



2008 JUNE •
fire siege



Dedication

This 2008 June Fire Siege is dedicated in memoriam to the following people, and to all the other firefighters who gave their lives protecting ours.

Shawn Blazer, 30
Firefighter
Grayback Forestry, Inc.
Medford, OR

Scott Charlson, 25
Firefighter
Grayback Forestry, Inc.
Phoenix, OR

Edrik Gomez, 19
Firefighter
Grayback Forestry, Inc.
Ashland, OR

Matthew Hammer, 23
Firefighter
Grayback Forestry, Inc.
Grants Pass, OR

Curtis Hillman, 77
Contract Equipment
Operator
Happy Camp, CA

Dan Packer, 44
Fire Chief
East Pierce Fire
& Rescue
Bonney Lake, WA

Andrew Palmer, 18
Firefighter
Olympic National Park
Port Townsend, WA

Jim Ramage, 63
Helicopter Pilot
Inspector
USDA Forest Service
Redding, CA

Steven Renno, 21
Firefighter
Grayback Forestry, Inc.
Cave Junction, OR

Bryan Rich, 29
Firefighter
Grayback Forestry, Inc.
Medford, OR

Bob Roland, 63
Volunteer Firefighter
Anderson Valley
Volunteer
Fire Department
Boonville, CA

Roark Schwanenberg, 54
Helicopter Pilot
Carson Helicopters
Lostine, OR

David Steele, 19
Firefighter
Grayback Forestry, Inc.
Ashland, OR

Introductory Statement

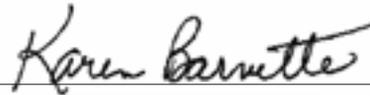
In June 2008, a series of dry thunderstorms swept across California igniting more than 1,750 fires.

Despite the great number of starts, severe burning conditions and limited resources, initial attack efforts by fire fighters contained more than 500 fires during the first few days of the siege. While there were many early successes, some fires in remote areas continued to burn throughout the summer. By autumn, the June Fire Siege had burned more than 1.2 million acres and taken the lives of thirteen firefighters. A wildland fire siege of this magnitude with so many fires burning so many acres over such a long period of time is unprecedented in California's modern fire suppression history.

During the siege over 350 structures were destroyed and hundreds of millions of dollars of property and natural resources were damaged. Thousands of people were evacuated and smoke adversely effected air quality for weeks at a time. Weather and fuel conditions and competition for resources made fire control efforts difficult, requiring strong cooperation and coordination among federal, state, and local fire fighting agencies.

At the request of the California Department of Forestry and Fire Protection (CAL FIRE), the U.S. Forest Service, Office of Emergency Services, and the National Park Service, an interagency team was convened to document key events and to provide a broad, factual overview of the fire siege. This report is the result of the team's efforts and is dedicated to all firefighters who have given their lives protecting the lives, property, and natural resources of the people of California.

Directors' Signatures



Del Walters, Director
California Department of
Forestry and Fire Protection

Karen Barnette for James Wesley Abbott,
Acting California State Director
Bureau of Land Management

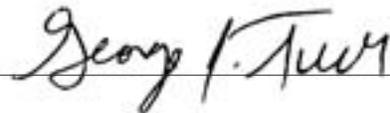


Randy Moore, Regional Forester
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Pacific Region
Bureau of Indian Affairs

Matthew Bettenhausen, Secretary
California Emergency
Management Agency

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George Turnbull for Rory D. Westberg,
Acting Regional Director
Pacific West Region National Park Service

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The 2008 siege was the single largest wildfire event (1.2 million acres) in California's recorded history and added significantly to the highest amount of acreage burned in a calendar year (1.6 million) in California's recorded history.



Executive Summary

The spring of 2008 was extremely dry, allowing an early start to the already long summer fire season in northern California.

On June 20th and 21st a series of severe, dry thunderstorms carpeted the state from Big Sur to Yreka with more than 5,000 lightning strikes, and igniting over 2,000 fires. During the following months, thirteen firefighters were killed and many others were injured on fires in this siege. Over 350 structures were destroyed and hundreds of millions of dollars of property and natural resources were damaged. Thousands of people were evacuated and smoke adversely effected air quality over much of the state for weeks. Communications, power delivery, and transportation systems were disrupted. Despite the intensive firefighting effort, some fires in remote areas continued to burn throughout the summer. By fall, over 1,200,000 acres had burned.

The firefighting effort was also large and intensive. The great number of fires combined with weather and fuel conditions, and competition for firefighting resources made fire control efforts difficult. Strong cooperation and coordination among federal, state, and local firefighting agencies was essential. At the peak of fire control operations on July 13, over 20,000 firefighters were engaged. Both the Governor of California and the President of the United States toured fire operations. Governor Schwarzenegger declared a state of emergency for 13 counties, and President Bush declared a state of disaster, which made available a wide variety of federal assets, including the military. While the fires had a great impact on people and society, the extraordinary efforts of thousands of dedicated firefighters prevented even greater impacts.

In California's modern fire suppression era, this many fires starting early in the season, and burning simultaneously over such a long a period of time is unprecedented. While there have been larger, more damaging individual wildfires, this siege is the largest fire event on record in California. Fire histories reconstructed from tree rings conclude that there have been rare years when widespread fire occurred throughout the state covering millions of acres. If the fire suppression efforts during this siege had not been waged, many of these fires would have burned unchecked into the late fall, burning much additional area. The suppression efforts resulted in less area burned, reduced threat to communities, public health and safety, and reduced direct fire impacts to ecosystems.

Timeline: 2008 Fire Siege

JUNE 20-21▶



Lightning storm ignites over 2,000 fires.
Governor Schwarzenegger orders CANG to mobilize MAFFS NorCal MAC activated

23▶



Governor Schwarzenegger declares state of emergency in Monterey, and Trinity Counties

24▶



Over 500 of the fires are fully contained

25▶



Governor Schwarzenegger briefed at Butte Complex in Chico and Basin Complex in Monterey
CalMAC convenes

JULY 1▶



Governor Schwarzenegger briefed at Shasta Complex; CANG deploys 200 ground troops to fires
Gap fire starts in Santa Barbara County and is top priority for resources

3▶



Anderson Valley Volunteer Firefighter recruit Bob Roland assigned to Mendocino Complex dies

4▶



Additional 200 CANG ground troops deployed

7-10▶



Foehn Wind event coincides with record heat and low relative humidity

12▶



Piute Fire receives significant rain with flash floods

17▶



President Bush tours North Operations Coordination Center and Shasta Complex

24▶



Additional lightning strikes in Northern California with 174 fires, including the Panther Fire

25▶



Andrew Palmer, Olympic National Park firefighter fatally injured when struck by falling tree on Iron Complex



26 ▶



Governor Schwarzenegger declares state of emergency for Mendocino and Shasta Counties

27 ▶



Governor Schwarzenegger briefed at Whiskeytown National Recreation Area

28 ▶

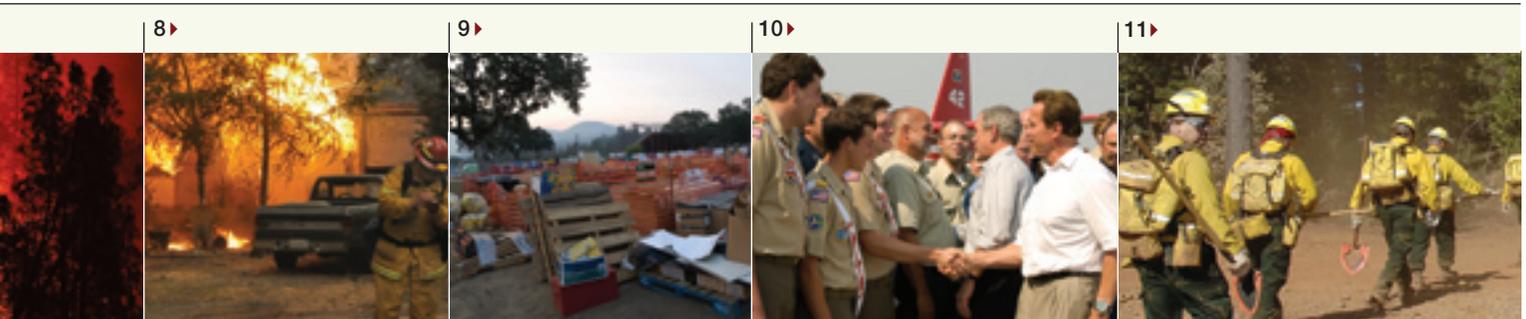


President Bush signs federal disaster declaration for Butte, Mendocino, Monterey, Santa Clara, Santa Cruz, Shasta and Trinity Counties

30 ▶



Governor Schwarzenegger declares state of emergency in Plumas and Kern Counties



8 ▶



Camp Fire in Butte Complex burns through Concow and destroys 50 homes

9 ▶



Governor Schwarzenegger makes request to President Bush for additional federal resources

10 ▶



Governor Schwarzenegger visits firefighters at Shasta Complex

11 ▶



Civilian fatality reported, Concow area, Butte Complex

Governor Schwarzenegger mobilizes additional 2000 CANG troops to train for firefighting duties



26 ▶



Daniel Packer, Chief East Pierce County Fire, Washington succumbs to fatal injuries while assigned to Panther Fire

30 ▶



4th wave of ground troops deployed to Telegraph Fire

AUGUST 5 ▶



Contract helicopter crashes killing 9 occupants on the Iron/Alps Complex. 4 survivors hospitalized

*Starting June 20, over
2,000 fires ignited due
to over 5,000 lightning
strikes across the state.*



Introduction

Starting late in the afternoon of June 20th and continuing through the next day and evening, California experienced a series of severe thunderstorms. They carpeted the state from Big Sur to Yreka with more than 5,000 lightning strikes igniting over 2,000 fires. When the fires were contained, over 1,200,000 acres were burned. At the peak of fire control operations on July 13, over 20,000 firefighters, from as far away as Australia and New Zealand, were engaged.

The fires had a great impact on people and society. During this fire siege, thirteen people were killed and many fire fighters were injured. The fires destroyed 186 homes, 1 commercial building (USFS Limesdyke lookout), 183 other structures, and caused hundreds of millions of dollars in property and natural resource damage. Thousands of people were evacuated from their homes, some for several days at a time, and some more than once during the summer. Communications, power delivery, and transportation systems were disrupted. Smoke degraded the air quality over large portions of the state for weeks at a time, which presented significant health hazards and disrupted outdoor activities.

The long term ecological effects of these fires were complex and varied, and some generalizations can be made. Fires burned valuable timber and watershed lands, including the habitats of several threatened and endangered species. Some areas in the 2008 June Fire Siege burned with high fire intensity (energy release) and severity (biological effect), but much of the fire was moderate to low intensity and severity. While high severity is part of the natural fire cycle that

some types of vegetation are adapted to (many kinds of chaparral), other types have accumulated fuel during decades of fire exclusion. For much of the area, the fires were typical of the kind of fire that has burned there for thousands of years. The long term effects on natural resources were mostly beneficial as fire was returned to ecosystems and heavy fuel accumulations were reduced. Under the emergency conditions of the siege, suppression was the primary regional objective, and fires were not intentionally managed to obtain ecological benefits.

Both the Governor of California and the President of the United States toured fire operations. Governor Schwarzenegger declared a state of emergency for 13 counties, and President Bush declared a state of disaster, which made available a wide variety of federal assets, including the military.

In California's modern fire suppression era, there is no record of that many fires starting in such a short timeframe, that early in the season, and burning simultaneously over such a long a period of time. There have been larger and more damaging individual wildfires, but the number of acres burned by so many large fires at once is unprecedented.

Purpose

The purpose of this report is to provide a broad, factual overview of the 2008 June Fire Siege, documenting key events, providing summary statistics, and serving as a reference for other more detailed reviews, inquiries, studies and reports. This effort also describes the following:

- ▶ Weather and fuel conditions that made California’s wildlands susceptible to extreme fire behavior early in the “fire season”
- ▶ Situations that made the fire control efforts difficult
- ▶ Competition for limited fire suppression resources
- ▶ Social and economic impacts including infrastructure, health, and direct threats to life and property
- ▶ Organizational process and interagency cooperation in response to an event of this magnitude

Detailed assessment and analyses of specific issues that arise during this siege are the focus of other efforts and not covered in this report.

Fire History

California’s Mediterranean climate with dry summers and abundant available fuel creates an environment favorable to the occurrence of fire. California and the Western United States have a history of wildfires. For thousands of years, Native Americans have used fire extensively to sustain plant and animal populations and provide for their own safety. Early European settlers continued the use of fire as a tool to help clear the land for subsistence farming and grazing. Fuel continuity and fire patterns were disrupted with the widespread, intensive domestic livestock grazing in the latter part of the 19th and early 20th centuries.

Responding to a series of massive wildfires in 1910, public policy changed to require immediate suppression of wildfires. The Forest Service adopted the “10 a.m. Policy” under which every wildfire was to be controlled by 10 a.m. the morning after it started. Federal and

state wildland fire agencies began developing suppression forces that became effective at reducing the annual acreage burned in forested ecosystems. This policy was effective at eliminating the small, low-intensity forest fires that limit fuel loading, but have had little effect on the infrequent, high intensity fire. The long term effect of fire exclusion has been heavy accumulation of forest fuel, increased tree density, and greater risk of stand replacing fire. As the population of California increases, more people and their homes are situated adjacent to wildlands, where wildfires are likely to occur.

California Lightning Siege Fires

The term “fire siege” can be defined as multiple fires that burn simultaneously over an extended period of time, over large geographic areas and severely challenge fire suppression resources.

Wildland fire sieges in California follow two distinct patterns. One type of fire siege occurs in the Klamath Mountain and Sierra Nevada foothills and mountains. Often these are started by numerous lightning strikes over a large area and burn over a relatively long period of time such as the 2008 June Fire Siege and the Siege of 1987. The second pattern is for large chaparral fires in the south and central California coastal mountains or Sierra Nevada foothills. These fires usually are human caused during extended periods of hot, dry weather conditions or during Santa Ana or foehn wind events, such as the 2003 and 2007 fire sieges.

Table 1 shows a series of lightning fire events recognized by many regional fire chiefs as significant sieges. Note that the 2003 and 2007 wind-driven

sieges are comparable to these lightning fire sieges in acres burned (750,043 acres in 2003 and 517,937 acres in 2007) but involved far fewer fires (14 fires in 2003 and 16 fires in 2007).

The 2008 June Fire Siege was unique. Although it was only June, the burning conditions were typical of August, because of spring drought. The storms on June 20th concentrated large numbers of lightning strikes which started wildfires in Northern California. Fires spread over a wide range of elevations, from the Sacramento Valley floor to the high country wilderness of the Trinity Alps. Fires were reported in several CAL FIRE units and National Forests, the Hoopa Indian Reservation, and Whiskeytown National Recreation Area. These fires possessed tremendous potential to

become large and some exhibited high resistance to control efforts. Many siege fires continued to burn throughout the summer.

The Governor's Office of Emergency Services reports the 2008 June Fire Siege as the largest single fire event in California's recorded history (since 1936) with over 1.2 million acres burned. The second largest event was the 2003 October Fire Siege with over 750,000 acres burned.

To put the 2008 June Fire Siege into perspective, Table 2 shows the 26 fires burning the largest area in California from 1932 to 2008. In the 76 year record, more than half of the largest fires have occurred in the 8 years since 2000. Six of those fires are during the 2008 June Fire Siege.

Table 1: Significant lightning sieges in California from 1955

Year	Date	Duration	No. of Fires	Acres	Large Fires (within the siege)
1955	August	18 days	436	307,113	Haystack Fire, Refugio Fire
1977	August	3 weeks	240	344,000	Marble-Cone Fire, Haypress, Pondosa, Scarface Fire Gerig-Mevers Fire, Hog Fire, Silver, Eagle Lake
1987	August	8 weeks	1241	640,000	Stanislaus Complex, Mendenhall Fire, Flume, Wallow, Cold Fires, Hyampom Complex, 1987 Complex, King Titus, Yellow Fire, Elk Complex, Kelsey Complex, Lake Complex
1999	August	3 months	1200	800,000	Big Bar Complex, Kirk Complex, Butte Complex, Shasta Complex, Bucks Complex
2008	June	3-5 months	1754	1,200,000	Basin Complex, Iron/Alps Complex, Lime Complex, Yolla Bolly

**Complexes that occurred during the 2008 June Fire Siege. Developed from CAL FIRE Fact Sheet dated 1/12/2009 and incident reports.*

Table 2: California's 26 largest fires by acreage since 1932.

Fire Name/Cause	Start Date	County	Acres Burned	Structures Destroyed	Fatalities
Cedar (<i>human</i>)	Oct 2003	San Diego	273,246	4,847	15
Zaca (<i>human</i>)	July 2007	Santa Barbara	240,207	1	0
Matilija (<i>undetermined</i>)	Sept 1932	Ventura	220,000	0	0
Witch (<i>powerlines</i>)	Oct. 2007	San Diego	197,990	1,650	2
Marble Cone (<i>lightning</i>)	July 1977	Monterey	177,866	0	0
Laguna (<i>powerlines</i>)	Sept.1970	San Diego	175,425	382	5
Basin Complex* (<i>lightning</i>)	June 2008	Monterey	162,818	58	0
Day Fire (<i>human</i>)	Sept. 2006	Ventura	162,702	11	0
McNally (<i>human</i>)	July 2002	Tulare	150,696	1	0
Stanislaus Complex (<i>lightning</i>)	Aug 1987	Tuolumne	145,980	28	1
Big Bar Complex (<i>lightning</i>)	Aug 1999	Trinity	140,948	0	0
Campbell Complex (<i>powerlines</i>)	Aug 1990	Tehama	125,892	27	0
Wheeler (<i>arson</i>)	July 1985	Ventura	118,000	26	0
Simi (<i>under investigation</i>)	Oct. 2003	Ventura	108,204	300	0
Highway 58 (<i>vehicle</i>)	Aug 1996	San Luis Obispo	106,668	13	0
Iron Alps Complex* (<i>lightning</i>)	June 2008	Trinity	105,805	2	10
Clampitt (<i>powerlines</i>)	Sept 1970	Los Angeles	105,212	86	4
Bar Complex (<i>lightning</i>)	July 2006	Trinity	100,414	0	0
Lime Complex* (<i>lightning</i>)	June 2008	Trinity	98,715	5	0
Wellman (<i>equip. Use</i>)	June 1966	Santa Barbara	93,600	0	0
Old (<i>under investigation</i>)	Oct 2003	San Bernardino	91,281	970	6
Harris (<i>undetermined</i>)	Oct 2007	San Diego	90,440	373	8
Yolla Bolly Complex* (<i>lightning</i>)	June 2008	Mendocino	89,994	0	0
Siskiyou/Blue 2 Complex* (<i>lightning</i>)	June 2008	Siskiyou	88,069	0	1
Kirk Complex (<i>lightning</i>)	Sept 1999	Monterey	86,700	0	0
Shasta Lightning Complex* (<i>lightning</i>)	June 2008	Shasta-Trinity	86,500	25	0

*Six complexes that occurred during the 2008 June Fire Siege. Developed from CAL FIRE Fact Sheet dated 1/12/2009 and incident reports.



*The 2008 June Fire
Siege was unique.
Although it was only
June, the burning
conditions were typical
of August, because
of spring drought.*



*The hiring, training, education
and conditioning of firefighters
was emphasized during the
winter and spring.*

Setting the Stage

When storm cells formed over the ocean, moved onshore, and the first lightning struck during the evening of June 20th, the 2008 June Fire Siege began. To understand why the siege occurred, it is necessary to review the weather and fuel conditions that lead up to the first ignition.

Fire season in California is largely determined by California's Mediterranean climate of long, hot, dry summers and is usually busiest from July to October. During years with an atypically dry spring or fall the fire season can be longer. The spring of 2008 was extremely dry.

The year started wet through about mid-February, but there was very little significant precipitation for the rest of the winter and spring. For example, at the Redding airport January accounts for almost half of the year's total precipitation, with below normal precipitation from March through June. Statewide, spring (March, April, May) of 2008 ranked as the driest of the 114 years of record in the California Climate Tracker (Western Region Climate Center – California Climate Tracker). Snow surveys at the end of April 2008 show that water content of the snow pack was far below average in most mountain areas. The third week of May brought a heat wave that started in Northern California and spread to Southern California with 194 record high temperatures set. Dry weather continued in June and foehn winds blew from the 10th through the 12th.

The hot, dry spring caused early curing of lower elevation grasses and large woody fuel moistures were 4-8 weeks ahead of typical early summertime drying. In many places, shrubs put on little or no new growth, and mature shrub growth died back. The increased

ratio of dead-to-live fuel made already flammable brush even more dangerous. Forest fuels also died rapidly. By late June, fuels reached historic levels of dryness in several areas.

Preparedness

Preparation for the fire season in California is an intensive, year-round effort for the professional fire fighting agencies. The hiring, training, education and conditioning of firefighters is emphasized in the winter and spring. Equipment is purchased, updated, maintained and is standing by. Contracts are in place, overhead teams are staffed and organized, and mutual aid agreements and operating plans are finalized. The agencies must be ready when fire season arrives.

Months before the 2008 June Fire Siege started, the firefighting agencies in California recognized that the current combination of weather and fuel conditions had increased the potential for a very severe fire season. Federal fire agencies prepare for severe fire seasons that may occur in one or more regions of the country each year. That year, much of the focus was on California. The State of California increased its level of preparedness due to the potential volatility of the fire season and trend toward more active fire seasons.

On May 9th, 2008, California Governor Arnold Schwarzenegger signed Executive Order S-03-08 (see appendix), designed to bolster the state's preparedness for a long, dangerous fire season by increasing the state's firefighting resources and raising public awareness of the early, very dry fire season. The order directed CAL FIRE and other state agencies to take immediate action to prepare and protect the state from wildfire.

While the magnitude of the June lightning storm and resulting fires was not forecast, when it arrived, the firefighting agencies were well prepared for the long, severe fire season.

To prepare for the likelihood of a busy fire season, the fire agencies took several actions:

- ▶ Additional staff was hired and trained
- ▶ Interagency coordination agreements were developed and in place prior to the fire season
 - Interagency dialog was initiated and kept open
 - The northern and southern GACCs conducted a joint activation simulation in May
- ▶ Contracted fire-fighting resources were inspected, trained, and available for deployment
- ▶ Fire fighting resources were readied for quick deployment as conditions worsened
- ▶ Agencies exercised early contract start dates for aircraft.
- ▶ Early efforts were made to boost public awareness
- ▶ Military Resources were coordinated and made available
- ▶ Joint training exercises were conducted

Early Season Fire Activity

In May and June, California experienced major fires exhibiting fire behavior more characteristic of late summer than spring. These fires reflect the influence of drought, build-up of dry fuel, and wind driven rapid rates of spread. The fires described here are early indicators of what is to come.

The Summit Fire began on May 22nd, at 5:17 a.m. near Mayman's Flat in Santa Clara County and quickly spread into Santa Cruz County. North/northwest winds of about 20 mph (with gusts exceeding 50 mph) drove the fire at an extreme rate of spread, and burned nearly 3,500 acres on the first day. The fire was contained on

May 28th, burned 4,270 acres and forced the evacuation of about 1,500 residents. The fire destroyed 42 dwellings, 37 outbuildings, and 42 vehicles. At the height of the firefighting effort, over 3,500 personnel, including 250 engines, 98 hand crews, 54 bulldozers, 18 helicopters, and 7 air tankers were committed to the incident.

The Indians Fire started on June 8th on the Los Padres National Forest, about 20 miles west of King City in the Salinas Valley. By June 20, the fire was only 41% contained, and covered more than 50,000 acres in and around the rugged and inaccessible Ventana Wilderness Area. Firefighting resources committed to this fire operation included 121 fire engines, 71 hand crews, 15 bulldozers, 14 helicopters, 7 air tankers and more than 2,300 fire personnel. The Indians Fire eventually burned 81,378 acres before it was contained on July 10, 2008.

In Butte County on June 10th, the Ophir Fire started east of Highway 70 near Palermo. On June 11th the Humboldt Fire spread rapidly from the outskirts of Chico uphill into the town of Paradise. Combined, the two fires burned approximately 40,000 acres and 303 structures. At the height of the Ophir Fire operations, 96 engines, 21 crews, 11 bulldozers, and 429 personnel were committed. As the Ophir Fire reached containment on June 12th, all excess resources were re-mobilized from the Ophir Fire to the Humboldt Fire. At the height of fire operations on the Humboldt Fire there were 521 fire engines, 68 hand crews, 22 bulldozers, and 3,826 personnel committed to the fire-fight. More than 18,000 residents of the Paradise area lost power, and as many as 10,000 people were evacuated from their homes and businesses.

The Martin Fire was reported the afternoon of June 11th, off of Martin Road in the Santa Cruz County community of Bonny Doon. Unlike the Summit Fire,

which was primarily spread by strong wind, the Martin Fire burned in lighter winds in dry, heavy fuels. March through June rainfall amounts were the lowest ever recorded in this area, at about 8% of average. The weather for May and June was unseasonably hot and dry, with little of the seasonal marine layer intrusion. The Martin Fire burned 520 acres before being contained on June 16th; 90% of that acreage burned the first day. The fire forced the evacuation of approximately 1,200 residents and destroyed 3 dwellings and 8 outbuildings. At the height of fire operations, there were 67 fire engines, 29 hand crews, 11 water tenders, eight air tankers, and 100 personnel assigned, with a total of 200,000 gallons of water used. The Whiskey Fire, located south of the town of Paskenta

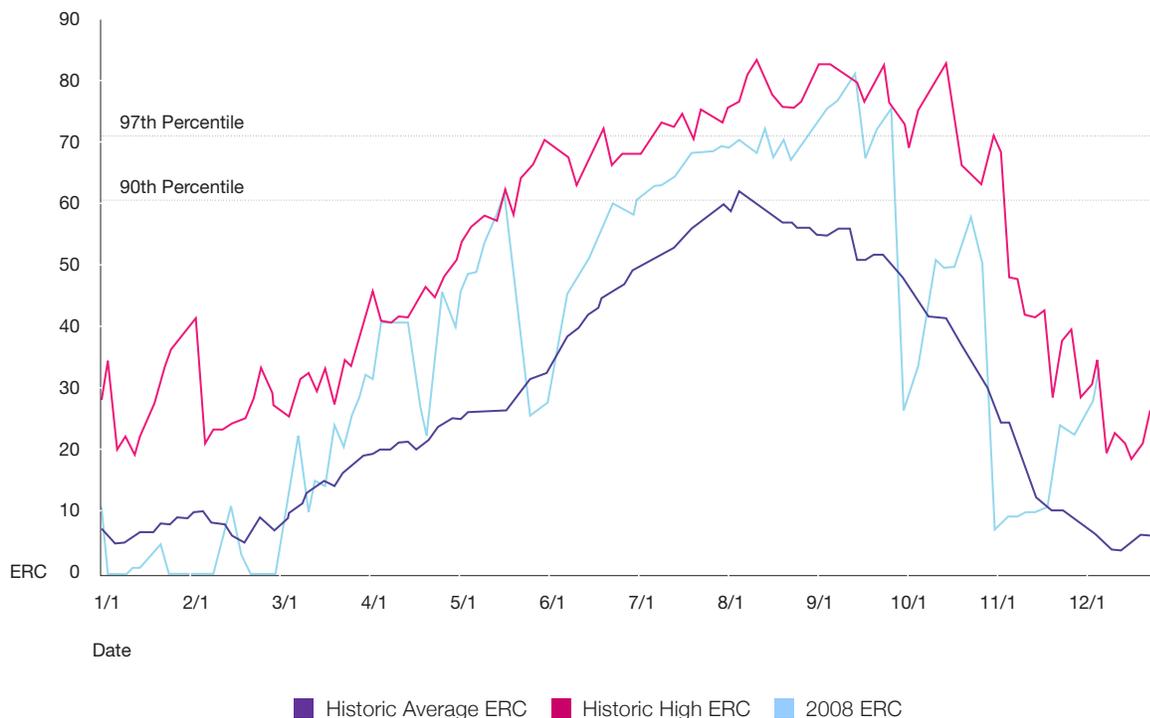
Forest, started on June 12th at 12:30 p.m. The fire threatened Thomes Creek, which is the water supply for Paskenta, private timberland, and high value livestock. A Type 2 Incident management team assumed command and contained the fire on June 19th at 7,783 acres. There were 30 engines, 28 hand crews, 11 dozers and 807 total personnel at the height of the incident.

Governor Schwarzenegger proclaimed a State of Emergency in the following counties: Santa Clara County (5/24/08) due to the Summit Fire, Butte County (6/11/08) due to the Ophir and Humboldt fires, and Santa Cruz County (6/11/08) due to the Whiskey Fire. These four fires combined burn 29,734 acres, destroyed 446 structures and damaged another 446 structures.



Energy Release Components (ERC) for North Zone

By late June, Energy Release Components (ERCs), a measure of how intensely wildland fuels will burn, were ranging from well above normal to record highs for the date.



The term “fire siege” can be defined as multiple fires that burn simultaneously over an extended period of time, over large geographic areas and severely challenge fire suppression resources.

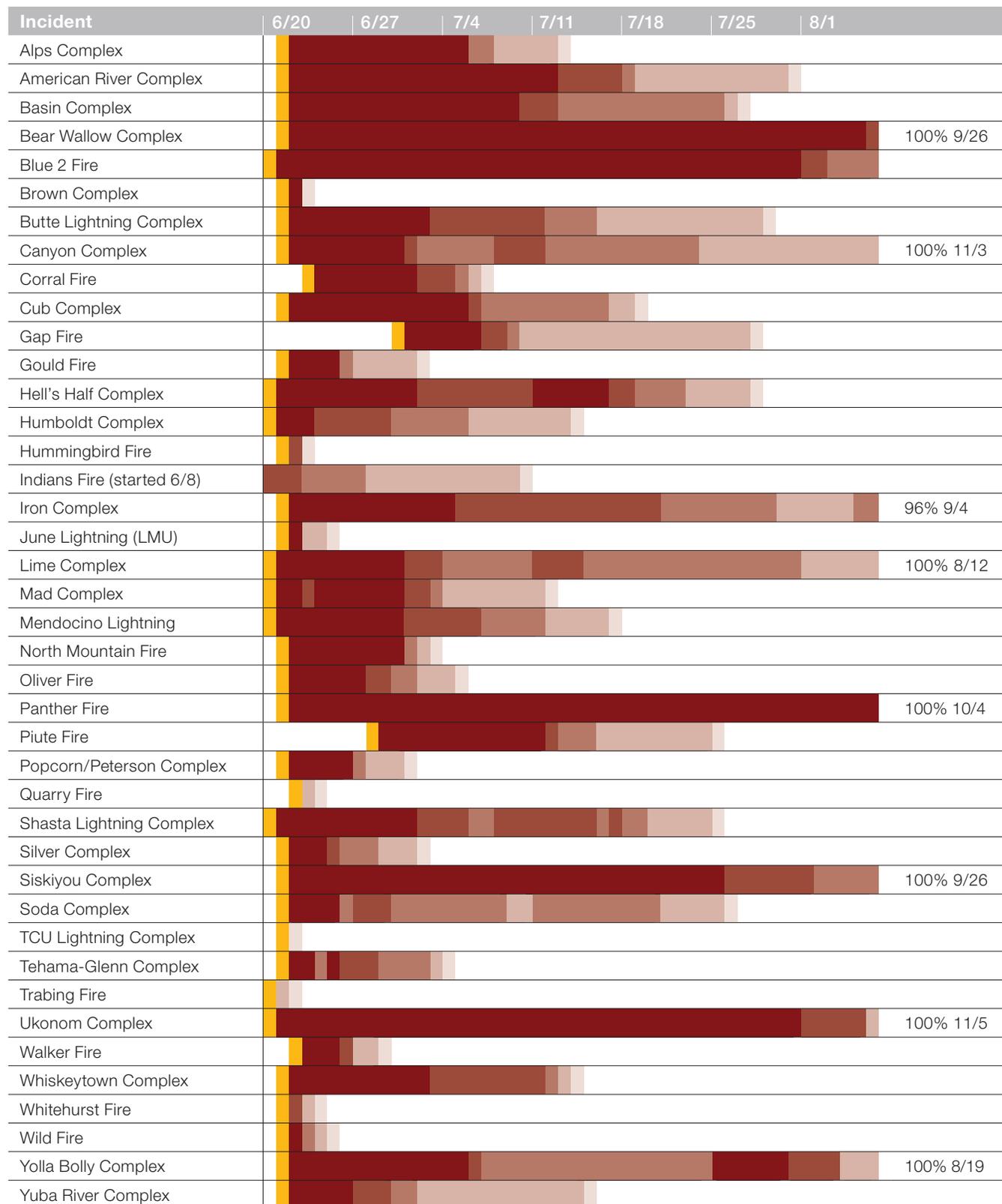
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TO MAP IN
SEPARATE FILE
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Siege Summary Part I: Statistics

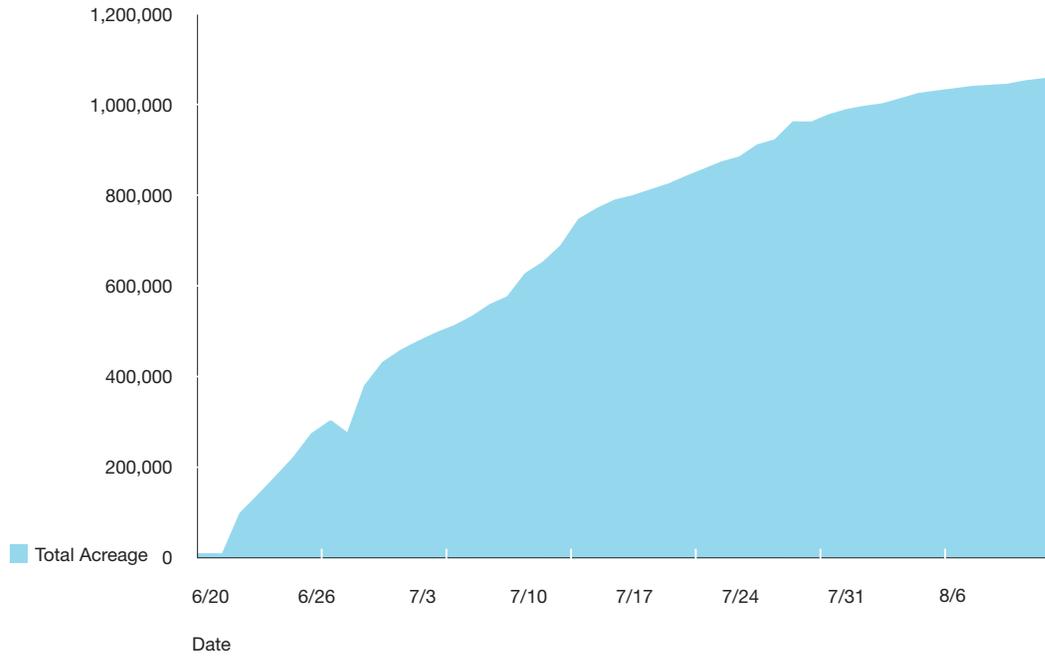
Incident Containment (% based on 1800 209 Information)

Start 0-39% 40-59% 60-79% 80-99% End

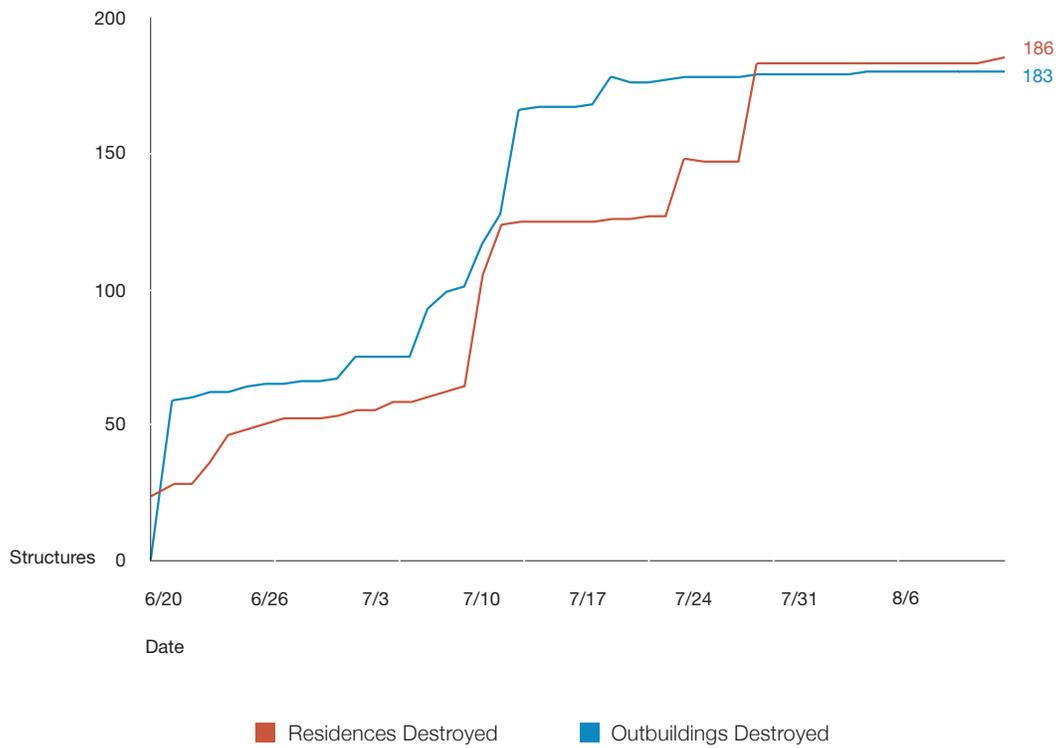




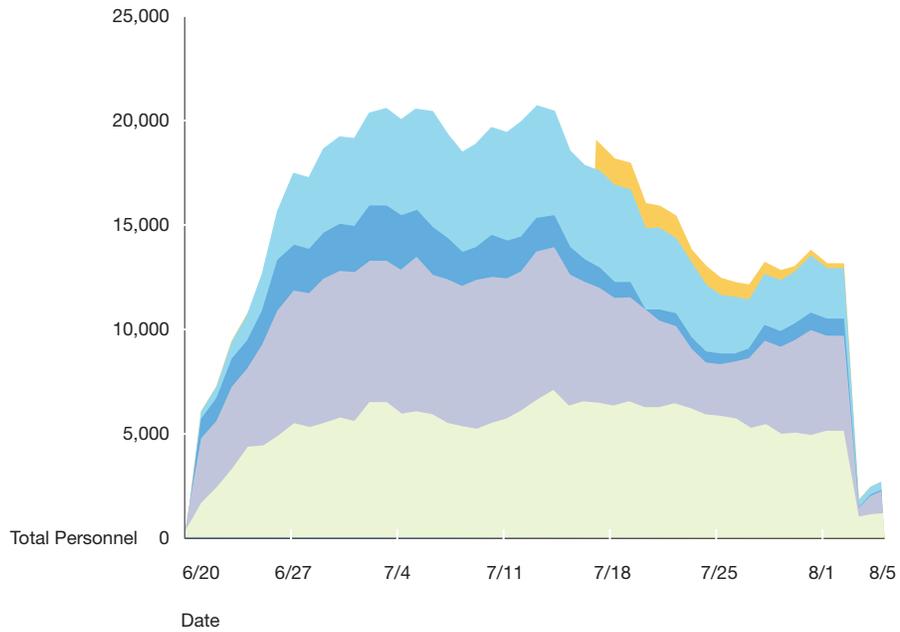
Acres Burned



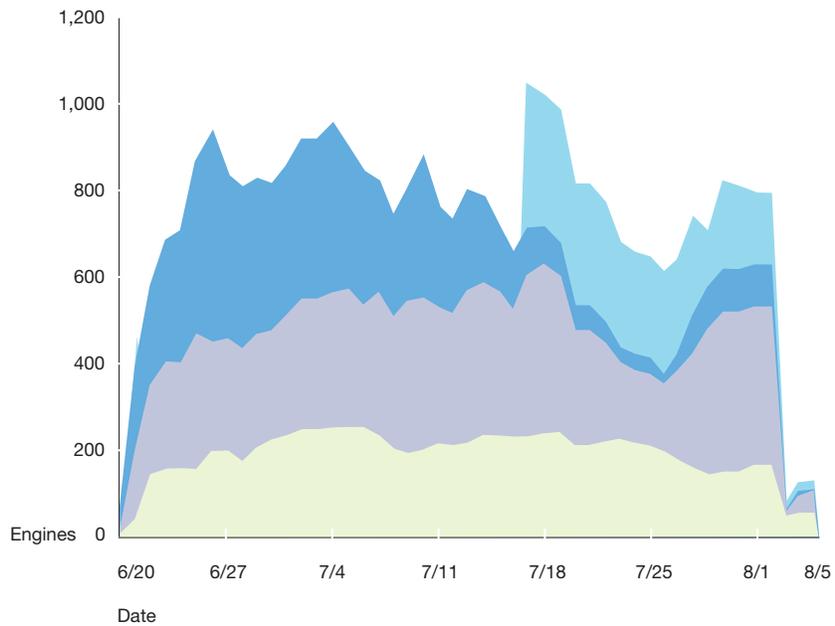
Structures Destroyed



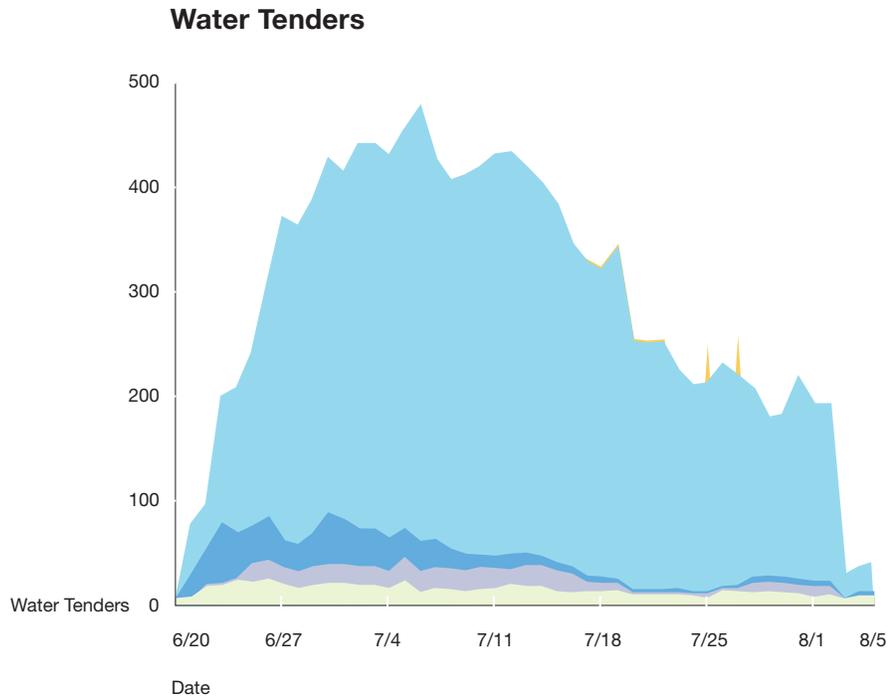
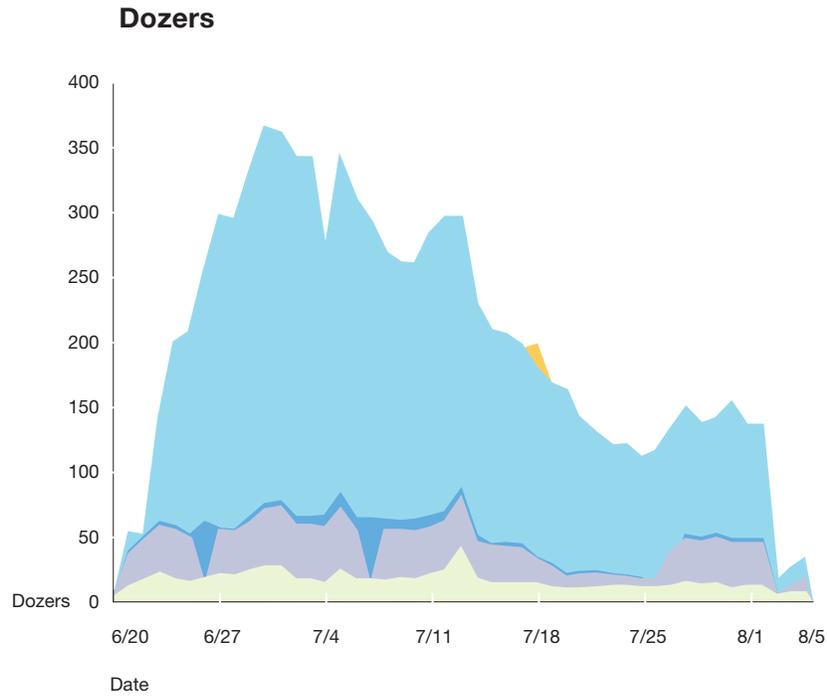
Total Personnel



