	$10,776	93.4%
8.0%	21.181%	$132,938	$(18,535)	113.9%

Volatility Ratios

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

Asset Volatility Ratio (AVR)

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

Liability Volatility Ratio (LVR)

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

Rate Volatility		As of June 30, 2017
1. Market Value of Assets	$	151,473
2. Payroll		433,524
3. Asset Volatility Ratio (AVR) [(1) / (2)]		0.3
4. Accrued Liability	$	156,005
5. Liability Volatility Ratio (LVR) [(4) / (2)]		0.4
6. Accrued Liability (7.00% discount rate)		162,249
7. Projected Liability Volatility Ratio [(6) / (2)]		0.4

Hypothetical Termination Liability

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

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

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

Market Value of Assets (MVA)	Hypothetical Termination Liability[1,2] @ 1.75%	Funded Status	Unfunded Termination Liability @ 1.75%	Hypothetical Termination Liability[1,2] @ 3.00%	Funded Status	Unfunded Termination Liability @ 3.00%
$151,473	$337,586	44.9%	$186,112	$256,118	59.1%	$104,645

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

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

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

Participant Data

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

	June 30, 2016	June 30, 2017
Reported Payroll	$ 234,586	$ 433,524
Projected Payroll for Contribution Purposes	$ 256,339	$ 472,001
Number of Members		
Active	3	5
Transferred	0	0
Separated	0	0
Retired	0	0

List of Class 1 Benefit Provisions

This plan has the additional Class 1 Benefit Provisions:

- None

Plan's Major Benefit Options

Plan's Major Benefit Options

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

	Contract package	
Benefit Provision	Active Fire	
Benefit Formula	2.7% @ 57	
Social Security Coverage	No	
Full/Modified	Full	
Employee Contribution Rate	12.00%	
Final Average Compensation Period	Three Year	
Sick Leave Credit	Yes	
Non-Industrial Disability	Standard	
Industrial Disability	Yes	
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%	

Section 2

CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

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

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

August 2018

Miscellaneous Plan of the Scotts Valley Fire Protection District
(CalPERS ID: 4027652040)
Annual Valuation Report as of June 30, 2017

Dear Employer,

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

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

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

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

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

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

Required Contribution

Fiscal Year	Employer Normal Cost Rate	Employer Payment of Unfunded Liability
2019-20	10.221%	$16,476
Projected Results		
2020-21	*10.9%*	*$17,000*

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

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

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

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

Changes since the Prior Year's Valuation

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

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

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

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

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

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

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

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

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

Sincerely,

SCOTT TERANDO
Chief Actuary

Actuarial Valuation as of June 30, 2017

for the Miscellaneous Plan of the Scotts Valley Fire Protection District

(CalPERS ID: 4027652040)

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

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

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

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

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

David Clement

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

Highlights and Executive Summary

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

Introduction

This report presents the results of the June 30, 2017 actuarial valuation of the Miscellaneous Plan of the Scotts Valley Fire Protection District of the California Public Employees' Retirement System (CalPERS). This actuarial valuation sets the required employer contributions for Fiscal Year 2019-20.

Purpose of Section 1

This Section 1 report for the Miscellaneous Plan of the Scotts Valley Fire Protection District of the California Public Employees' Retirement System (CalPERS) was prepared by the plan actuary in order to:

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

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

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

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

California Actuarial Advisory Panel Recommendations

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

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

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

Required Employer Contributions

		Fiscal Year
Required Employer Contributions		**2019-20**
Employer Normal Cost Rate		**10.221%**
Plus, Either		
1) Monthly Employer Dollar UAL Payment	**$**	**1,372.97**
Or		
2) Annual Lump Sum Prepayment Option	**$**	**15,909**

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

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

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

		Fiscal Year 2018-19		Fiscal Year 2019-20
Development of Normal Cost as a Percentage of Payroll[1]				
Base Total Normal Cost for Formula		15.794%		16.586%
Surcharge for Class 1 Benefits[2]				
a) FAC 1		0.517%		0.541%
Phase out of Normal Cost Difference[3]		0.000%		0.000%
Plan's Total Normal Cost		16.311%		17.127%
Formula's Expected Employee Contribution Rate		6.902%		6.906%
Employer Normal Cost Rate		9.409%		10.221%
Projected Payroll for the Contribution Fiscal Year	$	101,736	$	106,968
Estimated Employer Contributions Based on Projected Payroll				
Plan's Estimated Employer Normal Cost	$	9,572	$	10,933
Plan's Payment on Amortization Bases[4]		12,435		16,476
% of Projected Payroll (illustrative only)		12.223%		15.402%
Estimated Total Employer Contribution	$	22,007	$	27,409
% of Projected Payroll (illustrative only)		21.632%		25.623%

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

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

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

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

Plan's Funded Status

		June 30, 2016		June 30, 2017
1. Present Value of Projected Benefits (PVB)	$	801,943	$	893,103
2. Entry Age Normal Accrued Liability (AL)		673,254		739,373
3. Plan's Market Value of Assets (MVA)		493,089		562,619
4. Unfunded Accrued Liability (UAL) [(2) - (3)]		180,165		176,754
5. Funded Ratio [(3) / (2)]		73.2%		76.1%

