



“The Shake and Bake State”
Jeff Meston, President
California Fire Chiefs Association



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Where we are, where we are going

- The Landscape
- The System
- The Issues
- The Horizon



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The Landscape

- 39.3 million residents
- 14, 178,000 housing units
- 155,780 square miles
- 58 Counties
- 2 million plus homes in interface
- State Senators- 40
- State Assembly members 80
- Proposed 2019/29 budget - 209 Billion

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The Landscape

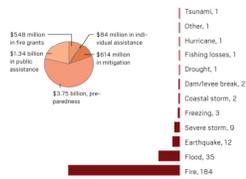
- CalFire
- Cal OES
- California National Guard
- Federal Agencies (USFS, BLM, NPS)
- Local Government

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The Landscape

Billions in relief

Here's a breakdown of how FEMA has supported California with \$6.3 billion since 2005.



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The System

- California Fire Chiefs Association
- California Metro Chiefs
- Fire Districts Association of California
- California League of Cities, Fire Service Section
- DRISC (Disaster Readiness of Safer Communities)
- California Professional Firefighters (CPF)
- California State Firefighters Association (CSFA)

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The System

- California Statewide Mutual Aid System established 1950
- All Fire Organizations belong
- Managed by Cal OES- FIRESCOPE Board of Directors advises CalOES
- Apparatus, Chiefs- coordinates local government mutual aid

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What questions/issues have been raised based on the significant fire activity in California?

- We need to refine the mutual aid system
- Our number of unable to fill request have risen each year

California Mutual Aid System Equipment and Overhead Unfilled/ UTF's

Year	2012	2013	2014	2015	2016	2017	2018
Engine/WT	134	214	403	958	3,029	6,134	6,697
Overhead	1,073	1,404	2,315	4,758	4,034	4,867	9,097
Total	1,207	1,618	2,718	5,716	7,063	11,001	15,794

2018 California Mutual Aid System Equipment and Overhead - Filled Request

Engine/WT	18,374
Overhead	15,524

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Top 20 Most Destructive California Wildfires

FIRE NAME (CAUSE)	DATE	COUNTY	ACRES	STRUCTURES	DEATHS
1 CAMP FIRE (Under Investigation)	November 2018	Butte County	151,136	18,864	35
2 TUBBS (Electrical)	October 2017	Napa & Sonoma	36,807	5,635	22
3 TUNNEL - Oakland Hills (Reliable)	October 1991	Alameda	1,600	2,960	25
4 CEDAR (Human Related)	October 2003	San Diego	273,246	2,820	15
5 VALLEY (Electrical)	September 2015	Los Angeles & San Bernardino	75,067	1,955	4
6 WITCH (Powerline)	October 2007	San Diego	197,490	1,650	2
7 WOOLSEY (Under Investigation)	November 2018	Ventura	96,949	1,643	3
8 CABR (Human Related)	July 2018	Shasta County, Trinity County	229,451	1,614	8
9 NUNS (Powerline)	October 2017	Sonoma	54,382	1,355	3
10 THOMAS (Powerline)	December 2017	Ventura & Santa Barbara	291,803	1,063	2
11 OLD (Human Related)	October 2003	San Bernardino	91,281	1,063	6
12 JONES (Underdetermined)	October 1999	Shasta	25,200	954	1
13 BUTTE (Powerline)	September 2015	Amador & Calaveras	70,968	921	2
14 ATLAS (Powerline)	October 2017	Napa & Solano	55,614	785	6
15 FAINT (Arson)	June 1990	Santa Barbara	4,900	641	1
16 FOUNTAIN (Arson)	August 1992	Shasta	63,980	636	0
17 SAYRE (Arson)	November 2009	Los Angeles	11,262	494	0
18 CITY OF BERKELEY (Powerline)	September 1923	Alameda	140	264	0
19 HARRIS (Underdetermined)	October 2007	San Diego	99,140	245	0
20 REDWOOD VALLEY (Powerline)	October 2017	Maricopa	36,523	245	0

***Structures include homes, outbuildings (barns, garages, sheds, etc) and commercial properties destroyed.
 ***This list does not include fire investigations. These are the Top 20 regardless of whether they were state, federal, or local responsibility.