Engines



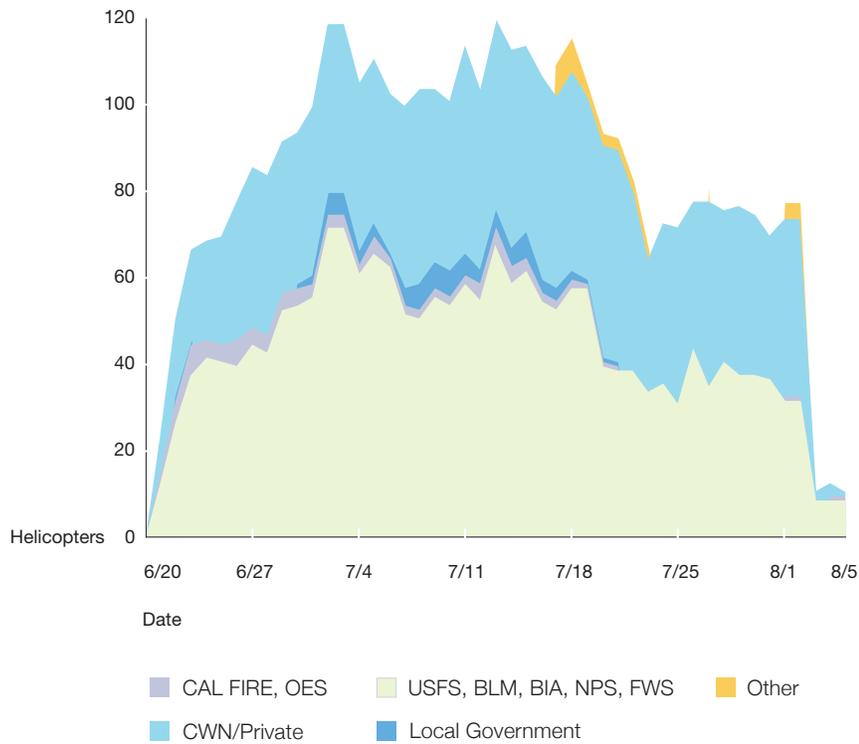
- CAL FIRE, OES
- USFS, BLM, BIA, NPS, FWS
- Other
- CWN/Private
- Local Government



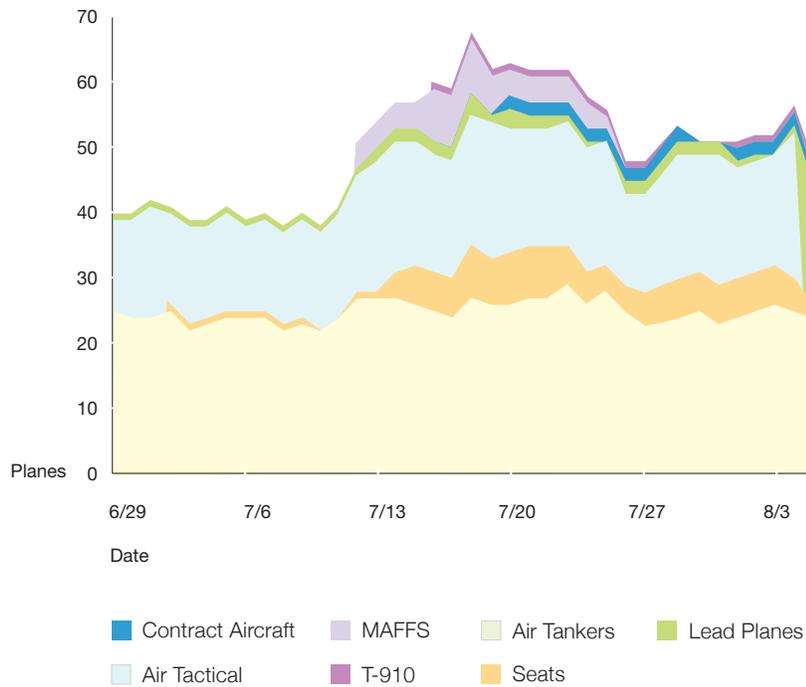
CAL FIRE, OES
 USFS, BLM, BIA, NPS, FWS
 Other

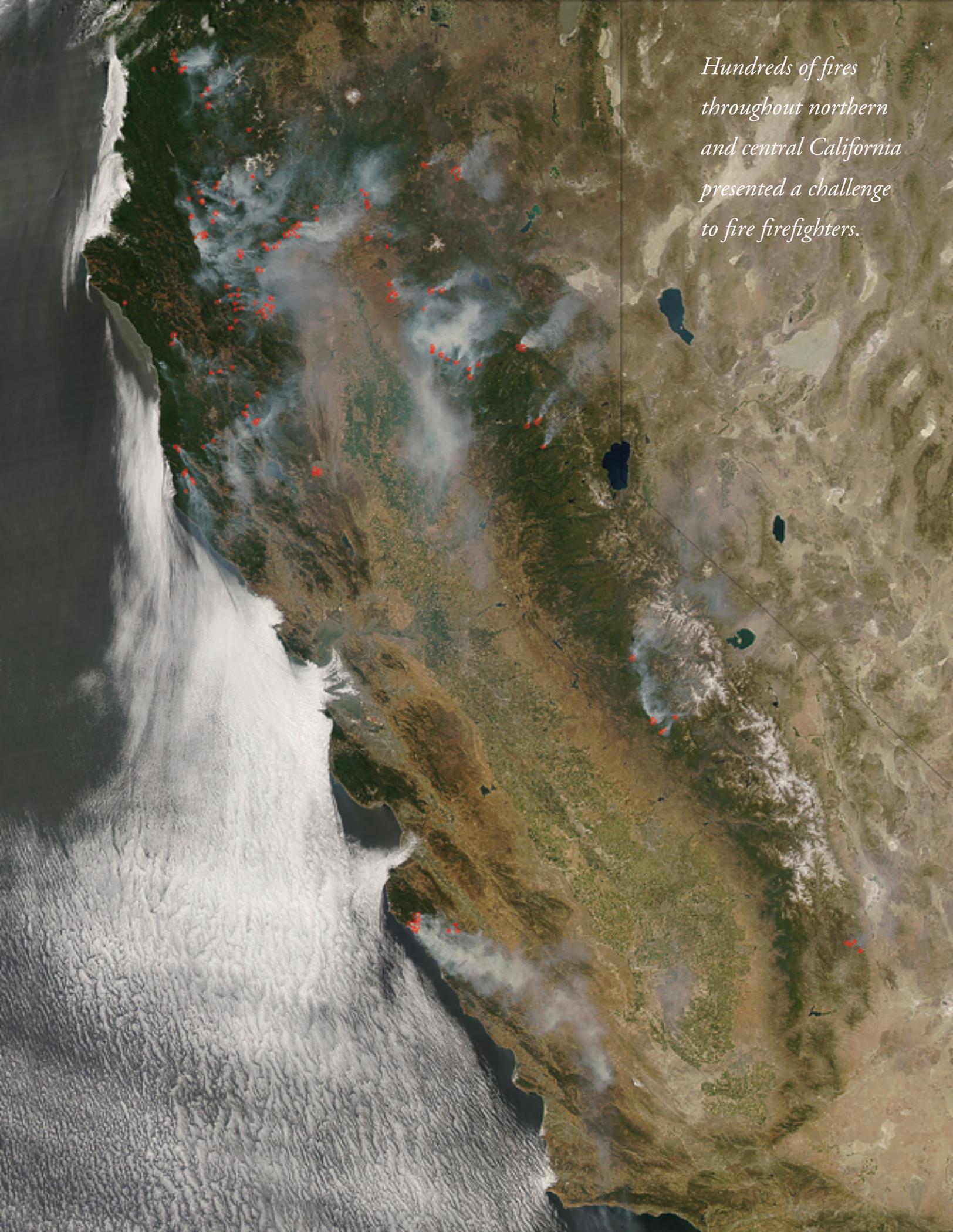
CWN/Private
 Local Government

Helicopters



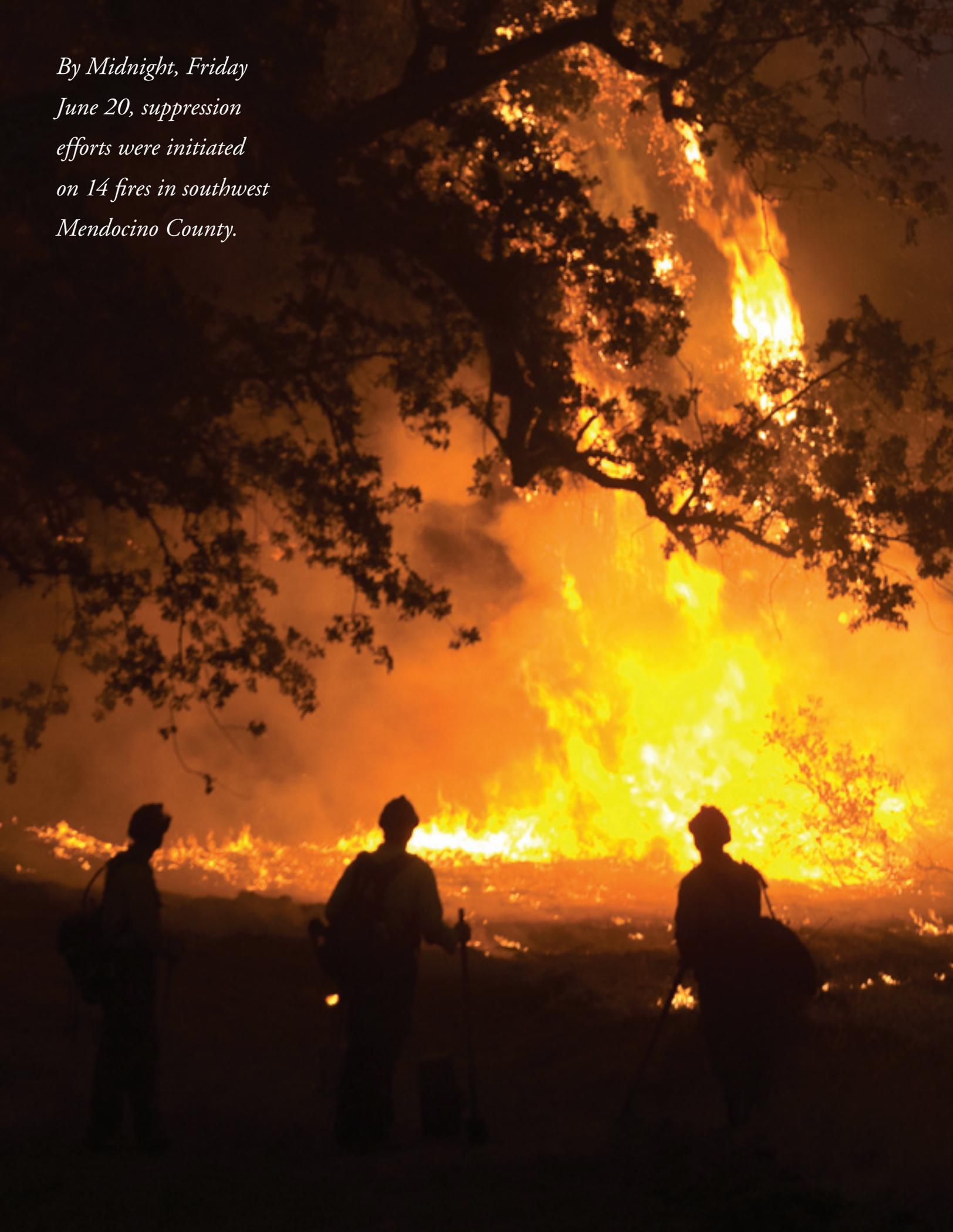
Fixed Wing Aircraft





Hundreds of fires throughout northern and central California presented a challenge to fire firefighters.

*By Midnight, Friday
June 20, suppression
efforts were initiated
on 14 fires in southwest
Mendocino County.*



Siege Summary Part II: The First 10 Days

Friday, June 20

The Lightning Storm

Fire activity was typical for California most of the day on June 20, 2008. The weather forecast predicted strong high-pressure over the southwest desert which produced seasonal warm and dry conditions for inland areas and a southwest flow which brought cool and humid conditions along the coast.

The Trabing Fire started that afternoon north of Watsonville, in Santa Cruz County, when a vehicle's exhaust system ignited a series of fires along a $\frac{3}{4}$ mile stretch of road. Those fires spread rapidly into a large eucalyptus grove and merged into a single fire which threatened hundreds of structures and forced the evacuation of about 2,000 people and 220 horses and other livestock. There were also two ongoing, large wildland fires burning: the Clover Fire and the Indians Fire. While the response to these fires was a sizeable resource commitment, numerous interagency wildland firefighting resources remained available for new initial attack fires.

By late afternoon and evening, thunderstorm cells and dry lightning strikes moved in along the coast from Big Sur, north to Humboldt County. As early reports started to accumulate, the magnitude of the lightning event and resulting fire situation revealed itself; the 2008 June Fire Siege was under way.

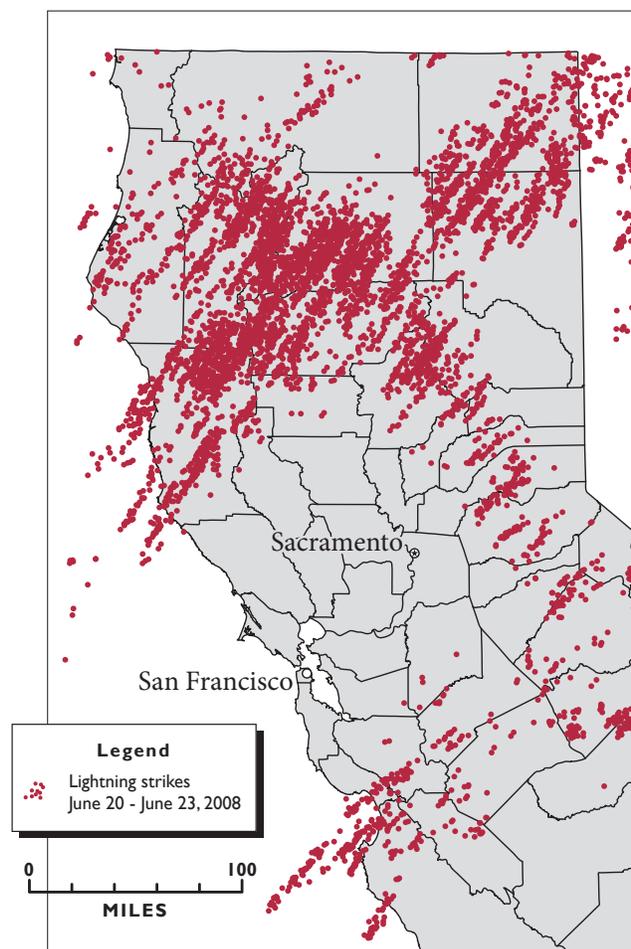
By midnight on Friday, suppression efforts were initiated on 14 fires in Southwestern Mendocino County between Boonville and Point Arena. Dispatch centers received reports of scattered lightning fires

along the coast. Further inland, the Six Rivers and Shasta-Trinity National Forests had reported several new fires from lightning.

Saturday, June 21

Lightning Activity Increased

Around 2 a.m. on Saturday, June 21st, the lightning activity increased with hundreds of downstrikes in Mendocino, Humboldt, and Trinity counties. A low pressure trough moved through Northern California on Saturday, intensified the lightning activity, swept north and east, and brought heavy concentrations of lightning





As early reports started to accumulate, the magnitude of the fire situation revealed itself.

strikes to Butte, Tehama, Shasta, and Lassen counties. Other counties also experienced lightning strikes and fires, but the center of the storm hovered over Mendocino, Trinity, Shasta, Tehama, Plumas, and Butte counties for most of the day. More than 5000 lightning strikes were recorded in the Northern California area during a 33-hour period.

Within a very short time period, lightning activity started a huge number of fires, and created competition for the state's interagency wildland fire protection resources. With many more fires than locally available fire-fighting resources, many fires remained unstaffed. Having committed all available resources to fires, many wildland fire stations were temporarily unstaffed or staffed by local volunteer fire departments and districts. During the siege, the federal and state fire agencies experienced severe resource drawdown. CAL FIRE staffed-up reserved and camp engines, formed additional hand crews composed of local firefighters and relied on local government and private dozers for initial attack. Out-of-state engines were brought into California to augment initial attack or support ongoing incidents.



Prioritization of fires became a vital part of allocating limited resources.

The Governor ordered the California National Guard to mobilize six helicopters, one RC-26 imaging aircraft, and two C-130 aircraft with Modular Airborne Fire Fighting Systems (MAFFS).

The Northern California Geographic Area Multi-Agency Coordinating (NorCal MAC) Group was activated. At the first meeting in Redding, they were confronted with hundreds of wildfires burning in conditions more typical of August than June. They quickly prioritized the fire situation by Administrative Unit.

Sunday, June 22

Creating Order Out of Chaos

On Sunday morning, the weather forecast called for hot and very dry conditions following the passage of the trough, with scattered thunderstorms possible over the Southern California mountains and deserts. Over 600 additional lightning fires were reported, with Butte, Mendocino, Shasta, Plumas, and Trinity counties hardest hit. Early reports revealed numerous, uncontained and unstaffed fires.

THE PARADISE FIRE

Humboldt and Del Norte Counties aren't known for wildfires. The cool moist climate with summer coastal fog allows for little of the fire activity characterizing summer in other parts of the state. Wildfire is mostly limited to the fall, when fuel moisture is lowest after the long, dry summer. This year the late winter and spring months were dry. The dry lightning storm on the night of June 20, 2008 ignited scores of fires across hundreds of square miles of remote and rugged terrain.

Most of the fires were extinguished within the first two days, but five persisted as significant threats: the High, Larabee, Redcrest, Lone Pine, and Paradise. The most perilous of those was the Paradise Incident, named for its location on Paradise Ridge in the King's Range. It threatened the coastal community of Shelter Cove.

First on the scene was the Briceland Volunteer Fire Department. As other fires drained fire suppression resources, the Paradise Incident was in the capable hands of the volunteers well beyond its initial attack phase. Diana Totten of Beginnings Volunteer Fire Department remained the Paradise Incident Commander for many days after ignition. Chief Totten had a good plan, and with her department's knowledge of the area and outstanding dedication, they moderated the spread of the fire. As other fires in the region were quelled and more resources become available OES engine companies, conservation camp crews and air resources were redeployed to Shelter Cove. The Paradise Incident was contained at 1,000 acres. The community of Shelter Cove was left unharmed. It was a success story of local government supporting the state and national fire fighting efforts.

In all, it was an effort above and beyond the call of duty. Many unsung heroes emerged from the 2008 June Fire Siege after a highly unusual early summer storm.

“...a success story of local government supporting state and federal fire fighting efforts.”

MENDOCINO'S LOGISTICAL CHALLENGE

CAL FIRE's Mendocino Unit encompasses 3,509 square miles of mountainous, timbered terrain, stretching from the Pacific Ocean to the crest of the Coast Range, at 6,954 feet. It is a big chunk of country that CAL FIRE covers with ten fire stations, two conservation camps, and an Air Attack Base.

On June 20th, lightning started fires along the southwest coast near Pt. Arena. CAL FIRE staffed all 14 known fires with firefighters. New downstrikes started early the next morning, and continued through the next day which ignited fires across the county. Saturday afternoon 60 fires were mapped, but at least as many were unmapped and the lightning continued. Sunday afternoon over 120 fires burned in steep, rugged, timber country along the coast and inland. Many were unstaffed, as all available forces were committed. A CAL FIRE Incident Command Team was ordered and set up at the fairgrounds in Ukiah.

To cover the large area, six branches were created, each with its own Incident Base. Priority was given to the south coast timber fires. The incident base was not established until Wednesday, because a big music festival was using the only facility in the area suitable for this operation, the Anderson Valley fairgrounds. Eventually, the base grew to support a large number of agency and contract firefighters, and 200 National Guard troops.

An incident base at the Fort Bragg Forest Fire Station/Jackson State Demonstration Forest headquarters covers the north coast fires. Since timber companies were taking action on fires on their properties, this base remained small, using existing facilities.

At Laytonville, logistics were more difficult. Limited facilities could not support the hundreds of firefighters for several weeks. A fire camp was set up in a pasture across the highway from the Laytonville Forest Fire Station, but water and phone lines were on the wrong side of the highway. Pipe and telephone lines were laid alongside U.S. 101 to a culvert, under the highway, and into the rapidly developing tent city.

Covelo is also a small town, lacking facilities to support large numbers of firefighters. The Covelo Forest Fire Station is an old style CAL FIRE station, with large barracks, mess hall capacity, and a big restaurant-size cooking range. A Ukiah restaurateur with a reputation for catering large events provided hot meals.

The Ukiah fairground incident base had adequate facilities to support the Incident Command Team, plus the Ukiah and Willits branches of the fire operations. They were the "point of distribution" for everything that it would take to keep fire operations going countywide for several weeks. Crews from the California Conservation Corps ran Supply Units at the Booneville and Laytonville bases, dispensing everything from drinking water to sleeping bags. Each operational period, "circuit riders" distributed everything from the Incident Action Plan, news releases and maps for community bulletin boards to hose, fusees, and MREs.

This effort was sustained for six weeks, until all of the 129 fires were contained after burning 53,300 acres.

*“with no outside help immediately available,
it is time to do some creative thinking”*



Despite the great number of starts, fire fighters were having a lot of success containing fires.

California was divided into two geographic areas, splitting the workload during multiple incidents. There were three Multi-Agency Coordination MAC groups in California: Northern California geographic area MAC or NorCal MAC, Southern California geographic area MAC or SoCal MAC and a statewide MAC referred to as CalMAC. The MACS, consisting of regional chief officers (USFS, DOI, CALFIRE, County and OES) were established to prioritize incidents and manage resource allocations for their respective geographic areas.

The NorCal MAC quickly implemented procedures to prioritize incidents on 20 different units. Given the large number of fires, several fires were grouped into complexes to facilitate priority setting.

The prioritization of incidents is based on the following:

- ▶ Life threatening situations
- ▶ Real property threatened
- ▶ High damage potential (infrastructure, natural and cultural resources)



Limited fire fighting resources left some fires unstaffed.

- ▶ Incident complexity (multiple jurisdictions, potential for growth, current political situation, potential for more incidents)

Fire-fighting resources were allocated to the administrative units for dispatch to the priority fires within a complex. NorCal scored and ranked individual large fires and complexes daily until August 20.

Monday, June 23

Evacuations and Life Threat

The fires had a major impact on local communities, regional transportation corridors, and power infrastructure. Evacuations were ordered for multiple fires near residential areas in Solano, Napa, Shasta, Trinity, Lassen, Mendocino and Butte Counties. A spot fire on the slope below the town of Paradise in the Butte Complex generated an order for 125 fire engines to protect threatened structures. Fires in the Lime Complex, in Trinity County, destroyed the USFS Limesyke Fire Lookout, had the potential to surround entire communities (Hyampom, Hayfork, Platina and Harrison Gulch) and affected thousands of residents.



Fire-fighting resources were dispatched to the priority fires within the complexes.

The fires closed major routes from the Central Valley to Eastern California including State Routes 299 East, 44 and 70. The Lime Complex threatened SR 3 and 36 in Trinity County and had the potential to sever all ingress/egress on the county road to Hyampom.

In Shasta County major transmission lines in Burney were threatened, and approximately 4000 Pacific Gas and Electric customers in the Shingletown area were without power. The Butte complex threatened the South Feather Water and Power Transmission lines.

Governor Schwarzenegger received a briefing on the statewide firefighting efforts at the base camp of the Wild Fire burning in Napa-Solano Counties. The California National Guard assets, requested on Saturday, were deployed. The Governor declared a state of emergency in Monterey County and Trinity County for the numerous fires, including the Basin Complex and Lime Complex.



The hundreds of active fires required fire managers to constantly reassess priorities.

Tuesday, June 24

Early Successes

Despite the great number of starts, severe burning conditions and limited resources, fire fighters contained more than 500 fires. Some original fire-starts merged together and created larger fires. NorCal MAC reported 26 large uncontained fires or complexes (approximately 400 total active fires) and SoCal MAC prioritized 6 large uncontained fires.

Wednesday, June 25

Governor and CalMAC

Another success was achieved when the Wild Fire was declared contained at 4,089 acres.

The Governor received briefings for the Butte Complex in Chico and the Basin Complex in Monterey County. He requested additional helicopters from Oregon, Arizona and Washington to assist fire-fighting efforts.

In response to the statewide competition for firefighting resources, the California Multi-Agency Coordination (CalMAC) group was activated in Sacramento.

FUEL TREATMENTS MAKE A DIFFERENCE DURING THE SIEGE

Fuel treatments completed in 1999, 2005 and 2007 at Whiskeytown National Recreation Area (NRA) were tested during the 2008 Fire Siege and played an important role in suppressing the Motion Fire, the Moon Complex and other fires near Whiskeytown Lake.

Multiple fires were started by lightning in this area on June 21. One fire smoldered overnight, raced uphill and reached the Shasta Divide Prescribed Burn Fuelbreak in Whiskeytown NRA, which essentially stopped the forward spread, while the north flank of the fire ran into old control lines that had been used to burn brush piles. A handcrew and fire staff from Whiskeytown were able to anchor and flank this fire using the old control lines to stop the spread on the north flank and tie the head of the fire into the Shasta Divide Prescribed Burn Fuelbreak, which limited this fire to just 3 acres.

The Motion Fire started near Shasta Dam and entered Whiskeytown NRA in mid-July. The fire threatened the town of Old Shasta, and several homes and park offices in Whiskeytown where evacuations were in place. Whiskeytown NRA's efforts, over the years, to reduce hazardous fuels proved successful, saving park offices due to lower fire intensities in the treated areas around structures. Firefighters used the treated areas to make stands and conduct safe burnout operations. Burnout operations from Highway 299 west to the Whiskey Creek area checked the fire's spread. They were successful partly due to fuel treatments completed in 1999 and the Sunshine prescribed burn completed in 2001. The 2007 Whiskey Creek roadside shaded fuelbreak also proved instrumental in holding the Motion Fire at Whiskey Creek Road.

The Moon Complex started on CAL FIRE protected land in the Rainbow Lake / North Fork of Cottonwood Creek in western Shasta County about 2 miles from Whiskeytown NRA. Fire spreading north, eventually merged with the Mary Fire of the Whiskeytown Complex. The fire reached the boundary of the 2005 Queen Mary Prescribed Burn and spread into BLM land near Shoemaker Bally along County Line Road which borders Trinity County. The Queen Mary fuelbreaks and access roads were used to access and check the westward spread of the Mary Fire, while the west and south Queen Mary fuelbreaks were used as firebreaks that stopped the spread of the Moon Complex. The fire tried to spread into the old 2005 Queen Mary burn, but the fuel was too sparse to support any spot fires. CAL FIRE and Federal crews were able to secure the fire along the old fuelbreaks which were improved and then burned out through back firing operations. The fuelbreaks were utilized for access and potential escape routes. Some were further strengthened with bull dozers. Overall, the fuelbreaks greatly increased the success of the fire suppression effort.

In conclusion, the work on fuel breaks, the fuel reduction along roads, and the prescribed burns completed before the 2008 Fire Siege significantly reduced fire intensity and increased the success of fire suppression efforts near Whiskeytown Lake.

“Pre-existing fuel treatments greatly increase the success of suppression efforts.”

RESPONSES TO SMOKE IMPACTS

The 2008 June Fire Siege produced a widespread siege of smoke, with the greatest impact on communities located in places where topography traps smoke particles. Hayfork in Trinity County and Covelo in Mendocino County are examples of places where smoke impacts were severe. Poor air quality prompted deployment of mobile monitoring systems, frequent air quality advisories, and a formal Hoopa Valley Tribal Council request to the Humboldt County Board of Supervisors to declare a state of emergency based on the public health threat from prolonged smoke exposure.

Responding to the smoke impacts, the Hoopa Valley Tribe declared a local state of emergency, activating an incident management organization. By mid-July, the K'ima:w Medical Center had seen 133 patients for smoke related health problems; 100 people were relocated to reduce further smoke inhalation, and HEPA air filters were purchased for residents with severe respiratory conditions. The Tribe set up clean air facilities at the community center gym and the senior nutrition center. Some residents who were experiencing respiratory difficulty during that year's siege, had pre-existing conditions attributed to smoke exposure during the 1999 Megram Fire. The Centers for Disease Control and Prevention, studied the effects of smoke exposure on Hoopa residents in 1999. K'ima:w Medical Center Director Eva Smith points out that there is no research on the long-term or cumulative effects of smoke exposure over time. Both the Hoopa Valley Tribe and Yurok Tribe were included in the President's emergency declaration [June 16, amended September 28, 2009], which allowed reimbursement for emergency response costs.

The 2008 fire siege kept many Air Quality Districts and public health agencies busy monitoring and anticipating smoke impacts and responding to air quality concerns. The district kept residents informed of current and projected smoke levels, which allowed them to take appropriate actions to protect themselves.

Combined particulate emissions from fires affecting the Monterey Unified Air Quality Pollution Control District were estimated to be over 20,000 tons, with peak daily emissions near 1,000 tons (10 times that from non-wildfire sources). The District issued 31 public health smoke advisories, responded to citizen phone calls, and targeted reverse calls to impacted areas. In Shasta County, 20 days of unhealthy air quality were recorded during July at a monitoring station in Anderson (10 unhealthy for sensitive groups, seven unhealthy for all, three very unhealthy for all).

Siskiyou County reported adverse air quality for Fort Jones, Happy Camp, Weed and Yreka. Happy Camp had 16 days exceeding the air quality standard in July and 17 days in August. Weed was the least impacted location monitored in the county, with seven days exceeding the air quality standard in July, and three in August.

Prevailing winds in Mendocino County "pooled" the smoke from large fires into the Ukiah, Redwood, and Potter Valleys.

As the heavy smoke persisted for many days, it created unhealthy conditions over a large area with potential for long-term impacts. The greatest health risk was posed to the young, old, and those with pre-existing respiratory conditions. Smoke impacts during this siege emphasize the need for improved air quality monitoring and community strategies to better prepare us for when fires return to burn for many days again.

"...there is no research on the long-term or cumulative effects of smoke exposure..."

They convened for the first time in over 9 years when the state Preparedness Level reached the maximum of 5. CalMAC reviewed the Northern and Southern MAC group priorities, established statewide priorities, and approved resource allocations. CalMAC established procedures regarding sharing and use of critical resources, work-rest cycles and documentation requirements for incident management team requests. They were the communication point with National MAC for requesting national, active military and out-of-country resources. They continued to set priorities for the state until August 9th.

Thursday, June 26

Weather and Social Impacts

Adding to the growing list, Governor Schwarzenegger declared a state of emergency for Mendocino and Shasta Counties.

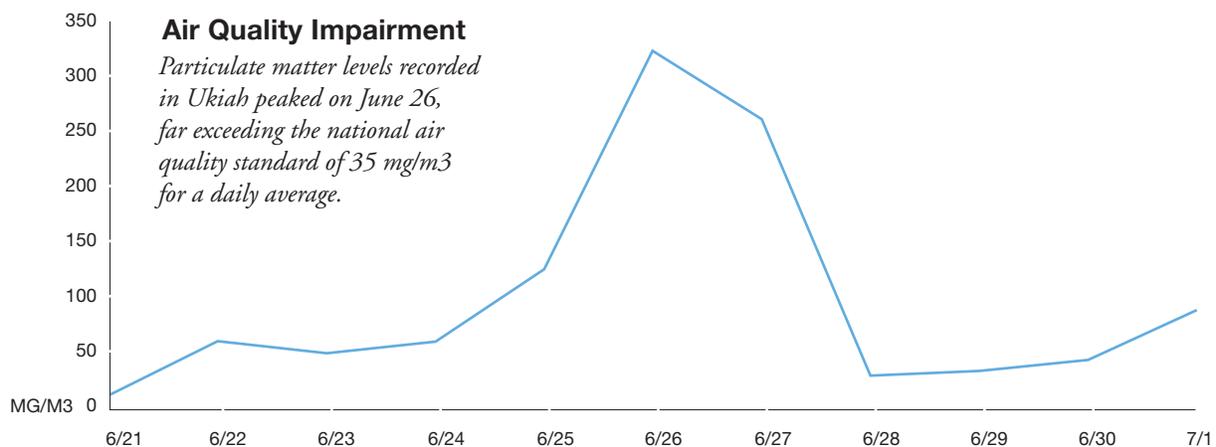
Air quality was impaired over a wide area throughout the siege, which put asthmatics and smoke-sensitive populations at risk and created unhealthy conditions for all. Air quality districts closely monitored airborne particulate matter levels and issued public health advisories in response to the heavy smoke concentrations.

An upper-level ridge strengthened the inversion over Central California, which trapped smoke close to the ground and prevented dispersion into the atmosphere. Air quality impacts occurred in areas many miles from the fires. Smoke impacts also impaired visibility, which limited the use of firefighting aircraft.

For administrative reasons, the Blue Fire was incorporated into the Ukonom Complex.

The power and communication infrastructure continued to be threatened by multiple complexes. The Nor-Cal fiber-optic main was threatened by the Mendocino Complex fires. The Western Area Power Authority power lines, extending from Canada to Mexico, were threatened by the Whiskeytown Complex, and the Shasta Dam power generating system were threatened by the Motion Fire in the Shasta Complex. The Shasta Dam power generating facility is a major supplier of energy to the Central Valley Project with 500 KV power lines. Power generation and transmission remained threatened in the Feather River Canyon by the Canyon and Butte Complexes.

Fire-fighting resources on the Whiskeytown Complex secured commercial communication towers used by



television, radio, and numerous public and private agencies and companies for two-way radio communications in the greater Redding area from potential damage.

Impacts to natural resources increased. The following chart depicts the estimated merchantable commercial timber by CAL FIRE Unit that was destroyed by the conclusion of the fire Siege. This does not include regeneration.

Friday, June 27 – Monday, June 30
Weather, Governor’s Briefing, and Presidential Declaration

Fire activity increased Friday morning with a significant north wind blowing down the Sacramento Valley. It cleared out smoke which allowed air tankers to operate effectively on several fires.

Governor Schwarzenegger and Interior Secretary Kempthorn visited Whiskeytown National Recreation Area and received briefings on the firefighting efforts statewide and on the Whiskeytown Complex.

Saturday began with a prediction for more thunderstorm activity and a Red Flag Warning in effect for dry lightning during the next 3 days. In anticipation of additional lightning storms forecast for the weekend, the Governor directed OES, CNG and CAL FIRE to utilize all resources and prepare for additional fires. He directed CAL FIRE to run a centralized staging area at the Madera County Fairgrounds. This ensured that resources throughout the state would be mobilized quickly and be ready for deployment if new fires emerge.

Governor Schwarzenegger sent a request to President George W. Bush for federal assistance, including air and ground firefighting resources. On Saturday, June 28, President Bush signed a federal disaster declaration which authorized federal assistance and fiscal support for Butte, Mendocino, Monterey, Santa Clara, Santa Cruz, Shasta and Trinity Counties. This declaration was later amended on September 16 to include the Hoopa Valley Tribe and the Yurok Tribe. Evacuation operations and sheltering of displaced people continued for the counties of Butte, Mendocino, Monterey, Santa Clara, Santa Cruz, Shasta and Trinity.

Timber Loss (Private Timber Lands)

Complex	Loss
BTU	150 million board feet: Douglas-fir, and Ponderosa Pine, white fir (Butte and Plumas Counties)
LMU	6 million board feet: (Lassen, Modoc, Plumas Counties) saw log salvage – PP, D-fir, white fir
HUU	3 million board feet: (Humboldt, Del Norte County) – Douglas fir
SHU	80 million board feet: (Trinity and Shasta County) – Douglas fir, Ponderosa Pine
MEU	104 million board feet: Redwood, Douglas-fir and Ponderosa Pine (Mendocino County)

IKHANA UHV

The Ikhana Unmanned Aerial Vehicle (UAV) is a Predator-B type, unmanned, aerial vehicle adapted by The National Aeronautics and Space Administration for civilian missions. The name Ikhana was derived from a Native American Choctaw word meaning intelligent or aware. Built by General Atomics Aeronautical Systems, Inc., the remotely-piloted reconnaissance aircraft is operated by NASA's Dryden Flight Research Center at Edwards Air Force Base, California. The aircraft has a wingspan of 66 feet and is 36 feet long. It can carry over 2,000 pounds of remote sensing instrumentation and work at altitudes up to ~45,000 feet. The NASA Ikhana has 24-hour / 4000-mile mission capabilities.

