



2016 FIRE SEASON AFTER ACTION REPORT



An air tanker drops fire retardant on the Blue Cut wildfire in Lytle Creek, California. Source: Ringo Chiu—AFP/Getty Images

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FOREWORD

Per the *Emergency Services Act, Article 9.5, Government Code Section 8607(f)*, the California Governor's Office of Emergency Services (Cal OES), in cooperation with involved state and local agencies, shall complete an After Action Report (AAR) after each gubernatorial-proclaimed disaster. This report shall provide a review of public safety response and disaster recovery activities and conclusions and recommendations based on the findings. Cal OES shall make the report available to all interested public safety and emergency management organizations.

An After Action/Corrective Action Report serves the following essential functions:

- Provides a source for documenting response and early recovery activities
- Identifies problems and successes during emergency operations
- Analyzes the effectiveness of the different components of the Standardized Emergency Management System (SEMS)
- Describes and defines a plan of corrective action for implementing recommended improvements to existing emergency response efforts

Representatives of public safety or emergency management organizations can obtain a copy of this report by submitting a request to:

SharedMail.CalAAR@CalOES.ca.gov.

EXECUTIVE SUMMARY

The following report is an overview of the response to the fires that burned statewide in California between June 2016 and October 2016. During the 2016 wildfire season, six fires burned a total of 307,970 acres, destroying 1,161 structures, damaging 61 structures, impairing critical infrastructure, and resulted in three reported fatalities. The Governor proclaimed a State of Emergency for the Erskine, Sand, Soberanes, Clayton, Chimney, and Blue Cut Fires.

Ten Operational Areas (OAs) proclaimed local emergencies due to fires. These OAs included Los Angeles, San Diego, Kern, Monterey, Fresno, San Bernardino, Lake, San Luis Obispo, Kern, and Tulare



Firefighters fighting wildfires. Source: Getty Images

counties. The Soberanes fire was the largest by acreage among all declared fires of the season and burned 132,127 acres; however, the Clayton fire destroyed the most structures that year. Cal OES supported various resource requests, provided geographic information system (GIS) maps and products, and tasked state agency partners to support shelter operations. Cal OES also supported recovery efforts for local government by assisting at the Local Assistance Centers (LAC) and provided Initial Damage Estimates (IDE) to the affected counties.

SUMMARY OF SUCCESSES

- Cal OES' public information team coordinated with Kern County to report timely information on the county's challenges and its long road to recovery.
- Several agencies provided food and shelter support, including animal care.
 - California Department of Social Services (CDSS) partnered with the American Red Cross (Red Cross) and supported shelter operations for unmet needs, including resources for Access and Functional Needs (AFN).

- Kern County's successes focused on sheltering and providing needed services to those affected by the fire, including accessible hygiene facilities, food, and free transport for those requiring transportation from the shelter and transition locations.
- Los Angeles County collaborated with the Incident Command Post (ICP) and OA partners to set up evacuation centers and animal care shelters.
- Los Angeles County set up and ran a LAC with 22 participating agencies and distributed stipends to impacted populations.
- San Bernardino County reported several strengths within its Emergency Operations Center (EOC) operations, including rapid EOC activation, leveraging technology to improve mapping capabilities and incident tracking, and effective coordination with county departments.

SUMMARY OF AREAS NEEDING IMPROVEMENT

- Several jurisdictions reported improvements needed within EOC operations.
 - Los Angeles County recognized the need to update EOC response templates to better assist response staff in preparing emergency action plans (EAP), incident action plans (IAP), and status reports.
 - San Bernardino County reported miscommunication between EOC sections, in addition to needing a stronger Joint Information Center (JIC)/Public Information Officer (PIO) presence.
- Counties noted a need for procedural changes and increased communication with partner organizations.
 - Monterey County noted a need to improve relationships and communication between first responders, county office of emergency services (OES), state, and federal partners.
 - San Bernardino County reported equipment issues, complex financial processes, and issues utilizing the Incident Command System (ICS) hierarchy.
 - San Bernardino County identified the need for a checklist for establishing evacuation areas and shelters.