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

Projected Employer Contributions

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

	Required Contribution	Projected Future Employer Contributions (Assumes 7.25% Return for Fiscal Year 2017-18)				
Fiscal Year	**2019-20**	**2020-21**	**2021-22**	**2022-23**	**2023-24**	**2024-25**
Normal Cost %	10.221%	10.9%	10.9%	10.9%	10.9%	10.9%
UAL Payment	$16,476	$17,000	$18,000	$19,000	$20,000	$21,000

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

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

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

Changes since the Prior Year's Valuation

Benefits

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

Actuarial Methods and Assumptions

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

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

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

Subsequent Events

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

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

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

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

Assets and Liabilities

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

Breakdown of Entry Age Normal Accrued Liability

Active Members	$	313,325
Transferred Members		0
Terminated Members		55,016
Members and Beneficiaries Receiving Payments		371,032
Total	$	739,373

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	$	739,373
2.	Projected UAL balance at 6/30/17		184,940
3.	Pool's Accrued Liability[1]	$	15,780,998,593
4.	Sum of Pool's Individual Plan UAL Balances at 6/30/17[1]		3,912,002,885
5.	Pool's 2016/17 Investment & Asset (Gain)/Loss		(413,206,167)
6.	Pool's 2016/17 Other (Gain)/Loss		(21,126,605)
7.	Plan's Share of Pool's Asset (Gain)/Loss [(1) - (2)] / [(3) - (4)] * (5)		(19,302)
8.	Plan's Share of Pool's Other (Gain)/Loss [(1)] / [(3)] * (6)		(990)
9.	Plan's New (Gain)/Loss as of 6/30/2017 [(7) + (8)]	$	(20,292)
10.	Increase in Pool's Accrued Liability due to Change in Assumptions[1]		258,379,047
11.	Plan's Share of Pool's Change in Assumptions [(1)] / [(3)] * (10)	$	12,106

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

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

12.	Plan's UAL [(2) + (9) + (11)]	$	176,754
13.	Plan's Share of Pool's MVA [(1) - (12)]	$	**562,619**

Schedule of Plan's Amortization Bases

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

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

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

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

								Amounts for Fiscal 2019-20	
Reason for Base	**Date Established**	**Ramp Up/Down 2019-20**	**Amortization Period**	**Balance 6/30/17**	**Payment 2017-18**	**Balance 6/30/18**	**Payment 2018-19**	**Balance 6/30/19**	**Scheduled Payment for 2019-20**
FRESH START	06/30/17	No Ramp	15	$176,754	$9,027	$180,220	$11,682	$181,188	$16,476
TOTAL				**$176,754**	**$9,027**	**$180,220**	**$11,682**	**$181,188**	**$16,476**

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

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

Amortization Schedule and Alternatives

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

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

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

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

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

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

Amortization Schedule and Alternatives

	Current Amortization Schedule		Alternate Schedules			
			10 Year Amortization		5 Year Amortization	
Date	Balance	Payment	Balance	Payment	Balance	Payment
6/30/2019	181,188	16,476	181,188	22,471	181,188	40,717
6/30/2020	177,262	16,949	171,053	23,117	152,156	41,888
6/30/2021	172,560	17,437	159,514	23,781	119,808	43,092
6/30/2022	167,013	17,938	146,450	24,465	83,867	44,331
6/30/2023	160,545	18,454	131,732	25,169	44,037	45,606
6/30/2024	153,074	18,984	115,217	25,892		
6/30/2025	144,511	19,530	96,756	26,637		
6/30/2026	134,763	20,091	76,186	27,402		
6/30/2027	123,726	20,669	53,331	28,190		
6/30/2028	111,291	21,263	28,003	29,001		
6/30/2029	97,339	21,875				
6/30/2030	81,743	22,503				
6/30/2031	64,364	23,150				
6/30/2032	45,056	23,816				
6/30/2033	23,658	24,501				
6/30/2034						
6/30/2035						
6/30/2036						
6/30/2037						
6/30/2038						
6/30/2039						
6/30/2040						
6/30/2041						
6/30/2042						
6/30/2043						
6/30/2044						
6/30/2045						
6/30/2046						
6/30/2047						
6/30/2048						
Totals		**303,635**		**256,125**		**215,635**
Interest Paid		**122,448**		**74,937**		**34,447**
Estimated Savings				**47,511**		**88,001**

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

Employer Contribution History

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

Fiscal Year	Employer Normal Cost	Unfunded Liability Payment ($)
2016 - 17	8.880%	$8,629
2017 - 18	8.921%	$10,186
2018 - 19	9.409%	$12,435
2019 - 20	10.221%	$16,476

Funding History

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

Valuation Date	Accrued Liability (AL)	Share of Pool's Market Value of Assets (MVA)	Plan's Share of Pool's Unfunded Liability	Funded Ratio	Annual Covered Payroll
06/30/2011	$ 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

Risk Analysis

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

Analysis of Future Investment Return Scenarios

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

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

The alternate investment returns were chosen based on stochastic analysis of possible future investment returns over the four-year period ending June 30, 2021. Using the expected returns and volatility of the asset classes in which the funds are invested, we produced five thousand stochastic outcomes for this period based on the recently completed Asset Liability Management process. We then selected annual returns that approximate the 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 percent of them had an average annual return of 4.0 percent or less.