NASA missions assigned to the Ikhana UAV system include: gathering scientific measurements and data to better understand and model our environment, improving the intelligence capabilities of unmanned aircraft to perform advanced missions, and demonstrating technologies that enable new aeronautics capabilities.

The wildfire imaging instrumentation and software capabilities provided on the Ikhana were developed at NASA-Ames Research Center, Moffett Field, California. The Autonomous Modular Sensor (AMS) – Wildfire is a multispectral (visible, infrared and thermal) instrument. It collects critical fire-related data and is capable of real-time distribution of geo-rectified imagery and hot spot detections to the ground over a satellite communications link. Since wildland fires often occur in rugged, remote terrain and last for long periods of time, fire managers need a system that can provide real/near-real time geo-rectified, enhanced imagery of fires for an extended period.

The Ikhana system includes a mobile ground control system and satellite communications system to control the aircraft from the ground and communicate and distribute data from the on-board sensor systems. The pilot team, controlling the Ikhana from the Ground Control Station (GCS) is located at the NASA Dryden Flight Research Center. The GCS is portable, but the system has not been deployed to alternative operation locations, although plans are underway to develop that capability in the near future. The AMS-Wildfire-acquire fire imagery and hot-spot detection data is geo-rectified onboard the Ikhana and distribute it to servers at NASA Ames, where the data is then made available immediately through the Internet to wildfire Incident Command Posts or to regional coordination centers where imagery analysts can use the information to support fire managers with accurate, current assessments of fire perimeter growth. The information can be immediately visualized in standard GIS packages or web-enabled mapping tools, such as GoogleEarth. The Ikhana AMS-Wildfire information, delivered within 10-15 minutes of collection, can greatly improve the situational awareness of fire managers trying to suppress wildfires in terrain that is often hidden in smoke.

The NASA Ikhana flew four sorties during the 2008 June Fire Siege. The Ikhana UAV (NASA/Dryden photo), with the AMS-Wildfire sensor pod located under the wing of the aircraft.



The IKHANA Unmanned Arial Vehicle

“STEELHEAD” BOAT RESPONSE

On June 21st, the Basin Complex was started by two lightning strikes. The Basin Fire started in the Ventana Wilderness in the near Bear Basin and the Gallery Fire near the coast of Big Sur, just uphill from the South Coast Gallery on Highway 1. They eventually joined together in the Big Sur River drainage, burning approximately 175,000 acres.

Steep terrain and transmitter locations limited radio communications over the 30 mile long incident that ranged from sea level to over 3,000 feet elevation. Several days into the Basin incident, the Communications Unit Leader was had problems getting the incident repeaters to provide radio coverage on State Highway 1 at the coast. CAL FIRE, USFS, OES, and the California Department of Fish and Game (CDFG) worked together to have the CDFG boat, “Steelhead” to act as a floating portable repeater site. The Steelhead came to Monterey for staffing and to have the repeater installed.

The crew moved the Steelhead into position and was on station for the entire shift for most of the next several days. However, the seas off the coast of Big Sur were unpredictable and the Steelhead could not get on station on a couple of days and was on station for abbreviated shifts on a couple of other days.

While the Steelhead was on station off of Pfeiffer Rock, they were able to provide good communications to the coastal area as had been anticipated. However, in the end, the unreliable nature of the boat based repeater caused the land-based firefighters to not trust the system enough to use it regularly.

Though the system did not ultimately work completely, the idea to use the boat was innovative. The efforts of the USFS, CAL FIRE, OES, and CDFG to get the boat on station are instances of interagency cooperation at its best. It is interesting to note that, during the 1977 Marble Cone Fire in the same area, a portable repeater was placed on a Coast Guard boat that was big enough to maintain station off of Point Sur.



California Department of Fish and Game P/B STEELHEAD assigned to the North Coast Enforcement District, Monterey. Home port: Moss Landing, Skipper: Lt. Bob Puccinelli, Crew: 3-4 inc. skipper, LOA: 58'



Smoke induced haze seen above California on June 27.

A thunder cell over the Corral Fire in Lassen County collapsed with peak wind gusts of 50 MPH. This caused rapid fire-spread, frequent spotting and the loss of established fire control lines. Resources were forced to disengage and retreat to safety zones as a precautionary measure.

On the Basin Fire, Highway 1 remained closed south of the community of Big Sur. Business and commerce continued within the community. There was concern that a predicted wind shift would increase acreage to the north and west which would affect the east side of Big Sur. The Oliver Fire caused unhealthy air quality affecting people in 4 counties.

Following the lightning, strong winds were predicted for all fire areas with the potential to increase fire activity. As the winds materialized Sunday, the smoke was pushed out of the valley, which allowed air tankers to resume operations. Fire intensity increased with



Fire and smoke forced the closure of several highways during the siege.

significant runs and spot fires. The North Mountain Fire in the Sierra Nevada expanded, and threatened a gathering of children at Camp Mather. Fire-fighting resources from the Siskiyou Complex assisted with 5 initial attack fires that started with lightning on the Klamath National Forest.

On the Butte Complex, the Oak Flat powerhouse on the Feather River went offline due to burned poles on a primary transmission line.

Despite the adverse weather conditions, the Walker Fire was contained at 19,504 acres.

The Governor proclaimed a state of emergency in Plumas County (12,000 acres burned) and in Kern County (2,500 acres burned).

REMOTE SENSING OPERATIONS ENHANCE SITUATIONAL AWARENESS



Remote sensing (RS) includes any method of acquiring imagery or geographic data from a distance. Designated teams of remote sensing technical specialists were activated during the Siege. The goals for the North OPS Remote Sensing Operations Team were to:

- ▶ Establish incident command team Situation Unit Leader contacts, and provide assistance and education to the SITLs to determine and streamline their RS needs.
- ▶ Closely monitor the region and national priority fires or complexes in order to triage the deployment of RS assets to as many incidents as possible.
- ▶ Maintain adequate RS assets to meet the incident needs throughout the day and night.
- ▶ Utilize available RS assets that could effectively meet incident needs within reasonable time frames.
- ▶ Deploy assets that collect imagery from altitudes above established temporary flight restrictions. This increases the safety factor and reduces the confusion of sharing assets between numerous fires.

The first resources ordered were infrared (IR) flights filled by National Infrared Operations Program (NIROPS) for a flight over the entire Northern California GACC to communicate the scope and magnitude of the lightning fires. Requests for IR quickly escalated and incident IR requests soon overwhelmed the available flight time of the two USFS NIROPS aircraft. Additional interpreters, coordinators, a military remote sensing technical specialist and GIS support were requested to support the incident requests.

The Remote Sensing Team was offered several military assets including Fire Hawk, Eagle Vision Systems satellite imagery, the U2 reconnaissance aircraft, and the Global Hawk unmanned aerial vehicle (UAV). Fire Hawk can usually fly one or two fires per day and provide GIS shape files containing the fire perimeter.

Fire Hawk, the California National Guard RC-26 (full motion video (FMV) surveillance aircraft) and Eagle Vision were the main military assets that provided data during the fire siege.

USFS Pacific Southwest Research Station Fire-Mapper was used to fly fires in the SoCal GACC. Fire-Mapper used a thermal imaging radiometer to map fire progress and intensity. It had sufficient sensitivity to be useful in terrain mapping, disaster management, and natural resource monitoring.

The effectiveness of multiple IR flights over an incident during Wildland Urban Interface threat conditions was tested to show the progression of the fire. One IR aircraft was able to down link, the collected data within 15 minutes of shooting the images and provide immediate data on the fire situation. Digital interpretation of the imagery on board the aircraft produced GIS data of heat areas prior to down linking the data, which provided immediate benefit to incident staff.

The RC-26 platform was used to provide real-time infrared and FMV imagery to Operations and Planning staff working on the fires. The IR video was down linked and ported to the internet and to portable receivers at the incident bases where it could be viewed live by incident staff.

The imagery provided by Eagle Vision Systems was used during and after the fires to validate NIROPS data, derive the current fire perimeter for fires that IR aircraft were unable to fly, and in post fire rehabilitation efforts.

Remote Sensing can not replace the human intelligence network on fires, but they can provide a big picture perspective that can make the job of incident staff safer and more effective. The information can provide the critical decision support required during difficult incidents.

“(Firemapper) has sufficient sensitivity to be useful in terrain mapping, disaster management...”

*By July 1, 1,459 fires
spanned across 435,894
acres of land.*



Siege Summary Part III: Tuesday, July 1

The immense scale of the 2008 June Fire Siege prevented any detailed description of the activities during each day. This section, Part III is a broader, more in-depth view of the activities on July 1 and provides a detailed description of a single day to illustrate the scope and complexity of the siege. The fires are presented in the priority order determined by CalMAC with input from the NorCal and SoCal MAC groups. (Today, FEMA also joined the CalMac group). Priorities continue to emphasize the protection of life, property, critical infrastructure and natural/cultural resources. This day was chosen to represent a day in the siege, not because it was exceptional, but because it was typical.

Status

By July 1st, the 2008 June Fire Siege was fully underway. The 2,000 fires defining the siege were identified and the vast majority were already contained by the relentless work of firefighters from California and throughout the nation. State, local and federal firefighters continued to battle more than 75 uncontained large fires from Kern County, north to the Oregon border. While some fires immediately threatened communities, others were in areas so remote and rugged that they burned until the arrival of fall rains. Nationally there were 337 new fires and a total of 95 uncontained large fires which taxed scarce suppression resources and required fire managers to constantly reassess priorities. Fires burned in the hot, extremely dry weather. A few of the fires within the complexes remained unstaffed due to limited resources. Governor Schwarzenegger visited the Shasta Complex and the Forest Service Chief's principal representative visited North Zone. Military assistance continued to

increase in the form of helicopters and air tankers. The Governor ordered 200 California National Guard soldiers to be trained and deployed to fight wildland fires. The Governor proclaimed a state of emergency in Mariposa County that brought the total to ten counties (Plumas, Butte, Kern, Mendocino, Monterey, Santa Clara, Santa Cruz, Shasta and Trinity).

Statistics

The Governor was briefed with a daily Statewide Fire Overview which included the following statistics:

Statewide Fire Overview: July 1, 2008

Fires: 1,459
 Acres: 435,894
 Personnel Committed: 18,457
 Resources Committed:
 Engines: 1,399
 Crews: 488
 Dozers: 335
 Water Tenders: 410
 Helicopters: 100

Highway closures: State highways and local roads are closed throughout California due to wildfire activities. Closures are in place for State Highways 1 near Big Sur, 32 between Chico and Chester, and 70 in the Feather River Canyon with delays on Highway 299 along the Trinity River. Numerous county and local roads are closed as well.

Evacuations: Areas of Monterey and Shasta counties are under evacuation orders. Precautionary evacuation orders are in place for areas in Butte, Kern, Mendocino, Monterey, Plumas and Shasta counties.

Structures Threatened:

8,076 residences, 165 commercial, 3,045 outbuildings

Structures Destroyed:

31 residences, 1 commercial, 28 outbuildings

Weather Forecast

Northern Predictive Services: Another weak disturbance was crossing Northern California from SW to NE. It brought mid and high-level clouds (thickest over the northwestern half of the area). The marine layer deepened to 2000-2500'. The biggest concern was the SW gradient winds ahead of the trough. Record high Energy Release Components and record low 1,000-hour fuel moisture levels were reached in 3 Northern California predictive service areas.

Southern Predictive Services: A ridge of high pressure over the southwestern states maintained temperatures a little above normal over most of the region. Morning low clouds and fog moved into coastal areas. Humidity remained very low above the marine layer.

Activity by Complex

Butte Complex (CAL FIRE's Butte Unit): Of the 36 fires in this 17,000 acre complex, 11 were contained and 12 had merged with other fires, which left 13 active fires. Some of the fires in the Canyon Complex on the neighboring Plumas National Forest had the potential to join or influence fires in this complex. The two incident management teams closely coordinated firefighting efforts with each other and with the team managing the nearby Cub Fire on the Lassen National Forest. The Butte and Canyon complexes threatened major electrical transmission lines in the Feather River Project and the communities of Magalia, Coutolenc, Butte Meadows, Jonesville, and Jarbo Gap. Successful

firing operations were carried out last night on the Breakneck Fire. The Camp Fire joined with other fires and grew to 5,900 acres. The complex was still not able to take effective perimeter control actions on all of the fires due to the unavailability of additional engines, crews, dozers, and overhead. During the day, the Butte Complex grew by 1,000 acres and was 30% contained.

Shasta Complex (CAL FIRE's Shasta-Trinity Unit):

Of the 158 original fires in the 51,000 acre complex, an impressive 108 fires had been contained and 43 had merged with adjacent fires, which left 5 active fires. Several of these fires burned heavy fuels in remote areas with difficult access, west of Redding. The fires near Lake Shasta continued to threaten the major electrical power lines of the Western Area Power Administration (WAPA), which are significant sources of electricity for all of California and contribute to the Western Power Grid. The three fires of primary concern were: Motion fire (16,700 acres and 25% contained), the Deerlick Fire, (16,800 acres and 10% contained), and the Moon Fire (18,500 acres and 15% contained). The Moon and Motion fires included BLM jurisdiction in CAL FIRE DPA. Fires in the nearby Whiskeytown Complex and the Lime Complex to the west maintained the potential to influence or merge with these fires. The various management teams closely coordinated their plans and actions. During the day, the Shasta Complex grew by about 2,500 acres and was 20% contained. Governor Schwarzenegger visited the Shasta Complex.

Whiskeytown Complex (Whiskeytown National Recreation Area):

The four fires in this complex gradually grew to about 4,800 acres and were 30% contained. The fires threatened the WAPA power lines and critical radio, TV, and fire and law enforcement

BARELY A BEAR STORY



Forester Adam Deem had no idea that he was about to repeat history when he set out scouting the leading edge of the Moon Fire on July 17th. His story would capture the attention of the news media and the public.

You probably know that back in 1950, on a fire on the Lincoln National Forest in New Mexico, soldier-firefighters found a seriously-burned Black Bear cub clinging to a snag. Rescued and successfully treated for his injuries, this bear was adopted by a New Mexico game warden. Of course, he then grew up to be the original Smokey Bear, the iconic face of forest fire prevention in the U.S. over the last sixty years. Smokey Bear was once ranked as the number two most recognized character in the world, right behind Mickey Mouse.

When Adam Deem was confronted by a small bear cub crying and holding his burned paws up, he did what many of us might do, he tried to help the little fellow. Having made a quick recon to determine that a protective mother bear wasn't in the vicinity, Adam decided to try to catch the little cub. The little rascal naturally led Adam on a chase through the woods, which at this point consisted mostly of thick, brush that managed to scratch Adam up pretty good before he could corral the youngster.

Back at his truck, with the somewhat uncooperative bear pinned down with one arm, Adam backed one-handed about a half mile down the fireline, where he met a dozer that built him a turnaround. At a drop point along the way, the critter was wrapped in a towel to keep his sharp young claws at bay, and got on the radio to seek somebody qualified to properly care for the seriously-injured cub. After a few calls, someone at the Incident Base in Anderson suggested that it might be best for Adam to drive down to Anderson and meet a Department of Fish and Game (CDFG) biologist there, thus expediting getting the cub to proper medical care. Adam readily agreed to this plan, advising the incident dispatcher that "...I could use a little medical attention myself." Adam, in fact, went on to receive treatment for his wounds that included a round of rabies shots.

Adam dubbed the cub "Li'l Smokey," because of the original fire prevention bear, and because he was wrapped up like a sausage. After being quickly transported to a CDFG facility in Rancho Cordova, the bear received initial treatment, and then was transferred to the Lake Tahoe Wildlife Care center, where his burns and an eye injury were treated. With TLC from the facility staff, Li'l Smokey made a good recovery from his burns, gained weight, and got feisty. The 11 month old male was released at a remote site in the Klamath National Forest on February 5th. It's rare that wild bears that come in contact with humans are successfully returned to the wild. Due to the proper care and handling by CDFG and the Lake Tahoe Wildlife Center, the return of a healthy Li'l Smokey to his natural habitat was made possible.

FIRE FIGHTING AIRCRAFT



The largest floatplane to be used operationally.

The Martin Mars Flying Boat

The Martin Mars flying boat is the largest floatplane ever used operationally. There are only two of the original six still in flying condition. Operated by Coulson Airplane, Ltd. from Canada, every summer they deliver tons of water or retardant to fires throughout the U.S. and Canada. Designed as a long-range, heavy bomber and anti-submarine patrol aircraft for the U.S. Navy, the giant floatplanes accumulated more than 87,000 accident-free hours before being retired by the Navy in 1956. With a wingspan of 200 feet, a length of 120 feet, and a gross weight of 162,000 lbs., the Mars lumbers through the skies at 190 mph. The big plane skims along the ocean or lake surface at 60-70 knots, scooping up 7,200 gallons of water in about 25 seconds. The four-person crew then increases thrust to takeoff power and the huge water bomber climbs. A lead plane scouts safe routes to and from the fire and water source. It covers nearly four acres on each run. The “Hawaii Mars” spent almost two months in California in 2008, where it operated on several fires.

Military Aircraft Contribute to Firefighting Operations

Military aircraft contributed to the fire-fighting operations throughout the 2008 June Fire Siege.

- ▶ Aircraft from the 302nd Air Expeditionary Group (AEG) conducted aerial firefighting support missions out of McClellan Field. The C-130 MAFFS air tankers flew sorties to such distant fires as the Gap Fire, Piute Fire, Shasta Complex, and Corral Fire. The 302nd AEG consists of C-130 MAFFS aircraft from the 145th Airlift Wing (Charlotte, NC); the 146th Airlift Wing (Channel Islands ANG, CA); the 153rd Airlift Wing (Cheyenne, WY); and the 302nd Airlift Wing (Peterson AFB, Colorado Springs, CO).
- ▶ The California Air National Guard 146th Airlift Wing moved critical reloading supplies to the Channel Islands National Guard Air Station to increase the efficiency of the MAFFS aircraft operating on fires in Southern California.
- ▶ Navy Reserve and Marine Corps helicopters operated out of Lemoore Naval Air Station flew missions primarily on the Basin Complex fires. Navy Reserve helicopters are from Helicopter Sea Combat Support Squadron 85 based at North Island NAS, San Diego, CA. This squadron flew MH-60 Seahawk helicopters with 420-gallon or 360-gallon fire buckets. The three Marine helicopter units – Medium Helicopter Training Squadron 164, Marine Medium Helicopter Squadron 268 (Camp Pendleton, CA), and Marine Heavy Helicopter Squadron 465 (MCAS Miramar, San Diego, CA) operated CH-46 Sea Knight and CH-53 Sea Stallion helicopters equipped with 2,000-gallon fire fighting buckets.

Convair CV-580 Air Tankers

Four welcome visitors to Northern California Air Attack Bases during the 2008 June Fire Siege were Convair CV-580 air tankers. The low-wing twin-engine commercial aircraft had been outfitted for its firefighting role by Conair and Kelwona Flightcraft of Canada. The Convair CV-580 was outfitted with a 2,100 gallon capacity belly tank, cruises at 270 knots, and had a 4-hour endurance rating. Its powerful turboprop engines allowed it to operate safely in hot and dry conditions. Conair's proprietary tank and door system provided constant flow at variable volumes, making for consistent retardant coverage in a variety of cover types. In service since 2000, the 580 developed a reputation as a safe, reliable air tanker that is maneuverable enough to "get down in the weeds" to make accurate retardant drops in rugged terrain.

McClellan (very large) Airtanker Base

Very large air tankers such as the DC-10 and the National Guard MAFFS C-130s require reload bases with long runways, heavy duty taxi-ways, parking areas, and large quantities of fire retardant and fuel. The MAFFS air tankers require a large ground operating area to deploy large generators and air compressors to support their Modular Airborne Fire Fighting Systems. The DC-10 air tanker operates primarily out of its home base in Victorville, CA, with reload capabilities existing at only a few Air Attack Bases, including Fresno, Chico, and a temporary contract reload base at McClellan Field in Sacramento. The MAFFS air tankers have similar, but not quite as severe, reload base limitations, being able to operate out of shorter fields like Redding, Paso Robles, etc.

During the 2008 June Fire Siege, fire managers decided to group the very large air tankers at a central location, McClellan Field in Sacramento. This allowed the augmented fleet of smaller air tankers to operate more efficiently out of the regular bases (no waiting for the "Big Guys" to reload or refuel). McClellan was a U.S. Air Force Base until its closure in 2001 and had the long runways, heavy duty taxiways, and the high-capacity electrical and water utilities needed to support the "Big Guys."

The rapid expansion of the site from an occasional use facility for the DC-10 to a major support facility for extensive air operations began June 21st. A permanent retardant plant with more storage to better support the DC-10 was installed and expanded to allow three air tankers to be reloaded simultaneously. By June 26th the base was able to support all eight MAFFS air tankers, the DC-10 and two lead planes.

Telephone and internet lines to the office and ready-room trailers were installed, and storage for the support equipment obtained. On June 28th, the McClellan Field control tower was reopened and staffed with FAA air traffic controllers to improve the safety and efficiency of extensive flight operations during conditions of smoke reduced visibility. The "Big Guys" wait on the flight line at the McClellan Field airtanker base.

During the month of July things settled into a rhythm, and at the height of operations there were 8 MAFFS air tankers, Tanker 910, and up to 3 lead planes flying out of McClellan. On July 11 the MAFFS tankers hit 1 million gallons of retardant delivered, and Tanker 910 had delivered 210,000 gallons. On August 2nd, the last of the MAFFS air tankers was released, and Tanker 910 returned to Victorville and the Very Large Airtanker Base at McClellan was deactivated after delivering 1.86 million gallons of retardant.

MENDOCINO REDWOOD COMPANY

Mendocino Redwood Company (MRC) owns and manages 228,000 acres of forest lands in Mendocino and Sonoma Counties. Most of it in the coast redwood belt on the west side of Mendocino County.

The 2008 June Lightning Siege hit MRC hard, with several wildfires on its lands. So many fires were burning at the time that state and federal firefighters were totally committed to protecting life and improved property. MRC rallied their resources early in the siege to engage in suppression of fires burning on their lands. MRC foresters made initial assessments of the fires on company lands and provided input for fire suppression planning to company resource managers.

The company committed a high percentage of its personnel and equipment to fire control operations. They hired additional resources, including 50 pieces of heavy equipment from 17 private logging contractors, a heavy helicopter, and contract fire crews from Grayback Forestry and PatRick Corporation to fight fires on MRC land. Close coordination and constant communication with CAL FIRE was maintained throughout the siege, ensuring mutual support during critical operations.

As the fires near populated areas were controlled and more suppression resources arrived, government fire resources became available. The fires on MRC timberlands began to receive resources, including CAL FIRE and mutual aid fire engines and hand crews, as well as National Guard fire crews. A gradual transition of command from MRC to CAL FIRE took place, with MRC resource managers continuing to represent the company's interests in an advisory role.

Over 23,000 of the nearly 55,000 acres that burned in the Mendocino Complex, were MRC timberlands. Aggressive, independent, and coordinated action by Mendocino Redwood Company kept acreage totals lower than what was expected. The cooperative relationship allowed CAL FIRE's Mendocino Unit to focus its scarce resources on the protection of life and property in populated areas, while receiving continuous reports on the more remote fires. Mendocino Redwood Company stood out as an example of responsible timberland management and cooperation.

“Mendocino Redwood Company stands out as an example of responsible timberland management...”



Gallery Fire (Basin Complex) burned along the Monterey Coast.

repeater sites on Shasta Bally. During the day, control lines held, and the Interagency Incident Management Team developed a plan with CAL FIRE on how to cooperate in containing the SE and SW flanks. Estimates of the acreage burned in this complex decreased as the smoke lifted enough to allow more accurate mapping of the fires.

Indians Fire (Los Padres National Forest): Eighteen miles west of King City, the Indians Fire grew by 20,533 acres (to 81,378 acres) as a result of a successful, large, burnout operation. The fire lines held in place and containment stood at 95%. Some crews were released for redeployment to other fires.

Basin Complex (Los Padres National Forest): Five miles southeast of Big Sur, the Basin Complex burned very actively in timber, brush, and slash. This complex added 12,079 acres, bringing the total area burned to 51,985 with only 3% containment. Evacuation orders were in effect for the community of Big Sur and Highway 1 was closed.

Oliver Fire (CAL FIRE's Madera-Mariposa-Merced Unit): The Oliver Fire was held inside the indirect lines, with containment that grew to 75%. Full



Parts of the Union Pacific Railroad in the Feather River Canyon were threatened.

containment of the 2,789 acre fire was predicted for July 5th, and many resources were released for redeployment to other fires.

Lime Complex (Shasta-Trinity National Forest): The 35,766 acre Lime Complex in the Hyampom area of Trinity County originally included 70 fires, 30 of which were contained. Many of the active fires burned in steep, remote areas with limited access, that presented a significant challenge. Highway 3 and Highway 36 continued to be affected, and disrupted transportation in Trinity County. The fires grew by only 321 acres, but continued to move into more difficult terrain.

Iron Complex (Shasta-Trinity National Forests): The Iron Complex fires were scattered from south of Hayfork to the Trinity River Canyon and Highway 299 corridor and presented a serious challenge. The main fires of concern included the Eagle Fire, with several miles of open line on the south side of the Trinity River, the Ziegler Fire (which threatened the communities of Hawkins Bar and Trinity Village), the Ironside Fire, (which abutted Highway 299 and necessitated frequent closures), and the Cedar Fire.

A bulldozer roll-over on this complex resulted in arm and shoulder injuries to the operator. Ten fires in the Iron Complex were contained, but five fires remained active. During the day these fires grew by 1,061 acres to total of 19,178 acres and 25% containment.

Mendocino Complex (CAL FIRE's Mendocino Unit):

The 37,800 acre Mendocino Complex originally included 129 lightning fires. Forty fires were active, 14 of which were unstaffed due to competition for fire suppression resources. This complex was 40% contained. Fires were spread over a large area and organized into six organizational branches. Multiple base camps were established and supported by a distribution center at the Ukiah fairgrounds. Large stands of valuable commercial timber, including coast redwood forests, were impacted. Mendocino Redwood Company took independent action on 15,500 acres within their ownership. Several fires continued to threaten Highway 1, the main north-south artery along the Pacific Coast. A strong marine influence with cool weather helped keep the fires from spreading much though fires in heavy fuel concentrations burned actively.

Piute Fire (Unified Command between the Sequoia National Forest and Kern County Fire Department):

The Piute Fire, located 17 miles northeast of Caliente, continued to threaten several small, mountain communities. Evacuations were implemented. Extreme fire behavior, with high rates of spread, torching and spotting which resulted in an additional 4,474 acres burned. The fire stood at 11,514 acres and 11% containment.

North Mountain Fire (Stanislaus National Forest and Yosemite National Park): The North Mountain Fire was located seven miles northeast of Groveland. The fire continued to back and creep, but the acreage

held at about 2,711 acres. Containment increased to 75%; full containment was expected within 2 days.

Canyon Complex (Plumas National Forest): The Canyon Complex was located in the rugged Feather River Canyon. Several fires had been contained including two fires (the Hartman Fire and Four Mile Fire) that were contained that day. Twelve of the original 42 fires merged with other fires. Of these, 9 fires remain active, one of which is still unstaffed. The fires were active, even at night when strong, gusty down-canyon and down-slopes winds fanned the flames. Firefighters rappelling from helicopters into the Belden Fire were removed due to intensified fire behavior. There was a bulldozer rollover accident and the operator was evacuated with injuries. Contingency plans were developed for protecting structures, power stations, and the railroad out ahead of the fires. The Incident Management Team and the forest developed a long-term strategy.

American River Complex (Tahoe National Forest):

The American River Complex grew by 1,112 acres to 5,292 acres when the Government Springs Fire made a run on its northwest corner. Firefighters tried to delay spread of the fire until indirect lines could be completed. The American River Complex continued to threaten the Interstate 80 corridor, the Union Pacific Railroad, and the community of Blue Canyon. The cost to close the railroad was estimated at \$1,000,000 per hour. Difficult terrain required the use of remote spike camps, which made logistical support difficult.

Yuba River Complex (Tahoe National Forest): The 3,619 acre Yuba River Complex included 3 fires and was 78% contained. Although the Scotchman Fire continued to spread in the Canyon Creek and Yuba

River drainages, good progress was made by firefighters who indicated that they had enough resources to continue progress under the harsh conditions.

Silver Complex (Sierra National Forest): The Silver Complex included 2 fires 12 miles southeast of Mariposa. Fire activity was moderate with only 50 more burned acres, which brought the total to 1,161 acres with 95% containment.

Mad Complex (Six Rivers National Forest): The 2,633 acre Mad Complex started as 29 separate fires. Twenty-three of these were contained, leaving 6 active fires. The Bonanza fire burned in steep terrain with difficult access. Anchor points were established for an indirect attack strategy. Fire managers were concerned about the fires on neighboring lands that could have potentially spread into the area, which would have adversely affected firefighter safety. Some fires remained unstaffed and containment was 40%.

Hell's Half Complex (Six Rivers National Forest): The two fires in this complex near Burnt Ranch continued to spread to the south and east. The Half Fire burned into the Shasta-Trinity National Forest

and approached structures. The Grouse Fire threatened a major power line. The fires total 2,793 burned acres, and are were 40% contained. Good progress was made, but the potential for significant runs by both fires remained high.

Ukonom Complex (Six Rivers National Forest): The 3 fires in the Ukonom Complex (Merrill, Jake, and Blue), north of Somes Bar grew by 474 acres to a total of 6,358 acres. The Blue Fire, in the headwaters of Blue Creek was difficult to access, but holding operations seemed successful. Fire managers tried to minimize the impact that the fire and suppression efforts had on Native American spiritual sites and the Forest Service facilities at Oak Bottom, and developed a long-term implementation plan. Containment was only at 5%.

Corral Fire (CAL FIRE's Lassen-Modoc Unit): The 15,000 acre Corral Fire burned about 10 miles north of Eagle Lake. It burned eastside mixed conifer (small to medium-sized trees) with grass and brush understory. The fire exhibited rapid rates of spread, erratic fire behavior and spotting over control lines



Homeowners' efforts to provide defensible space before fires occurred helped firefighters save many homes.

in the late afternoon gusty winds. Containment was 25%, but the continuing shortage of hand crews and dozer bosses was a concern as the fire continued to burn through the night.

Cub Complex (Lassen National Forest):

Two of 4 fires in the 5,000 acre Cub Complex, 16 miles southwest of Chester, were contained and turned back to the Forest for patrol. Two fires remained active, the Cub Fire and Onion Fire. Short uphill runs and spotting up to ¼ mile were common with an additional 668 acres burned. Because of location and limited resource availability, the Cub Fire remained unstaffed and fire managers noted its potential to become a long-term event. Highway 32 remained closed. The complex was 25% contained.

Yolla Bolly Complex (Mendocino National Forest):

The Yolla Bolly Complex originally included 22 fires within the Yolla Bolly Wilderness Area. Thirteen were contained, and the Camp Fire was fully contained. The Frying Pan and Vinegar fires merged. Two new fires were detected. Smokejumpers contained one, but the second fire was unstaffed. Three fires (Harvey Ridge, Thomes, and the new Sugarloaf) were very active with running and spotting fire behavior. The additional 2,203 burned acres brought the total to 6,103 with 5% containment.

Clover Fire (Sequoia National Forest): The Clover Fire, 32 miles north of Weldon, continued to back and creep within the containment lines. It totaled 15,262 acres and was 70% contained. Full containment was not expected until July 15th due to difficult terrain.

Siskiyou Complex (Klamath National Forest):

The 3 Siskiyou Complex fires were burning in steep,

inaccessible terrain, southwest of Happy Camp. The fires were well established with potential for significant growth over an extended timeframe. The strategy was to merge those fires through additional fireline construction and burning out indirect hand lines along existing trails. Potential size was estimated at 40,000 acres. The 2,203 acres on the Dark-Three Fire increased the total acres burned to 9,915 with 25% containment.

Alps Complex (Shasta-Trinity National Forest):

The Alps Complex in the Trinity Alps Wilderness Area originally started as 13 fires. Of those, 4 are contained, and 5 are unstaffed. Fire behavior intensified as the inversion layer lifted. Some fires were in such steep terrain and heavy fuels that firefighters could not approach them. A long-term strategy was developed for an indirect attack, using the existing trail system and natural barriers. 595 acres burned and the complex totaled 3,245 acres with 2% containment.

Soda Complex (Mendocino National Forest):

The Soda Complex included 4 fires located about 15 miles northwest of Upper Lake. The Back Fire was contained. The western flank of the Mill Fire burned into the Sanhedrin Wilderness Area and was poised to merge with the Big Fire. The Monkey Rock Fire burned in the Yuki Wilderness Area and had no containment. High recreational activity was noted in the area of these fires. The complex was 5,100 acres with 72% containment, but potential for growth was rated as high.

Regional chief officers and CalMAC were concerned about maintaining an adequate reserve of forces for initial attack in the face of predicted thunderstorms and the remainder of a long fire season still ahead.

HOMEOWNER RESPONSIBILITIES

New home construction requires ignition-resistant building materials to meet the new building and fire code regulations that apply to much of the wildland-urban interface (WUI) where homes are at risk from wildfires. Existing homes near wildlands should provide clearance around the home from flammable materials. Current regulations require a minimum 30-foot clearance around structures in the state's wildland areas, with up to 100-foot clearance required in the high and very high fire hazard areas that make up the WUI. These regulations do not require removal of all vegetation around homes, but treatment of the vegetation, reducing its volume, flammability and proximity to the house. Properly-pruned and appropriately sited trees and shrubs can be left to retain a desirable landscape. Homeowners are asked to locate firewood stacks and other flammable objects (RV's, automobiles, etc.) at least 30 feet from the house, as these have been shown to ignite nearby houses once they catch fire.

Each year, the wildland fire agencies make fire prevention inspections educating homeowners and enforcing regulations, but some homeowners fail to provide the "defensible space" necessary to ensure the protection of their homes. Some residents insist that there is no need to provide the clearance themselves, as fire fighters will do it for them before the fire gets there. While fire crews may indeed make such efforts when the time allows, it is foolish to plan on it, as there are more houses in the woods than fire engines.

For more information on clearance requirements to achieve defensible space see: www.fire.ca.gov or www.firesafecouncil.org.



A homeowner was rewarded for pre-fire preparation. While some neighboring homes were destroyed, the defensible space around this home aided in its survival.



*The scale of the fire
fighting effort required
extraordinary efforts
and cooperation
between a number
of organizations.*

Siege Summary Part IV: July 2 – August 5

The 2008 June Fire Siege continued until the fall rains came for some of the complexes. The remaining portion of this report highlights the significant events that occurred during the next 34 days. During this time period a critical wind event caused a major expansion of all fires, and additional lightning ignited more fires. This segment is marked by severe tragedy with 13 firefighter fatalities directly related to the fires.

The fires continued to disrupt everyday life in the affected communities. Evacuations were initiated and rescinded, and smoke became a long term impact to health. Many 4th of July celebrations and other special events were impacted, along with tourism, travel, health and air quality. Life did not go on as usual.

The scale of the fire-fighting effort required extraordinary efforts and cooperation between a growing number of organizations. Fire-fighting resources had been working for 10 plus days and fatigue had become a factor. Fire managers were concerned about firefighter health and safety. There was an exceptional response by local fire departments from throughout California that assisted in the fire fight. Additional California National Guard were activated for training and deployment, Department of Defense air resources became involved, along with activation of international cooperative agreements.

To emphasize the importance of the effort and recognize the dedication of those involved, it is important to note that the Governor continued to visit the fires and President Bush visited with firefighters. Regional chief officers and CalMAC had to maintain an adequate reserve of initial attack

forces in the face of predicted thunderstorms and remained prepared for the remainder of a long fire season still ahead.

We end the detailed discussion of the 2008 June Siege Summary on August 5 with the tragedy of the helicopter crash that took the lives of 9 firefighters. These fires did not end on August 5th, but for practical purposes, the siege ended and the remaining fires started to blend into the other fires of a busy wildfire season.

Wednesday, July 2

The Gap Fire

The Gap Fire started July 1 in Santa Barbara County, and quickly became the top priority for resources. Structures were threatened when “sundowner” (Santa Barbara’s version of Santa Ana) winds pushed the fire downhill from the mountains to the outskirts of Goleta and Santa Barbara. Resources were re-directed from Northern California Siege fires to the Gap Fire.

Thursday, July 3

The First Life Lost

Less than two weeks into the siege, Governor Schwarzenegger acknowledged concern about the hazard of fatigue associated with the long days that firefighters were working.

“I think that they all are doing a great job, but the danger is that our firefighters get stretched thin. A lot of them are working overtime and they are staying up for more than 12 hours, sometimes 24 hours, 36 hours. So we have to be very careful that they get enough sleep and this is also why we have asked the National Guard to provide us with 200 extra personnel.”



Fire activity affected many 4th of July events.

To bring some relief to fire fighters, CAL FIRE ordered FEMA resources to work on incidents in counties that had received the Presidential declaration of disaster. FEMA resources were assigned to CAL FIRE for suppression efforts in BTU, SHU, and MEU. BTU had the largest number of resources assigned.

Two days after the Governor's statement, Volunteer Fire Fighter (VFF) recruit Bob Roland, 63, of Anderson Valley, CA passed away during the early morning of July 3, 2008 after suffering fatigue and respiratory difficulties. He was assigned to the Oso Fire in the Mendocino Lightning Complex.

The North Mountain Fire was contained today at 2,889 acres.

Friday, July 4

Fires Hamper Holiday Events

Independence Day dawned cool and clear, as a southwesterly nighttime wind allowed the marine layer to move inland. Fire behavior on the west side of the Central Valley moderated, and crews were able to make significant progress. The TGU complex was declared contained at 22,907 acres.

The impact of fire and fire suppression activity kept four major highways closed, which impacted holiday traffic. The Cub Complex closed Highway 32, inconveniencing thousands of people attending a 4th of July celebration in Chester. Similar frustrations occurred with the continuous Highway 70 closure for thousands of people attending a music festival in Quincy. The Iron/Alps Complex burned on both sides of over 5 miles of Highway 299, which caused intermittent closures. Highway 1 was closed around Big Sur. Closure of these major transportation routes contributed to the large-scale economic impact, and particularly to seasonal businesses dependant on tourism during the holiday.

Many Northern California communities canceled or postpone traditional firework shows due to limited visibility, and high fire danger. At the Corral Fire, a 4th of July Parade was held at the Incident Base. Fire personnel, including the vendors, participated in the parade and were treated to a simulated fireworks display. Chemical light sticks and vehicle emergency warning lights provided the visual effects. The great attitudes and imaginations made the holiday enjoyable.

Other special events and significant ceremonies were affected by the siege as well. Fires on the Six Rivers National Forest limited access to the Yurok and Karuk tribe's ceremonial grounds. One major Karuk ceremony was cancelled, and a Yurok ceremony was almost cancelled by the fires.

The Governor announced that he was doubling the California National Guard ground forces deploying to Northern California Wildfires. Two hundred soldiers were deployed on Tuesday. He also ordered another 200 to report on Sunday.

USE OF LOCAL GOVERNMENT RESOURCES IN NORTHERN CALIFORNIA

With the wildland agencies stretched beyond their normal everyday resources, they called upon local government firefighting organizations for help. Local governments, both paid and volunteer, assisted as they had many times in the past. These agencies proved indispensable in assisting fire suppression efforts of other communities outside their primary area of responsibility.

Never before has local cooperation been more necessary than the “Siege of 2008”. Without hesitation, they responded to the needs of the state and federal agencies in California. There were times when the majority of the CAL FIRE stations were covered by a combination of local and/or volunteer fire service apparatus. In at least one case, 100% of the CAL FIRE stations in a Unit were covered by local government.

During this siege, 142 fire agencies provided assistance to CAL FIRE in Northern California alone. Over 5,400 local government personnel worked more than 187,000 hours from May through August. When all of the available CAL FIRE engines were assigned to Siege fires, local government engines exceeded 42,000 hours as they covered CAL FIRE stations to provide a response for new fires. Local agencies provided over 1,770 pieces of fire apparatus and other firefighting equipment used for station coverage and direct fire suppression efforts. (These numbers do not include the overhead and equipment or out of state resources assigned to federal incidents). Local government personnel were also dedicated members of state and national Incident Management Teams.

The rapid response of local government resources to help the state and federal agencies during emergency situations was a prime example of the cooperative efforts of the emergency services in California.



NATIVE AMERICAN CONCERNS

There are 108 federally recognized Native American tribes in California. Many tribes have culturally sensitive lands with some sites used for religious practices. The Blue 2 Fire and Siskiyou, Ukonom, and Iron-Alps Complexes threatened cultural and spiritual areas of the Yurok, Karuk, Tolowa and Hoopa tribes. In fact, the Ukonom Complex threatened the only known fully intact Karuk spiritual site. Meanwhile sacred lands of the Yurok (Siskiyou Complex) and Hoopa (Carey Fire in the Iron-Alps Complex) were also threatened by the fires.