DESCRIPTION OF EVENTS

STATISTICAL SUMMARY

ACRES BURNED

Erskine Fire	48,019
Sand Fire	41,386
Soberanes Fire	132,127
Clayton Fire	3,929
Chimney Fire	46,235
Blue Cut Fire	36,274
TOTAL	307,970

STRUCTURES DESTROYED

Erskine Fire	286
Sand Fire	116
Soberanes Fire	68
Clayton Fire	300
Chimney Fire	70
Blue Cut Fire	321
TOTAL	1,161

STRUCTURES DAMAGED

Erskine Fire	12
Sand Fire	20
Soberanes Fire	5
Clayton Fire	28
Chimney Fire	8
Blue Cut Fire	3
TOTAL	76

FATALITIES

Erskine Fire	2
Sand Fire	1
TOTAL	3

INCIDENT PERIOD

Erskine Fire	June 23, 2016 to July 6, 2016
Sand Fire	July 22, 2016 to August 1, 2016
Soberanes Fire	July 22, 2016 to October 5, 2016
Clayton Fire	August 13, 2016 to August 26, 2016
Chimney Fire	August 13, 2016 to September 6, 2016
Blue Cut Fire	August 16, 2016 to August 22, 2016

DECLARATIONS AND PROCLAMATIONS

LOCAL

Kern County	June 23, 2016 (Erskine Fire)
Los Angeles County	July 25, 2016 (Sand Fire)
Monterey County	July 23, 2016 (Soberanes Fire)
Lake County	August 14, 2016 (Clayton Fire)
San Luis Obispo County	August 20, 2016 (Chimney Fire)
San Bernadino County	August 16, 2016 (Blue Cut Fire)

STATE OF EMERGENCY

Kern County	June 23, 2016 (Erskine Fire)
Los Angeles County	July 23, 2016 (Sand Fire)
Monterey County	July 28, 2016 (Soberanes Fire)
Lake County	August 14, 2016 (Clayton Fire)
San Luis Obispo County	August 14, 2016 (Chimney Fire)
San Bernadino County	August 16, 2016 (Blue Cut Fire)

INCIDENT BACKGROUND

ERSKINE FIRE

The fire burned 48,019 acres around Lake Isabella, destroying 286 structures, and damaging another 12 in Kern County. The blaze started when a privately-owned power line made constant contact with a tree, causing the line to arc and drop molten material into the grass below. High winds in the area exacerbated the spread and intensity of the fire.



*Hillside engulfed by fire the Erskine Fire in Kern County.
Source: Photojournalist Michael Cuffe*

The season's first fire led to the evacuations of thousands of residents, burned thousands of acres, and damaged both homes and infrastructure. Kern County reported two fatalities as a result of this fire.

SAND FIRE

As the most extensive fire in Los Angeles County for the 2016 season, the Sand Fire burned 41,386 acres, destroyed 116 structures, and damaged 20. According to the county, approximately 300 homes were evacuated. The fire damaged two 20 kilovolt (KV) power lines and several circuits, which left many homes in the affected area without power. The OA brought their local communications company into its EOC to consult and coordinate the repair or replacement of 84 utility poles. Evacuation shelters were established for both residents and their animals. Four shelters assisted 300 people and three animal shelters supported a total of 830 animals. Los Angeles County Sheriff's Department officials confirmed one fatality as a result of this fire.

SOBERANES FIRE

The fire burned 132,127 acres in Monterey County from July 22, 2016, to October 13, 2016. The fire destroyed 68 structures and damaged another five, totaling 73 structures impacted by the blaze. The cause was an illegal campfire in Garrapata State Park along the Big Sur coastal ridge. At the time, this fire was the 18th largest and most expensive fire in California, by acres burned.

CLAYTON FIRE

The Clayton fire burned near Lower Lake in Lake County, covering 3,929 acres, destroying 300 structures, and damaging 28 more. The Clayton fire was the second most destructive fire of the season.



Airplane drops fire retardant from above. Source: Getty Images

CHIMNEY FIRE

From August 13, 2016, to September 6, 2016, the Chimney Fire burned 46,344 acres. The fire also destroyed 70 structures and damaged another eight. An evacuation order was issued in San Luis Obispo County with a shelter established by the Red Cross in Paso Robles, and another established along California Highway 1. An emergency evacuation team responded to the fire to help evacuate horses from private residences. The fire temporarily closed Hearst Castle to tourists and also forced the closure of Highway 1. The county monitored air quality due to the smoke from the fire.

BLUE CUT FIRE

The fire began August 16, 2016, in the Cajon Pass. The fire burned 36,274 acres, damaged three structures, and destroyed 321 more, including the U.S. Route 66 historic roadside diner, The Summit Inn. More than 82,000 people were evacuated from the areas of Lyle Creek, Wrightwood, Summit Valley, Baldy Mesa, Phelan, and Oak Hills. The fire led to the closure of the I-15 corridor in both directions (north and southbound), the main route between Los Angeles and Las Vegas, Nevada, to all motor vehicles, rail transportation, pipeline transmission, and utility lines. San Bernardino County established three shelters for animals and one shelter for evacuees. The fire was fully contained on August 23, 2016.