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

Assumed Annual Return From 2018-19 through 2020-21	Projected Employer Contributions			
	2020-21	2021-22	2022-23	2023-24
1.0%				
Normal Cost	10.9%	10.9%	10.9%	10.9%
UAL Contribution	$17,000	$19,000	$21,000	$24,000
4.0%				
Normal Cost	10.9%	10.9%	10.9%	10.9%
UAL Contribution	$17,000	$18,000	$20,000	$22,000
7.0%				
Normal Cost	10.9%	10.9%	10.9%	10.9%
UAL Contribution	$17,000	$18,000	$19,000	$20,000
9.0%				
Normal Cost	10.9%	11.1%	11.3%	11.6%
UAL Contribution	$17,000	$18,000	$19,000	$19,000
12.0%				
Normal Cost	10.9%	11.1%	11.3%	11.6%
UAL Contribution	$17,000	$18,000	$18,000	$17,000

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

Analysis of Discount Rate Sensitivity

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

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

Sensitivity Analysis				
As of June 30, 2017	**Plan's Total Normal Cost**	**Accrued Liability**	**Unfunded Accrued Liability**	**Funded Status**
7.25% (current discount rate)	17.127%	$739,373	$176,754	76.1%
6.0%	22.183%	$880,118	$317,499	63.9%
7.0%	17.812%	$761,534	$198,915	73.9%
8.0%	14.463%	$665,079	$102,460	84.6%

Volatility Ratios

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

Asset Volatility Ratio (AVR)

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

Liability Volatility Ratio (LVR)

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

Rate Volatility		As of June 30, 2017
1. Market Value of Assets	$	562,619
2. Payroll		98,248
3. Asset Volatility Ratio (AVR) [(1) / (2)]		5.7
4. Accrued Liability	$	739,373
5. Liability Volatility Ratio (LVR) [(4) / (2)]		7.5
6. Accrued Liability (7.00% discount rate)		761,534
7. Projected Liability Volatility Ratio [(6) / (2)]		7.8

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

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

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

Market Value of Assets (MVA)	Hypothetical Termination Liability[1,2] @ 1.75%	Funded Status	Unfunded Termination Liability @ 1.75%	Hypothetical Termination Liability[1,2] @ 3.00%	Funded Status	Unfunded Termination Liability @ 3.00%
$562,619	$1,417,921	39.7%	$855,302	$1,216,045	46.3%	$653,426

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

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

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

Participant Data

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

	June 30, 2016	June 30, 2017
Reported Payroll	$ 93,102	$ 98,248
Projected Payroll for Contribution Purposes	$ 101,736	$ 106,968
Number of Members		
Active	2	2
Transferred	0	0
Separated	1	1
Retired	1	1

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

Plan's Major Benefit Options

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

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

Section 2

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

CalPERS

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

August 2018

PEPRA Miscellaneous Plan of the Scotts Valley Fire Protection District
(CalPERS ID: 4027652040)
Annual Valuation Report as of June 30, 2017

Dear Employer,

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

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

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

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

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

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

Required Contribution

Fiscal Year	Employer Normal Cost Rate	Employer Payment of Unfunded Liability
2019-20	6.985%	$737
Projected Results		
2020-21	*7.5%*	*$160*

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

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

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

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

Changes since the Prior Year's Valuation

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

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

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

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

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

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

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

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

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

Sincerely,

SCOTT TERANDO
Chief Actuary

Actuarial Valuation
as of June 30, 2017

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

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

Table of Contents

Section 1

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

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

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

As set forth in Section 2 of this report, the pool actuaries have certified that, in their opinion, the valuation of the risk pool containing your 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 Unfunded Accrued Liability amortization bases as of June 30, 2017 and employer contribution as of July 1, 2019, have been properly and accurately determined in accordance with the principles and standards stated above.

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

David Clement

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

Highlights and Executive Summary

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

Introduction

This report presents the results of the June 30, 2017 actuarial valuation of the 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 2019-20.