The Yurok, whose name means “downriver people”, and the Karuk, whose name means “upriver people,” together with the Hoopa, whose name means “valley people”, form a distinct ethnographic group in northwest California, which represents the three largest tribes within the state. Although they have distinct languages, each Tribe has cultural lands and prayer sites within the area, and practice very similar rituals and ceremonies. Rituals include the brush dance, jump dance, boat dance, flower dance, and white deerskin dance.

Past experience with damage to culturally significant areas from suppression tactics heightened the tribes concerns during the 2008 June Fire Siege. For example, bulldozers caused damage to Hoopa sacred lands during the 1999 Megram Fire, and westward spread of the Carey threatened to move into this same area.

Through formal agreements with the Forest Service, the Yurok, Karuk, and Hoopa tribes have designated tribal representatives to work with Incident Management Teams ensuring Native American cultural sites are protected and concerns are addressed. Tribal resource advisors scout areas in the vicinity of a fire to determine if culturally sensitive areas are threatened.

If there is Native American presence within an area, tribal representatives coordinate with the incident management teams to mitigate fire suppression impacts. Mitigation strategies include locating hand lines well outside the area of concern or letting the fire burn through it. Due to threat of vandalism and desecration, the tribes and the Forest Service do not disclose exact locations of cultural sites.

On the Blue 2 Fire, Siskiyou Complex, Ukonom Complex, and Carey Fire, incident management teams reported that one of their primary concerns was protecting extremely important cultural sites. However, major traditional spiritual activities were expected within some of these fire areas adding yet another level of complexity as teams had only limited knowledge of exactly where these activities were to occur and how many people would be involved. Cultural leaders within the Yurok and Karuk Tribes expressed the need for better adherence to agreed-upon fire management procedures and on-site consultation for culturally sensitive areas. Hoopa tribal leaders requested long term analysis of where the Carey Fire will spread and establishment of trigger points when they were consulted on fire suppression actions. Other issues of concern were potential loss of valuable timber on tribal land and the effects of long-term smoke exposure on public health.

Meanwhile, active fire conditions heightened widespread public concern, requiring new tactics to be considered, which in turn increased concerns with tribal representatives.

“...tribal representatives coordinate with incident management teams to mitigate suppression impacts.”

Major General William H. Wade stated:

“we’re doing something that we heretofore have not done and that is to take our soldiers and put them on the fire line. We’ve always used our unique military capabilities in other ways with MPs, truck drivers, cooks, fighting fires from the air with our pilots, but this is something different. Exigent circumstances require extraordinary response measures and that’s what we’re about to do with this first time ever commitment of National Guard forces to actually fight on the fire lines.”

Saturday and Sunday, July 5 - 6

Inversion Helped Fire Fighters

An inversion moved over the fires which continued to moderate fire behavior. This gave personnel the opportunity to make progress and secure constructed fire line. Aircraft was limited by the smoke and was unable to support ground operations.

The Oliver Fire was contained at 2,789 acres and regional chief officers were hopeful that the increased containment on some of the complexes indicated the worst is over. Precautionary evacuations of the Magalia area on the Butte Complex were lifted and some engines, water tenders and dozers were reassigned to other fires or home for rest.

SoCal MAC was convened in Riverside, California in anticipation of increased fire activity as an extreme heat event developed across California.

Monday through Thursday, July 7-10

Critical Wind Event

The Corral Fire was contained on July 7 at 12,434 acres. The Blue Fire that was previously incorporated into the Ukonom Complex was separated from the complex and prioritized as an individual fire known as the Blue 2 Fire.



Many fires continued to experience active burning.

Fire activity did not stay moderated for long; July 7-10 brought an extremely critical foehn wind event. It coincided with a record-breaking heat wave and very low relative humidity. These winds produced the last big increases in acreage. Red flag warnings were issued as temperatures reached 115 degrees with minimum relative humidity inland that ranged from 5-16%. Foehn wind events of this magnitude and duration are uncommon during July in Northern California.

Demobilization of resources on the Butte Complex was discontinued on July 7 with predicted winds. On July 8, strong east winds surfaced in the early morning hours, which blew down the Feather River Canyon. On the Butte Complex, the Camp Fire exhibits sustained runs, with spotting, torching, and crowning on both flanks. The burned area increased by 17,000 acres in one day. The giant convection column was readily visible on weather satellite images. By mid-morning there were reports of 10-15 structures destroyed in the Concow area. The threat of fire crossing the West Branch of the Feather River necessitated evacuations in communities of Magalia and Paradise Pines. This was the third time this summer that these communities had been under evacuation orders.



Home destroyed by wildfire.

The nearby Canyon Complex, was also affected by the east winds. An immediate evacuation order was issued for the area southeast of Lake Madrone. Fires in this complex burned an additional 4,708 acres.

On the Shasta Complex, the Mary Fire in the Whiskeytown Complex merged with the Moon Fire. It made a rapid run, threatening the communities of Ono and Igo and prompted evacuations. The nearby Motion Fire spread to the south and southwest and threatened structures in the communities of Keswick and Shasta. Large numbers of engines were diverted from other assignments to provide structure protection for the threatened communities.

The American River Complex also experienced a significant setback, as the Government Springs Fire, was active on three flanks under the influence of strong easterly winds.

The Basin Complex displayed extreme fire behavior with group tree torching, spotting, and short duration crown runs. The fire increased in size by 5,531 acres which necessitated the evacuation of Big Sur and the

closure of U.S. Highway 1. The Martin Mars airtanker was reassigned from Lake Shasta to the Basin Fire and operated from Lake San Antonio.

Tuesday, July 8

International Assistance

International support was offered by Australia, New Zealand, Canada and Mexico. Fire fighters from Greece, already in California, were engaged in suppression activities. Amidst the critical wind event, firefighters from Australia and New Zealand departed for the Interagency Fire Center in Boise for orientation before deploying to California. Some of these firefighters remained for up to thirty days

A Canadian overhead team of 15 fires specialists was deployed to the Mendocino Complex. An order was placed to Canada for air tankers. Aviation managers worked through Customs issues for entry into United States airspace. Once in California, they inspected and carded the aircraft for use.

Wednesday, July 9

Governor Requested Additional Federal Resources

Responding to earlier gubernatorial requests, the Federal Government (FEMA resources) helped California as 40 other states send firefighters, fire engines and other resources. In preparation for additional lightning and anticipation for the rest of fire season, Governor Schwarzenegger sent the following letter to President Bush requesting federal active duty military forces, out of state federal firefighters to train National Guard forces, and the increase of the “Maximum Efficiency Level” (MEL) for the U.S. Forest Service to 100 percent.

INTERNATIONAL ASSISTANCE: AUSSIES, KIWIS, AND CANUCKS

The 2008 June Fire Siege received an impressive level of assistance from outside of the United States. Forty-five experienced wildland fire specialists from Australia and New Zealand were deployed to fill critical mid-level supervisory and management positions on Siege fires. Following briefing and orientation, they were assigned as Strike Team Leaders, Division Supervisors, Helicopter managers, and other specialists. They provided experienced leadership to the hand and aircraft crews that were in California from all over North America

Fourteen wildland fire specialists and two hand crews, from Canada were deployed to siege fires. The Canadian crews and overhead were experienced fighting fires in steep, rugged, heavily-forested terrain. Climate and burning conditions in much of Australia, New Zealand, and Canada are comparable to California. Common language, similar command structures, and cross-training made the experience of the “Aussies”, “Kiwis” and “Canucks” highly useful.

This was not the first time that reciprocal agreements were utilized, allowing the United States to cooperate with Canada, Australia, and New Zealand to provide assistance during large fire emergencies. During the fire seasons of 2000, 2002, 2003, and 2006 firefighters from Australia and New Zealand provided resources to fires in the United States. In 2003 and 2009, US firefighters journeyed to Australia to lend a hand during devastating bush fires. In 2006, US fire overhead and crews traveled across the border to help with fires in Canada. In 2007, bomberos (firefighters) from Mexico assisted on Southern California fires.

Wildland firefighting operations have truly taken on an international flavor.

“Common language, similar command structures, and cross-training”

WHEN 911 CALLS YOU

“Reverse 911” is the proprietary name for a mass-communication system that is widely used during wildfires. These systems are equipped with mapping software and a database of phone numbers allowing them to automatically deliver a phone message rapidly to an unlimited number of people within a specified geographic area. The typed text message is translated into a robotic voice. There is often a pause before the message comes on, so it is important to educate residents to not hang up when they don’t hear a voice right away. Most of the systems also have a way to register cell phones, often over the internet.

During the 2008 June Fire Siege Reverse 911 systems were used:

- ▶ 24 times to make about 19,000 calls in Butte County between June 10 and July 9, notifying residents when precautionary or immediate evacuation orders went into effect.
- ▶ For evacuation notices, road closures and “all-clear” messages in Shasta County.
- ▶ For the first time to notify residents of a community meeting about the fire during the Slinkard Fire in Siskiyou County.

The Monterey Bay Unified Air Pollution Control District used traditional direct calling to warn residents of potentially unhealthy smoke in their area during the Indians Fire and the Basin Complex. In the future, a computerized reverse calling system could be used for these smoke-related public health advisories.

During the 2007 fire siege in southern California, a “Reverse 911” system was used to evacuate over 500,000 people in San Diego County. There were almost as many questions about the new notification system as about the fire itself.

It’s important to recognize that residents may not receive the information when hearing impaired or non-English speaking residents are called. Tehama County is required to include a Spanish translation with their emergency messages since more than 10% of their population is Spanish-speaking. These systems improve the safety of evacuations by getting notice to people sooner, and reducing the risks taken by emergency personnel. “In the 1999 wildfires, several of our emergency vehicles had to drive through flames to go door to door,” said Joy Willis of Shasta County’s communications center, recalling a time when they didn’t have “Reverse 911” systems. It doesn’t mean emergency responders won’t go into the neighborhoods; it just means they will be able to time it better.”

“There were almost as many questions about the new notification system as about the fire itself”

Dear Mr. President,

As you know, California is in the midst of battling unprecedented wildfires that have stretched our state's firefighting resources to their limit and placed thousands of Californians in immediate danger. On the heels of lightning storms in June that ignited more than 1,700 fires across the state, we now face extremely high temperatures and increased fuel loads that are exacerbating fire conditions and putting our communities and firefighters and other first responders at risk. With more lightning storms forecast for later this week, we sit at a critical tipping point in California that requires immediate federal help and aggressive pre-positioning of federal resources.

As of July 8, 2008 California had placed requests for the following assets with the National Interagency Fire Center (NIFC) in Boise, Idaho: 302 hand crews; 41 helicopters; 616 fire engines; and 773 support personnel. In addition, we are calling on NIFC daily for additional air tankers that are critical to suppressing the flames. These numbers change daily based on the current fire status; I ask that you direct your federal agencies, working through the NIFC, to make all requested assets available to California...

Thursday, July 10

Governor Visited Shasta Complex

Record heat and critically low humidity continued. Temperatures of 100-115 degrees are recorded across the interior below 2000 ft. elevation, and extended to within a few miles of the ocean. Red Flag Warnings were in effect for most of Northern California through the following morning. Heat related illness affected suppression efforts on numerous complexes.

The Governor visited the Shasta Complex and commented on the cooperation of all agencies.

He stated, *"The way we fight those fires is if everyone works together. And I think that the world has seen how we handle emergencies in California. They've seen how well we handle it because we coordinate well between the state, the locals and the federal government and how well that the fire officials and law enforcement officials work together..."*

Despite the critical weather the past three days, the Indians Fire was contained at 81,378 acres.

Friday, July 11

Civilian Fatality and Increased National Guard Mobilization

Officials disclosed that the body of a civilian fire victim was found in the smoldering remains of a house in the Concow area on the Butte Complex. The victim was later identified as Van Scott West, 61 of Concow.

Governor Schwarzenegger ordered an additional 2,000 California National Guard troops to train for firefighting duties. The fire agencies increased the training effort and initiated a nationwide search for qualified military fire crew leaders to accompany each crew of soldiers. The training consisted of three days of classroom training on basic wildland firefighting and safety. Ten Task Forces composed of 10 (20-person) crews then moved outdoors for two days of intensive training before deployment to a fire assignment.

The additional trained troops were ready to respond to new fires as the fire season continued.

Saturday, July 12

Flash Flood in Southern California

The weather affected firefighting efforts again with the arrival of monsoonal rain over the southern portion of the state. The system arrived over the region on July 12th and remained in place until the 17th and



President Bush and Governor Schwarzenegger arrived in Redding to tour wildfires.

produced 2 to 4 inches of rain. The reduced fire activity proved beneficial to firefighters.

The Piute Fire in Kern County received 4 inches of rain in 2 days, which led to serious flooding but also effectively extinguishing the blaze. Flash floods concerned fire officers and firefighters were removed from the fire before access is severed.

The Mad Complex was contained at 3,705 acres.

Sunday through Wednesday, July 13 – 16

Critical Infrastructure Repairs

Sustained efforts and good weather continued to produce more successes. On July 14, the Humboldt Complex was contained at 1,325 acres and the Whiskeytown Complex at 6,240 acres. Then on July 15, the Yuba River Complex was contained at 4,254 acres. The total number of Siege complexes still being prioritized was down to 16 from 32.

Railroad lines were strongly impacted by the Siege. The Government Springs Fire on the American River Complex, was contained before direct contact with the rail lines. To protect their asset, Union Pacific Railroad

(UPRR) brought in a fire train for protection of the tracks. They estimate the economic impact of shutting this major rail line would be \$1,000,000 per hour.

Fires in the Butte and Canyon complexes directly impacted the UPRR line in the Feather River Canyon. The line closed for many days. Suppression personnel on the Butte Complex worked with UPRR when Tunnel #15 caught on fire. UPRR was successful in extinguishing the fire without the need for fire engines assigned to the fire line being redirected to the tunnel.

The power infrastructure (lines and generation facilities) was impacted by the Siege fires. The power companies made repairs to restore power as soon as fire officials allowed. On July 12, a Pacific Gas & Electric (PG&E) employee who repaired the power infrastructure damaged by the Camp Fire, Butte complex, was injured and transported to the hospital. The Cedar Fire (Iron Complex) affected 4 to 5 miles of PG&E transmission line.

Thursday, July 17

Presidential Visit

President George W. Bush arrived in Redding and toured the North Operations Coordination Center and met the employees who made the movement of personnel, resources and aircraft happen.

Accompanied by Governor Schwarzenegger, Senator Feinstein, and Congressman Herger, the President flew over the Shasta Complex fires and met with firefighters. He visited the Redding Smokejumpers who were having a record-breaking year. With 616 jumps by mid-July, they set a new record for the number of jumps in one year. One individual had over 600 career jumps. He also met with Boy Scouts who were working on a Healthy Forest Initiative project to reduce fuels.

OUT-OF-STATE RESOURCES

When out-of-state engines arrived to bolster initial attack capability and for fire line assignments, they found that firefighting in California was different. Some of the engine crews had never been on a hose lay longer than 100 feet.

The San Bernardino Unit was the reporting location for private fire fighting companies and local government agency engines from Oregon and Colorado. A second group of engines from Florida, Louisiana and Arkansas were a mix of private, local government and one USFS engine. Using a standardized Safety In-Briefing format developed during the fires in 2007 they briefed the firefighters on:

- ▶ Weather forecast, ERC's Fuels and local fire behavior conditions/predictions
- ▶ Local communications plan
- ▶ Current local & statewide fire activity
- ▶ Resource commitments
- ▶ Local fire history
- ▶ Local agreements & working relationships
- ▶ Feeding/sleeping and logistics.

They were also provided with fireline safety, urban interface tactics, and structure protection plans.

The Oregon and Colorado engine crews were experienced with comparable tactics, fuels, burning conditions, and topography and rapidly adjusted to California. However, the Engine Crews from Florida, Arkansas, and Louisiana needed significant skill assessment, training and equipment inspection to ready them for fire assignments in California. While they had extensive experience fighting wildfires in swamps, bayous and flat relatively open woodlands, they lacked experience and training in tactics used in CA. They received 38 hours of additional training that included pumps, hose-lays, and hand line construction, use of foam and gel in structure protection, and radios. Inspection and repair of equipment, pumps and personal protection equipment (PPE) was completed resulting in several mechanical defect repairs and issuance of equipment and PPE including bee veils.

The two groups of engines were dispatched to cover stations and fire assignments from San Bernardino Unit in southern California to Shasta Trinity Unit in northern California. All of the out-of-state engine crews reacted positively to the process and were able to safely and effectively carry out their assignments.

“Firefighting in California is different.”

CALIFORNIA NATIONAL GUARD (CANG) ASSETS BATTLE WILDFIRES



Daniel Swatts, 69th Public Affairs Detachment

California National Guard's Team Dozer consisted of eight D7 Dozers and 32 soldiers.

The CNG, with support from National Guard personnel and equipment from other states, provided 12 rotary-wing aircraft, eight fixed-wing aircraft and hundreds of personnel to assist in extinguishing the 2008 June Fire Siege. The eight CANG helicopters included five UH-60 Blackhawks, one UH-70 Firehawk, one CH-47 Chinook, and one OH-58 Kiowa. Four National Guard helicopters were provided from other states. Fixed-wing aircraft included one C-130J for personnel and equipment transport, and two RC-26 aircraft for aerial imagery. The North Carolina Air National Guard, the Wyoming Air National Guard, and the Air Force Reserve from Colorado Springs, CO each provided 2 C-130J outfitted with the Modular Airborne Fire Fighting Systems (MAFFS). Each aircraft carried up to 3,000 gallons of fire retardant in a pressurized tank system allowing the retardant to offload in an even flow, and prevent gaps in the retardant line. The CNG also provided two advanced mobile communications and data platforms (IC4U) to assist with command and control operations in remote areas, one Heavy Expanded Mobile Tactical Truck for refueling, and a 5,000 gallon water tender.

Team Dozer was one of the first ground elements to respond as part of what CANG dubbed "Operation Lightning Strikes" firefighting effort. A component of the 649th Engineering Company from Red Bluff, the team brought 8 transports, 8 specially modified bulldozers, and 32 people. Dozers received roll cages to protect operators in case the dozer should turn over while operating in hazardous terrain, and fire curtains to shield soldiers from the heat and flying embers. Equipment received thorough maintenance checks were inspected and serviced. Finally, the soldiers received fire retardant uniforms. The dozers were used to construct fire-breaks. It was the first time that the 649th had been tasked to actively fight the wildfires instead of transporting firefighters to assignments.

The 200-member Task Force “AXE” was the first brigade of CANG troops to deploy as firefighters. After 3 days of intensive classroom training in wildland fire behavior, suppression techniques, and safety, they deployed to Mendocino County for 2 days of on-the-job training at the already-contained Table Fire. Each of the 10 (20 person) crews was lead by an experienced agency Fire Captain. Immediately, these soldier/ firefighters engaged in spirited, ongoing competition to be the first, fastest, or best at every task. Following field training, they deployed to active-fires and took over the necessary, but unglamorous job of “mopping up” along previously constructed fire lines. Their task was putting out fire under logs, and in stump holes. After each shift they returned to the Incident Base at the Anderson Valley Fairgrounds tired and dirty. After a hot meal and showers, they retreated to their pup tents for a little shut-eye before the next shift. Even combat veterans claim they have “never worked this hard” before. These CANG crews worked effectively and were an important asset, allowing regular fire crews to be redirected to other assignments. Several fire officers commented that the performance, attitude, and conduct of these soldiers were outstanding.

Task Force “PICK” was tasked with holding and mopping up operations on the Lime Complex. One of the fires threatened our nation’s tallest Ponderosa Pine tree (240.5 feet tall, with a trunk nearly eight feet in diameter and an age estimated at 700+ years (American Forests National Register of Big Trees)) near Hayfork, CA. This was definitely a tree worth saving. The crew trimmed low branches and cleared a wide area around the tree to reduce surface fuel. They cut small trees away from the big tree, and set up a water sprinkler system to keep the cleared perimeter moist. The citizen-soldier firefighters can be proud of the work they did to save this heritage tree.

Task Force “SHOVEL” included 240 CANG soldiers deployed to the Iron complex on the Shasta-Trinity National Forest for three weeks. Their assignment was to assist in mop-up operations, and with suppression damage repair. Task Force “BUCKET” from the Air National Guard completed training at the Butte Complex before being deployed to the Telegraph Fire in Mariposa County near Yosemite National Park. Firefighting was a new mission for them, they were motivated to help in suppression efforts.

When a Los Angeles County firefighter cut his leg working on a fire in Mendocino County, he gets 21 stitches from a CANG physician’s assistant working side-by-side with Disaster Medical Assistance Team (DMAT) volunteers. DMAT was a volunteer organization under contract with CAL FIRE to provide free medical care to the fireline. DMAT personnel were volunteers with job commitments, so there was not always a doctor or PA available, especially when so many fires were burning. As they did during Hurricane Katrina and the Southern California fires of 2007, the National Guard medical personnel teamed up with DMAT volunteers to make the best use of scarce medical resources. The CANG also provided ambulance services, which projected the capability of these EMS teams closer the fireline to more quickly treat firefighter injuries.

CANG provided three critical firefighter medivac missions during the Siege. The first was the medivac of a firefighter with a concussion on the Iron Complex. The second was a firefighter with a heat-related illness from the Canyon Fire. The third mission involved transporting two of the firefighters injured in the tragic helicopter crash on the Iron Complex to the hospital.

ILLEGAL MARIJUANA CULTIVATION ON PUBLIC LANDS

One of the problems that wildland firefighters encounter is illegal marijuana cultivation. Despite the efforts of specialized law enforcement units, the illegal growing of marijuana is big business in the woods.

Marijuana farms take advantage of our national forests and parks to raise the high profit crop using free soil and water. Plants are frequently guarded by people who are dressed in camouflage and often armed, with orders to protect the crop from intruders. During the 2008 June Fire Siege, firefighters encountered pot farmers, sometimes with near tragic results.

On the Motion Fire in Shasta County, a burnout operation trapped the guards of a well-camouflaged farm. Some of the guards suffered serious burns, were treated by firefighters and transported to a hospital.

On the Soda Complex, armed pot farm guards kept firefighters at bay for several days, preventing suppression actions.

Not only do the armed guards of these illegal operations present a danger to firefighters and others, the chemicals and trash generated by growers and left on site represent a significant environmental hazard. The federal land management agencies have insufficient funding to disrupt these operations and our public lands continue to be used to grow marijuana.

“Wildland firefighters encounter illegal marijuana operations”

Governor Schwarzenegger commented on the President's rapid response from the federal agencies and the cooperative efforts that recognized that 80 percent of the United States firefighting resources are in California.

Friday, July 18

Demobilization and Redeployment

Once several of the Complexes reached containment, the regional chief officers in the MAC groups began planning for demobilization and redeployment. The long fire season ahead was still a driving factor in assuring "ready reserve forces for new fires". Discussions focused on maintenance of the logistical support for incident bases and the distribution center for the months of containment, mop-up, and recovery efforts.

CALMAC began the planned release of the MAFFS air-tankers to their home bases. The military helicopters provided by the Navy and Marine Corps were also released.

Sunday, July 20

The Fire Fight Continued

The Mill Fire (Soda Complex) in the Sanhedrin Wilderness Area crossed protection boundaries. A Unified Command was established between the Mendocino National Forest and the Mendocino Unit of CAL FIRE.

A south-southeast wind on the Bear Wallow Complex, pushed the Caribou Fire north, with spotting up to ¼ mile. One spot fire burned 30 acres.

Mandatory evacuation orders were lifted in the area affected by the Motion Fire (Shasta Complex).

A main concern on the Lime Complex was road closures and construction activities on Hyampom



NorCal MAC met in Redding.

Road while firefighters conducted burnout operations. The Cub fire was contained at 19,718 acres.

Monday through Thursday, July 21 – 24

Additional Lightning

On Monday, scattered thunderstorms were predicted for Northern California and Eastern Oregon with drier air following behind the storms. The regional chief officers deployed additional heavy helicopters in the northeastern part of the state in preparation for new fires. By afternoon many of the fire complexes in Northern California were extremely active, and the convection columns from the Lime Complex fires were clearly visible from Redding. Additional resources to meet anticipated needs were coming available as several of the complexes neared full containment.

By Wednesday, many of the large fires reported active burning with continued threats to communities. The Basin Complex near Big Sur displayed active fire behavior with backing, upslope runs and isolated torching. Voluntary evacuations and road closures remained in effect. The Basin Complex reached 142,617 acres burned with 72% containment. Of the 4 active



Many firefighters had been assigned to the siege for more than a month.

fires within the Iron and Alps Complexes, the Cedar Fire was once again threatening structures in the communities of Del Loma and Big Bar with mandatory evacuation orders in effect for communities along the Highway 299 corridor. Communities along the Trinity River were threatened and evacuated numerous times beginning June 25th. Evacuations recurred in July due to threats from various fires within the Iron Complex. Low visibility, due to smoke, limited the use of aircraft. The Iron and Alps Complexes burned 68,292 and were 62% contained. The Lime Complex had 10 uncontained fires, continued to burn in heavy fuels and rugged terrain, and was 65% contained at 130,936 acres. Progress was expected to remain slow.

Of the 174 new fire starts that occurred throughout California during this period (July 21 – July 24) only one, the Panther Fire, escaped initial attack. Located 15 miles south of Happy Camp, it started by lightning on July 24 and burned in steep terrain and heavy timber. Fire fighting resources from the Siskiyou Complex provided an initial attack response. By afternoon it had burned more than 100 acres and

was 16% contained. This new fire on the Klamath National Forest would take the life of one firefighter.

Addressing firefighter safety and fatigue remained the highest priority for regional fire chiefs as they develop strategies to rotate and rest fire personnel. Many engine crews, strike teams, and overhead personnel had been assigned to the siege for more than a month; some firefighters have been away from home for more than 50 days.

As part of the California National Guard's response to the Governor's order for an additional 2,000 National Guard personnel to boost firefighting forces, 240 members of Taskforce Shovel were assigned to assist with mop-up and patrol of the Ironside, Ziegler, and Denny Fires on the Iron/Alps Complexes.

Friday, July 25

Fire Fighter Fatality

On July 25, 2008 Andrew Jackson Palmer, an 18 year old firefighter from Olympic National Park in Washington, is fatally injured when he is struck by a falling tree. Palmer's engine crew was assigned to the Iron Complex as a falling team to remove hazardous trees along the fireline ahead of mop-up crews.

The Telegraph Fire, a human-caused fire, started in Mariposa County.

The Shasta Lightning Complex was contained at 86,500 acres. The Piute Fire was contained at 37,026 acres.

Saturday, July 26

A Third Fire Fighter Fatality

The Panther Fire took the life of Daniel Packer, Chief of East Pierce County Fire and Rescue in Lake Tapps, Washington. Packer, while scouting fireline locations

PIUTE FIRE/FLOOD EVENT

An influx of monsoonal moisture to the Piute Mountain Range led to thunderstorm development and significant rainfall over the Piute Fire. On July 12th, locally intense rain fell on portions of the fire resulting in flash flooding in the Erskine Creek and Thompson Creek drainages. Road access washed out, stranding approximately 60 firefighters for the night in the upper end of Erskine Creek. The following morning dozers were sent in to open the road allowing their exit.

The afternoon of the 13th brought more rain, and the automated rain gauge on Piute Peak recorded 3.2 inches of rain for that day alone. Several local roads were closed, and some residents along Erskine Creek were evacuated by a hoist rescue from Kern County Fire Helicopter 408. Unsettled weather continued through July 16th, with Piute Peak having received a total of 5.16 inches of rain during the 5-day period.

Although the Piute Flood Incident was managed by Kern County Fire Department separately from the Piute Fire, resources were shared in order to minimize the damage and mitigate the danger to the citizens in the impacted areas. These included a strike team of engines, dozers, hand crews, and a helicopter.

There were no injuries reported due to the flooding, but numerous roads, structures, and other improvements were damaged. The primary damage was located in the Kelso Creek, Erskine Creek, and Thompson Creek areas. Flooding and/or mudslides were anticipated to be a problem downstream from the fire for the next few years. On the plus side, however, the rain brought a quick end to the Piute Fire.



Flooding and mudslides closed roads downstream from the Piute Fire.

HOOVER CABIN

Fires in the Ukonom Complex threatened critical natural and cultural resources, including the Hoover Cabin and other structures at Wooley Camp. Over the course of several days, helitack crews constructed fire lines, and installed sprinklers and pumps to secure the historic log cabins and outbuildings at Wooley Camp.

Wooley Camp is situated in a large meadow at the confluence of Wooley Creek and Haypress Creek in what is now the Marble Mountain Wilderness. The site was highly valued by the local Indians for fishing and hunting. In the early 1900's, the camp consisted of a ramshackle log house and some outbuildings presumably built by a local Karuk Indian. In 1925, the 80-acre camp was purchased by a small group of fisherman. Herbert Hoover (US President 1929–1933), an avid fisherman, became a member of the newly formed Wooley Creek Association in 1926. Shortly thereafter, the Wooley Creek Association built a lodge and 6 small log cabins, one for each of its members including Hoover. Hoover visited the cabin often over the years to fish for steelhead on Wooley Creek and nearby Salmon River. It is believed that Hoover's attraction to the area was partly responsible for protecting the Marble Mountains as a Primitive area in 1931.



Active fire behavior threatened cultural and natural resources.

as a Division Supervisor, deployed his fire shelter when fire activity increased and succumbed to fatal injuries from burns and smoke inhalation.

The Panther Fire doubled in size as it spread. It moved into a snag patch previously burned during the 1987 lightning siege. Standing dead trees greatly increased the transport of embers, which heightened the potential for spot fires.

The Soda Complex was contained at 8,652 acres.

Another 200-member task force of the California National Guard and their instructors arrived on the Breakneck Fire in the Butte Complex for 2 days of additional training after having completed wildland firefighting classroom training at the Wildland Fire Training Center in McClellan, CA.

Sunday through Monday, July 27 – August 4 **Progress in the Fire Fight**

As containment increased on remaining siege fires, requests for additional resources diminished. This prompted the reduction of the California Preparedness Level to 4, which shifted CalMAC to an information-only role. CalMAC directed NorCal and SoCal MACs to collaborate on priority setting and forward the information directly NMAC.

The Basin Fire on the Los Padres National Forest was contained on July 27th at 162,818 acres. Resources were released and redeployed to other fires.

The Telegraph Fire (a non-siege fire) located near Yosemite National Park in Mariposa County, became the number-one priority fire. It grew to more than 26,000 acres and destroyed thirty-seven structures.

The Panther Fire continued to double in size daily.



Rock slide slowed the movement of fire suppression resources.

Hyampom Road was closed by a rock-slide for a few days which hampered fire suppression force access and logistical support to the Miners Fire (Lime Complex). The fire spotted across Little Creek and burned up to the indirect containment line above the community of Hayfork.

On July 28, the Canyon Complex (PNF) experienced a 30-acre sloopover in a streambed on the Little Fire. This complex of 6 fires burned 37,753 acres and was 90% contained. The last 10% was difficult to achieve, with the active fire lodged in steep, rugged terrain that was nearly inaccessible.

The Gap Fire was contained at 9,443 acres and the Hell's Half Complex was contained at 15,146 acres.

On July 29, the Rich Fire (non-siege fire) was reported around 3 p.m. along Highway 70 on Plumas National Forest. Upon arrival of the first units, it was 80 acres and burning with a rapid rate of spread. Evacuations were ordered immediately for many residents along Rush Creek Road. Highway 70 and UPPR rail line was closed again. The extreme fire behavior continued through the night. The fire reached more than 2,400 acres by morning.

The fires in the Yolla Bolly Complex continued to burn actively in the remote wilderness area. Due to the rugged terrain and long travel times, most crews spiked out in remote camps, which made logistics and communications difficult. Progress was slow.

The Butte Complex was fully contained at 64,955 acres.

On July 30, 2008, more than 200 California National Guard were deployed to the Telegraph Fire. Task Force Bucket was the fourth wave in support of “Operation Lightning Strike”, the military term used for the siege fires.

The American River Complex was contained at 20,541 acres.

From July 31st through August 4th, the uncontained siege fires continued to burn actively. Favorable weather conditions allowed significant progress by resources available from contained fires. Several complexes were more than 85% contained.

The fires with less than 70% containment were located in rugged, remote areas including the Panther Fire, which was 8% contained at 9,806 acres. Resources

remained assigned as these fires were expected to burn until sufficient rainfall occurred in the Fall.

The Rich Fire, at 6,517 acres and 50% containment, continued to threaten communities and evacuations were in effect.

The Craig Fire started twelve miles east of Oroville in Butte County, burned more than 1,000 acres, and destroyed one residence the first day. A heavily augmented suppression force achieved 30% containment by morning.

Tuesday: August 5

Final Tragedy of the Siege

In anticipation of predicted thunderstorms, many fire fighters were pulled off the line for safety. Crews spiked out in the rugged Trinity Alps Wilderness were shuttled off the line by helicopters.

At approximately 7:45 p.m., a contract helicopter, ferrying firefighters from a helispot on the Buckhorn Fire in the Iron/Alps Complex crashed and caught fire, killing 9 of the 13 occupants. Aboard the helicopter were the pilot, copilot, FS pilot-inspector, and 9 contract firefighters from Grayback Forestry of Medford, OR. The surviving copilot and 3 firefighters were hospitalized with moderate to severe injuries. The National Transportation Safety Board is investigating the accident.

The multiple tragedies during siege represent a devastating blow to the firefighting community. Meanwhile, wildfires continued to burn. August 5th - 6th brought an additional 1,200 lightning strikes to Northern California, and the firefighters attacked the new and ongoing fires with even greater resolve.

Status of uncontained siege fires (as of 8/4/08)

Siege Complex	Acres	Contained
Bear-Wallow	12,567	19%
Blue 2	6,955	62%
Canyon	37,357	93%
Iron/Alps	84,788	87%
Lime	63,192	95%
Siskiyou	57,890	60%
Ukonom	42,785	66%
Yolla-Bolly	78,548	60%

CONDOR CHICK SURVIVES LIGHTNING FIRES

The Basin Complex on the Los Padres National Forest in Monterey County burned 163,000 acres, including much of the habitat of the endangered California condor. This is the home of the 43 birds in the central coast flock, located around Big Sur and Pinnacles National Monument. The fires damaged or destroyed many of the facilities including two condor field pens where condors are held, conditioned, and prepared for release. Much of the equipment used by the Ventana Wildlife Society to reintroduce captive-bred condors into the wild and to monitor the activities was damaged or destroyed.

While two of the condors' radio transmitters have been silent since the fires and those birds are presumed dead; at least 3 condor chicks in nests in the fire area did survive. One, dubbed a "miracle" chick, was born in a nest located in a cavity of a 200 feet tall redwood tree. The tree showed evidence that the flames had shot up the tree more than 100 feet, and several trees nearby were severely burned. On September 3, 2008, biologist Joe Burnett was able to climb the tree and confirm that the approximately 5-month old chick had survived the fire without injuries.



Condor 231 perched at the entrance to the nest guarding the young chick. Redwood miracle chick. First "true" wild laid and reared chick for the Big Sur flock.



The multiple tragedies during the siege represent a devastating blow to the firefighting community.

Epilogue

This document is a chronicle of an extraordinary fire event and the exceptional response of thousands of dedicated fire fighters. While this treatment of the 2008 June Fire Siege ends on August 5, the fire season certainly did not. This was still the middle of the typical fire season for the western United States. Several of the siege fires continued to burn well into the late summer and some were not declared fully contained until the fall. There were additional periods of extreme fire behavior and rapid-fire growth, with tens of thousands of additional acres that burned after August 5. There was an additional fire fighter fatality as 77 year old Curtis Hillman, a member of the Karuk Indian Tribe, died on September 11 from head injuries sustained August 25 while operating a road grader on the Six Rivers National Forest. The siege itself ended simply because successful fire suppression efforts greatly reduced the number of active fires and the ongoing fire fighting efforts became more typical of peak fire season.

The great number of fires that started with the June 20 and 21 lightning storms was certainly atypical, but it was probably not completely unprecedented. Fire history records from tree rings do show that there have been years when widespread fire occurred throughout the state. Both the initial attack and ongoing fire fighting efforts were extraordinarily effective, given the limited resources that were available to manage an extraordinarily complex fire situation. If the fire suppression efforts had not been waged, the resulting area burned would have been dramatically different. There is little question that many of these

fires would have burned unchecked into the late fall, perhaps covering several million additional acres. The potential effect of those additional acres exemplifies the complexity of the situation facing today's fire, ecosystem and land managers.

We put out fires for a reason, and fire suppression has clear, immediate, and tangible benefits to society. The fires themselves pose a direct threat to communities and public safety. Wildfire smoke is a health hazard to many individuals and a nuisance to many more over a very large geographic area. Fires are a direct threat to forests, wildlife, habitat and watersheds. There is no question that the suppression of the hundreds of wildfires during the 2008 June Fire Siege resulted in much smaller areas burned over a much shorter time, reduced threat to communities, significantly improved in air quality, and reduced direct impacts to ecosystems.

Fire is also a natural process within most if not all of the ecosystems burned. While it is still too early to draw final conclusions, preliminary assessment of the effects of fire on the vegetation and habitats show that burn severity patterns resulting from the 2008 June Fire Siege are mostly typical of the ecosystems burned. Perhaps because the siege occurred in the early part of the fire season the fires within the forests were mostly of low to moderate severity. High severity fires mostly occurred in chaparral and other shrublands. While there is a range of effects, widespread stand replacing forest fires seem to be the exception rather than the rule.



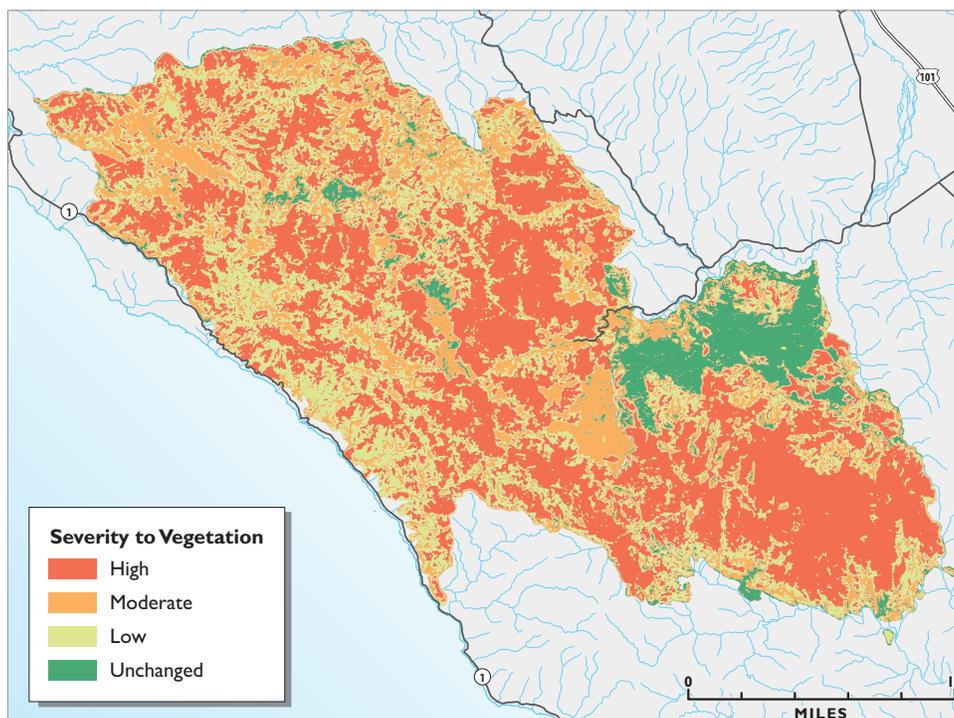
Residents throughout the state showed their appreciation.

Suppression of the 2008 June Fire Siege fires has also contributed to the exclusion of fire as a natural process on extensive wildland within California.