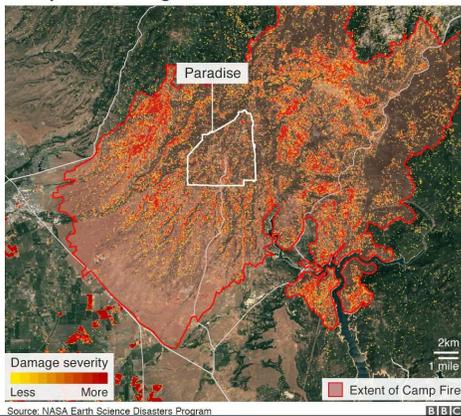
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Wildfire

- 2 million homes in WUI
- Hardening of homes
- Dead tree 129 million, fuels mitigation, defensible space
- Alerts, warnings and evacuations
- Loss of tax base, bond repayment

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Camp Fire: Damage assessment



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Camp Fire Economic impacts

- Paradise Irrigation District has 3.1 million of debt to repay- now a new water system
- The Paradise USF had a estimated 3,165 students in 2017. 5 of 9 schools gone. With housing stock gone this will effect student enrollment



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Camp Fire- Bond analysis

- Can the Town of Paradise meet the 3.5 million in annual payments to pension obligation and retiree healthcare?
- Paradise redevelopment Agency issued 1.475 million in subordinate tax allocation and refund bonds.
- Can Paradise School District pay the 61 million GOB measure that was passed?

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Issues-ProblEMS

- State has a EMSA
- Counties have LEMSA (33 total)
- They lean towards private sector
- Anti Trust lawsuit in Orange County
- Underground Regulations by CalChiefs to OAL
- Legislative efforts to define "201"

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Issues

- CFAA-California Fire Assistance Agreement and the USFS
- Insurance companies refusing to insure those in the WUI
- Dated 911 system- transition from hardline to mobile phones
- Affordable housing vs. fire safe homes

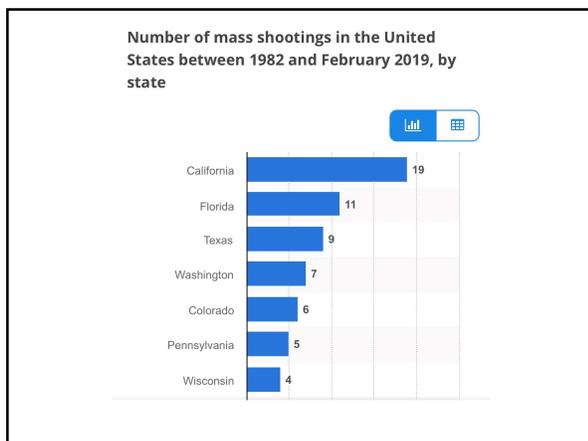
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The Horizon

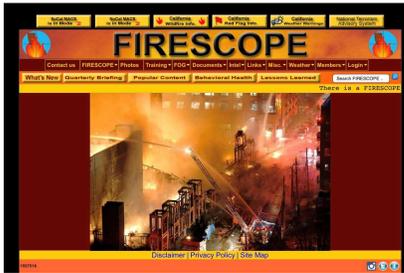
- Earthquake warning system- up to 60 seconds
- Pre-Positioning of resources including wildfire and mud/debris flows
- All Risk Fusion Center
- Utility power shut off
- Improved alerts and warnings
- Remote sensing

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FIRESCOPE

Firefighting REsources of Southern California Organized for Potential Emergencies

- <http://firescope.caloes.ca.gov>



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WIFIRE

Data-Driven All Hazards Intelligence

<http://wifire.ucsd.edu>

Capabilities

- A neutral intelligent and integrated infrastructure to catalog, curate, integrate, exchange, analyze and communicate public and private data
- Data-driven knowledge and modeling systems for hazards intelligence
- Geospatial information services for real-time and data-driven modeling, simulation, prediction, mapping and visualization of wildfire behavior



FIREMAP - <http://firemap.sdsc.edu>

Contact WIFIRE

<https://wifire.ucsd.edu/contact>

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Remote Sensing – Applications for persistent fire detection

20180715

20180716

Report #1
• Detect
• Report Relayed to Chino 1:17 (LCAFD clock)
Possible Fire at 34.00N, 117.42W seen on 14 NOV.
Confidence is low.

Report #2
• Detect
• Report Relayed to Chino (LACFD clock)
Possible Fire at 34.00N, 117.42W seen on 14 NOV.
Confidence is medium.

Updated Coordinates
Not reported - fire already located.

Intterra

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Questions?

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