Purpose of Section 1

This Section 1 report for the PEPRA Miscellaneous Plan of the Scotts Valley Fire Protection District of the California Public Employees' Retirement System (CalPERS) was prepared by the plan actuary in order to:

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

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

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

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

California Actuarial Advisory Panel Recommendations

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

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

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

Required Employer Contributions

		Fiscal Year
Required Employer Contributions		**2019-20**
Employer Normal Cost Rate		**6.985%**
Plus, Either		
1) Monthly Employer Dollar UAL Payment	**$**	**61.40**
Or		
2) Annual Lump Sum Prepayment Option	**$**	**712**

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

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

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

		Fiscal Year 2018-19		Fiscal Year 2019-20
Development of Normal Cost as a Percentage of Payroll[1]				
Base Total Normal Cost for Formula		13.092%		13.735%
Surcharge for Class 1 Benefits[2]				
None		0.000%		0.000%
Phase out of Normal Cost Difference[3]		0.000%		0.000%
Plan's Total Normal Cost		13.092%		13.735%
Plan's Employee Contribution Rate		6.250%		6.750%
Employer Normal Cost Rate		6.842%		6.985%
Projected Payroll for the Contribution Fiscal Year	$	80,727	$	47,148
Estimated Employer Contributions Based on Projected Payroll				
Plan's Estimated Employer Normal Cost	$	5,523	$	3,293
Plan's Payment on Amortization Bases[4]		1,759		737
% of Projected Payroll (illustrative only)		2.179%		1.563%
Estimated Total Employer Contribution	$	7,282	$	4,030
% of Projected Payroll (illustrative only)		9.021%		8.547%

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

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

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

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

Plan's Funded Status

		June 30, 2016		June 30, 2017
1. Present Value of Projected Benefits (PVB)	$	92,363	$	71,909
2. Entry Age Normal Accrued Liability (AL)		8,943		746
3. Plan's Market Value of Assets (MVA)		8,091		(521)
4. Unfunded Accrued Liability (UAL) [(2) - (3)]		852		1,267
5. Funded Ratio [(3) / (2)]		90.5%		(69.9%)

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

Projected Employer Contributions

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

	Required Contribution	Projected Future Employer Contributions (Assumes 7.25% Return for Fiscal Year 2017-18)				
Fiscal Year	**2019-20**	**2020-21**	**2021-22**	**2022-23**	**2023-24**	**2024-25**
Normal Cost %	6.985%	7.5%	7.5%	7.5%	7.5%	7.5%
UAL Payment	$737	$160	$130	$110	$93	$78

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

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

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

Changes since the Prior Year's Valuation

Benefits

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

Actuarial Methods and Assumptions

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

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

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

Subsequent Events

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

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

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

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

Assets and Liabilities

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

Breakdown of Entry Age Normal Accrued Liability

Active Members	$	746
Transferred Members		0
Terminated Members		0
Members and Beneficiaries Receiving Payments		0
Total	$	746

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	$	746
2.	Projected UAL balance at 6/30/17		746
3.	Pool's Accrued Liability[1]	$	15,780,998,593
4.	Sum of Pool's Individual Plan UAL Balances at 6/30/17[1]		3,912,002,885
5.	Pool's 2016/17 Investment & Asset (Gain)/Loss		(413,206,167)
6.	Pool's 2016/17 Other (Gain)/Loss		(21,126,605)
7.	Plan's Share of Pool's Asset (Gain)/Loss [(1) - (2)] / [(3) - (4)] * (5)		0
8.	Plan's Share of Pool's Other (Gain)/Loss [(1)] / [(3)] * (6)		(1)
9.	Plan's New (Gain)/Loss as of 6/30/2017 [(7) + (8)]	$	(1)
10.	Increase in Pool's Accrued Liability due to Change in Assumptions[1]		258,379,047
11.	Plan's Share of Pool's Change in Assumptions [(1)] / [(3)] * (10)	$	12

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

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

12.	Plan's UAL [(2) + (9) + (11)]	$	1,267
13.	Plan's Share of Pool's MVA [(1) - (12)]	$	**(521)**

Schedule of Plan's Amortization Bases

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

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

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

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

								Amounts for Fiscal 2019-20	
Reason for Base	Date Established	Ramp Up/Down 2019-20	Amortization Period	Balance 6/30/17	Payment 2017-18	Balance 6/30/18	Payment 2018-19	Balance 6/30/19	Scheduled Payment for 2019-20
FRESH START	06/30/17	No Ramp	1	$1,267	$(659)	$2,041	$1,427	$712	$737
TOTAL				**$1,267**	**$(659)**	**$2,041**	**$1,427**	**$712**	**$737**

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

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

Amortization Schedule and Alternatives

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

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

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

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

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

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

Amortization Schedule and Alternatives

	Current Amortization Schedule		Alternate Schedules			
			0 Year Amortization		0 Year Amortization	
Date	**Balance**	**Payment**	**Balance**	**Payment**	**Balance**	**Payment**
6/30/2019	711	736	N/A	N/A	N/A	N/A
6/30/2020						
6/30/2021						
6/30/2022						
6/30/2023						
6/30/2024						
6/30/2025						
6/30/2026						
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6/30/2044						
6/30/2045						
6/30/2046						
6/30/2047						
6/30/2048						
Totals		**736**		**N/A**		**N/A**
Interest Paid		**25**		**N/A**		**N/A**
Estimated Savings				**N/A**		**N/A**

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

Employer Contribution History

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

Fiscal Year	Employer Normal Cost	Unfunded Liability Payment ($)
2017 - 18	6.533%	$3
2018 - 19	6.842%	$1,759
2019 - 20	6.985%	$737

Funding History

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

Valuation Date		Accrued Liability (AL)		Share of Pool's Market Value of Assets (MVA)		Plan's Share of Pool's Unfunded Liability	Funded Ratio		Annual Covered Payroll
06/30/2015	$	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

Risk Analysis

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

Analysis of Future Investment Return Scenarios

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

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

The alternate investment returns were chosen based on stochastic analysis of possible future investment returns over the four-year period ending June 30, 2021. Using the expected returns and volatility of the asset classes in which the funds are invested, we produced five thousand stochastic outcomes for this period based on the recently completed Asset Liability Management process. We then selected annual returns that approximate the 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 percent of them had an average annual return of 4.0 percent or less.