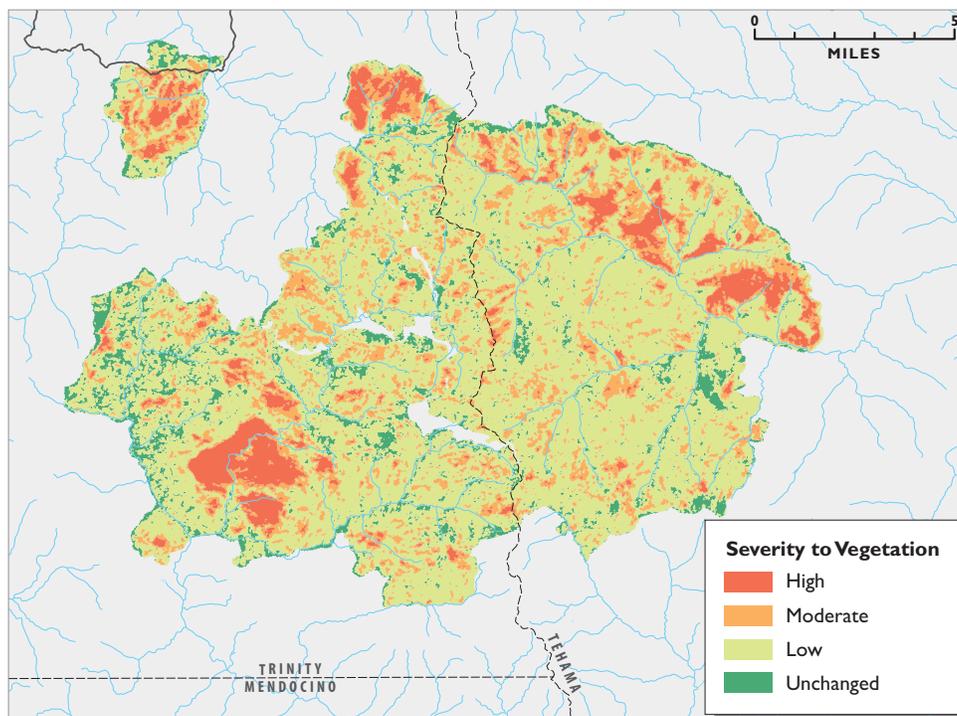
Managing fire in wildlands is complex and controversial. Fire has effects both positive and negative effects on humans and ecosystems, and balancing these effects is the goal of public and private land managers. While public safety and health are clearly the priority in management of the 2008 June Fire Siege, the suppression of wildfires also removed fire from large areas of the state where fire exclusion has caused fuel accumulations, forest densification, altered wildlife habitat, and many other impacts.

Just as there are benefits and costs to the occurrence of these fires, there are also benefits and costs from suppression of the fires. Mitigating the costs of fire exclusion by treating fuel, thinning forests, and other management activities requires large commitments of funds and resources. Similarly, the costs of wildfires that do occur require great commitment of funds, resources and impact to society and ecosystems. The 2008 June Fire Siege was a very important fire event, and the commitments and efforts of firefighters and the effects of the fires and fire suppression will be with us for decades to come.

Fire Severity: Basin Complex Indians Fire



Fire Severity: Yolla Bolly Complex



Preliminary assessments of the effects of fire on vegetation and habitats show that burn severity was often typical of the ecosystems burned. High severity fire occurred in most shrublands while many forests burned with low to moderate severity.

RESTORATION AND REHABILITATION

As fires were contained, restoration and rehabilitation efforts started. State Emergency Assessment Teams (SEATs) coordinated by the Office of Emergency Services are tasked "...to facilitate the mitigation of the effects of the fires and the environmental restoration of the affected areas." Each team was comprised of combinations of geologists, hydrologists, soil scientists, archaeologists, foresters, Geographic Information System technicians, wildlife and fisheries biologists, and civil engineers. Teams developed plans and implement actions for rapid post-fire watershed assessment and recovery operations to:

- ▶ Identify on-site and downstream threats to public health and safety from landslides, mudslides, debris torrents, flooding, damaged infrastructure (e.g. roads and bridges), and other public safety hazards resulting from the fires.
- ▶ Identify impacts and threats to: soil productivity from erosion, impaired water quality, wildlife/fisheries habitat, native plant species, and prehistoric and cultural resources.
- ▶ Develop a report and recommendations for local jurisdictions to be used to guide implementation of timely mitigation of potential impacts.

SEAT specialists conducted rapid surveys on burned areas to determine if emergency rehabilitation treatment was needed to minimize the risk of threats to life and property. These surveys were used with other relevant, reliable sources of information to assess if emergency rehabilitation treatment was needed. Each report contained data and maps to help local officials quickly identify threatened areas.

The recommendations in each SEAT report fell into one of two broad categories: treatments considered temporary (short-term) measures designed as inexpensive "quick fixes", and long-term treatments designed to facilitate the recovery of entire watersheds while minimizing the exposure of the values at risk to the threats identified.

Commonly identified threats included: increased risk of in-channel flooding; debris torrents; mudslides; landslides; and rock falls. Manmade structures such as pedestrian bridges, homes, commercial buildings, highway bridges, roads and public gathering places were identified as at risk in several locations. Many of these structures were located within the confluence of natural drainages, near areas of natural instability that were further weakened by the loss of vegetation, or predisposed to mass movement from hydrophobic soils created by the fires.

On federal lands, Burned Area Environmental Rehabilitation (BAER) teams undertook similar tasks to determine if significant emergency threats to human health and safety, or natural resources existed. As these areas were identified, plans would be implemented to alleviate emergency conditions stabilizing soil, control water, sediment, and debris movement, prevent impairment of ecosystems, and mitigating threats to life, health, property, and downstream infrastructure and natural resource values at risk. The teams were also tasked to monitor the effectiveness of the implementation measures.

Thus, even before the fires were out, work began in earnest to repair the damages caused by the fire suppression operations, to mitigate the hazards and risks associated with the fire/flood cycle, and to begin restoration of environmental quality. Additional work was quickly undertaken by private timberland owners to begin immediate salvage logging of damaged timber stands, and make repairs to logging roads and bridges.

In all cases, the SEAT and BAER teams closely coordinated efforts with each other, appropriated local agencies, and private landowners to ensure continuity of operations across property boundaries and economies of scale.



Even before the fires were out, work began in earnest to repair the damages caused by the fire suppression operations, to mitigate the hazards and risks associated with the fire/flood cycle, and to begin restoration of environmental quality.

A photograph of a forest with sunlight filtering through the trees, creating a warm, golden glow. The trees are tall and thin, with some branches in the foreground. The light is bright and creates a strong contrast with the dark shadows of the trees.

*Extraordinary efforts of
firefighters during the 2008
June Fire Siege resulted in
much smaller areas burned
over a much shorter time,
reduced threat to communities,
significantly improved in air
quality, and reduced direct
impacts to ecosystems.*

Appendix I: Complex Summaries

Fire Summary Statistics Explanations of Categories

Incident Number

A number assigned to the fires or complexes to allow tracking of the fires.

Number of Fires

Total number of fires included in the complex.

Major Fires, Containment Date, Size

Listing of the major fires in the complex, with the date they were declared contained and the final acreage. Major fires generally include the fires over 1,000 acres at time of full containment, small fires are not included. Fires starting as multiple ignitions that burn together are mostly included as a single fire under the final name.

Total Acres

Total acres burned in the complex, or fire.

County

County or counties in which the complex or fire burned.

Affected Communities

Communities that were directly threatened by the fires of the complex. This does not include long distance smoke dispersal.

Agency in Command

Agency or agencies that were in command. There can be more than one if there is a unified command.

Teams Assigned

A listing of the fire suppression teams that were assigned during the fire.

Reported Start Date

Date and time (if available) when the fires of the complex were initially reported.

Containment Date

Date that the complex or fire was declared fully contained, or the date of the final fire report.

Firefighters Assigned

The maximum number of firefighters assigned to the complex or fire.

Structures Destroyed

Total number of structures destroyed by the fires in the complex.

Fatalities

Total number of fatalities directly caused by the fires in the complex.

Fuels

General description of the type of fuel that burned.

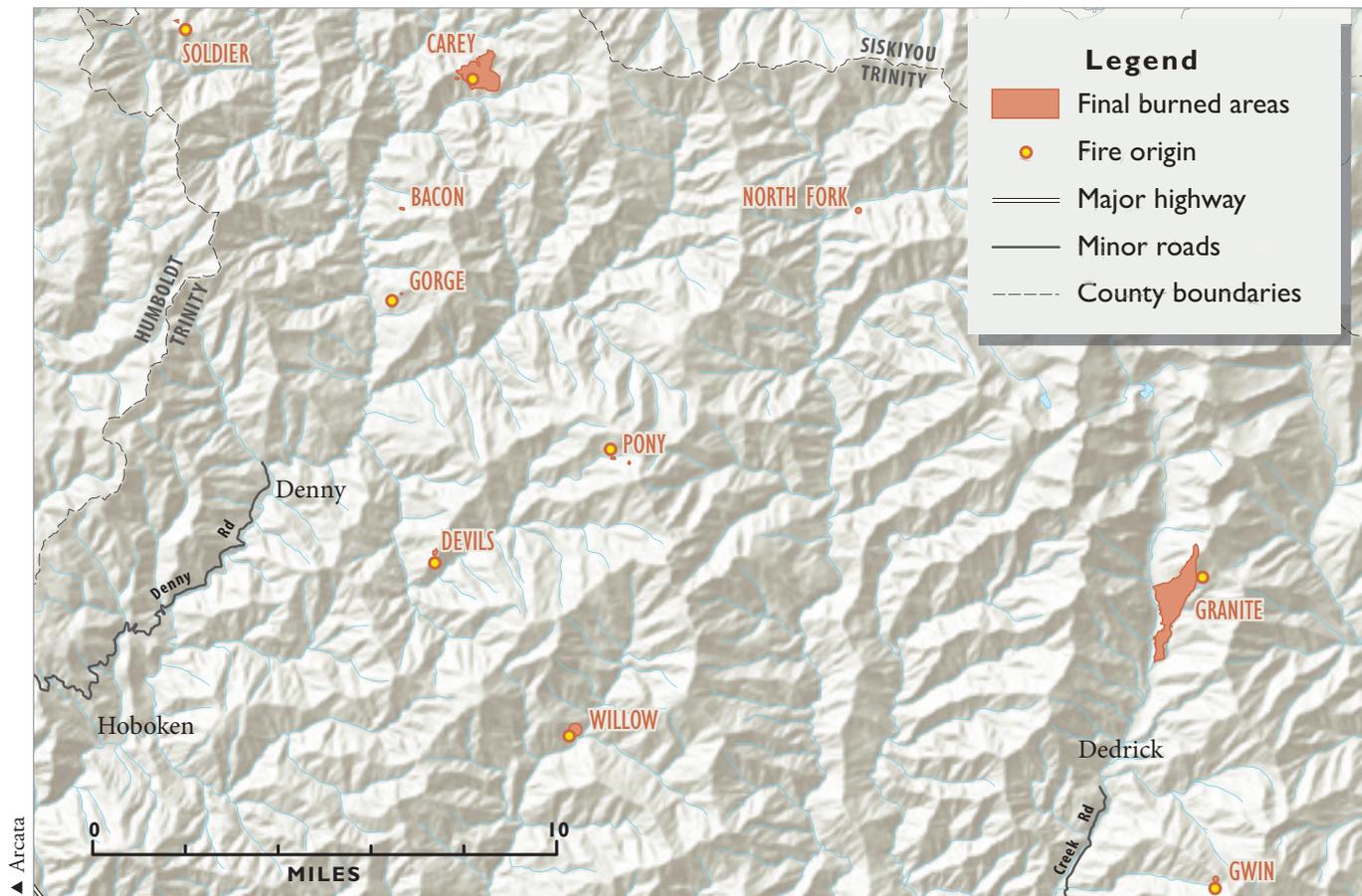
Cause

Cause of the initial ignition of the fires in the complex.

Fire Costs

Preliminary, estimated cost of the direct fire suppression generally from the fire reports.

Alps Complex



STATISTICS

Complex Fire #: CA-SHF-001079

Number of Fires: 15

Major Fires/Containment Date/Acres:

Carey	3,689 ac	9/1
Granite	542 ac	7/20

Buckhorn, Clem, Denny transferred to the Iron complex 7/4

County: Trinity

Affected Communities: Brooks Ranch, Buckhorn Ranch, Denny

Agencies in Command: USFS

Teams Assigned: Great Basin Team

(T1) – see Iron Complex for additional teams

Start Report Date: 6/21/08 9:28 a.m.

Containment Date: Unknown – Final report 7/11/08 when fires @ 90% containment (reporting continued under Iron/Alps Complex)

Total Acres: 1218 ac at end of separate reporting – see Iron Complex; 4,139 acres per Iron Complex

Direct Fire Suppression Costs: \$1,991,000

Firefighters Assigned at Peak: 100

Structures Destroyed: 0

Fatalities: 0 under Alps Complex (CA-SHF-001079)

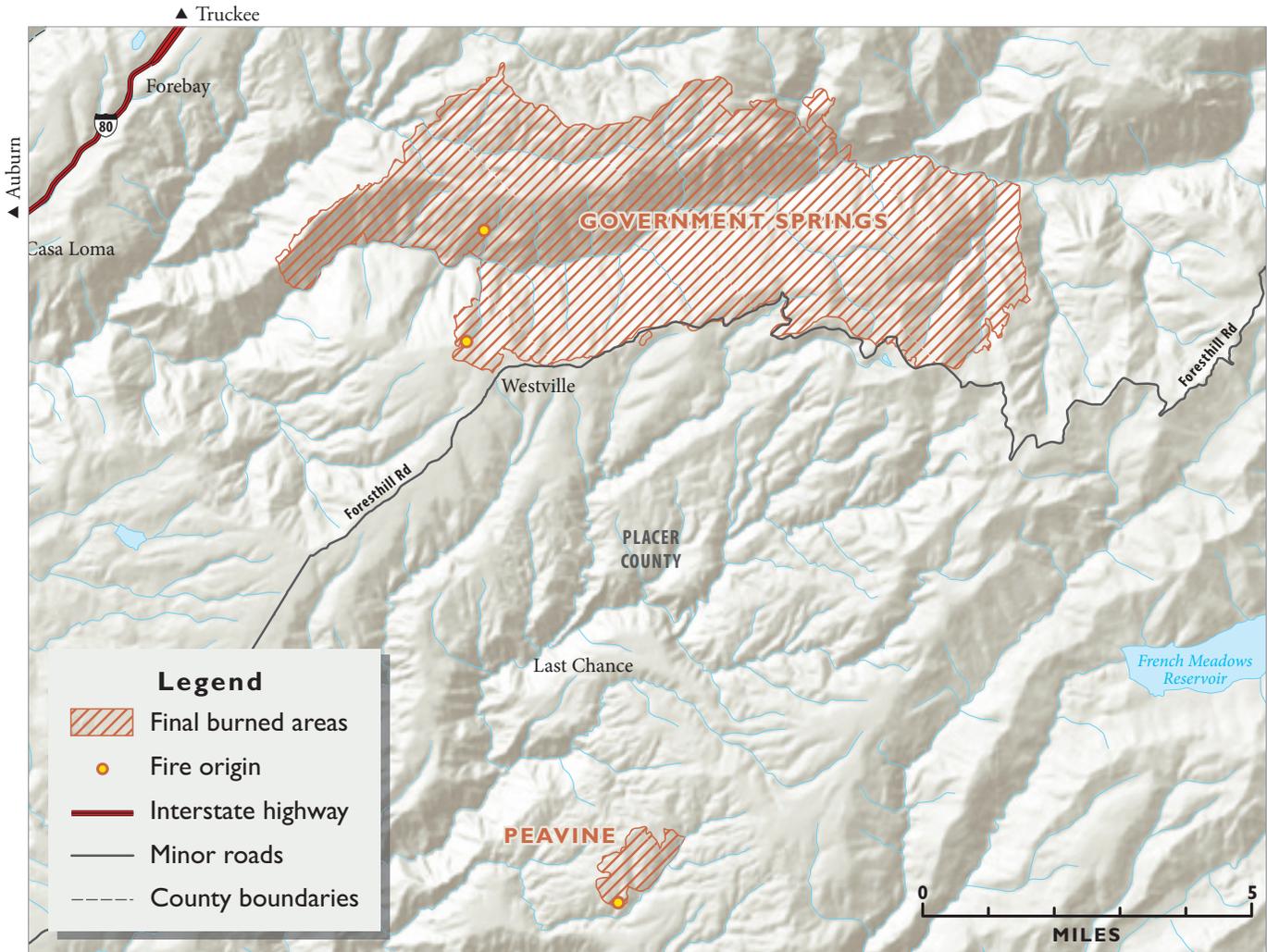
Fuels: Timber with brush

Cause: Lightning

The fires in the Alps Complex burned within or near the Trinity Alps Wilderness in the Shasta Trinity National Forest. On July 3, the Buckhorn and Clem Fires burned together and are reported as the Buckhorn Fire. On July 4, the Buckhorn Fire transferred into the Iron Complex and by July 10, the entire Alps Complex was managed by the Iron Complex. The last report for the Alps Complex was filed on July 11, and from that point forward, all of the Alps Complex Fires became

part of the Iron Complex. The Carey Fire eventually became a primary concern of the Hoopa Valley Tribe, which has tribal interests on USFS lands west of the Carey Fire. Although no injuries or fatalities were reported for the Alps Complex, the Buckhorn Fire (which transferred to the Iron Complex on July 4) is the site of the tragic helicopter crash on August 5 which resulted in 9 fatalities and 4 hospitalizations.

American River Complex



STATISTICS

Number of Fires: 10
Major Fires/Containment Date/Acres:
 Government Springs 7/9 19,990
 Peavine 7/5 551
County: Placer

Affected Communities: Foresthill, Baker Ranch, Michigan Bluff, Blue Canyon, and Robinson Flat
Agencies in Command: USFS
Teams assigned: USFS, Rocky Mtn T-1 team (Summerfelt); T-1 IMT (Muir), T-3 (Suarez)

Start Report Date: 6/21/2008 at 2:00 p.m.
Containment Date: 7/30/2008
Total Acres: 20,541 acres
Direct Fire Suppression Costs: \$23,950,980

Firefighters Assigned at Peak: 992 on 7/12
Structures Destroyed: 2 residential
Fatalities: 0
Fuels: Timber, and brush
Cause: Lightning

The American River Complex started during the June 21 lightning storm as 9 small fires in the American River drainage in Placer County. Within 24 hours, 5 fires were contained and the other 4 threatened the communities of Foresthill, Baker Ranch and Michigan

Bluff. With moderate to rapid fire spread, the Peavine Fire was expected to double in size and the Government Springs Fire to triple. The Westville Fire was expected to merge with the Government Springs Fire. Smoke affected the community of Foresthill.

American River Complex (continued)

June 24, the American River Complex grew to 1300 acres and was 5% contained. Firefighters discovered and contained the Hardclimb Fire and Red Fire. After an extensive search, eight hikers/miners missing in the North Fork area were located and evacuated. The Peavine fire, at 200 acres, burned in the Peavine Creek drainage and threatened the Placer Grove of Giant Sequoias. The 1000 acre Government Fire established in an accessible area of the North Fork of the American River drainage burned the municipal watershed and threatened recreation cabins and archaeological/historical sites. The Westville fire, at 50-75 acres, influenced by the Government fire, had the potential to be several thousand acres.

By June 26, competition for resources with other fires in Northern California delayed the team's ability to achieve suppression objectives on the American River Complex. All assigned resources were committed to the Peavine Fire, with expected containment in 5 days. The Government Springs and Westville Fires remained mostly unstaffed and continued to grow unimpeded. Red Flag warning for dry lightning, caused firefighters to anticipate erratic and unpredictable fire spread due to downdrafts and new starts. A cabin was destroyed by the Government Springs Fire, more were threatened.

By June 29, the complex was at 3,697 acres and 10% containment. Good progress was made on the Peavine fire with a scratch line completed. The focus of fire-fighting efforts turned to the Government Springs Fire, which became a race between suppression resources and the fire." If resources were not able to hold the fire in the Willmont Saddle and Sawtooth Ridge areas,

there would have been concern that the fire could have grown substantially and threaten the community of Blue Canyon, the Union Pacific Railroad, the Interstate 80 corridor, and Tunnel Mills Spike Camp. (The economic impact of shutting down the rail line is estimated at about \$1,000,000 per hour.)

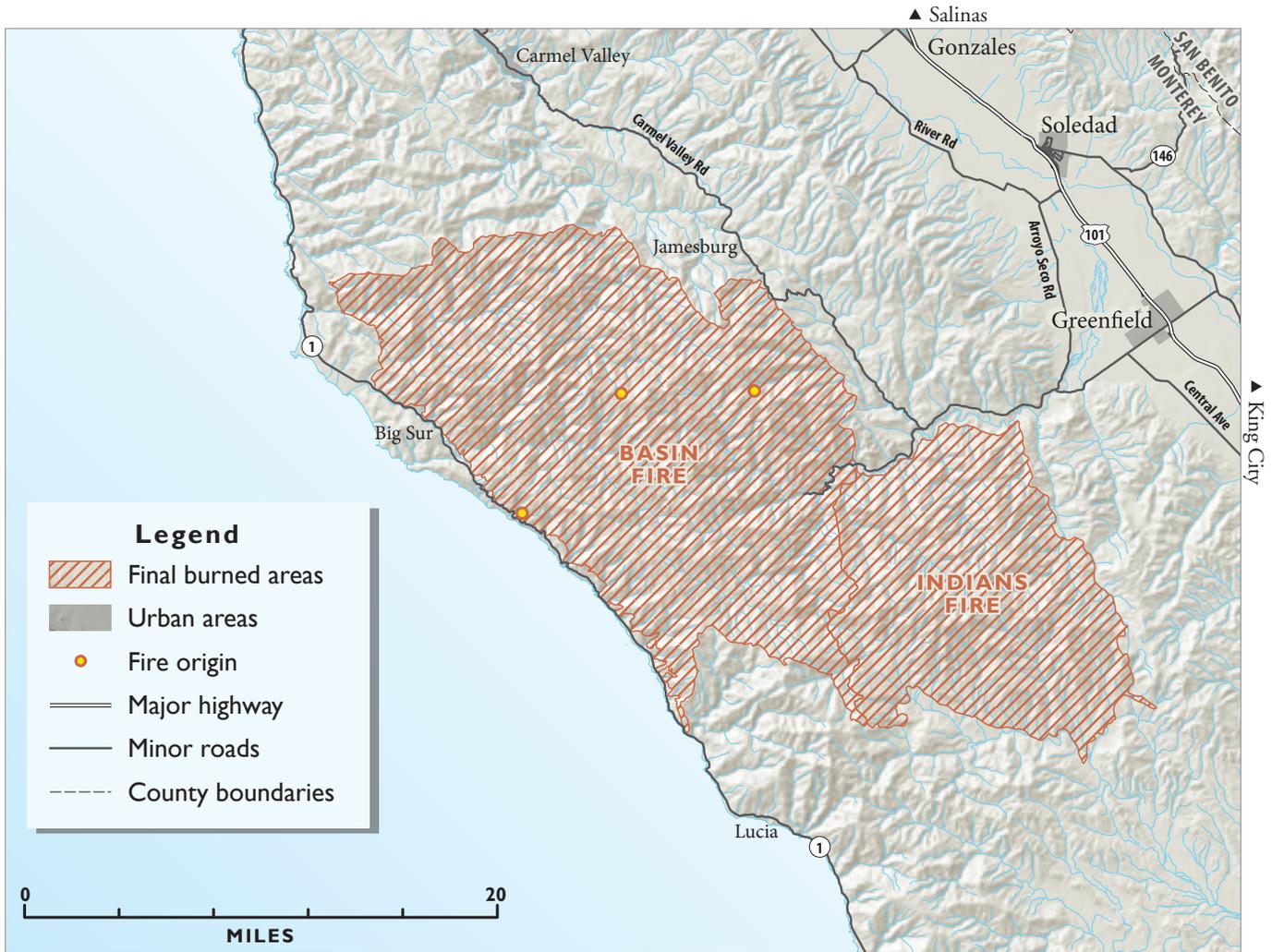
On July 3, Union Pacific Railroad brought a fire train to protect the tracks. July 6 fire activity increased as the inversion lifted, which forced the movement of resources to to areas with highest values at risk. A second residence was destroyed. The Westville Fire developed a major convection column on July 9, crossed the American River and merged with the Government Springs Fire. Smoke affected communities in the I-80 corridor from Truckee to Reno. Many roads, trails, campgrounds, and other recreational facilities remained closed. The American River Complex burned 10,826 acres and was 25% contained.

By July 11, the American River Complex had grown to over 18,000 acres and was 20% contained. An inversion settled over the area that moderated fire activity. Firefighters made progress with line construction, mop-up, cold-trailing, and hot-spotting. Smoke trapped beneath the inversion again adversely affected air quality.

On July 15, the complex was 18,799 acres and 50% contained. The Peavine fire was contained at 551 acres. Favorable weather and topographic alignment allowed crews to continue effective suppression actions on the Government Springs/Westville fire. California National Guard task force "Shovel" joined the effort on July 12.

The American River Complex was fully contained on 7/30/2008 at 6:00 p.m.

Basin Complex



BASIN COMPLEX
Incident Number: CA-LPF-1649
Number of Fires: 3
Major Fires: Basin and Gallery Fires
County: Monterey
Affected Communities: Big Sur, Carmel, Lucia, Carmel Valley, Rodeo

Flats, Partington Ridge Tanbark, Pine Valley and Chews Ridge.
Agencies in Command: Unified command with USFS, CAL FIRE, Big Sur Volunteer Fire Brigade and Monterey County Sheriffs Office

Start Report Date: 6/21/2008
Containment Date: 7/27/2008
Total Acres: 162,818 acres
Estimated Direct Fire Suppression Costs: \$77,496,454

Firefighters Assigned: 2,115 on 7/21
Structures Destroyed: 26 residences, 32 outbuildings
Fatalities: 0
Fuels: Chaparral
Cause: Lightning

Basin Complex (continued)

The Basin Complex included three fires started from the June lightning event – the Basin, Gallery, and Logwood (a single tree lightning strike). Within 24 hours, the fires burned 2000 acres and posed an immediate threat to homes in Partington Ridge. Mandatory evacuations were issued from the Ventana Inn, in Big Sur south to Julia Pfeiffer Day Use Area. Around 500 residences were threatened.

By June 23, the Logwood fire had merged with the Gallery fire. The Gallery fire was 6350 acres with 10% containment. The Basin fire was 2150 acres with 0% containment. Three residences and 2 outbuildings were destroyed, and another 11 structures were destroyed by the following morning.

Governor Schwarzenegger visited the incident on the morning of June 25. Heavy fuel loads were more flammable due to sudden oak death. On June 26, the Basin and Gallery fires merged. Poor visibility from smoke and low clouds limited aircraft operations, and evacuations remained in place in the Partington Ridge area. The Basin Complex continued to burn in extremely steep and rugged terrain with heavy fuel loading. The incident was divided into the West Zone and the East Zone with two incident commanders in unified command.

By July 2 the Basin Complex was 61,275 acres, 3% contained; over 2000 structures were threatened. In the West Zone the fire made major runs to the south

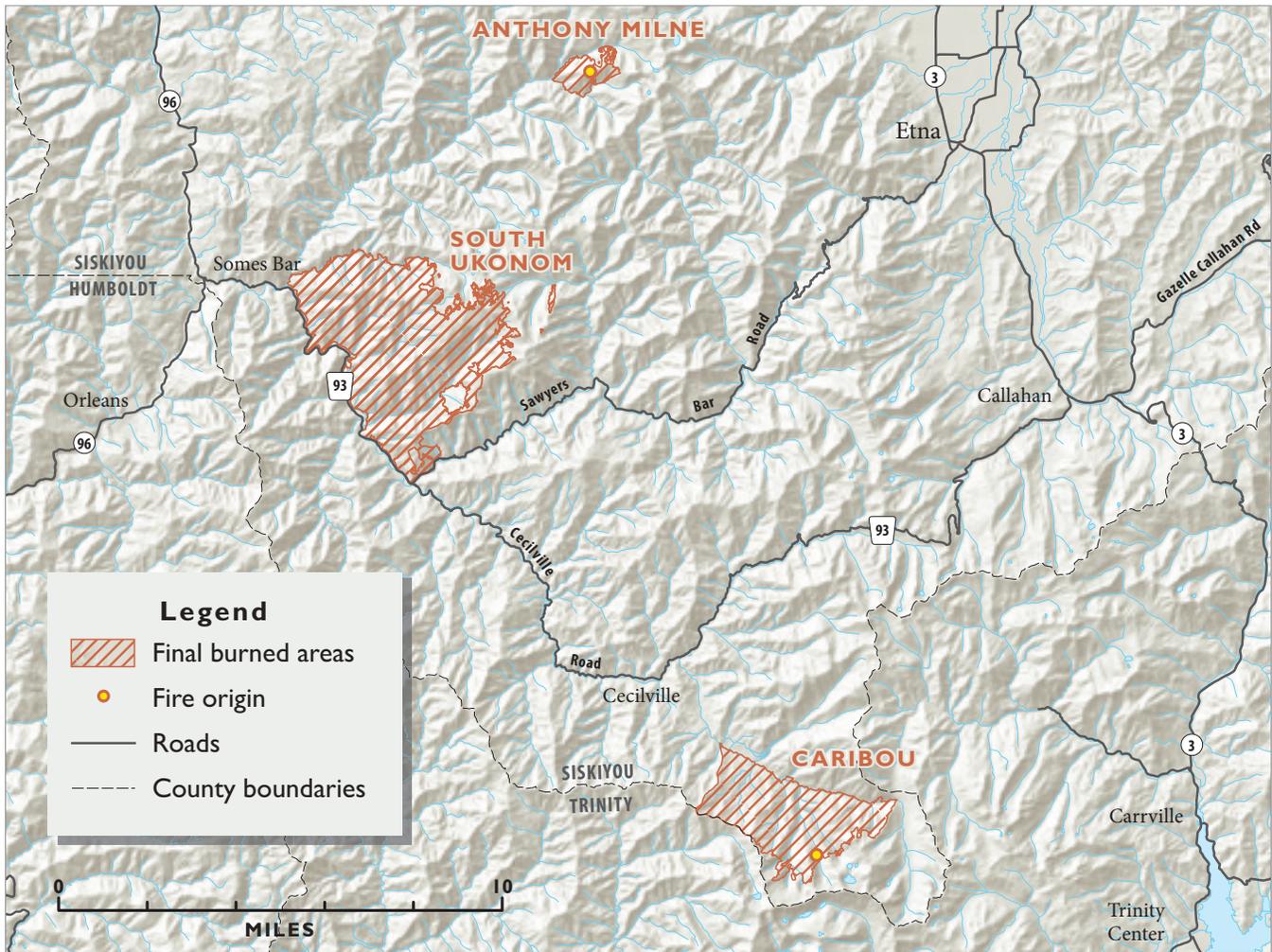
and north. A mandatory evacuation and road closure was in effect for the entire community of Big Sur and both sides of Highway 1 from Lime Kiln State Park North to Andrew Molera State Park. The evacuation in Big Sur displaced 1500 residents, 500 homes and 20 businesses. An evacuation advisory was in place for residents of the Palo Colorado Canyon area. The East Zone prepared for structure protection in the Cachagua areas.

On July 4, the fire continued to be very active on the northwest and south flanks, and threatened Big Sur, Carmel and Lucia. The fire jumped the southern containment line and crews worked to hold a secondary dozer line with limited resources.

On July 11, a Red Flag Warning expired. Increased humidity allowed firing operations on the north containment line to continue. The Basin Complex was at 113,827 acres and was 41% contained. Twenty-six residences and 32 outbuildings were destroyed, and 5 residences and 4 outbuildings were damaged.

On July 25, voluntary evacuations for many residents were lifted as crews continued to improve containment lines and conduct mop up operations. US Forest Service Chief Abigail Kimbell visited the East Zone of Basin Complex. The complex had burned 162,818 acres which made it the 7th largest fire in California's recorded history.

Bear Wallow Complex



STATISTICS

Number of Fires: 2 original; 3 at peak when South Ukonom added on 8/15

Major Fires/Containment Date/Acres:

Caribou	9/23	
Anthony Milne	9/23	1,779
South Ukonom	9/23	(85%)

County: Siskiyou

Affected Communities: Summerville, Caribou Ck, Glacier View Ranch,

Anthony Milne Camp, and Wooley Creek

Agencies in Command: USFS

Teams assigned: Central Sierra T-2, (Johnson); Northern CA T-2, (Swartzlander); T-2 IMT, (Beckman); and NIMO team, (Gage)

Start Report Date: 6/21 at 4:00 PM

Containment Date: 9/26

Total Acres: Bear Wallow – 50,820

acres (includes South Ukonom)

Direct Fire Suppression Costs:

\$17,766,414 (includes Anthony Milne, Caribou, South Ukonom and North Ukonom fires).

Firefighters Assigned at Peak: 668 on 8/7 with only the two fires; 680 on 9/14 after going to the Theater of Operations.

Structures Destroyed: 0

Fatalities: 0 for the Bear Wallow Complex; 2 reported under the Klamath Theater.

Fuels: Mixed Timber, brush, slash, and litter

Cause: Lightning

Bear Wallow Complex (continued)

The Bear Wallow Complex started on June 21 by dry lightning. The complex included the Caribou Fire which was about six miles southeast of Cecilville and the Anthony Milne Fire in the Marble Mountain Wilderness. With fires burning at low intensity and in remote areas, fire behavior analysts and fire monitoring crews were brought in to assess the situation to help determine minimum impact suppression tactics (MIST). MIST options included the use of natural fire barriers such as rocky outcrops or sparsely vegetated landscapes for containment areas. These strategies can minimize firefighter exposure to the risks associated with steep, inaccessible terrain and can provide a suppression cost savings. The Anthony Milne and Caribou Fires were managed using the confine and contain strategy. Fires from the Ukonom complex continued to burn toward the Milne fire.

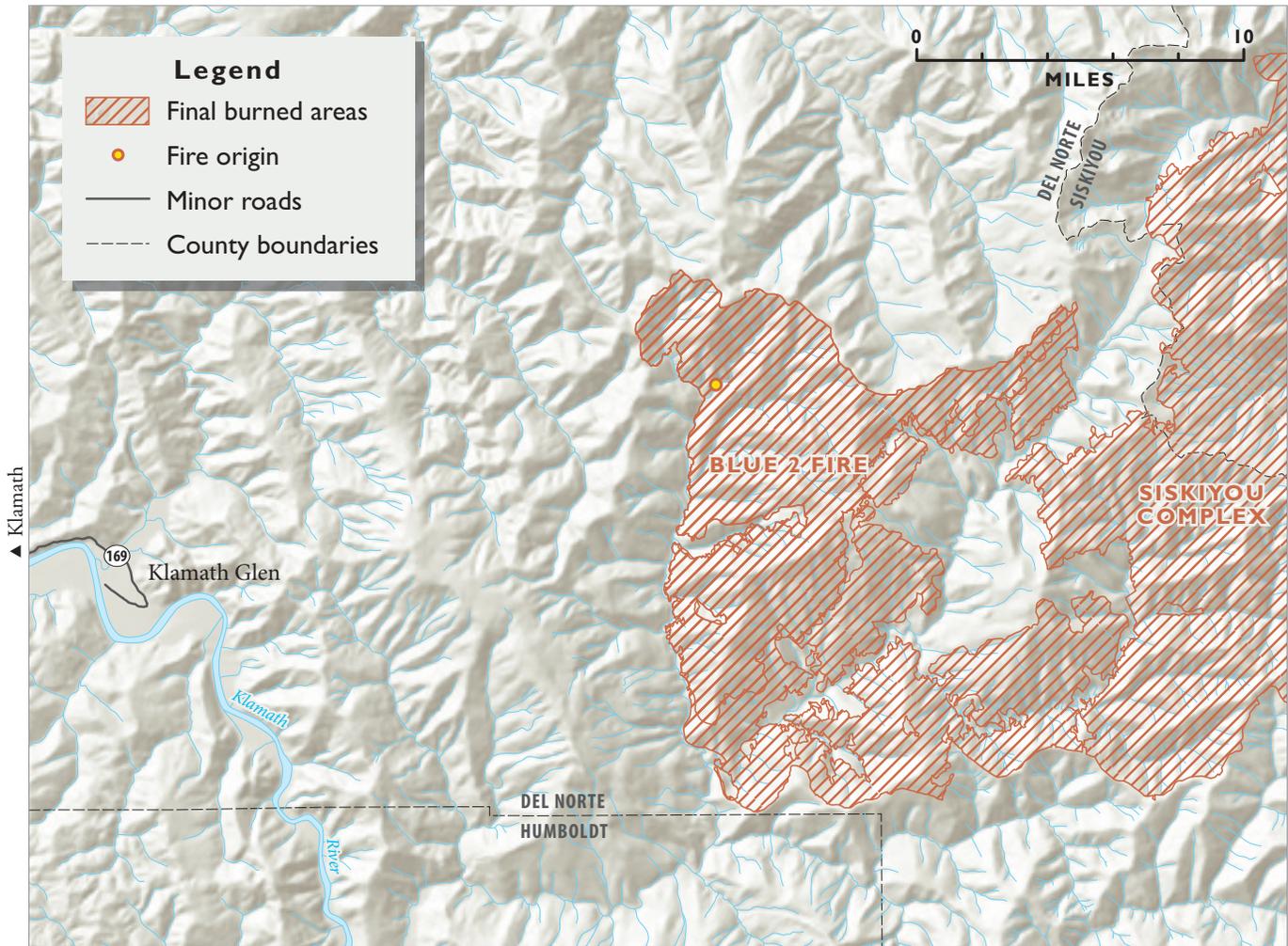
On July 23rd, the Caribou fire made a significant run and spread to the east and west, and burned approximately 1200 acres. Residents along the South

Fork of the Salmon River and the community of Summerville were under a voluntary evacuation with structures threatened. Fire crews focused on building a direct line to secure the northern edge of the fire and building indirect dozer lines along the border of the Trinity Alps Wilderness. The Trinity Alps Wilderness and approximately 16 miles of the Pacific Crest Trail were closed due to fire activity. Meanwhile, the Anthony Milne fire continued to burn with low intensity within its perimeter and was monitored by aircraft.

By August 8, the Bear Wallow Complex was 13,994 acres and 51% contained. On August 20, a Fire Use Incident Management Team resumed command of Anthony Milne Fire (1779 acres), the Caribou Fire (12,973 acres), and the southern portion of the Ukonom Fire (29,730 acres) which was managed collectively as the Bear Wallow Complex.

By September 11, the Bear Wallow Complex, at 48,551 acres, was moved into the Klamath Theatre.

Blue 2 Fire



STATISTICS

Complex Fire #: CA-SRF-001224
County: Del Norte
Affected Communities:
 Klamath, Klamath Glen
Agencies in Command:
 USFS

Cooperating Agencies:
 Karuk, Yurok, Hoopa and Tolowa Tribes; CAL FIRE.
Start Report Date: 6/20 2000hrs.
 Originally called Blue Fire (CA-SRF-001057) then went to Ukonom Complex (CA-SRF-001126) and

then to Blue 2 Fire. Blue 2 Fire merged into Siskiyou Complex (CA-KNF-002975)
Containment Date: 12/31 –
Total Acres: 17,540 acres
Direct Fire Suppression Costs:
 \$11,813,267

Firefighters Assigned at Peak:
 397 on 7/29
Structures Destroyed: 0
Fatalities: 0
Fuels: Timber, brush, old fire scars and hardwood litter
Cause: Lightning

Blue 2 Fire (continued)

Lightning ignited the Blue 2 Fire, originally called the Blue Fire (CA-SRF-001057), on June 20 near the headwaters of the Crescent City Fork of Blue Creek, east of Klamath. The fire burned heavy timber in very steep and rugged terrain. On June 26, the Blue Fire, at 225 ACRES and 5% contained, was incorporated as part of the Ukonom Complex (CA-SRF-001126).

On July 6, the Blue fire was separated from the Ukonom Complex and renamed the Blue 2 as it transitioned to a new management team. At 1,090 acres and 8% containment, the Blue 2 threatened critical cultural and spiritual sites of the Yurok, Karuk, and Tolowa tribes. Major traditional spiritual activities within the fire area posed additional safety concerns.