Firefighters assessing home destroyed. Source: Getty Images

RESPONSE ACTIVITIES – STATE AGENCIES

CALIFORNIA GOVERNOR'S OFFICE OF EMERGENCY SERVICES (CAL OES)

The Cal OES State Operations Center (SOC) activated to monitor, update, and support mission requests and tasks to state agencies. During this time, Cal OES updated and published the Joint Incident Briefing with CAL FIRE. GIS was assigned to produce multiple maps and products to support SOC response and reporting needs.

Cal OES deployed regional staff to support counties with unmet needs and coordinated state resources for AFN requests. The Cal OES AFN representative worked directly with the county to address evacuation and transportation needs of the community.

SUCCESSSES

1. Cal OES' public information team coordinated with Kern County to report timely information on the county's challenges and its road to recovery.
2. Cal OES supported the counties with AFN resources and coordinated with the local AFN staff related to unmet needs.
3. An interpreter was contracted to provide American Sign Language (ASL) services at the EOC.
4. The Cal OES Tribal Office coordinated and advised on issues or concerns in tribal communities in the affected areas.

AREAS NEEDING IMPROVEMENT

1. No areas needing improvement were reported.

CALIFORNIA DEPARTMENT OF PUBLIC HEALTH (CDPH)

CDPH activated the Medical and Health Coordination Center at level 1 from August 22, 2016, to August 24, 2016. The county Department of Public Health and Environmental Health Services coordinated and oversaw the water supply, private wells, and septic systems damaged during the wildfires.

SUCCESSSES

1. No successes were reported.

AREAS NEEDING IMPROVEMENT

1. No areas needing improvement were reported.

CALIFORNIA DEPARTMENT OF SOCIAL SERVICES (CDSS)

CDSS worked with the Red Cross and counties to support shelter operations for evacuees and animals. The Red Cross provided AFN resources to the shelters, such as AFN trailers, showers, handwashing stations, and specialists, in addition to assisting with the coordination of state resource requests with CDSS and the counties.

SUCSESSES

1. CDSS partnered with the Red Cross and supported shelter operations for all unmet needs, including AFN resource needs at the shelters.
2. CDSS deployed an agency representative to the county EOC and Functional Assessment Support Team members to support counties.

AREAS NEEDING IMPROVEMENT

1. No areas needing improvement were reported.

RESPONSE ACTIVITIES – OPERATIONAL AREAS

KERN COUNTY

As the second largest fire of the 2016 fire season, the Erskine Fire burned 48,019 acres just south of Lake Isabella. The fire burned for 17 days, starting June 23, 2016, and was fully contained by July 11, 2016. There were 286 structures destroyed, and an additional 12 structures damaged. The Kern Valley Hospital evacuated 81 patients to surrounding areas. Thousands of residents were evacuated from the communities of Bella Vista, Bodfish, South Fork, Weldon, Onyx, Lakeland Estates, Mountain Mesa, South Lake, Squirrel Valley, and Yankee Canyon. There were two confirmed fatalities as a result of the fire. Evacuation orders were issued to approximately 2,700 homes. The Red Cross opened two shelters: one at the Kernville Elementary School and another at Saint Jude Catholic Church. Animal care shelters were also established; Kern County Animal Services assisted with sheltering domesticated animals and the River Kern Kennel sheltered large animals.

SUCCESSSES

1. Kern County successfully coordinated free transportation from the shelters and other locations. The county activated a hotline through Kern Aging and Adult Services to receive requests from those with disabilities or lack of transportation that need evacuation transportation.
2. The county provided accessible hygiene facilities for shelters.
3. The county coordinated with Cal Fresh to replenish food supplies for those in need.
4. The county worked with the utility providers to restore power in affected areas.

AREAS NEEDING IMPROVEMENT

1. No areas needing improvement were reported.

LAKE COUNTY

The Clayton Fire burned 3,929 acres from August 13, 2016, to August 26, 2016, destroying 300 structures and damaging an additional 28. It burned Highway 29 and Clayton Creek, south of Lower Lake. An arsonist caused the fire.

SUCCESSSES

1. No successes were reported.

AREAS NEEDING IMPROVEMENT

1. No areas needing improvement were reported.

MONTEREY COUNTY

On July 22, 2016, the Soberanes Fire burned for 83 days, destroyed 68 structures, and damaged five additional structures until it was fully contained on October 13, 2016. It was the largest fire of the 2016 fire season, burning 132,127 acres, which started from an illegal campfire. The fire burned near Soberanes Creek and Garrapata State Park.