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

Assumed Annual Return From 2018-19 through 2020-21	Projected Employer Contributions			
	2020-21	2021-22	2022-23	2023-24
1.0%				
Normal Cost	7.5%	7.5%	7.5%	7.5%
UAL Contribution	$160	$120	$95	$71
4.0%				
Normal Cost	7.5%	7.5%	7.5%	7.5%
UAL Contribution	$160	$130	$100	$81
7.0%				
Normal Cost	7.5%	7.5%	7.5%	7.5%
UAL Contribution	$160	$130	$110	$93
9.0%				
Normal Cost	7.5%	7.7%	7.9%	7.3%
UAL Contribution	$160	$130	$110	$97
12.0%				
Normal Cost	7.5%	7.7%	7.9%	7.3%
UAL Contribution	$160	$140	$120	$110

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

Analysis of Discount Rate Sensitivity

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

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

Sensitivity Analysis				
As of June 30, 2017	**Plan's Total Normal Cost**	**Accrued Liability**	**Unfunded Accrued Liability**	**Funded Status**
7.25% (current discount rate)	13.735%	$746	$1,267	(69.9%)
6.0%	17.669%	$767	$1,288	(67.9%)
7.0%	14.273%	$769	$1,290	(67.8%)
8.0%	11.666%	$738	$1,259	(70.6%)

Volatility Ratios

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

Asset Volatility Ratio (AVR)

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

Liability Volatility Ratio (LVR)

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

Rate Volatility		As of June 30, 2017
1. Market Value of Assets	$	(521)
2. Payroll		43,304
3. Asset Volatility Ratio (AVR) [(1) / (2)]		0.0
4. Accrued Liability	$	746
5. Liability Volatility Ratio (LVR) [(4) / (2)]		0.0
6. Accrued Liability (7.00% discount rate)		769
7. Projected Liability Volatility Ratio [(6) / (2)]		0.0

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

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

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

Market Value of Assets (MVA)	Hypothetical Termination Liability[1,2] @ 1.75%	Funded Status	Unfunded Termination Liability @ 1.75%	Hypothetical Termination Liability[1,2] @ 3.00%	Funded Status	Unfunded Termination Liability @ 3.00%
$(521)	$11,908	(4.4%)	$12,429	$9,188	(5.7%)	$9,709

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

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

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

Participant Data

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

	June 30, 2016	June 30, 2017
Reported Payroll	$ 73,877	$ 43,304
Projected Payroll for Contribution Purposes	$ 80,727	$ 47,148
Number of Members		
Active	2	1
Transferred	0	0
Separated	0	0
Retired	0	0

List of Class 1 Benefit Provisions

This plan has the additional Class 1 Benefit Provisions:

- None

Plan's Major Benefit Options

Plan's Major Benefit Options

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

	Contract package	
Benefit Provision	Active Misc	
Benefit Formula	2.0% @ 62	
Social Security Coverage	No	
Full/Modified	Full	
Employee Contribution Rate	6.25%	
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%	

Section 2

CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

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

SCOTTS VALLEY
FIRE PROTECTION DISTRICT
7 Erba Lane, Scotts Valley, California 95066 (831) 438-0211 Fax (831) 438-0383

Steve M. Kovacs
Fire Chief

Date: October 10, 2018

To: Board of Directors

From: Steve M. Kovacs, Fire Chief

Subject: Agenda Item 5.1

Recommendation

Adopt revised policy 510 and new policies 515 and 1509.

Discussion

Policy 510 – Paid Call Firefighter (PCF) Duty Statement
This policy had minor revisions/updates, fixed typos and grammar.

Policy 515 – Volunteer Firefighter Duty Statement
This is a new policy for volunteer firefighters. Currently, we do not have volunteers. The District would like to initially hire our new candidates as volunteers and not PCF's. The candidates would be placed into the fire academy, must successfully complete it, pass a competency test and then may be promoted to a PCF. This limits the district's financial liability for the candidates while they participate in the fire academy and ensures they complete it, prior to being placed into PCF status, which becomes an hourly position. They would not be on the payroll until successfully completing the fire academy. This creates a new category of personnel and thus needs its own Duty Statement.

Policy 1509 – Volunteer Hiring
This is a new policy and outlines the process and requirements to hire and become a Volunteer Firefighter.