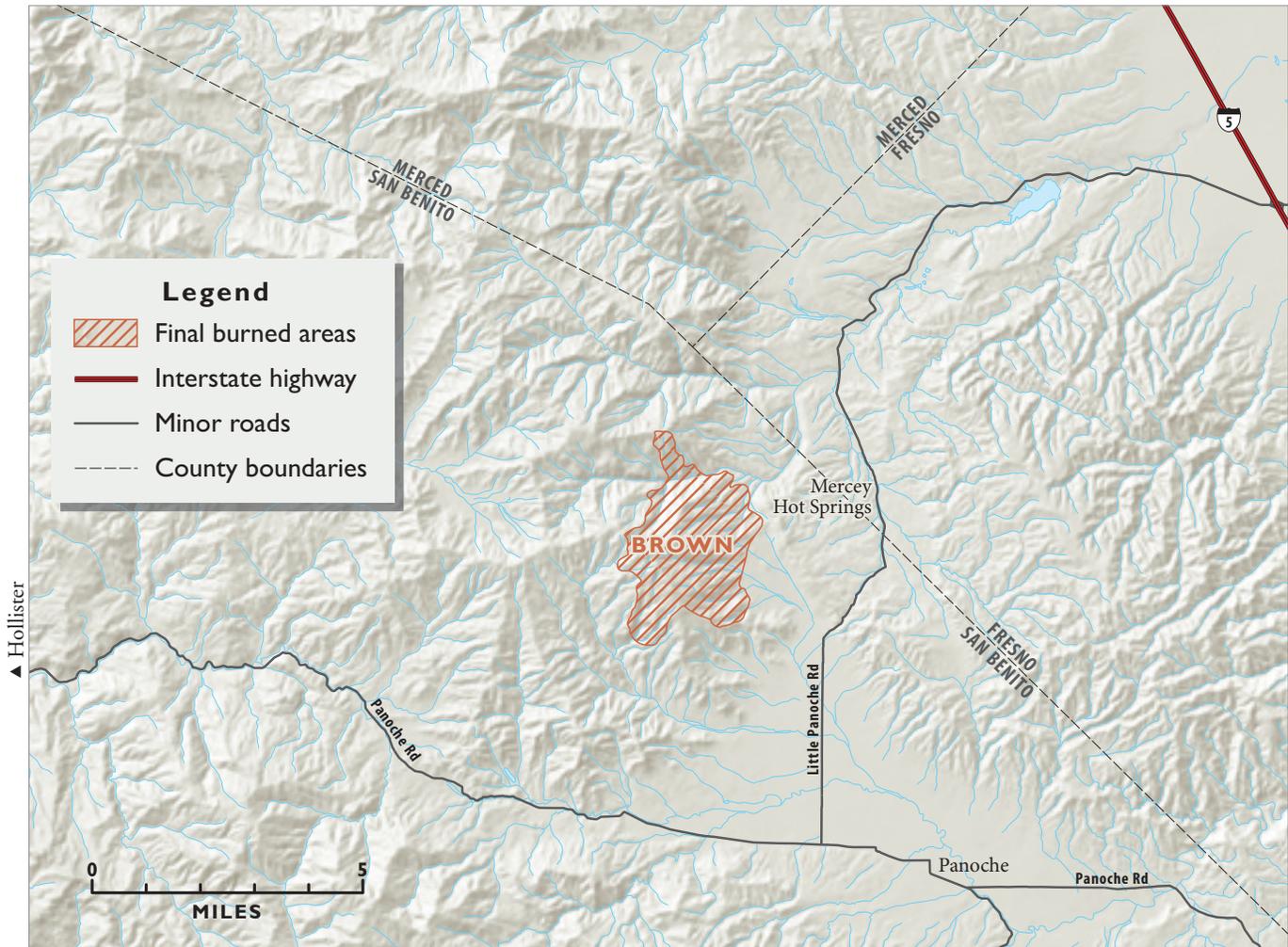
Additional Forest closure orders were implemented on July 11. Firefighting resources were loaned to local ranger district for initial attack and traffic control when new starts caused the temporary closure of US Highway 199 at Hiouchi. The Red Mountain communication site was at risk. Valued at \$25,000,000, the communication equipment was critical to local fire and other emergency operations.

Other values at risk included: numerous heritage resources (National Historic Register eligible), extremely sensitive Native American cultural and spiritual lands, Threatened and Endangered species habitat, anadromous fisheries habitat, old growth timber, the Wild and Scenic River corridor, and forest recreation use.

By July 17, the Blue 2 fire had burned 4,426 acres and was 16% contained. Major fire control problems continued to include remote access, extremely steep rugged terrain, falling snags and rollouts. Structure protection for the Red Mountain communication site including fuel reduction, wrapping and sprinkler systems was completed. Trail and road closures were in effect. Important Native American cultural areas in the fire vicinity continued to be a concern.

By July 29, the Blue 2 Fire was 5,424 acres and 25% contained. Half of the fire had burned in the Siskiyou Wilderness and was expected to burn into September. On August 13, the Blue 2 incident was transferred to Siskiyou Complex (CA-KNF-002975) at 9,728 acres and 69% containment.

Brown Complex



STATISTICS

Number of Fires: 3
Major Fires: Brown Fire
County: San Benito

Affected Communities:
Panoche and Antelope
Agencies in Command:
CAL FIRE's San Benito-Monterey
Unit (BEU)

Start Report Date: 6/21
Containment Date: 6/23
Total Acres: 3,350 acres
Direct Fire Suppression Costs:
\$150,000

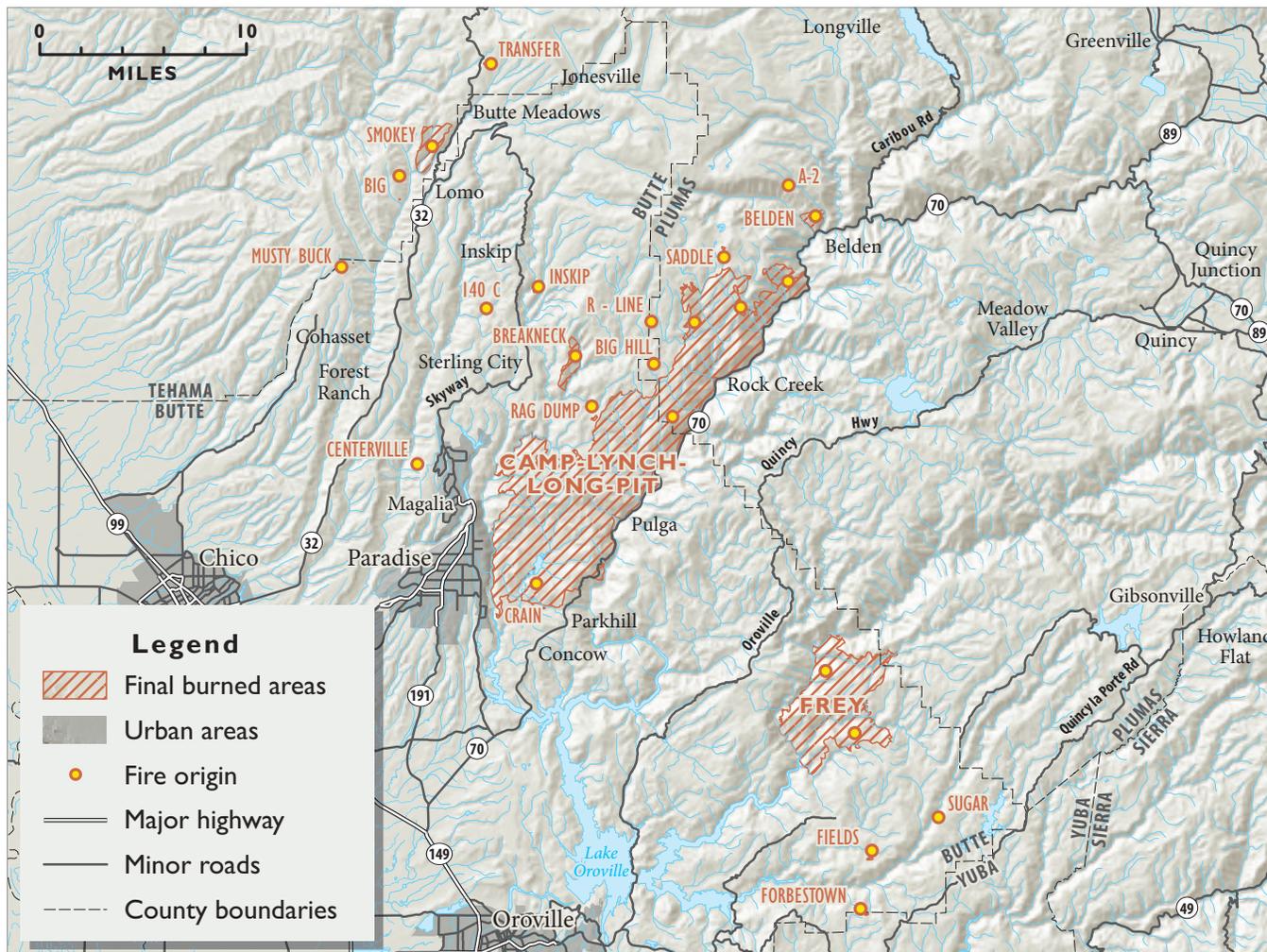
Firefighters Assigned at Peak: 80
Structures Destroyed: 0
Fatalities: 0
Fuels: Grass and brush
Cause: Lightning

Lightning started three fires in Southeastern San Benito County on June 21st, 2008 around 2 o'clock in the afternoon. The first fire was about a hundred acres of grass, the second fire was about 250 acres of grass, and the Brown Fire burned about 3,000 acres of mixed grass and brush. At the time very few

resources were available due to the large number of new fires.

Initial attack forces remained engaged on these fires through containment without reinforcements, as these fires burned in remote, sparsely populated areas with minimal threat to life and property.

Butte Lightning Complex



STATISTICS

Number of Fires: 41

Major Fires/Containment Date:

Rim	7/2
West	7/6
Camp	7/29
Smokey	7/7
Breakneck	7/12
Frey	7/21
Hwy 70 Fires	

County: Butte

Affected Communities: Butte Meadows, Jonesville, Jarbo Gap, Concow, Yankee Hill, Cohasset, Forest Ranch, Paradise, Magalia, Sterling City, Belden, Coulenc
 Agencies in Command: CAL FIRE's Butte Unit (BTU): CAL FIRE ICT # 9 (Lewin & Morris) and ICT #5 (Streblow)

Start Report Date: 6/21 1400 hrs.

Containment Date: 7/29/08

Total Acres: 59,440

Direct Fire Suppression Costs: \$94,825,683

Firefighters Assigned at Peak: 3,290 on 7/12

Structures Destroyed: 117 total (106 residences and 11 outbuildings)

Fatalities: 2

(1 civilian in Concow area and 1 off-duty FF assigned to the incident)

Fuels: Timber, logging slash, brush, and grass

Cause: Lightning

The Butte Unit fully contained most of its 41 lightning fires early in the siege. Many of the fires were located in the rugged Feather River Canyon and significantly impacted Highway 70, the Union Pacific Railroad, and the PG&E electric power generation and transmission facilities along the river.

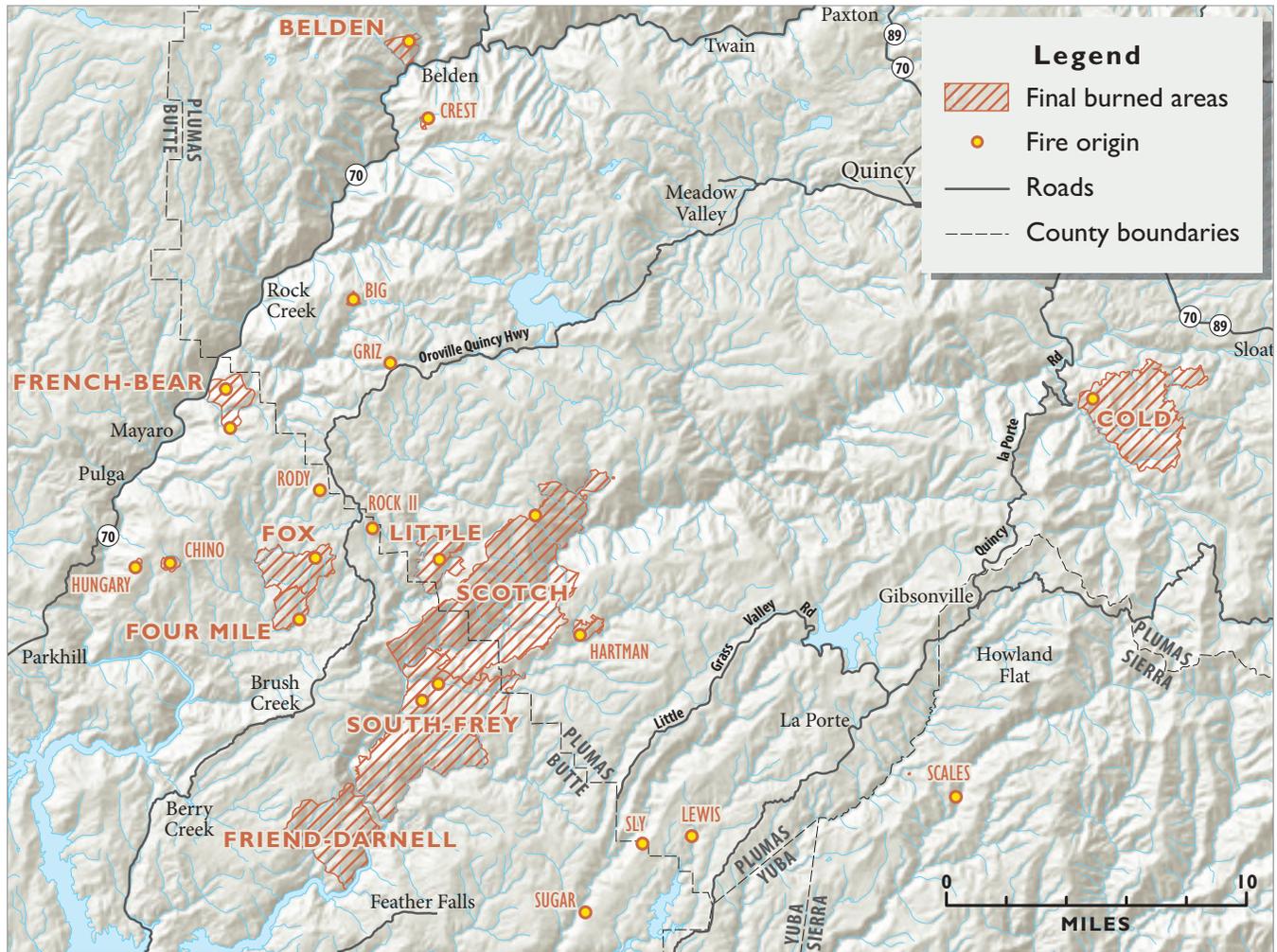
The Camp Fire was the primary concern, as it posed the greatest threat to highly populated areas, including the Town of Paradise, and the communities of Concow, Jarbo Gap, Yankee Hill, Magalia, and Paradise Pines.

One of the biggest problems was the presence of strong, gusty down-canyon winds that frequently occurred at night in the Feather River Canyon. These winds, accentuated by a Foehn wind event, caused the fire to jump Highway 70, and push the fire into Concow. During this run the fire traveled 8 miles, reburned through several fires that had been previously declared contained, and merged 17 fires into one fire called the Camp. Approximately 50 residences were destroyed and 1 civilian life is lost.

Active fires that burned on the adjacent Canyon Complex (Plumas National Forest), threatened to merge with the Butte Complex fires and damage populated areas. This necessitated the redeployment of fire engines for structure protection to the Canyon Complex. Fires were swapped between complexes which increased management and controlled effectiveness; the Feather River Canyon was used as a dividing feature. Another complication arose when a new fire started between the two complexes, which presented a danger to people between the three fires.

The Rim, West, and Smokey fires were contained by July 6th while the Saddle and Breakneck fire complexes were contained one week later. Another gusty wind episode on July 21 caused the Camp Fire to spot across containment lines and burn into standing dead trees from a previous fire, which delayed containment. The Frey Fire and the Camp Fire Complex were not fully contained until nearly the end of July.

Canyon Complex



STATISTICS

Number of Fires: 50 with Frey Fire (from Butte complex) on 6/29; 42 after giving some fires to Butte Complex
Major Fires: Cold Fire, Hartman, Little, South, Frey, Belden, Scotch Fire, Bear

County: Plumas
Affected Communities: Feather Falls, Sly, Bald Rock, Cromberg Garden, Zumwalt Flat, Brush Creek, Berry Ck., Belden, Greenhorn, Sloat, Spring Garden, and Millsap Bar
Agencies in Command: USFS

Teams assigned: IMT#3 T-1 (Pincha-Tulley); PNW3 T-1 (Pendleton)
Start Report Date: 6/21 at 1:30 p.m.
Containment Date: 11/3
Total Acres: 47,680 acres
Direct Fire Suppression Costs: \$45,501,474

Firefighters Assigned at Peak: 1,538 on 7/13
Structures Destroyed: 3 (1 residential and 2 outbuildings)
Fatalities: 0
Fuels: Timber, logging slash, brush and grass
Cause: Lightning

The Canyon Complex started by lightning on June 21 in the Feather River Canyon of Plumas County. About 50 fires were scattered throughout steep, inaccessible terrain. This complex generated national and congressional attention due to its proximity to a Herger-Feinstein Quincy Library Group Pilot Project Area.

On June 24, the Plumas National Forest issued a Fire Emergency Area Closure for the area. The Plumas County Sheriff issued advanced notifications for possible evacuations to residents in the vicinity of the Cold Fire; a precautionary evacuation of animals was also underway for the communities of Spring Garden, Greenhorn and Sloat. A Canyon Complex/Plumas National Forest Multi-incident Coordination Plan was established to facilitate the sharing of resources. Incident management teams established boundaries between Butte and Canyon Complexes and agreed to share resources and coordinate aircraft use.

By June 25, the Complex had burned 5,291 acres and was 5% contained. Priority fires were the Cold Fire (4,079 acres), Hartman Fire (120 acres), Little Fire (50 acres), South Fire (100 acres), and Sky High Fire (100 acres). There were 17 additional uncontained fires at approximately 742 acres. Thirteen fires were contained for 320 acres, and 7 fires were not located due to limited access and heavy smoke which limited air reconnaissance. The complex was divided into North and South Zones.

The Complex grew to 12,158 acres on June 29 and remained 5% contained. Increased fire activity on the

Cold, Pit, and South fires caused rapid fire growth while progress was made on the Hartman, Fox and Four Mile Fires. The Quarry/Island was unstaffed because of safety concerns with surrounding fires on the Butte Complex. The Crest Fire remained unstaffed and was patrolled by air. A new human-caused fire near Sloat Staging was contained.

On July 1, the Canyon Complex transferred the Pit, Quarry, Island and Granite Fires to the Butte Complex, and assumed responsibility for the Frey Fire. A total of 20 fires were contained for 1,392 acres of which 3 were staffed and the remaining were air-patrolled. An additional nine fires were uncontained for 10,851 acres of which 8 were staffed. Priority fires were the Cold (5,319 acres), South (1,251 acres), Frey (1,250 acres), Little (736 acres), and Scotch (260 acres). There were 12 reported fires not located. Fires remained active, particularly at night with strong, gusty down-canyon and down-slopes winds. Firefighters who rappelled from helicopters into the Belden Fire were removed due to intensified fire behavior. Fires threatened 83 residences, 13 commercial properties, 2 outbuildings, power stations and the railroad. The Plumas Forest Area Closure remained in effect.

On July 8, a thermal trough settled into the area and brought triple digit temperatures, single digit relative humidity and increasing fire spread. The Belden Fire was first priority and was jointly staffed between the Canyon Complex and Butte Complex. Precautionary and advisory evacuations were in effect for Belden. Highway 70 was closed east of Belden to Rush Creek.

Canyon Complex (continued)

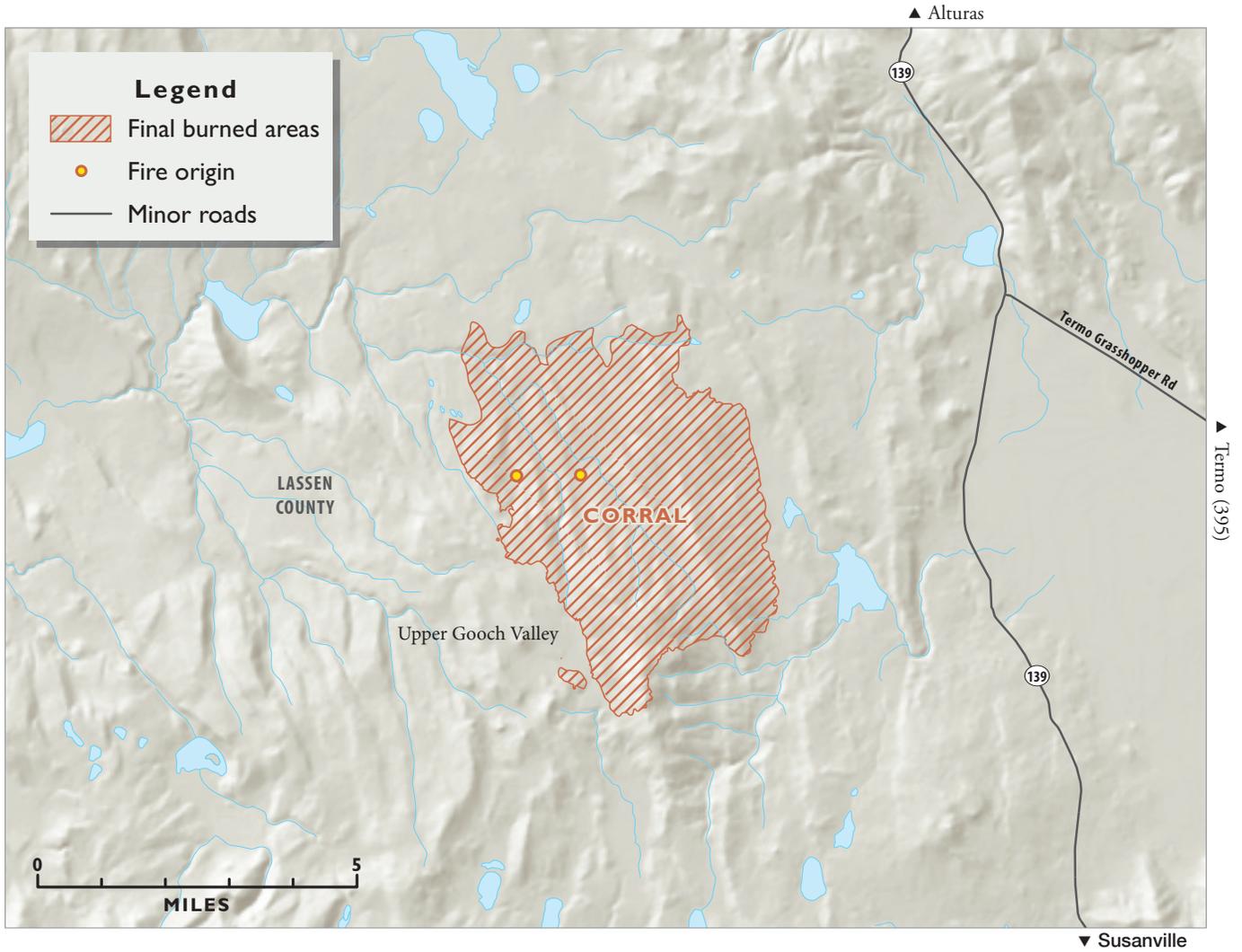
The South Fire, Frey Fire and Little Fire had significant fire spread. Evacuations were issued for an 8 square mile area with mandatory evacuation for Berry Creek and voluntary evacuation Brush Creek. Shelters were established in Oroville and Chico. Bald Rock Road was closed east of Highway 119. One residence was destroyed and 1,500 residences, 21 commercial properties, and 9 outbuildings were threatened.

By July 10, the Canyon Complex reached 25,019 acres and 57% containment. Under Red Flag Warnings, uncontained fires were active and spread outside portions of their perimeters. The Scotch Fire produced several large columns. Two outbuildings were destroyed and 1,500 residences, 15 commercial properties, and 850 outbuildings remained threatened. Evacuations were in effect east and south of Lake Madrone, and north and south of Bald Rock Road. Bald Rock Road east of Highway 119 and Highway 70 east of Belden to SR89 were closed.

Moderate weather conditions tempered fire behavior by July 14. The Canyon Complex (the Belden Fire was moved to the Butte Complex) was at 31,326 acres and 61% containment. Residents returned to homes in the Berry Creek area, Highway 70 re-opened, and the Cold Fire was contained. Priority fires were Friend-Darnell (3,871 acres; 75% contained), South-Frey (11,678 acres; 65% contained), Scotch (5042 acres; 5% contained), Belden (478 acres), and Little (897 acres; 30% contained).

By July 24, the Belden and Frey Fires were delegated back to the Butte Complex, and the Canyon Complex was at 37,753 acres and 90% containment. The complex remained uncontained into September due to active fire in steep, inaccessible terrain.

Corral Fire



STATISTICS

County: Lassen
 Affected Communities: Gooch Valley
 Agencies in Command: CAL FIRE

Teams assigned: CAL FIRE's
 Lassen-Modoc-Plumas Unit (LMU)
 using federal T-1 IMT (Larsen)
 Start Report Date: 6/23 8:00 p.m.

Containment Date: 7/7/2008
 Total Acres: 12,434 acres
 Direct Fire Suppression Costs:
 \$3,600,000

Firefighters Assigned at Peak: 397
 Structures Destroyed: 0
 Fatalities: 0
 Fuels: Timber, brush, and grass
 Cause: Lightning

Corral Fire (continued)

The Corral Fire was reported on June 23rd as one of approximately 50 fires in the LMU June Lightning Complex, but was separated from the Complex and given its own fire name. Approximately 25 miles down a gravel road from Highway 139 and the CAL FIRE Grasshopper Fire Station in Lassen County. The fire spread from a lightning strike in eastside pine by a Southwest wind. By 3 a.m. the fire was well established in downed heavy fuels. The structure threat was minimal due to the remote location. The fire burned on Lassen National Forest and private commercial timber property.

Within 24 hours the fire grew to 500 acres, while the winds diminished and humidity increased. On June 26th, the winds increased again, humidity fell and spot fire activity increased. By the end of the day the fire was over 2,200 acres with spotting a mile away. The following day, the weather moderated allowing containment lines to hold and mop up started.

Favorable conditions did not last. On June 28th a thunder cell collapsed and peak wind gusts of 50 MPH caused rapid rates of spread, frequent spotting and the loss of established control lines. Resources disengaged and retreated to safety zones as a precautionary measure. The closest air tanker bases (Chester and Chico) were smoked out which increased flight turn around times. New lightning fires were quickly contained by resources and were reassigned from the Corral Fire. The Dixie Fire was the only new fire from the thunderstorm. By the morning of June 29th the

Corral Fire reached 10,000 acres and burned commercial timber in the Upper Gooch Valley.

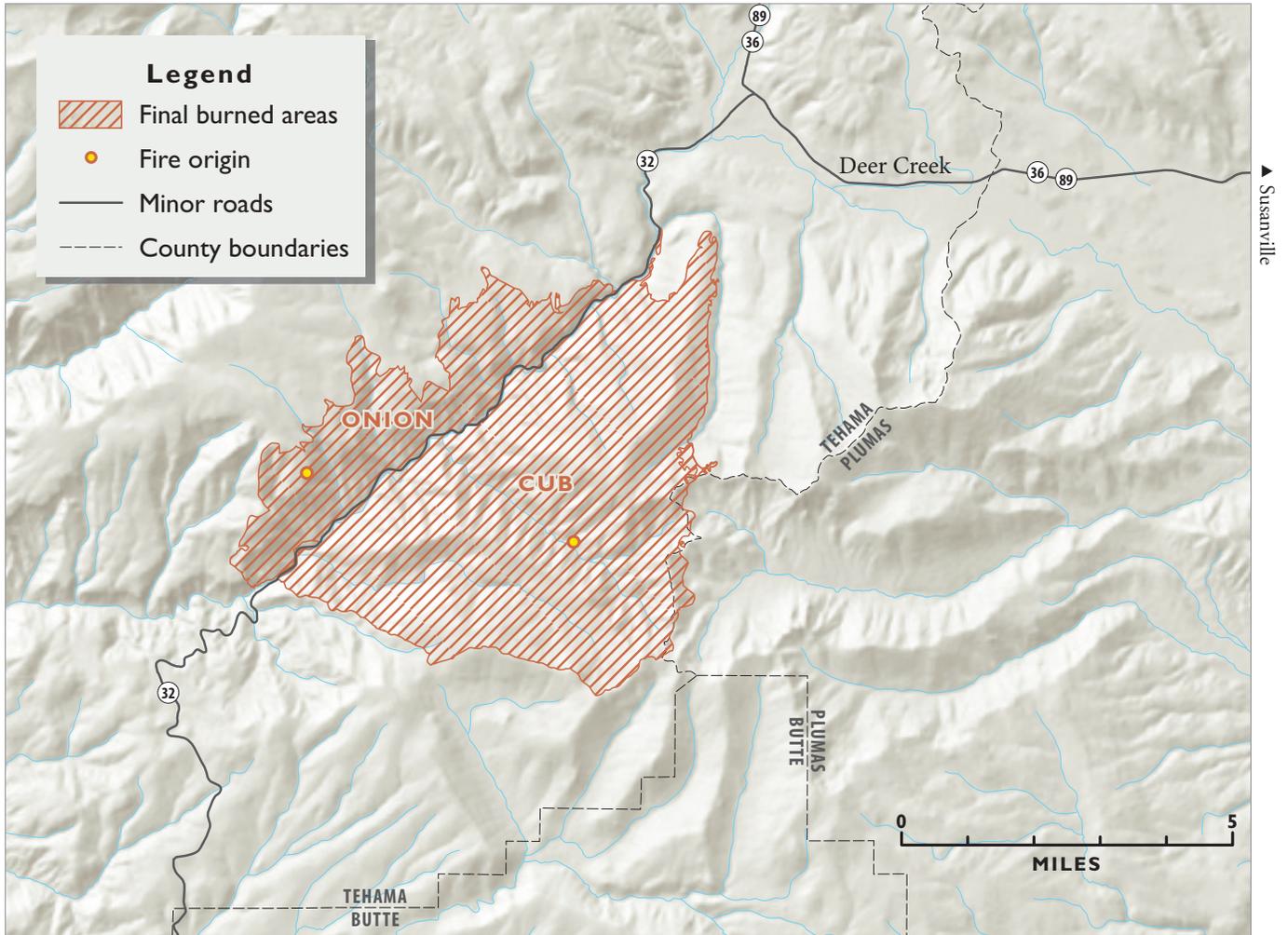
At an estimated 15,000 acres on June 30th, afternoon southwestern winds and extremely low fuel moistures combined and continued to drive rapid rates of spread and spotting in the pine timber, shrubs and grasslands until nighttime temperature and humidity recoveries allowed for fire line construction.

On July 3rd, The Incident Commander predicted containment by July 7th only if needed resources on order arrived as expected. By July 6th there were over 20 engines, 7 dozers, 7 crews, 10 water tenders and 300 personnel were committed. Besides California, personnel working on this incident came from states including Washington, Oregon, Wyoming, Idaho, Louisiana and Montana.

A 4th of July Parade was held at Incident Base. Resources including the vendors participated and were treated to a simulated fireworks display. Chemical light sticks and vehicle emergency warning lights provided the visual effects. The great attitudes and imaginations of all of the participants made for an enjoyable celebration.

On July 7th, the Corral fire was 100% contained at 12,434 acres. The burned area included 6,598 acres of Private land, 4,747 acres of National Forest, and 1,089 acres of BLM land.

Cub Complex



STATISTICS

Complex Fire #: CA-LNF-2713

Number of Fires: 4 fires

Major Fires/Acres:

Onion Fire 4,782 acres

Cub Fire 4,936 acres

County: Tehama

Affected Communities: Chester, Lake Almanor, Butte Meadows, Jonesville, Chico

Agencies in Command: USFS

Teams Assigned: Type 2: Blue Mountain Team (Batten), Type 1:

Southern Area Red Team (Ruggiero), Type 2-NorCal Team II (Kaage)

Start Report Date: 6/21 1500 hrs

Containment Date: 7/20 0600 hrs

Total Acres: 7/22 – 19,718 acres

Direct Fire Suppression Costs: \$21,000,000

Firefighter Assigned at Peak: 1,230 – 7/11/08

Structures Destroyed: 0

Fatalities: 0

Fuels: Timber

Cause: Lightning

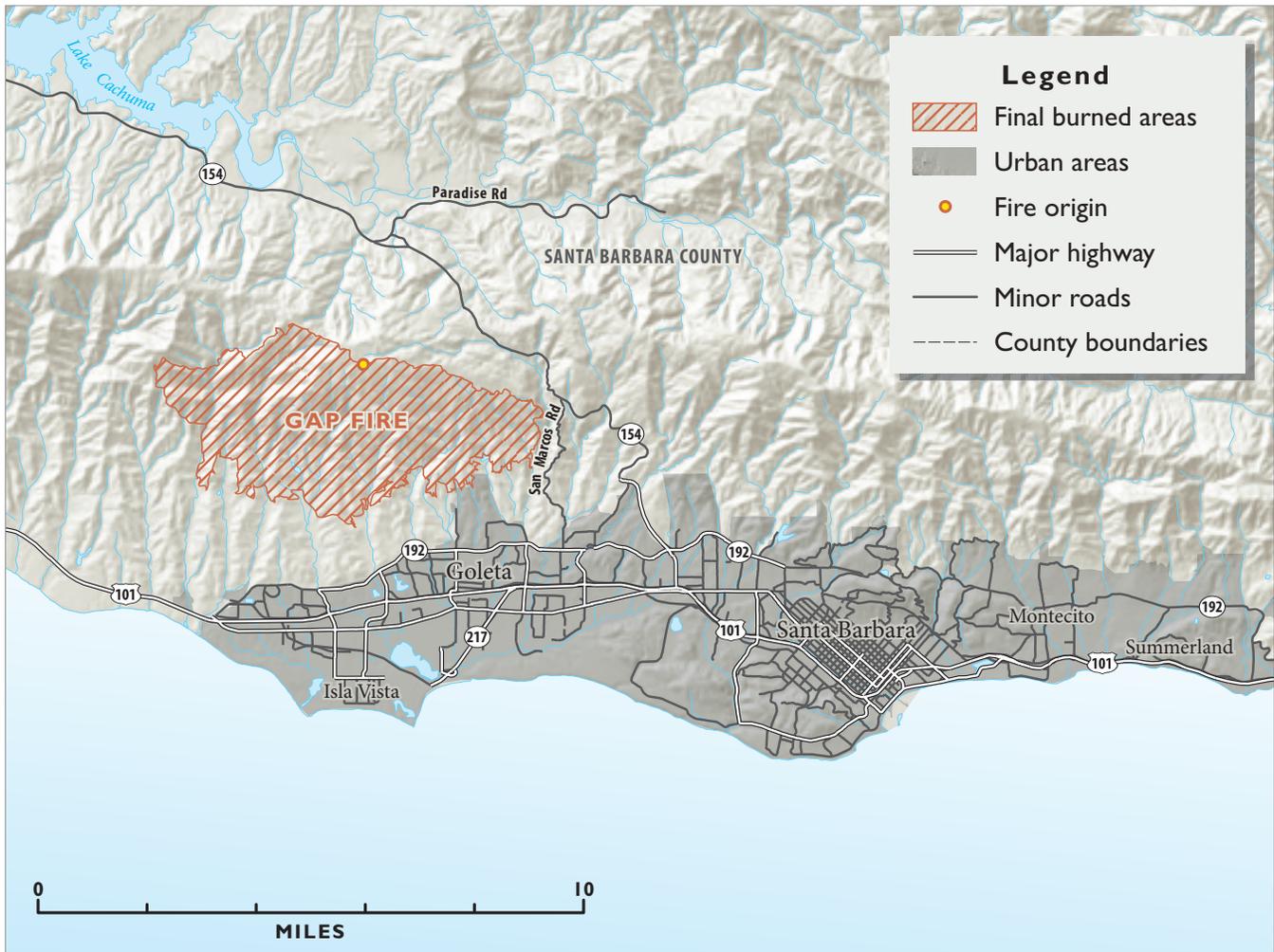
Cub Complex (continued)

The Blue Mountain Team from Oregon took command of the Cub Complex on June 23, and initially focused attention on the Onion Fire, which was closest to the road system. Two other fires discovered in the complex (Mill and A-17) were suppressed at less than 10 acres. By June 27, the Cub Fire remained unstaffed at 1100 acres. On June 29, all resources were assigned to the Onion Fire. The Southern Area Red Team assumed command of the Cub Fire on July 2, and command of the Cub Complex, including the Onion Fire, on July 3. By July 4, there are 917 personnel assigned and a shift of resources from Onion Fire to Cub Fire occurred. By July 10, NorCal Team II assumed command of the Cub Complex. The Onion Fire was contained, and a major burnout operation was planned and successfully

led to the containment of the Cub Fire on July 20. On July 14, Highway 32 was re-opened to controlled traffic.

The Cub Complex had a wide range of impacts, most notably the closing of Highway 32, the primary route between Chico and Chester. The Cub Complex fires were located in Tehama County, with primary structure threats in Butte County which threatened the communities of Butte Meadows and Jonesville. The most significant smoke impacts were in Plumas County, and affected the communities of Chester and Lake Almanor. A forest closure to protect public safety during the fire included several campgrounds, numerous fishing sites, and a section of the Pacific Crest Trail.

Gap Fire



STATISTICS

Number of Fires: 1
 Major Fires: Gap Fire
 County: Santa Barbara
 Affected Communities: Santa

Barbara, and Goleta
 Agencies in Command: USFS, Santa Barbara County Fire Department
 Teams assigned:
 Los Padres National Forest (LPF)

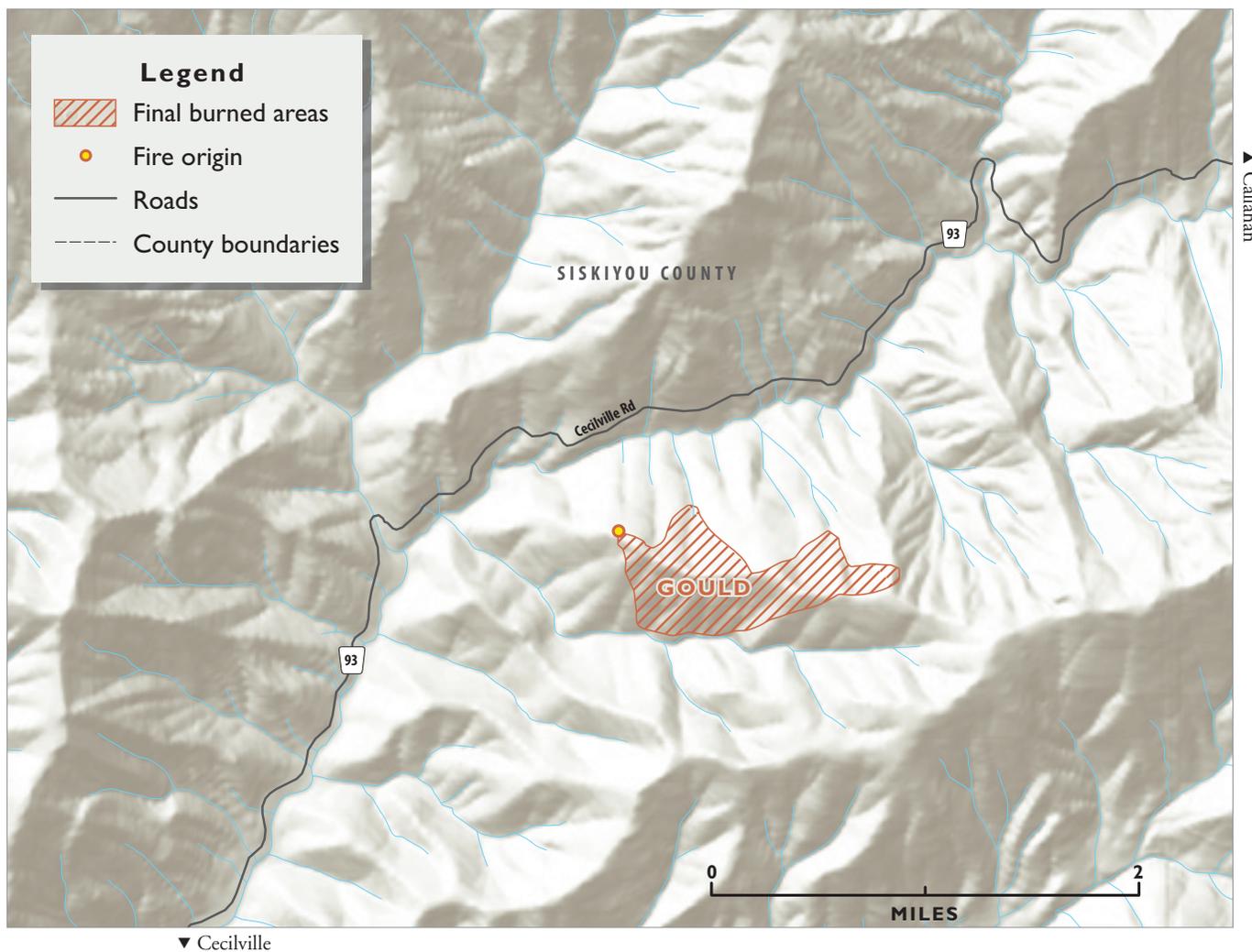
Start Report Date: 7/01
 Containment Date: 7/28
 Total Acres: 9,443 acres
 Direct Fire Suppression Costs:
 \$20,970,000

Firefighters Assigned at Peak: 1,387
 Structures Destroyed: 4 outbuildings
 Fatalities: 0
 Fuels: Heavy brush

The Gap Fire burned on steep slopes above the cities of Santa Barbara and Goleta. Dense fifty-year old brush and extremely difficult terrain proved to be significant challenges to firefighting personnel. During the initial operational periods, the fire was driven downhill by Sundowner winds and burned to the edges of Goleta and Santa Barbara. It was necessary to mobilize

multiple strike teams of Type 1 engines to provide sufficient resources for structure protection; this was done with the assistance of OES who worked within the Master Mutual Aid System. After 2 days, the winds subsided and fire fighters began to work the mountainous terrain and fully contain the fire.