SUCCESSSES

1. The county deployed an incident management team when requested by first responders.
2. The county's "AlertMontereyCounty" alert and warning system successfully sent over 70 emergency alerts related to evacuations and air quality issues.

AREAS NEEDING IMPROVEMENT

1. Monterey County reported needing improvement with alert and warning capabilities and procedures, including the JIC/PIO, when communication infrastructure is damaged.
2. Improve relationships and communication between first responders, county OES, state, and federal partners.
3. The county stated a need for more staffing and training at OES for future responses.

CORRECTIVE ACTION RECOMMENDATIONS

1. No corrective action recommendations were reported.
2. No corrective action recommendations were reported.
3. No corrective action recommendations were reported.

LOS ANGELES COUNTY

The Sand Fire was the most destructive in the county for this season. The fire burned for 18 days near Santa Clarita, from July 22, 2016, to August 6, 2016. The fire destroyed 116 structures and damaged another 20, resulting in one reported fatality. The Sand Fire threatened 1,500 homes in and around Santa Clarita, Acton, and Agua Dulce. The fire destroyed 84 electrical poles and damaged numerous others, causing power outages throughout the area.



Firefighters fight wildfire. Source: Getty Images

SUCCESSSES

1. Four shelters assisted 300 people, and three animal shelters supported 830 animals.
2. The county evacuated Antelope Valley Rehabilitation Center with approximately 110 staff and residents.
3. The county deployed an EOC liaison to the ICP to improve situational awareness.
4. The county worked with the ICP and OA partners to set up evacuation centers and large and small animal care shelters.
5. The county set up and ran a LAC with 22 participating agencies and distributed stipends to impacted residents.

AREAS NEEDING IMPROVEMENT

1. Los Angeles County recognized the need to update EOC response templates to better assist response staff in preparing emergency action plans (EAP), incident action plans (IAP) and status reports.
2. During the activation in Los Angeles County, some response staff needed additional training on EOC functions and operations from FEMA's Independent Study (IS) training courses, but could not access the system due to improper credentials.

CORRECTIVE ACTION RECOMMENDATIONS

1. Planning materials must be updated and streamlined to align with current training and operational objectives.
2. The county must set up EOC response accounts for responders with proper credentials to access FEMA IS training courses.

SAN BERNARDINO COUNTY

The Blue Cut Fire burned 36,274 acres of land along Interstate 15 in the Cajon Pass and, at its peak, had 2,684 personnel actively involved in the fight. The fire burned for six days from August 16, 2016, to August 23, 2016, and destroyed 321 structures. It damaged an additional eight structures, causing significant commerce delays due to closures of both rail and roadways, along with delays in pipeline transmission and utility restoration. Over 80,000 residents received evacuation orders.

SUCCESSSES

1. The county managed a rapid EOC activation, shift transitions, resource ordering, and leveraging its mapping capabilities.
2. There was participation from county departments and sound utilization of ICP/EOC liaison positions.
3. The Planning Section created a new incident tracking tool to improve technology in EOC.
4. San Bernardino County received active participation from VOAD in its recovery process.



Helicopter flying through heavy smoke. Source: David McNew/Getty Images

AREAS NEEDING IMPROVEMENT

1. San Bernardino County reported equipment issues, complex financial processes, and issues utilizing the Incident Command System (ICS) hierarchy.

2. The county reported miscommunication between EOC sections, in addition to needing a stronger JIC/PIO presence in the EOC.
3. San Bernadino County identified the need for a checklist to establish evacuation areas and shelters.

CORRECTIVE ACTION RECOMMENDATIONS

1. No corrective action recommendations were reported.
2. No corrective action recommendations were reported.
3. No corrective action recommendations were reported.

SAN LUIS OBISPO COUNTY

The Chimney Fire burned 46,344 acres for 23 days, from August 13, 2016, to September 6, 2016. It destroyed 70 structures, damaged an additional eight, and injured one individual. The cause of the fire was a vehicle's exhaust igniting the dry grass.



Historic Hearst Castle closed due to Chimney Fire. Source: Joe Johnston, AP

The Historic Hearst Castle was also threatened, leading to a temporary closure and evacuation of the area. Additional evacuations and closures included areas north and west of Nacimiento Dam, Christmas Cove and Oak Shores, the north shore of Lake Nacimiento, and Bryson-Hesperia areas in both San Luis Obispo and Monterey Counties. The county issued shelter-in-place notices to some areas cut

off by the fire.