Scotts Valley Fire Protection District	
POLICY: 510 DATE APPROVED: 10/10/2018 BOARD PRESIDENT: ____________	SUBJECT: Paid Call Firefighter (PCF) Duty Statement FIRE CHIEF: ____________

Policy 510: Paid Call Firefighter (PCF) Duty Statement

The Scotts Valley Fire Protection District PCF's supplement the District's regular career Firefighters on emergency incidents and in community service activities.

The following requirements must be maintained for a PCF to remain in good standing:

1. Attend and participate in fires, other emergencies, training exercises, public education and other activities as required.

2. Maintain a valid Class C or higher, California Driver's License.

3. Abide by all applicable District Policies and Procedures.

4. All PCF's shall reside within a fifteen (15) mile travel distance to the SVFPD headquarters station. The Fire Chief shall have the authority to extend the 15-mile travel distance requirement if the extension does not adversely affect a reasonable travel time.

5. PCF's are required to maintain a telephone or mobile phone and apprise the SVFPD of the number and any address change.

6. In the event that a PCF is a member of another Fire Agency, said PCF shall treat SVFPD as their "Priority" agency. The other Fire Agency's activities and requirements shall not infringe, nor impair the PCF's ability to fulfill their responsibilities and obligations to SVFPD.

7. PCF's shall meet the physical, mental, and moral standards that are required of the full time paid personnel outlined in SVFPD policies 800, 802, 803, 804, 805, 806, 807.

8. After the initial Candidate medical screening, all follow up medical examinations shall be conducted on the cycle identified by the SVFPD Standard Operating Procedures, which is consistent with "PCF/Volunteers".

9. PCF's are required to attend a minimum of 80% of the regular training sessions.

10. All newly appointed PCF's shall be required to attend two (2) twelve (12) hour shifts each month during their first six (6) months of employment between the hours of 0700 to 1900 hours. After the six month period, the PCF will assume the normal schedule shifts.

11. PCF's shall attend required training sessions and shift schedules as follows:
    - The *first* Tuesday of every month. The hours will be 1900 to 2100 hours.
    - One single 12 hour shift on a bi-monthly basis, assigned as a Firefighter supplementing the staffing of an on-duty-company, between the hours of 0700 and 1900 hours.
    - The *third* Saturday of every month. The hours will be 0900 to 1200 hours.
12. All newly appointed PCF's will be on Probationary Status for a period of one year from the date of academy completion.
13. All PCF's must <u>successfully complete Firefighter Proficiency written and manipulative testing in order to pass probation.</u> Failure to do so will result in termination.
14. All PCF's must pass <u>annual Firefighter skills proficiency testing</u>. Failure to do so will result in termination.
15. PCF's unable to attend a scheduled training session will notify the on duty Company Officer at Station One, 24 hours prior to drill, or as soon as possible. <u>Missed training must be made up and will be coordinated through the program manager.</u> Failure to make up missed drills and training will result in termination.
16. The PCF group shall obtain the approval of the Chief prior to carrying out any activity or social function.
17. PCF's are paid an hourly rate (refer to the Publicly Available Pay Schedule). PCF payroll will be processed and paid every four weeks.
18. PCF's will receive the following benefits paid by the District:
    - Life /Accidental Death and Dismemberment Insurance.
    - Wage Protection Insurance.
    - Twenty-four (24) hours of sick leave as required by California State Law.
19. PCF's must maintain a "clean" driving record to be insured by the District's liability insurance carrier. The determination of the insurability will rest with the insurance carrier in consultation with the Fire Chief.
20. PCF's will be issued appropriate station wear uniforms, safety clothing and PPE as per Standard Operating Procedures.

Scotts Valley Fire Protection District	
POLICY: 515 **DATE APPROVED: 10/10/2018** **BOARD PRESIDENT:** ____________	**SUBJECT: Volunteer Firefighter Duty Statement** **FIRE CHIEF:** ____________

Policy 515: Volunteer Firefighter Duty Statement

The Scotts Valley Fire Protection District (SVFPD) **Volunteer** is an unpaid "At Will" candidate in a training position.

The following requirements, testing, certifications and standards must be met and maintained for a Volunteer to remain in good standing with the SVFPD:

1. All newly appointed Volunteers will be on Probationary Status and considered "At Will" throughout the academy and until promotion to Probationary Status Paid Call Firefighter (PCF).

2. All Volunteers shall reside within a fifteen (15) mile travel distance to the SVFPD headquarters station. The Fire Chief shall have the authority to extend the 15-mile travel distance requirement if the extension does not adversely affect a reasonable travel time.

3. Volunteers are required to maintain a telephone or mobile phone and apprise the SVFPD of the number and any address change.

4. Volunteers shall meet the physical, mental, and moral standards that are required of the full time paid personnel outlined in SVFPD Policies 800, 802, 803, 804, 805, 806, 807.

5. After the initial Volunteer Candidate medical screening, all follow up medical examinations shall be conducted on the cycle identified by the SVFPD Standard Operating Procedures, which is consistent with "PCF/Volunteers".

6. Volunteers must maintain a "clean" driving record to be insured by the SVFPD liability insurance carrier. The determination of the insurability will rest with the insurance carrier in consultation with the Fire Chief.