Gould Fire



STATISTICS

Complex Fire #: CA-KNF-002970
 County: Siskiyou
 Affected Communities: None listed

Agencies in Command: USFS
 Teams assigned:
 Alaska Type 3 (Lennon)
 Start Report Date: 6/21/2008

Containment Date: 6/29/2008
 Total Acres: 229 acres
 Direct Fire Suppression Costs:
 \$678,000

Firefighter Assigned at Peak: 74
 Structures Destroyed: 0
 Fatalities: 0
 Fuels: Mixed conifer/hardwood with slash and brush

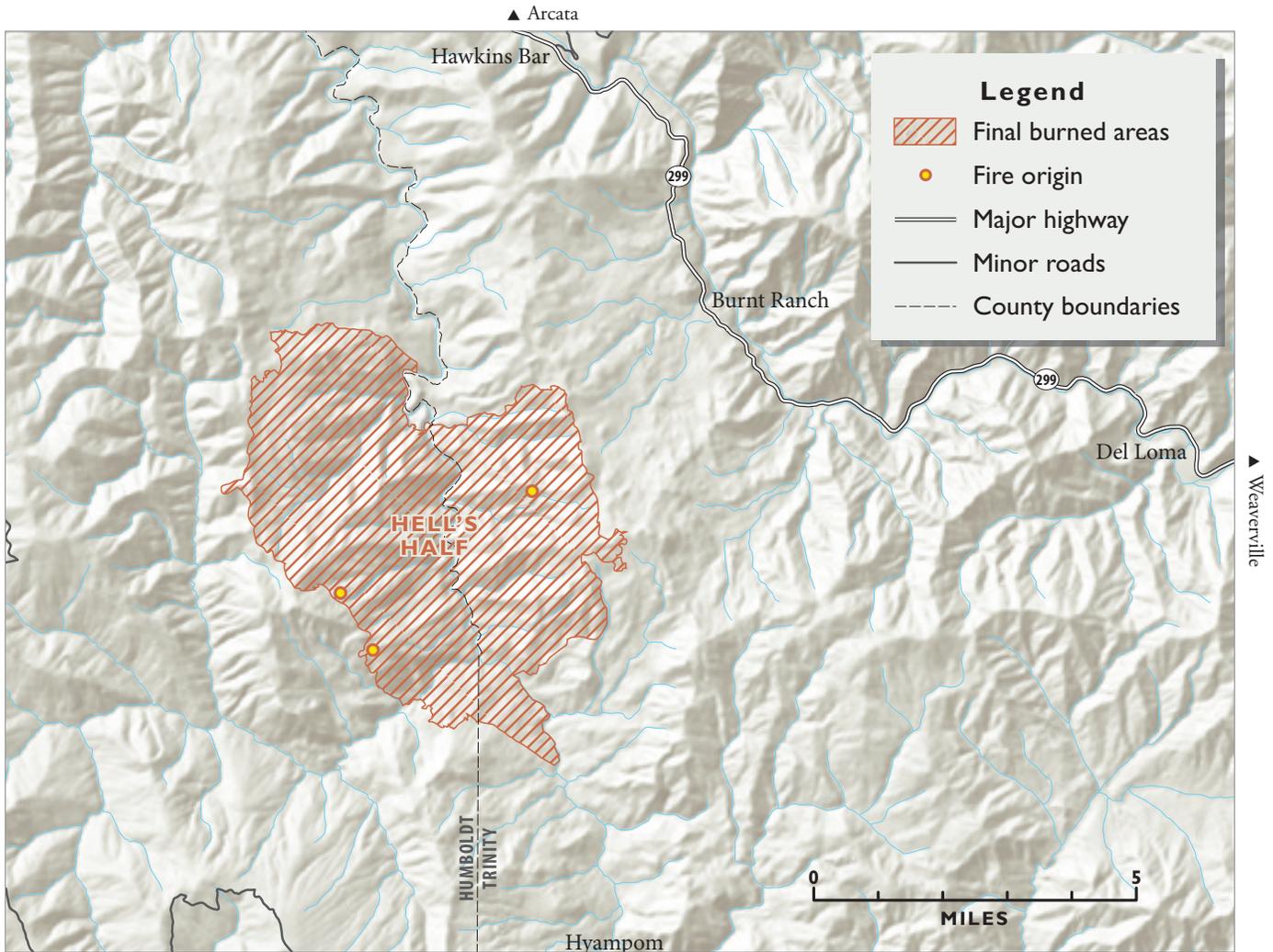
The Gould Fire was caused by a lightning strike at midnight on June 21. Located approximately 45 miles southwest of Etna in Gould Gulch, the fire burned nearly 200 acres on June 24 and triggered the transition to a type 3 incident management team.

By June 26, crews continued to make steady progress, and completed a 40-acre burnout. The Gould Fire was

close to containment, but the potential for problems due to the extremely steep terrain and potential reburn of some incompletely burned areas remained. The presence of bears and rattlesnakes was also a concern.

By June 29 the Gould Fire was 100 % contained at 229 acres. The Gould Fire was declared controlled on July 2.

Hells Half Complex



STATISTICS

Number of Fires: 11
Major Fires: Grouse, Half, Sims, Gary, Sugar Loaf, Packsaddle
County: Humboldt, Trinity
Affected Communities: Burnt Ranch, Hyampom, Manzanita

Ranch, Upper Mill Creek, MacDonald, and Underwood
Agencies in Command: USFS
Teams assigned: USFS T-3 (Johnson), T-2 IMT (Secrest), T-1 IMT (Quesinberry)

Start Report Date: 6/20 at 5:44 p.m.
Containment Date: 7/29/2008
Total Acres: 15,146 acres
Direct Fire Suppression Costs: \$14,080,104
Firefighters Assigned at Peak: 665 on 7/21

Structures Destroyed: 1 (seasonal residential)
Fatalities: 0
Fuels: Timber and conifer reproduction
Cause: Lightning

Hells Half Complex (continued)

Hell's Half complex started as multiple lightning starts on June 20, 2008. The complex consisted of fire locations on both sides of the South Fork of the Trinity River in Humboldt and Trinity Counties. On the east side of the river was the Half Incident. The fire made a major run from its mid-slope position to the top of the ridge, reached the Shasta-Trinity National Forest boundary and was unstaffed. There were several fires west of the river with the potential to merge and burn an estimated 9,000 acres of forest and which threatened the community of Hyampom.

By June 26th, total acreage was estimated at 1450 acres. Of the original 17 fires, 8 had been contained. Plantation loss on 6/23 was significant. The fires on the west side (Sims, Grouse, Gary, and Sugarloaf fires) merged and were called the Grouse Fire. They were 30% contained. The Half Fire was 0% contained and continued to be monitored. A Fire Weather Watch was issued for Friday evening through Sunday evening.

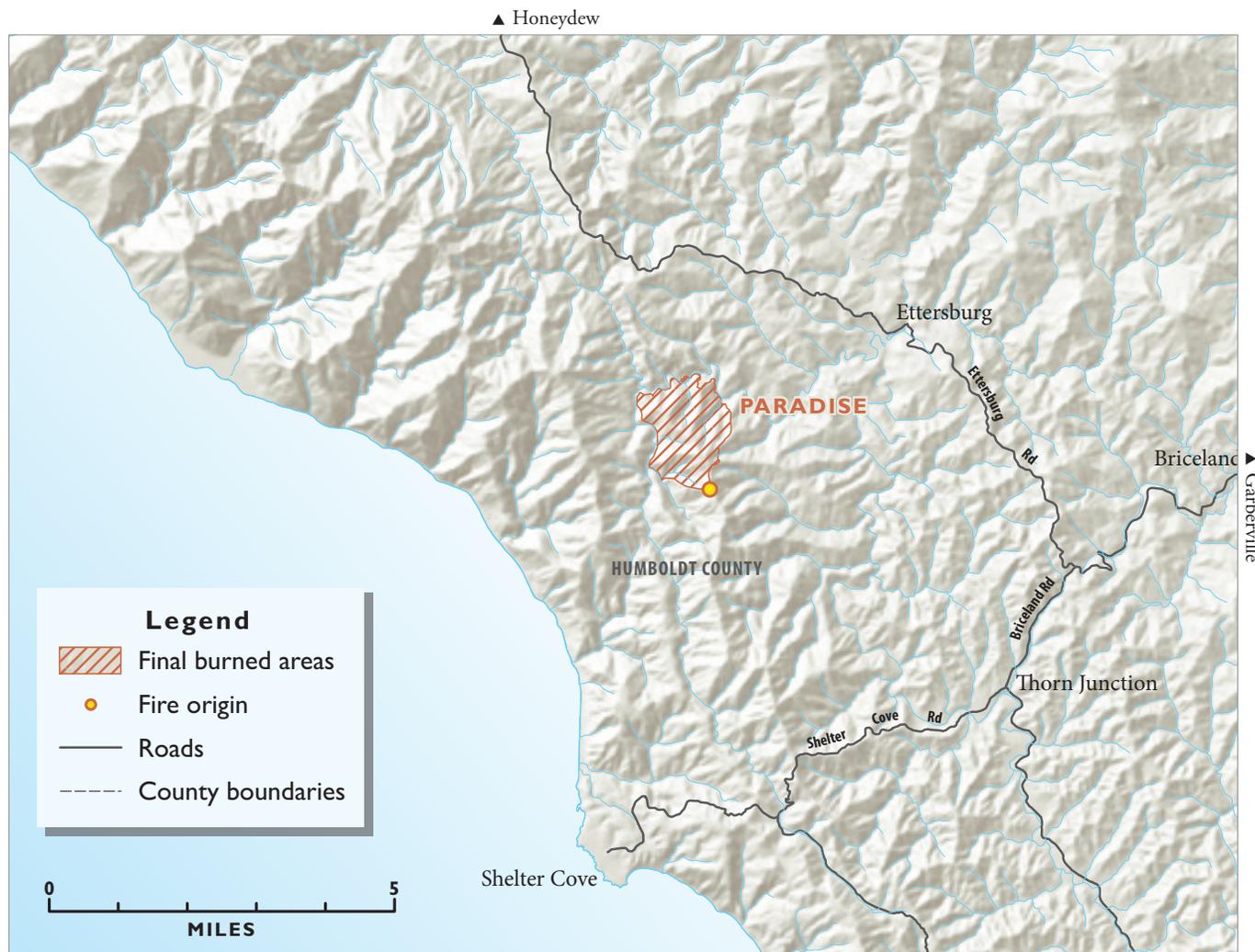
Both fires continued to grow to the south and east, and threatened residences and infrastructure. The Half Fire spread within one-mile of structures and moved onto the Shasta Trinity National Forest. The Grouse fire was within a mile of the Route 6 powerline corridor. A population protection plan was drafted in coordination with Trinity County Sheriff and local volunteer fire departments.

On July 10, record heat and critically low humidity created extreme burn conditions and the Grouse and Half fires merged. The Grouse and Half Fires were renamed the Hell's Half Fire. The Grouse Fire made a crown run of over a mile to the south and destroyed one seasonal residence in the Grouse Creek area. Over 4,000 acres burned, and by the morning, the Hell's Half Complex was reported as 7,858 acres and 29% contained. Five residences in Big Slide and 50 residences in the West Hyampon area were evacuated. The transmission line along Grouse Creek was de-energized leaving approximately 300 residences without power. Competition for resources continued to hamper fire-fighting efforts.

On July 15, 7 engines were re-assigned to the Iron Complex. The Hell's Half Complex was 10,424 acres and 40% contained by July 18th. Fifty-six residences in the Big Slide and Hyampon West areas were still under evacuation and 15 occupied dwellings and outbuildings in the Dry Lake area were under mandatory evacuation. Although the power line near Grouse Creek was re-energized on the 13th, it continued to be threatened.

The Hell's Half Complex was 100% contained on July 28.

Humboldt Complex



STATISTICS

Complex Fire #: CA-HUU-003384

Number of Fires: 60

Major Fires/Containment Date/Acres:

Paradise Fire 7/14 950

County: Humboldt

Affected Communities: Shelter Cove

Agencies in Command: CAL FIRE,

Briceland Volunteer Fire Department

Teams assigned: CAL FIRE's

Humboldt-Del Norte Unit (HUU),

Briceland Volunteer Fire Department,

T2 IMT (Joseph), T1 IMT

(Quisenberry)

Start Report Date: 6/21 12:01 a.m.

Containment Date: 7/14/2008

Total Acres: 1,325 acres

Direct Fire Suppression Costs:

\$9,000,000

Firefighters Assigned at Peak: 1325

Structures Destroyed: 0

Fatalities: 0

Fuels: Timber including old growth redwood, heavy slash, timber reproduction, and grass

Cause: Lightning

Humboldt Complex (continued)

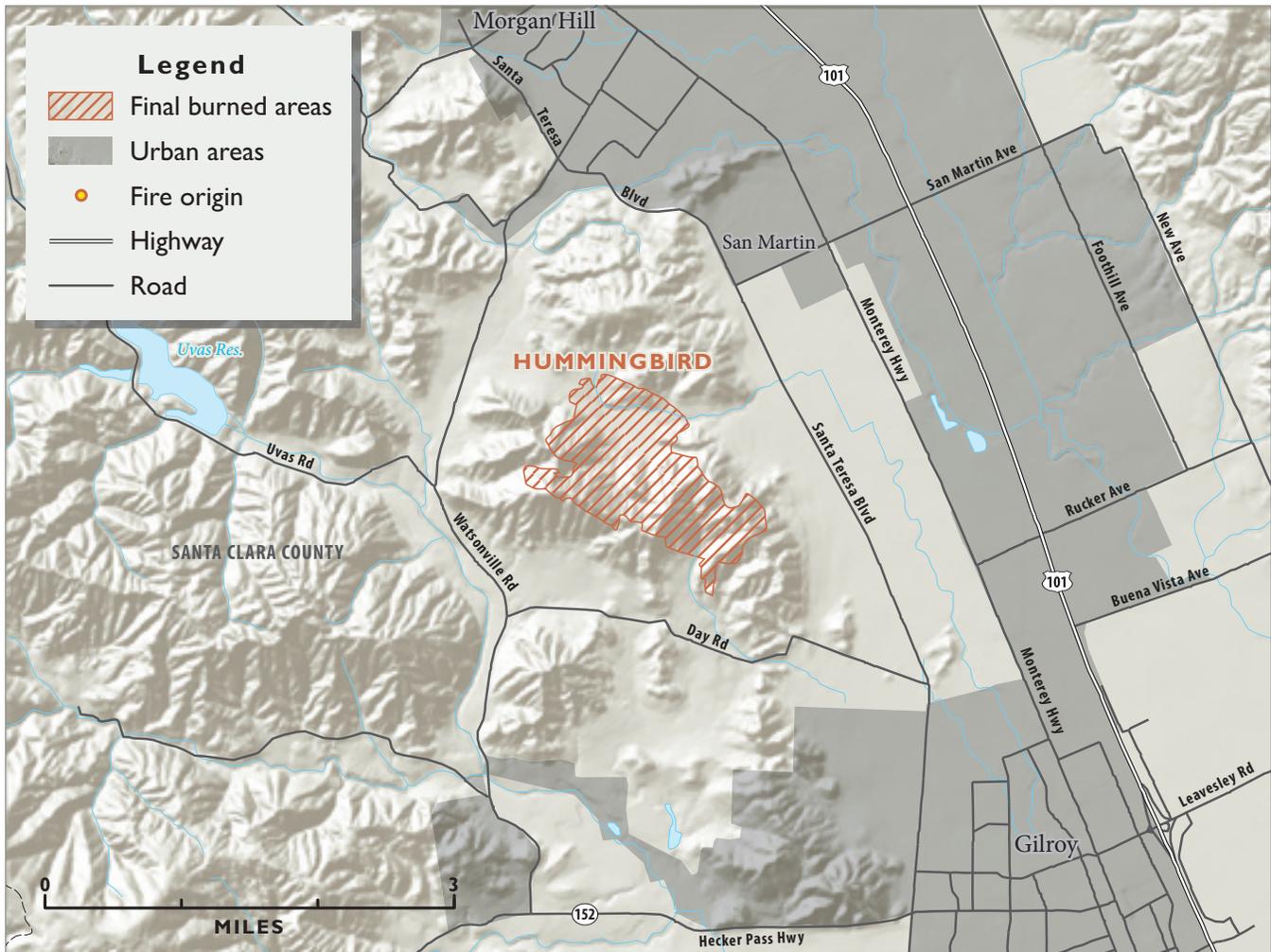
On the night of June 20, lightning ignited scores of fires hundreds of square miles of remote and rugged terrain. Although resources were stretched thin, the most of the fires were extinguished within the first 2 days, 5 fires remained significant threats: High, Larabee, Redcrest, Lone Pine, and Paradise. The most parlous of those emerged as the Paradise Incident. Named for its location on Paradise Ridge in the King's Range on Bureau of Land Management preserve, it threatened the seaside community of Shelter Cove. First on the scene of the fire was the Briceland Fire Department. As other fires drained fire suppression resources from CAL FIRE, the Paradise Incident was left in the capable hands of the volunteers well beyond its initial attack phase. Where other volunteer fire companies acquiesced to California's Fire Department immediately upon availability of an incident commander, the Paradise IC remained Diana Totten of Beginnings Fire Department for many days after its ignition, a move prompted by Operations Chiefs. It was a definite success story of local government participating with CAL FIRE.

As resources became more available and other smaller fires in the region were quelled, personnel including OES engine companies, conservation camp crews and air resources pooled into base camp. It was no surprise that some fire fighters, tired from a season that started at the beginning of May, were confused to come off of the Humboldt Incident in Paradise to the Paradise Incident in Humboldt.

The steep topography of Paradise Ridge yielded a low rate of injury considering the level of difficulty the terrain had to offer. The helitack program did a short haul rescue of a bee sting victim and local government extracted injured fire fighters out of a jagged ravine in the early morning hours who suffered from falling boulders.

All in all, it was a call of duty above and beyond by all cooperators to contain the Paradise Incident to 1,000 acres where it had the very real potential of consuming the 60,000 acres of the King's Range. The nearly evacuated sea park community of Shelter Cove was left unharmed. Many heroes emerged from the three week long siege during a highly unusual early summer storm.

Hummingbird Fire



STATISTICS

County: Santa Clara
 Affected Communities: Morgan Hill, San Martin, and Gilroy

Agencies in Command: CAL FIRE
 Start Report Date: 6/21 3:33 p.m.
 Containment Date: 6/23
 Total Acres: 794 acres

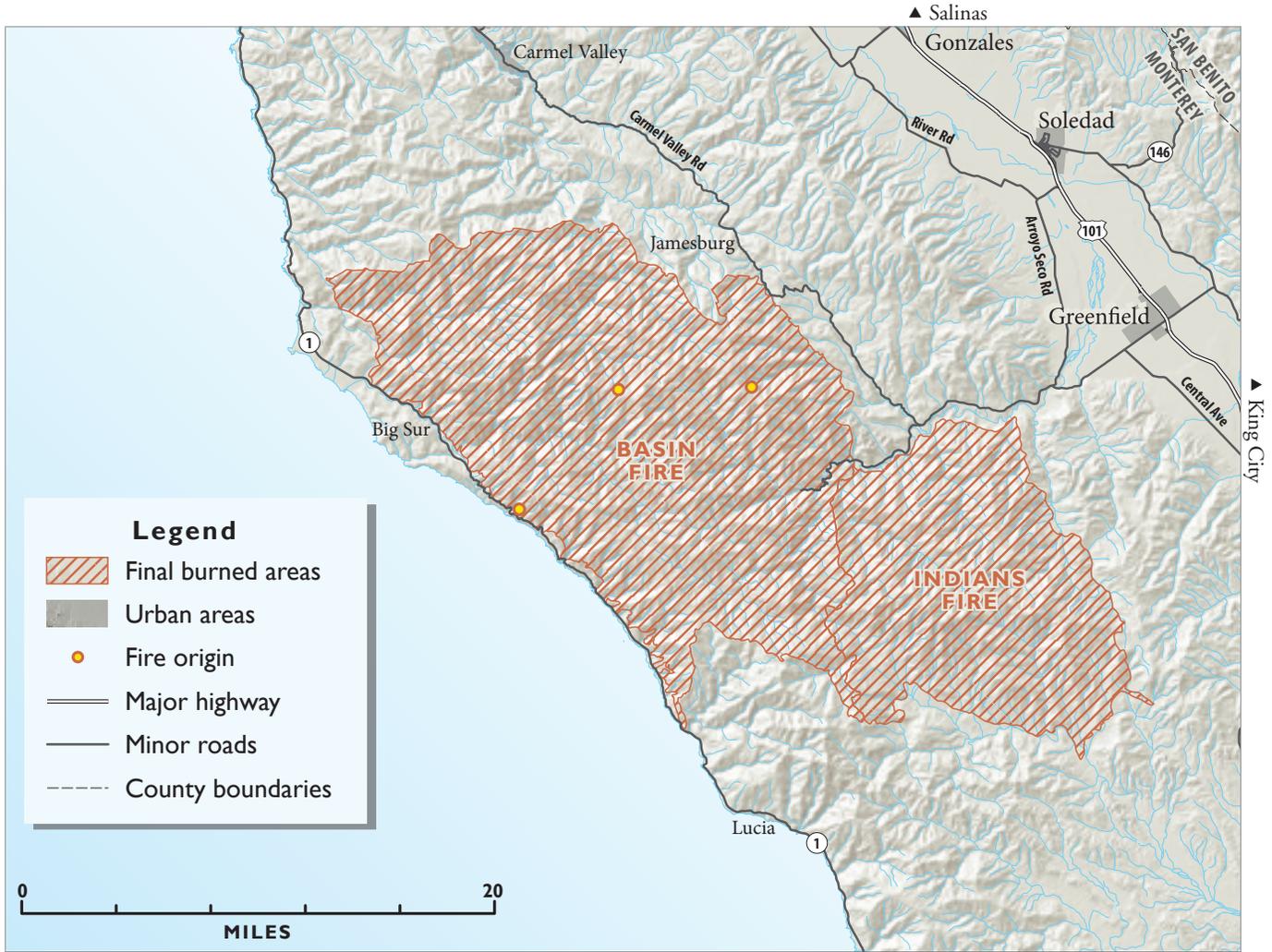
Direct Fire Suppression Costs: \$213,963
 Firefighters Assigned at Peak: 201
 Structures Destroyed: 0

Fatalities: 0
 Fuels: Grass, and oak woodland
 Cause: Lightning

The Hummingbird Fire was started by lightning on June 21 at a time when available resources were limited by other lightning fire activity. It was located southwest of the community of Morgan Hill and west of San Martin and Gilroy, and threatened approximately 1,200 residential structures, multiple ranches and farms, and livestock. Local government engines and water tenders

assisted the CAL FIRE resources, and provided 160 of the approximately 200 fire personnel assigned. On June 21, evacuation orders were issued for residents in the immediate fire area. The forward progress of the fire was stopped late on June 22 and evacuation orders were lifted. Excess equipment and personnel were released. The Hummingbird Fire was declared contained at 794 acres on June 23.

Indians Fire



INDIANS FIRE

Incident Number: CA-LPF-1491

County: Monterey

Affected Communities: Santa Lucia Summer Tract, Rancho Siesta, Coleman Canyon, and Pine Canyon

Agencies in Command: Unified command with USFS, CAL FIRE, and Fort Hunter Liggett

Teams Assigned: Unified command with USFS IMT-2 (Molumby, IC), CAL FIRE (Hutchinson, IC), and Fort Hunter Liggett (Crum, IC).

Start Report Date: 06/2008 12:36 p.m.

Containment Date: 7/10

Total Acres: 81,378 acres

Estimated Direct Fire Suppression

Costs: \$42,500,000

Firefighters Assigned at Peak:

1944 on 6/15

Structures Destroyed: 15

Fatalities: 0

Fuels: Grass/Chaparral/Timber

Cause: Human

The Indians Fire started on June 8 in the Ventana Wilderness, and displayed extreme fire behavior and spotting. By June 11, 10,800 acres were burned with 13% containment. One residence was destroyed and one residence damaged. Twenty residences remained threatened, which forced the evacuations of Forest Service summer cabins in the Santa Lucia Tract. A portion of Los Padres National Forest in Monterey County was closed. Another residence and 13 outbuildings were destroyed as the fire spread north and east. More than 1300 structures were threatened. A spike camp, for 200 to 300 personnel was established at Greenfield High School

When the lightning event struck Monterey County on June 20th, the Indians Fire had been burning for over two weeks, reaching 52,200 acres with 55% containment. Incident resources assisted the Monterey

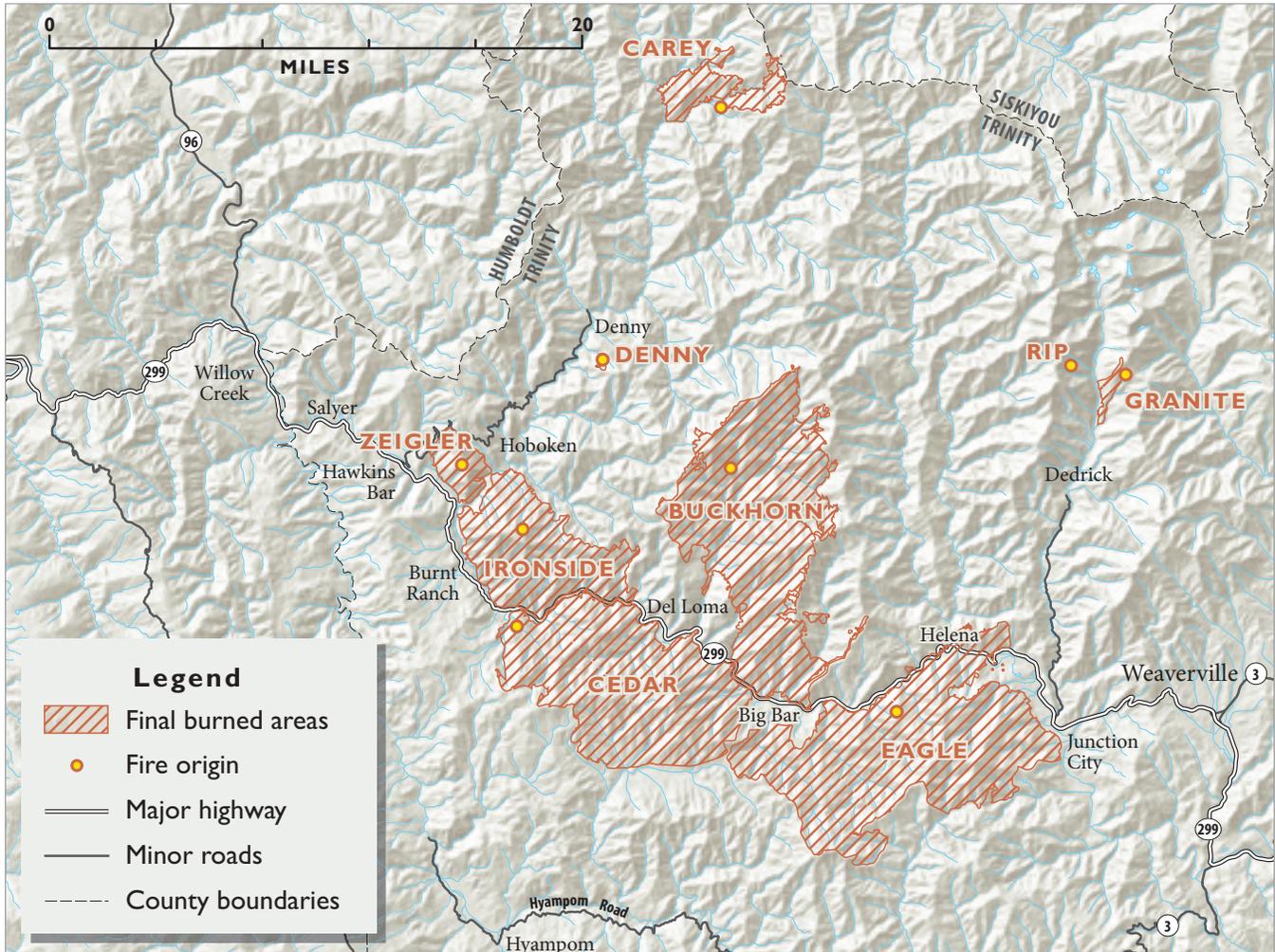
Ranger District with initial attack on the Gallery Fire and Bear Basin Fire. A voluntary evacuation for upper Pine Canyon and an evacuation advisory for lower Pine Canyon and Thompson Canyon were in place.

On June 29, firefighters continued firing operations in the Arroyo Seco drainage as weather conditions allowed, and provided tactical and logistical support to the Basin Complex. The Indians Fire was at 60,845 acres and was 89% contained.

Full containment was reported on July 10.

Approximately 10,000 of the Indians Fire total of 81,378 acres were unburned interior islands.

Iron Complex



STATISTICS

Number of Fires: 36
(With addition of Alps Complex fires total of 48 fires).

Major Fires/Containment Date/Acres:

Buckhorn Fire	9/4	28,909
Eagle Fire	9/1	32,059
Ironsides	7/23	12,720
Cedar Fire	7/30	25,398
Ziegler Fire	7/22	2,221

County: Trinity

Affected Communities: Fisher Ranch, Haglund, Coopers Bar, Del Loma, Cedar Flat, Big Flat, Hawkins Bar, Helena, Weaverville, Brooks Ranch, Denny, Burnt Ranch, 5 Waters Ranch, Canyon Creek, Big Bar, Junction City, Corral Bottom

Agencies in Command: USFS

Teams Assigned: T-2 (Swartzlander); T-1 (Broyles), T-1 IMT#4 (Opliger), T-2 (Kaage), T-1 CIIMT #2

(Molumby); Type 3 IMT (Cowie); T-3 team (Brabender)

Start Report Date: 6/21 0928 hrs.

Containment Date: Unknown
Final report 9/4/08 when fires @ 98% containment

Total Acres: 105,805 acres on 9/4 includes Alps Complex fires; Iron Complex fires alone is 101,456 acres

Direct Fire Suppression Costs: \$73,974,917 combined; Iron Complex is \$71,983,917

Firefighters Assigned at Peak: 2008 on 7/23

Structures Destroyed: 2 (1 residence and 1 outbuilding)

Fatalities: 10

Fuels: Timber, brush & grass

Cause: Lightning

The Iron Complex became the site of some of the most tragic events of the 2008 California Fire Siege – the death on July 25 of an 18 year-old firefighter assigned to an engine due to a fatal tree falling accident; and on August 5, a helicopter crash killed 9 people and critically injured 4 others.

The Iron Complex burned north and south of Highway 299. The complex included a group of remote wilderness fires, which at times were managed separately from the Alps Complex. Difficult terrain limited accessibility of the fires and contributed to the smoke impacts on communities and air operations. Closures of Highway 299 heavily impacted the transportation corridor between Redding and Eureka.

Extensive burn out operations were conducted during the Iron Complex. The need to burnout 23.5 miles of indirect line on the Eagle, Zeigler, and Cedar Fires was identified on July 1.

Periodic projections through the early days of the Complex assessed where the fire was likely to spread. Fire behavior analysis was also done in response to a request from the Hoopa Valley Tribe concerning movement of the Carey Fire west toward tribal interests on USFS lands.

Many communities were evacuated, including Big Bar and Junction City, which were evacuated multiple

times. Early in July, an evacuation plan was developed for the Incident Command Post in Junction City which later became threatened by the Eagle Fire.

Several special teams were used during the Iron Complex. Taskforce “Shovel” was a California National Guard team of 240 is deployed for 3 weeks, engages in mop-up, suppression damage repair and rehabilitation. A Serious Accident Investigation Team and an Occupational Health and Safety Team were on the scene to investigate the circumstances of a tree-falling fatality. Later, a National Incident Management Organization (NIMO) Team managed the series of investigations prompted by the helicopter accident (Iron 44 incident), including another Serious Accident Investigations Team, and the National Transportation Safety Board, and Law Enforcement. The NIMO Team also worked with the families and in planning the memorial services. Two Critical Incident Stress Debriefing Teams (CISD) provided services to incident personnel who experienced the tragedy of the Iron 44 incident.

In September, the community of Junction City hosted a memorial service for the residents of Trinity County commemorating the lives that were lost during the Iron Complex. Engraved bronze plaques in Junction City preserve the memory of their sacrifice.

June Lightning (LMU) Complex

STATISTICS

Number of Fires: 50

Major Fires:

Popcorn/Peterson and Corral

County: Lassen

Affected Communities:

Little Valley, Pittville

Agencies in Command:

CAL FIRE, USFS, BLM

Teams Assigned: CAL FIRE's

Lassen-Modoc-Plumas Unit,

USFS Lassen National Forest,

BLM Susanville District

Start Report Date: 6/21

Containment Date: 6/25

Total Acres: 50

Firefighters Assigned at Peak: 362

Structures Destroyed: 0

Fatalities: 0

Fuels: Timber, brush, grass

Cause: Lightning

By the evening of June 21st, the Lassen Modoc Plumas Unit (LMU) reported a total of 26 lightning fires. Twenty of the fires were unstaffed because of poor access and limited available equipment. Over night, the conditions did not improve and the next morning dawned with 45 total fires, 30 of which were unstaffed. Limited firefighting resources were available due to the heavy commitment on multiple lightning fires in other areas.

By June 22, 2008, there were a total of 52 fires burning on CAL FIRE direct protection lands in the LMU. All but 2 of these fires were eventually contained at less than 100 acres. The 2 major fires (Popcorn and Corral) both required Type 1 incident commanded organizational structures. The heavy commitment of CAL FIRE Incident Command Teams in other areas necessitated the use of Federal Incident Management Teams (IMT) on these State fires.

The Popcorn Fire originated on the Shasta-Trinity Unit, spread onto LMU on June 22 and LMU assumed command. The fire, burning in the Popcorn

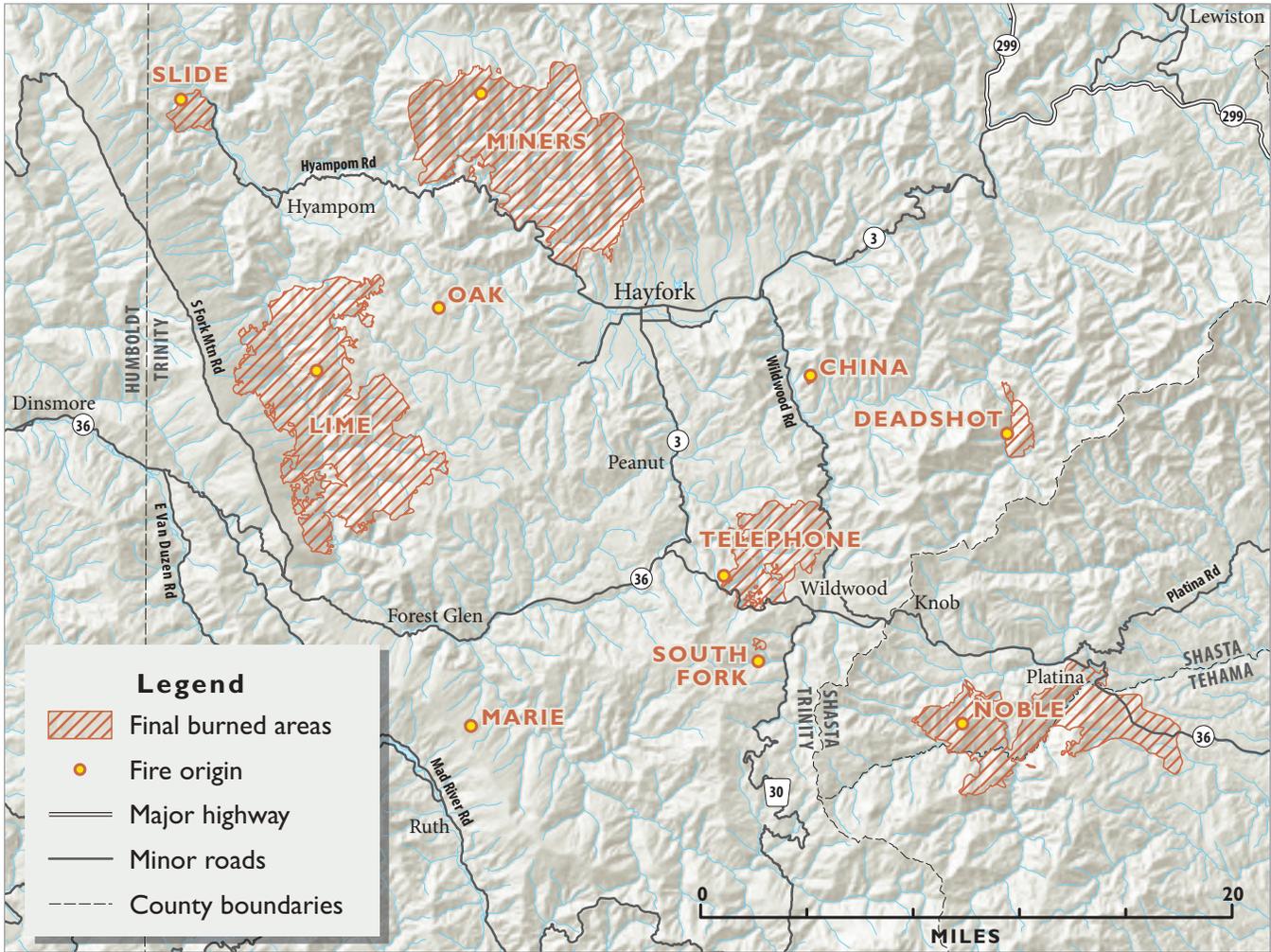
Wild and Scenic Area, was an immediate threat to the Pitt River Power transmission lines. Precautionary evacuations were in progress and helicopters, engines and crews were identified as critical resource needs. This fire was the number 1 LMU priority.

By June 23 at 1800 hours, fire fighting personnel were having good success with 44 of 52 total fires contained. Reconnaissance aircraft flew the unit looking for hold-over (undetected/unreported) fires from the prior days lightning. A new fire was discovered late in the afternoon in Gooch Valley (Corral Fire).

Separate reporting of Popcorn Fire and Corral Fire began June 24. No new fires were reported after the discovery of the Corral Fire. All of the remaining fires in the LMU June Lightning Complex were being mopped up and patrolled. Excess resources and personnel were reassigned to the Corral Fire.

The LMU June Lightning Complex was declared 100% contained on June 25 with a total of 50 acres burned.

Lime Complex



STATISTICS

Number of Fires: 72

Major Fires/Containment Date/Acres:

Noble	7/11	12,870
Slide	6/26	1,547
Telephone	7/12	6,643
Deadshot	7/1	1,070
Miners	8/14	24,370
Lime	8/14	24,984

Iron	—	—
Trough	7/21	3,690
County: Trinity		
Affected Communities: Wildwood, Hayfork, Hyampom, Platina, Harrison Gulch		
Agencies in Command: USFS		
Teams Assigned: IMT T-2 (Kaage), T-1 IMT#4 (Opliger), Southwest		

IMT T-1 (Hughes); AK IMT T-1 (Wilcock), SoCal T-2 IMT (Woychak)
Start Report Date: 6/20 1650 hrs.
Containment Date: 8/12/08 with 64,502 acres burned
Total Acres: 99,585
Direct Fire Suppression Costs: \$59,329,698

Firefighters Assigned at Peak: 1,628 on 7/22
Structures Destroyed: 5 (1 residential, 1 commercial, 3 outbuildings)
Fatalities: 0
Fuels: Timber, Chaparral
Cause: Lightning

Lime Complex (continued)

The Lime Complex fires started with a series of lightning strikes on June 20 and 21. The fires were initially divided into three Branches: North (Slide Fire), Hyampom and South (Telephone, Deadshot and Noble Fires) Branches. On June 25, crews were pulled off of the Deadshot Fire when a fire on a neighboring jurisdiction compromised the road system. Crews on the South Peak Fire withdrew as fire intensity increased and the fire spots crossed the canyon. On June 26 the entire complex transitioned to CIIMT 4 (Opliger). Two spike camps were established.

June 26 the Iron Fire made a major run. Early on, the community of Platina was evacuated, and an evacuation center was established in Redding. Wildwood was under a voluntary evacuation order, with another evacuation center located in Weaverville. By June 29, 8 days into the incident, 31 out of 72 fires within the complex were contained. Highways 36 and 3 were impacted by the fires and smoke and temporary closures of Highway 36 were necessary. Fires on the Six Rivers National Forest and Mendocino National Forest affected operations on the Lime Complex. Coordination between Lime Complex, Iron Complex, and other nearby fires was critical for planning burning operations.