SUCSESSES

1. A shelter was briefly opened in Lockwood, Monterey County.
2. The Horse Emergency Evacuation Team assisted with evacuating horses from the threatened areas, namely Running Deer Ranch.

3. Some evacuees from Lake Nacimiento were advised to evacuate to the lake's edge on the south shore, where Monterey County Park Rangers assisted with moving them via boat to the north shore.

AREAS NEEDING IMPROVEMENT

1. No areas needing improvement were reported.

INITIAL RECOVERY ACTIVITIES – STATE AGENCIES

GOVERNOR'S OFFICE OF EMERGENCY SERVICES (CAL OES)

Cal OES identified and supported local governments with recovery operations, including IDEs and opening LACs with staff deployment to the LACs. Before any California Disaster Assistance Act recovery funds were determined, the Cal OES Regional team worked with the local government to conduct and enter the IDEs into the Cal EOC system. The request for Recovery Debris Operations and Public Assistance staffing from the County were also processed through the mission tasking process in Cal EOC.

On July 14, 2016, Lieutenant Governor Gavin Newsom requested federal assistance to provide interim shelter to Kern County residents who lost their homes during the Erskine Fire. FEMA agreed to provide surplus manufactured housing units (MHU) to Cal OES under the federal surplus property program without any monetary charge to California. An MOU between Cal OES and Kern County provided the first county-led, CDAA-funded trailer program and outlined each party's responsibilities regarding the transportation and installation of 28 MHUs.

CALIFORNIA DEPARTMENT OF SOCIAL SERVICES (CDSS)

CDSS provided a source of funding for recovery efforts through the State Supplemental Grant Program.

INITIAL RECOVERY ACTIVITIES – OPERATIONAL AREAS

KERN COUNTY

Kern County worked with nonprofit organizations to establish transition centers for those affected by the fire and helped manage the LAC and donations. Kern County Fire Department and CAL FIRE conducted windshield surveys for damage assessments to determine the extent of damage caused by the fire.

LAKE COUNTY

After evacuation orders were lifted, Lake County Fire Protection District established distribution points throughout the community and handed out cleaning, hygiene, and comfort items with the help of Red Cross volunteers in hardest-hit neighborhoods devastated by the Clayton fire. These include water, snacks, and clean-up items, such as gloves, buckets, trash bags, and dust masks. Lake County also opened a LAC with local, nonprofit organizations

onsite, including select state agencies, to support individuals impacted by the fire.

LOS ANGELES COUNTY

County assisted with the IDE process and coordinated with local, state, and federal agencies and nonprofit organizations to set up and run a LAC. The LAC was open for three days and provided services for over 120 families affected by the Sand Fire. The county also facilitated discussions between the local, state, and federal partners to receive aid.



Los Angeles County Local Assistance Center. Source: Cory Rubin/The Signal

MONTEREY COUNTY

Monterey County recovery activities included assisting the public with Small Business Administration loan information, rehabilitation of burn scar areas, and damage assessments. The county also assisted with repair of damaged roads and bridges caused by the fire.

SAN LUIS OBISPO COUNTY

San Luis Obispo County assisted with debris removal. The county created a streamlined approach to the relief process with a county-authorized fee waiver for buildings and permits. A guideline was created for impacted individuals to provide contact information and answer questions.



Debris left behind by the fire. Source: Marcus Yam/LA Times

SAN BERNARDINO COUNTY

The county processed IDE submissions for the operational area and provided recovery funds for those who qualified.

CONTRIBUTING AGENCIES

STATE AGENCIES

California Governor's Office of Emergency Services (Cal OES)

California Department of Public Health (CDPH)

California Department of Social Services (CDSS)

LOCAL AGENCIES

Fresno County

Kern County

Lake County

Los Angeles County

Monterey County

San Bernardino County

San Luis Obispo County

Tulare County

LIST OF ACRONYMS

AAR	After Action Report
Cal OES	California Governor's Office of Emergency Services
Cal FIRE	California Department of Forestry and Fire Protection
CDPH	California Department of Public Health
CDSS	California Department of Social Services
EOC	Emergency Operation Center
FEMA	Federal Emergency Management Agency
ICP	Incident Command Post
ICS	Incident Command System
IDE	Initial Damage Estimates
JIC	Joint Information Center
LAC	Local Assistance Center
MHU	Manufactured Housing Units
OA	Operational Area
OES	Office of Emergency Services
PIO	Public Information Officer
SEMS	Standardized Emergency Management System
SOC	State Operations Center
VOAD	Voluntary Organizations Active in Disaster