7. In the event that a Volunteer is a member of another Fire Agency, said Volunteer shall treat SVFPD as their "Priority" Agency. The other Fire Agency's activities and

requirements shall not infringe, nor impair the Volunteer's ability to fulfill their responsibilities and obligations to SVFPD.

8. SVFPD Volunteers must attend and successfully complete The Santa Cruz County Basic Firefighter Academy (BFFA) or an equivalent Academy.

    - Successfully complete and pass required certification courses within the BFFA.
    - Volunteers unable to attend all the required hours and certification courses at the BFFA may be terminated from the process and SVFPD.
    - At midterm, candidate must have no less than an 80% overall cumulative score. Failure to do so, may result in termination from the program and SVFPD.
    - Successfully complete the BFFA and receive academy cadre recommendation for promotion to SVFPD Probationary Status (PCF).

9. All Volunteers must successfully complete SVFPD Firefighter (FF) Proficiency testing in order to be considered for promotion to Probationary Status PCF.
    - Must successfully pass SVFPD FF written testing with no less than 80%. Failure to do so will result in termination.
    - Must successfully pass SVFPD FF manipulative skills testing. Failure to do so will result in termination.

10. Volunteers will receive the following benefits paid by the SVFPD:
    - Workers Compensation
    - Life/Accidental Death and Dismemberment Insurance

11. Volunteers will be issued appropriate station wear uniforms, safety clothing and PPE as per Standard Operating Procedures.

Scotts Valley Fire Protection District	
POLICY: 1509 DATE APPROVED: 10/10/2018 BOARD PRESIDENT: ____________	SUBJECT: Volunteer Hiring FIRE CHIEF: ____________

Policy 1509: Volunteer Hiring

The Volunteer Candidate must meet the following minimum qualifications and participate in a selection/testing process:

- Citizen of the United States or a permanent resident alien who is eligible for citizenship.
- Minimum of 18 years of age.
- High school graduate or tested equivalent.
- Must reside within a 15 mile travel distance to the Scotts Valley Fire Protection District (SVFPD) headquarters station.
- Must possess and maintain a valid Class C California Driver's License.
- Must be "insurable" to drive and operate SVFPD vehicles as defined and determined by the SVFPD insurance carrier.
- Must pass a medical physical examination as outlined by the SVFPD Standard Operating Procedures, including a drug test.
- Good physical condition and agility.
- Possess a valid "Advanced First Aid" card, equivalent, or higher.

In the event that a Volunteer is a member of another fire agency, said volunteer shall treat SVFPD as their "Priority" agency. The other fire agency's activities and requirements shall not infringe, nor impair the Volunteer's ability to fulfill their responsibilities and obligations to SVFPD.

Any person wishing to become a Volunteer Candidate will submit a SVFPD application to the administrative office. Applications submitted will be reviewed and screened to determine if the applicant meets all requirements.

The SVFPD will maintain a file of interested candidates. All qualified candidates on file will be invited to take part in the testing process. Candidates will be required to respond in writing to confirm their continued interest before proceeding with the testing process.

Candidates for Volunteer positions shall complete the following process:

1. Application submission and screening for minimum requirements to participate in the testing process.
2. Review and approval of driving record by the SVFPD liability insurance carrier.
3. Possess a current CPAT card.
4. Oral interview.
5. Medical physical evaluation by the SVFPD designated physician, including a drug test.
6. Comprehensive background check.

Unacceptable ratings, incompletion or failure of any of the above testing components will be cause for disqualification of the candidate.

Scores from the oral interview process shall be used to determine and establish an eligibility list. A minimum of 70% is required to pass the oral interview.

The eligibility list shall remain in effect for one year from the time of the first appointment. This list may be terminated or extended by the Fire Chief.

Newly appointed Volunteer Candidates shall be required to successfully complete a comprehensive training academy, unless the required certifications have already been obtained from a previous fire academy.

All newly appointed Volunteer Candidates shall be on Probationary Status during the academy and for a period of one year from the date of academy graduation.

Volunteer is an unpaid training position. Upon successful completion of the fire academy, and at the discretion of the Fire Chief, the Volunteer will be promoted to Probationary Status Paid Call Firefighter (PCF).

SCOTTS VALLEY
FIRE PROTECTION DISTRICT

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

Steve M. Kovacs
Fire Chief

Date: October 10, 2018

To: Board of Directors

From: Chief Kovacs

Subject: Administrative Report

Incident Type	July		August		September		Year To Date	
	2017	2018	2017	2018	2017	2018	2017	2018
Fires	11	4	6	10	7	5	42	40
Explosion / Rupture	0	0	1	0	0	0	3	0
EMS	116	129	103	126	120	111	1053	1006
Hazardous Condition	7	3	5	5	8	6	101	46
Service Calls	15	11	19	15	17	18	162	123
Good Intent	34	37	27	24	28	20	330	272
False Alarms	11	9	18	10	9	9	96	72
Severe Weather	0	0	0	0	0	0	2	0
Totals	194	193	179	190	189	169	1789	1559

Operations

- E-2537 with Captain LoFranco, Engineers Cortes, Green, and Firefighter Bridges with Chief McNeil as their Strike Team Leader Trainee, spent five days on the *Snell Fire* as part of Strike Team XCZ-2328C.
- E-2537 completed 26 days of coverage for the San Mateo/Santa Cruz CalFire unit (CZU). For several weeks Scotts Valley Fire had eight (8) personnel committed to out of county and in county assignment. Thanks to all personnel for stepping up and supporting our neighboring fire agency and state agencies during one of the busiest fire seasons!
- Firefighter Rothweiler and Engineer Crivello completed the installation E2537 auxiliary pump motor.
- E-2510 has returned from three weeks at the shop for several mechanical issues.
- All equipment has been ordered for the new type three engine (E-2538).

Training

- Tina Casola from "First Alarm Wellness" gave a three hour presentation about behavior health in the fire service. She is a behavior health specialist in emergency services experienced in working with individuals who experience psychological distress as the result of witnessing and experiencing a variety of traumas. All crews attended.
- SCHMIT members assisted teaching "technical decontamination" to Santa Cruz County Firefighters.
- Nick Owens is now an authorized chipper operator after being taught by Chief McNeil.
- Engineer Green instructed Rescue Water Craft to Central Fire of Santa Cruz County.

- A week long proficiency check-off was completed for Firefighters John Bridges and Kevin Laine, testing them on their FFI skills and enabling them to be a "third person" on the engine.
- Captain LoFranco and Engineer Cortes attended the annual meeting for the 2019 Basic Firefighter Academy.
- Captain LoFranco and Administrative Secretary Walton have been working on the new PCF hiring process.
- Captain LoFranco, Engineers Cortes and Cahir, completed two days of interviews for new volunteers. Ten (10) will start background investigations.
- "Code Red" Drill with SVPD, SVHS, and SVFD to simulate an active shooter. Chief Kovacs, Chief Theilen, and E2512 attended.

Prevention

- Completed annual fire safety inspections of all 4 public schools.
- Completed underground and rough overhead sprinkler inspections at The Grove development.
- Completed 4 LE 100 inspections as well as multiple hazard complaints.
- Engineer Green taught public CPR. Fifteen (15) people attended. He also taught CPR to the Scotts Valley School District. Engineer Cortes taught CPR at the Monte Vista Christian School for twenty (20) students.
- Engineer Green taught fire extinguisher training to the Santa Cruz County Probation center.
- Crews will be sporting cancer awareness T-shirts for the month of October. All shirts purchased by the Union and approved by Chief Kovacs for the month.

Administration

- Secretary Receptionist Bridges inspected 14 car seats in August and 10 car seats in September. Secretary Receptionist Bridges was on the Interview Panel for the SV Recreation Department.
- Administrative Staff has been busy working on Open Enrollment and processing retirements and new hires.

Fire Chief Activities:

- FDAC EBA Conference Calls
- Attended the County Health and Wellness Committee Meetings
- Attended the Welcome Back Breakfast for the SV School District with Chief McNeil
- Attended County Fire Chief's Meetings
- FDAC/CalChief's Legislative Conference calls
- DRiSC Conference calls
- Planned and conducted the badge pinning ceremony for 10 district personnel
- Several Branciforte FPD meetings
- Attended the Public Meeting for the Mid County Fire Study
- Attended the CERT Council Meeting
- EMSIA Committee meeting
- EMSIA Board Meeting in Aptos
- EMSIA Sub-Committee meetings with AMR
- Emergency Management Meeting – County EOC
- NetCom User's Meeting
- Attended the Interagency Advisory Meeting with President Patterson
- Attended a South Bay Incident Management Team Meeting
- SCCFAIG Board Meeting at Central FPD
- Attended a Contracting Training Seminar in Sacramento
- Presented at the State of the City Meeting at Monte Valle
- Attended the First Alarm Wellness training at Cabrillo College
- Attended the CalChief's Annual Conference in Sacramento
- Participated in the Code Red Active Shooter Training at SVHS
- FDAC Board Meeting Conference Call
- Staff Meetings
- Meeting with SCOMC

CITY OF SCOTTS VALLEY
RECREATION DIVISION
361 King's Village Road Scotts Valley California 95066
Phone (831) 438-3251 * rec@scottsvalley.org *www.scottsvalley.org

RECEIVED
AUG 14 2018
SCOTTS VALLEY FIRE
PROTECTION DISTRICT

August 8, 2018

Chief Steve Kovacs
Scotts Valley Fire District
7 Erba Lane
Scotts Valley, CA 95066

Dear Steve:

The Advocates and I would like to extend our thanks and appreciation to you and the Fire Board for honoring our request to waive the $550 fire permit fee for the Fourth of July Event. All of the profits from this Event directly benefits our community and our parks so we are grateful for all financial help and contributions. Once again, thank you for helping to make this spectacular Fourth of July Event such a success.

Sincerely,

Kristin Ard
Recreation Division Manager

Lisa Bustichi
Advocates Chair