The Martin Mars flying boat was used effectively on the Iron fire. National Guard Taskforce “Pick”, made up of 200 guard members, conducted holding and mopping operations on the Telephone Fire. On July 7, AK IMT T-1 (Wilcock) assumed command and on the next day the Yolla Bolly complex came under the Lime Complex. On July 10, the Lime and Iron fires made large runs.

From July 8 to July 22, the Lime Complex assumed command of the Yolla Bolly Complex. On July 15, the Thomes, Slides and Vinegar fires merged, creating a larger Vinegar Fire.

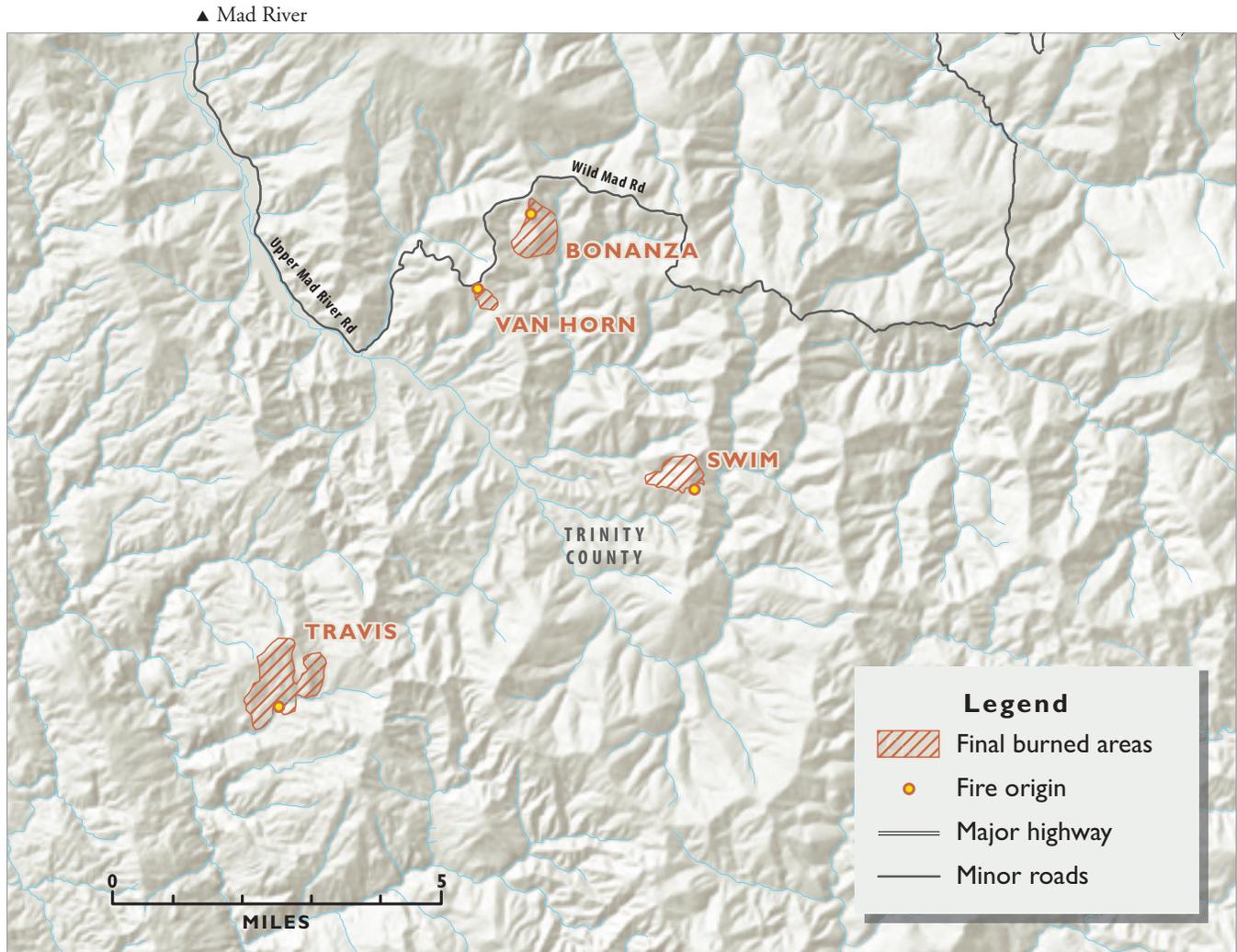
July 11, a plume-dominated fire on Yellow, Iron, & Wilderness fires caused expansion and the Iron, Wilderness #2, Wilderness #3 & Harvey Fires merged and were called the Iron-Harvey. Coordination with Iron Complex allowed fire fighters to complete burnout operations between the Eagle and Miners Fires. The Thomes, Slides, & Vinegar fires merged to be called the Vinegar Fire A, significant crown ran on Miners Fire July 16 moved the Miners Fire toward heavy blow-down fuels.

The small number of structures that were lost included the Lymedyke Lookout, a commercial structure, and a motor home burning on the Lime Fire near Friend’s Place.

July 22, South West T-1 IMT (Hughes) assumed command The Yellow Fire, Vinegar Fire, Trough Fire, and Grouse Fires are moved to the Yolla Bolly Complex. Northern Rockies T-1 (Larson) assumed command of Yolla Bolly Complex.

A departure Ceremony for CNG Task Force “Pick” was held on July 29. A new Spike camp was established at Forest Glen to support resources on the Lime Fire. On August 5, Southern California T-2 IMT (Woychak) assumed command. The Lime Complex was fully contained on August 12 with 64,502 acres burned.

Mad Complex



STATISTICS

Number of Fires: 36
Major Fires/Containment Date/Acres:
 Travis 6/28 1,700
 Bonanza 7/3 1,370
County: Humboldt, Trinity

Affected Communities:
 Three Forks and Mad River
Agencies in Command: USFS
Teams Assigned: T-3 (Hays), T-3 (Liba); Ak T-3 (Lenon), T-4 (Howard), T-4 (Rudney)

Start Report Date: 6/20 4:00 PM
Containment Date: 7/12
Total Acres: 3,705 acres
 (on 6/22 which was the last acreage reported under this incident #)
Direct Fire Suppression Costs:
 \$6,900,000

Firefighters Assigned at Peak:
 388 on 7/4
Structures Destroyed: 0
Fatalities: 0
Fuels: Timber and grass
Cause: Lightning

Mad Complex (continued)

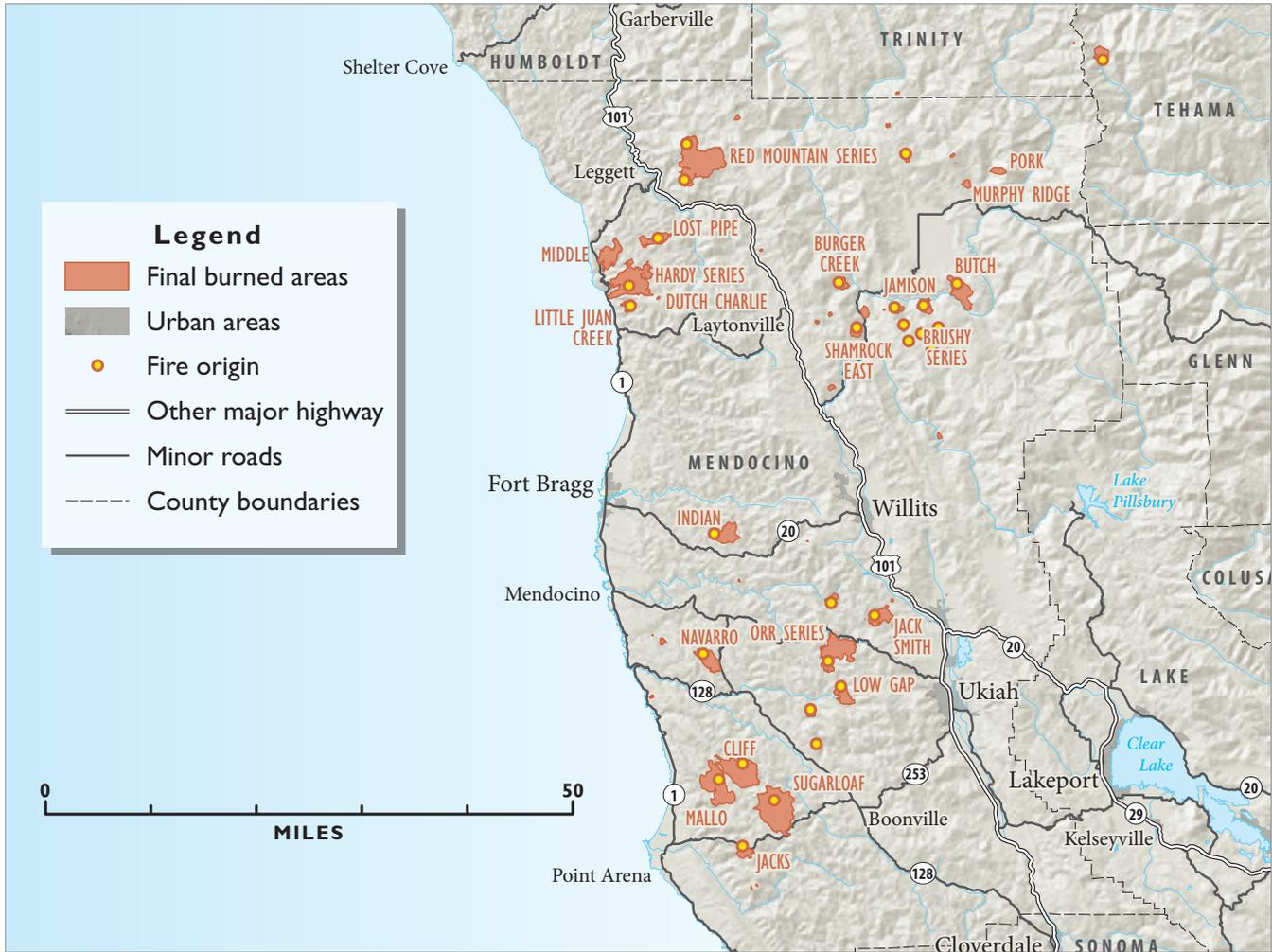
The Mad Complex consisted of 35 fires dispersed throughout the Mad River Ranger District of the Six Rivers National Forest. The fires started during the lightning storm on June 20th and threatened approximately 75 residences scattered throughout the district. Due to competition for resources, several fires in wilderness areas remained unstaffed. On July 1 the Creek, Waterspout and Spring fires merged and were then called the Waterspout I Fire.

Crews made good progress on a majority of the fires and by July 3, 26 fires were 100% contained with 8 fires unstaffed. The Bonanza fire, which burned in steep terrain continued to be a factor and unstaffed fires from adjacent complexes threatened to expand into the district.

By July 7th, the complex was reported as 3,705 acres and 90% contained due to three uncontained fires in the wilderness area. The remaining 32 fires were 100% contained. Crews were actively patrolling 34 fires. The Trough Fire from the Lime Complex burned into the Mad Complex area.

On July 13, the Mad Complex was close to being fully contained and command was transferred back to the local district. Four of the larger fires: Travis, Bonanza, Waterspout I, and Van Horn, continued to have interior burning. Starting July 10, some of the Lime Complex personnel were logistically supported by the Mad Complex Incident Command Base. On July 16, the Lime Complex assumed responsibility of the Mad Complex.

Mendocino Lightning Complex



STATISTICS

Number of Fires: 129

Major Fires/Containment Date/Acres:

Navarro	6/27	1,853
Indian Fire		2,209
Orr Fire		3,416
Jack Smith		1,538
Low Gap		1,347
Red Mtn Fire		7,515
Cliff	7/17	4,658
Mallo	7/17	4,466

Sugarloaf Fire	7/17	7,079
Hardy	7/17	5,581
Lost Pipe	7/17	1,199
Butch Fire		1,749
Travis		1,176
Middle	7/17	2,067
County: Mendocino		
Affected Communities: Foster Creek, Greenfield Ranch, Chicken Ridge, Orr Springs Road, Hearst, Cherry Ck, Running Springs,		

Rockport, Fort Bragg, Ukiah Valley, Cummings, Legget, Signal Ridge, Sky Ranch Estates, Howard Ck.
Agencies in Command: CAL FIRE's Mendocino Unit (MEU)
Teams assigned: CAL FIRE ICT # 4 (Waterman)
Start Report Date: 6/20 1800 hrs.
Containment Date: 7/17/08
Total Acres: 54,819

Direct Fire Suppression Costs: \$66,000,000
Firefighter Assigned at Peak: 2,290 on 7/16
Structures Destroyed: 2 total (1 residence and 1 outbuilding)
Fatalities: 1 on 7/3 – Mendocino County local government v olunteer firefighter
Fuels: Timber, brush, and grass
Cause: Lightning

Mendocino Lightning Complex (continued)

While the Mendocino Unit was able to contain most of its 129 lightning fires within a few days after the storm, about a dozen became large, damaging fires that took several weeks to contain. Long duration fires included the Mallo, Cliff, and Sugarloaf fires in the rugged, heavily forested coastal area between Boonville and Point Arena. The Navarro Fire to the north actively burned in coastal Redwood forest. These fires burned a significant amount of commercial timberland.

A second major group of large damaging fires was concentrated along the coast north of Fort Bragg, where the Middle, Hardy, Lost Pipe, and Little Juan Creek fires burned in valuable redwood timber. Several of these fires are on the lands of Mendocino Redwood Company, which took aggressive independent firefighting action until CAL FIRE could obtain enough suppression resources to staff them.

A third group of major fires was located west of Ukiah, where the Orr Series Jack Smith, Horse, and Low Gap fires had the potential to merge into one giant fire. This could have posed a significant threat to the heavily populated Ukiah Valley. Evacuation plans for the Ukiah area were developed in conjunction with Mendocino County authorities, but large-scale evacuations did not become necessary. These fires

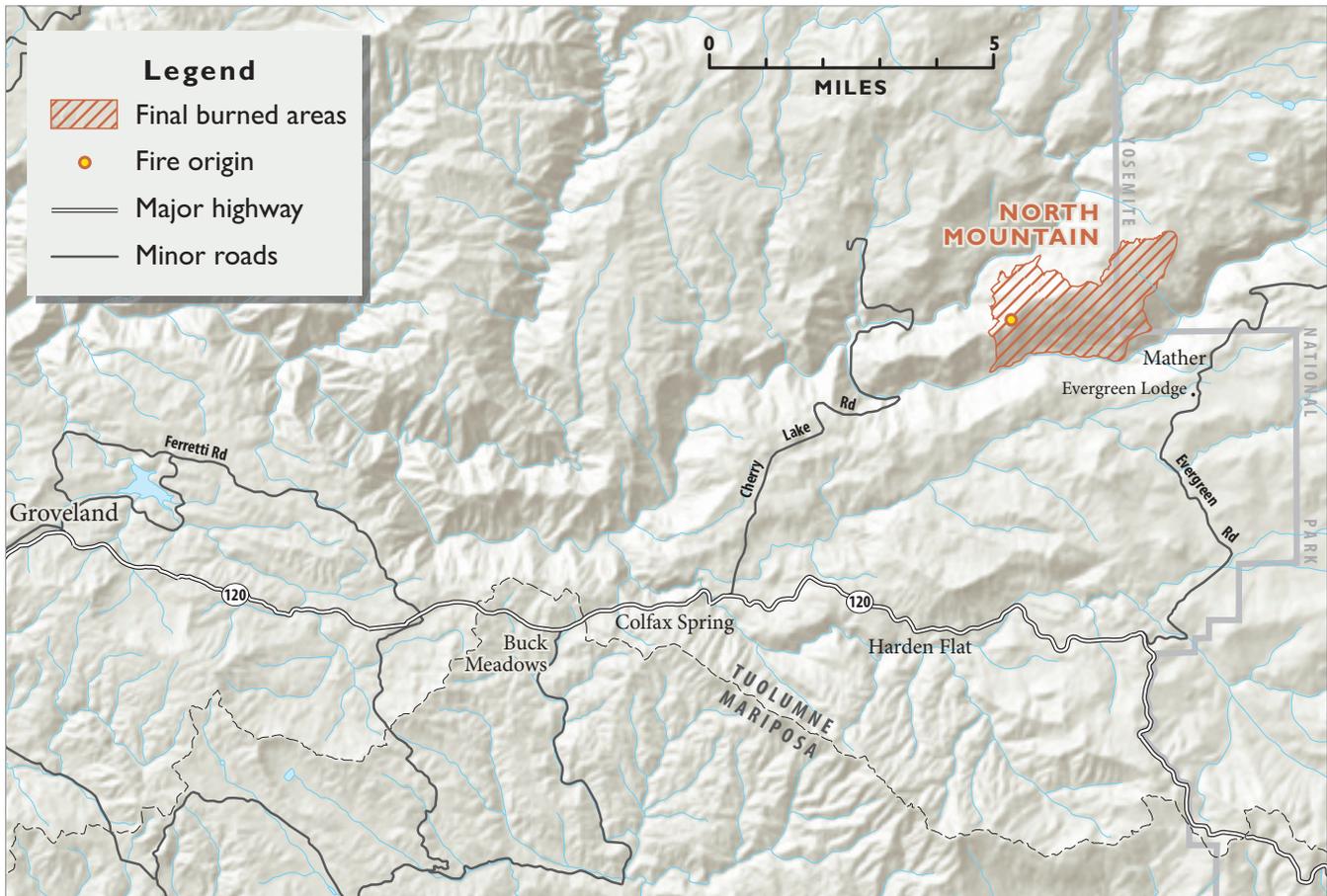
threatened Montgomery Woods State Park, and Orr's Springs Resort where some evacuations took place.

Several other large fires, including the Red Mountain, Indian, Butch, Jamison, and Travis Fires were located in remote, rugged, difficult to access, mountainous terrain. It took a while to gather enough suppression resources to contain these fires. The Red Mountain Fire was particularly troublesome, burning with high intensity on several days and threatens a high-value international fiber optic communications cable.

The geographic scope of this complex provided a significant organizational and logistical challenge for the MEU and CAL FIRE's Incident Command Team #4. Creative tactics, determination, hard work and cooperation between state and local agencies and the large, private landowners proved a winning combination in the long run.

The fires burned commercial timber, valued at more than \$65 million, but only 2 structures were destroyed. Sadly, a volunteer firefighter from the Anderson Valley Volunteer Fire Department lost his life fighting these fires.

North Mountain Fire



STATISTICS

Complex Fire #: CA-STF-1063
County: Tuolumne
Affected Communities: Yosemite National Park, Camp Mather and

the Evergreen Lodge
Agencies in Command: USFS
Teams Assigned: Type 2 (Woychak), Team Type 3 (McMenimen) Start
Report Date: 06/21 3:48 p.m.

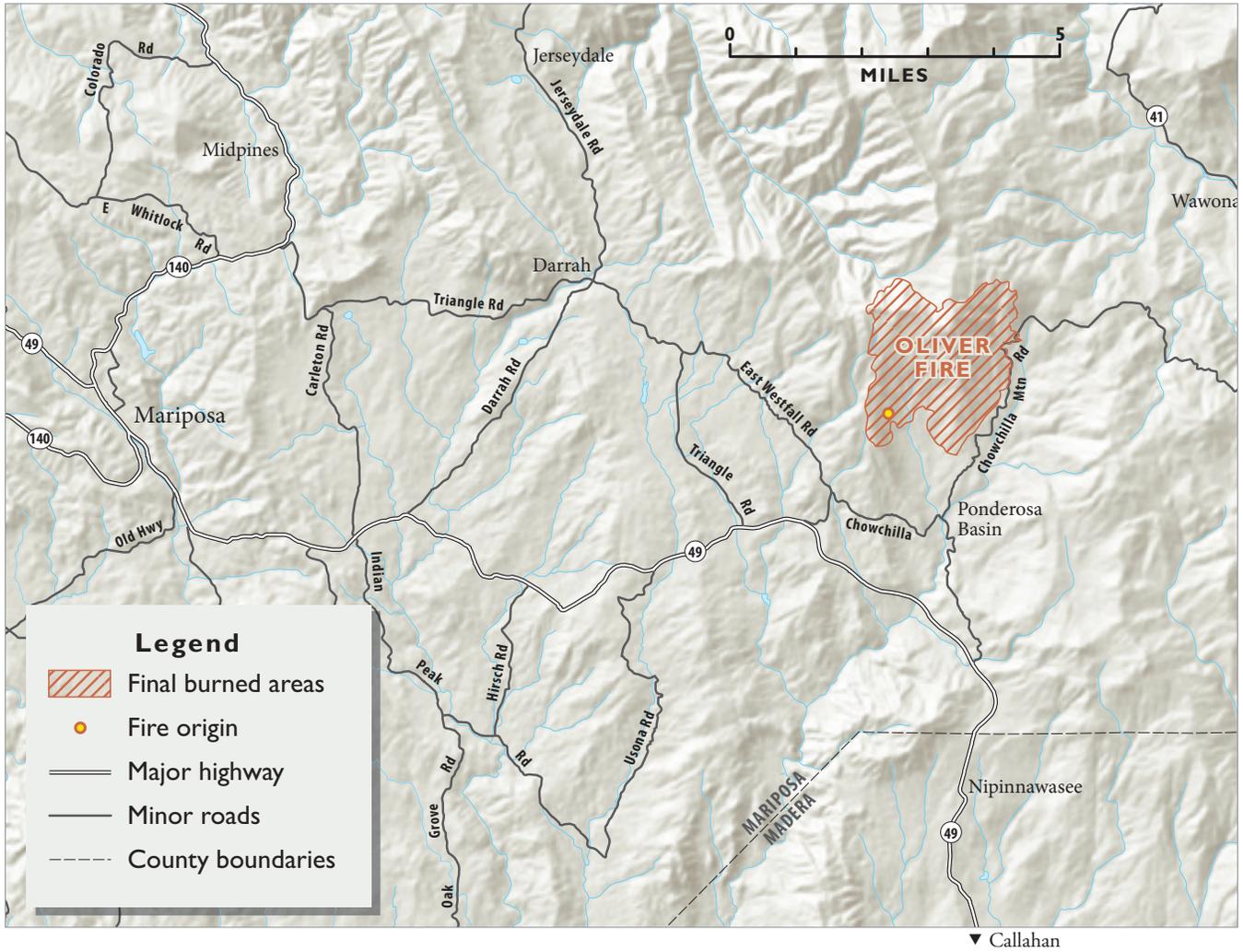
Containment Date: 07/03
Total Acres: 2,889
Direct Fire Suppression Costs: \$6,250,000
Firefighter Assigned at Peak: 529 6/28

Structures Destroyed: 0
Fatalities: 0
Fuels: Chaparral, Heavy Brush and Timber
Cause: Lightning

The North Mountain Fire was started by lightning, on June 21 and was reported at 3:48 p.m. The fire burned heavy brush and timber in steep, inaccessible terrain, northeast of Groveland in Stanislaus County. Of critical concern was the large number of poison oak cases affecting fire fighters. A large-scale treatment for crews was conducted at the Base Camp Medical Unit. By June 29th, the fire was 35% contained at 2,697 acres. The fire continued moving east up the

Tuolumne River into Yosemite National Park. Structure and evacuation contingencies remained in place for Camp Mather. There were large groups of children at Camp Mather that required extended evacuation times due to limited access, narrow roads, and a shortage of buses. On July 4th, aided by four Marine CH 46 Helicopters, the North Mountain Fire was contained at 2,889 acres.

Oliver Fire



▼ Callahan

STATISTICS

Complex Fire #: CA-MMU-008107
County: Mariposa
Affected Communities: Ponderosa Basin subdivision, Wawona (within Yosemite National Park), Cedar Valley and Fish Camp

Agencies in Command: Unified command with CalFire, Mariposa Co. Fire Department, Mariposa Co. Sheriff, and California Highway Patrol
Start Report Date: 06/21/ 5:10 p.m.
Containment Date: 07/05

Total Acres: 2,789
Direct Fire Suppression Costs: \$12,217,857
Firefighter Assigned at Peak: 1,324 on 6/29
Structures Destroyed: 0

Fatalities: 0
Fuels: Mixed timber, heavy brush, jackpots of heavy fuels and downed fuels.
Cause: Lightning

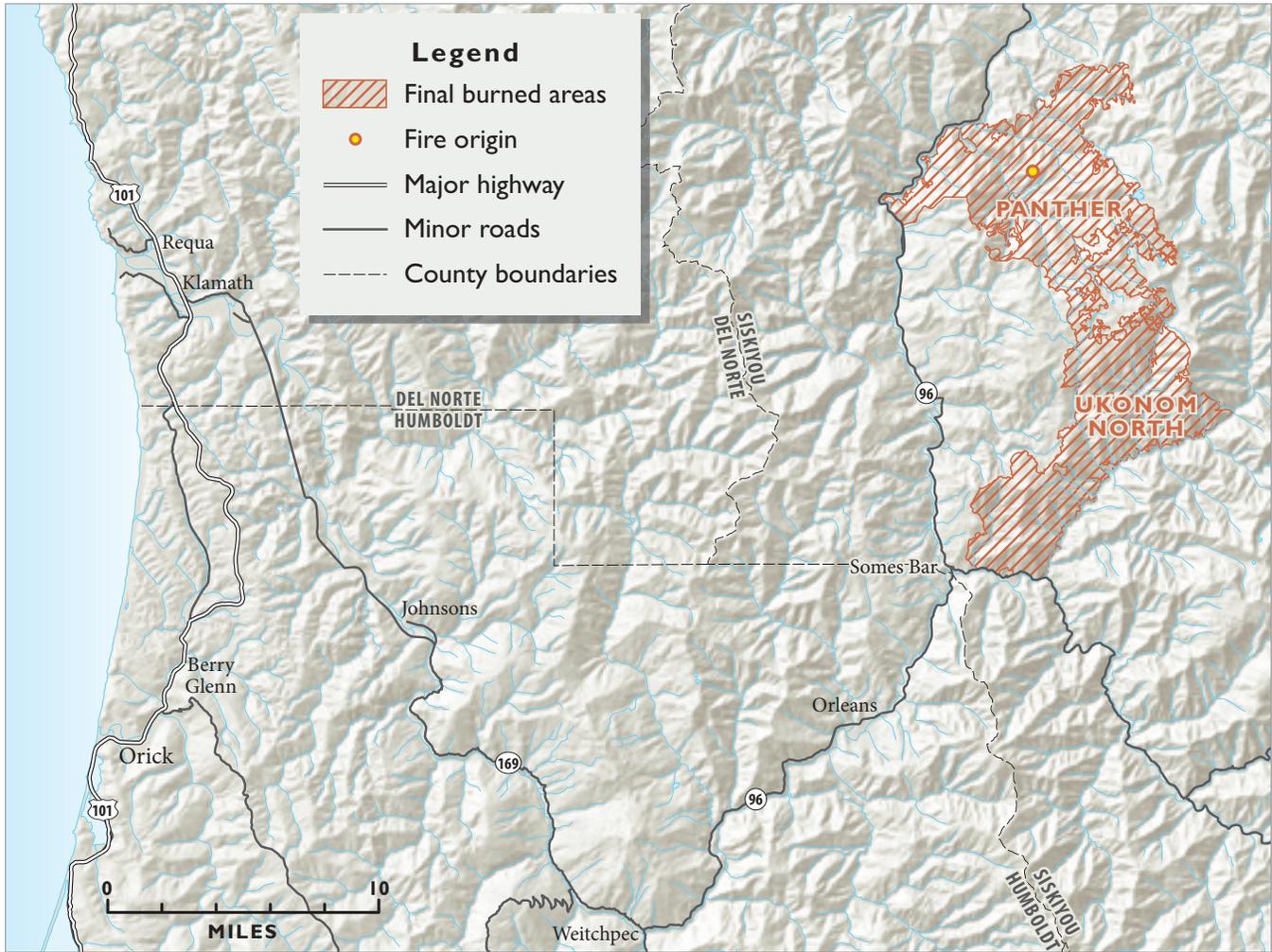
On the evening of June 21, the Oliver Fire was ignited by lightning and reported north of Ponderosa Basin in Mariposa County. When the CAL FIRE team took command on the 24th, the fire was at 1,400 acres and 15 percent contained. The fire burned in timber, moved toward the Ponderosa Basin subdivision and threatened 200 residences and 225 outbuildings. Evacuations were underway.

On June 25, with a weather warning for possible outflow winds associated with thunderstorm development in the Sierras, the fire continued to burn in steep, inaccessible terrain with heavy fuels. It burned 2,200 acres, 750 to 800 acres of timber and threatened more than 100,000 additional acres of timber.

Watershed values at risk include the Devils Gulch drainage, which is a major tributary to the Wild and Scenic Merced River. A Forest Service Resource Advisor worked with the team to identify historical sites within the fire area.

Crews continued to make progress through June 30 with line construction and improvement while large unburned islands continued to have activity. Only a few areas resulted in slow, difficult progress for crews. On July 2, the evacuation warnings for the residents in the Ponderosa Basin were lifted as containment lines continued to hold. The Oliver Fire was fully contained on July 5.

Panther Fire (Non-siege Fire)



STATISTICS

Number of Fires: 2 fires total (beginning 8/16 when Ukonom North added to Panther)

Major Fires/Containment Date/Acres:

Panther	9/26	24,954
North Ukonom	9/23	23,154

County: Siskiyou

Affected Communities:

Structures along Klamath River

Agencies in Command: US Forest Service, Klamath National Forest

Teams Assigned: USFS: T-3 (Baker); 7/27, CIIMT 5, (Dietrick); 7/29, T-1 (McGowan); 8/12, Great Basin IMT T-2 (Harvey); 9/13, NIMO, (Gage under Klamath Theatre); T-2 IMT (Kaage); IC T-3 (Cherry).

Start Report Date: 7/22 12:21 AM

Containment Date: 10/8/2008

Total Acres: 9/26 – 53,149 acres (includes North Ukonom acreage) 10/8 – 72,344 acres

Direct Fire Suppression Costs: Panther Only \$16,270,273; and Ukonom Fire (Combines North and South) - \$25,757,622

Firefighters Assigned at Peak:

864 on 8/11

Structures Destroyed: 0

Fatalities: 1 on 7/27

Fuels: Timber, brush, snags

Cause: Lightning

Jurisdiction: US Forest Service, Klamath National Forest

Ignited by lightning, the Panther Fire was reported on July 24 in a steep inaccessible area 15 miles south of Happy Camp. Spreading at a slow rate, with some individual trees torching, early fire reports indicated possible containment by the end of the month.

On July 26, Chief Daniel Bruce Packer, 49, of Lake Tapps, Washington, assigned as a Division Group supervisor suffered fatal injuries which resulted from thermal burns and smoke inhalation after he deployed his fire shelter when the fire activity suddenly increased. Rolling material drove the fire down the slope towards Ukonom Creek and the Klamath River. Large standing snags, left by 1987 King Titus Fire actively burned. 30 residences and 60 outbuildings were threatened.

By August 2, the Panther Fire grew to 7,115 acres with no containment. Crossing Ukonom Creek, the fire burned toward the Ukonom Lookout and to the northwest of Ten Bear Mountain. The smoke column was clearly visible from Highway 96. A Fire Weather Watch was issued for thunderstorms and dry lightning from August 5th through 6th.

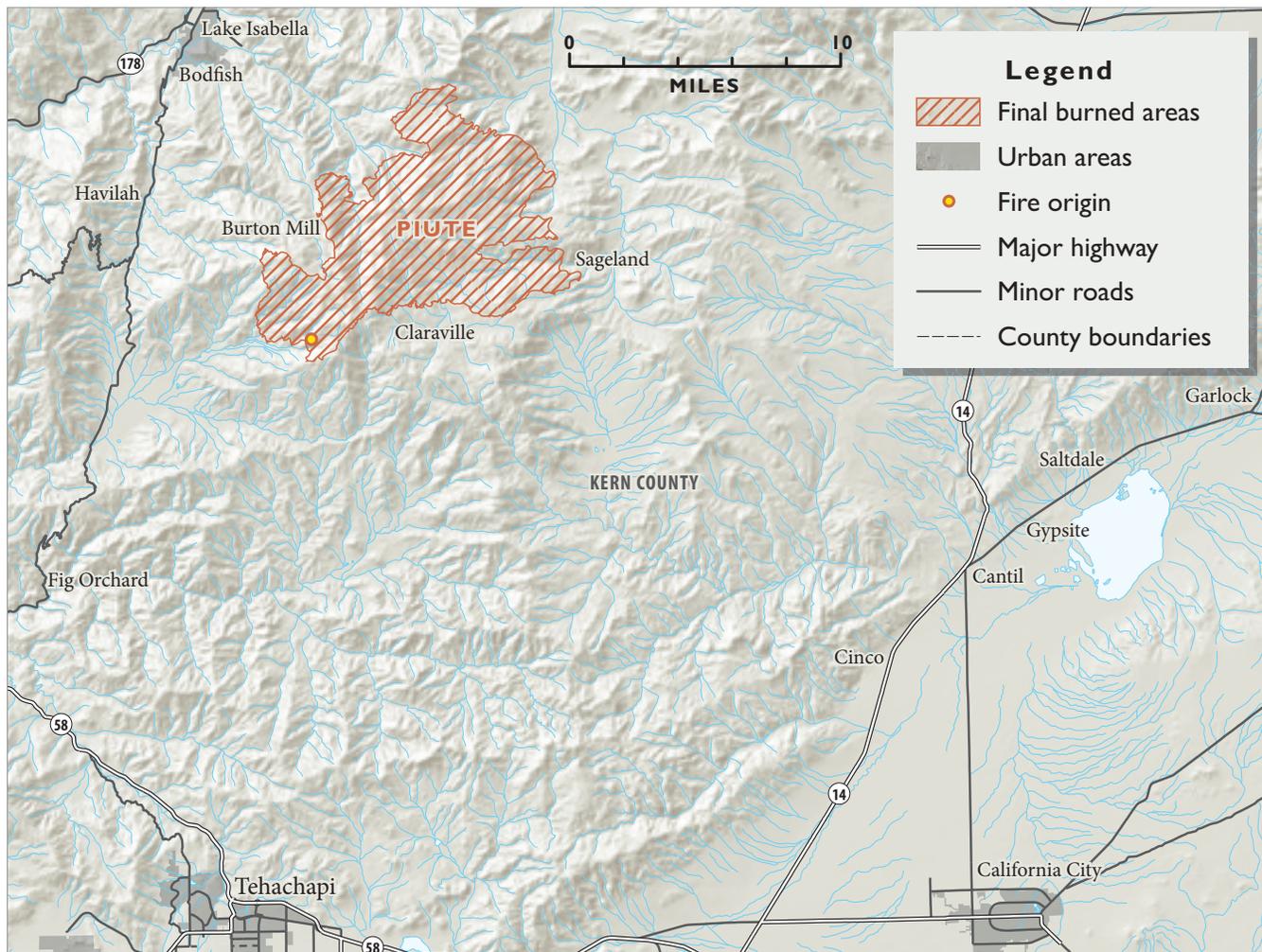
On August 15, favorable weather conditions allowed firefighters to make good progress as they secured fire lines and conducted mop up activities. The Panther Fire was 60% contained and 23,214 acres. The Panther Fire was managed along with the North Ukonom Fire by one incident management team.

As the Panther and North Ukonom Fires continued to burn east into the Marble Mountain Wilderness area, containment objectives were met on the fireline outside of the wilderness area on August 20, 2008. The fires within the wilderness area were closely monitored as they continued to burn naturally. Meanwhile smoke impacts along Klamath River corridor restricted recreational activities and close various sites along the river.

By September 11, at 49,029 acres and 75% contained, the management of the Panther was transferred to the Klamath Theater as fire managers awaited the autumn rains.

On October 2, a southerly wind caused a big run with long-range spotting and the fire-expanded several thousand acres. Over 2 inches of rain came on October 4.

Piute Fire



STATISTICS

County: Kern
Affected Communities: Bodfish, Lake Isabella, Erskine Creek, and Thompson Creek

Agencies in Command: USFS, BLM, Kern County Fire Department
Teams Assigned: Type 2 (Smith), PNW T-1 (Hoff) and T-1 (Molunby)
Start Report Date: 6/28/2008

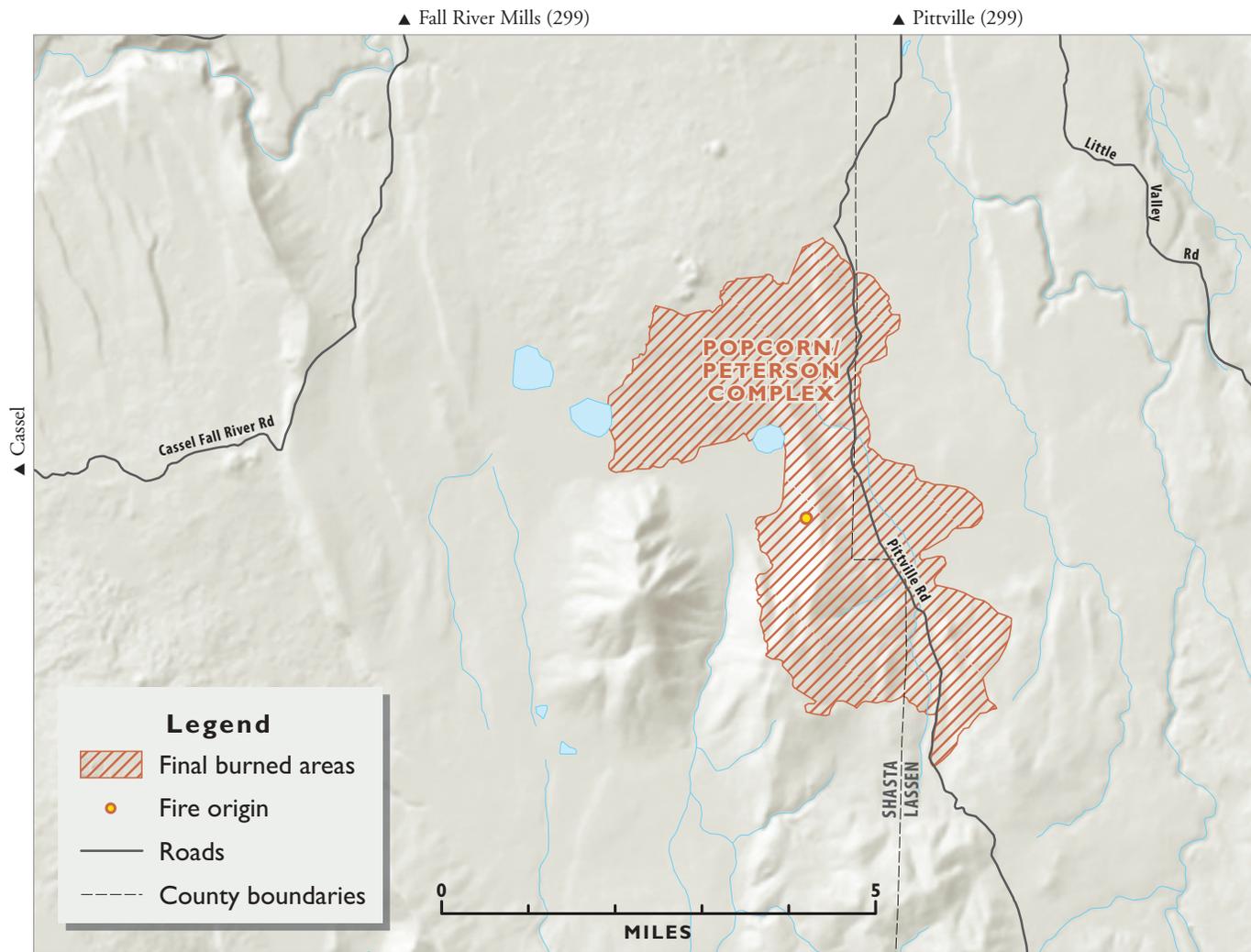
Containment Date: 7/25/2008
Total Acres: 37,026 acres
Direct Fire Suppression Costs: \$25,000,000
Firefighters Assigned at Peak: 1,633

Structures Destroyed: 6 residences, 45 outbuildings
Fatalities: 0
Fuels: Timber, brush and grass
Cause: Lightning

The Piute Fire started in a remote area to the southeast of the communities of Bodfish and Lake Isabella. Extremely dry fuel burned with high intensity; the fire was channeled by the terrain in several directions simultaneously. Within 24 hours, the fire grew to over 2,000 acres and was well established in steep and inaccessible canyons. The fire was pushed in all

directions by continuously shifting winds, and plagued firefighters for several days. On the night of July 13th, a severe rainstorm passed over the fire and required crews to be pulled off the line for safety. Several roads led into the fire were damaged or closed by flooding. However, the higher humidity and improved weather enabled crews to get the upper hand. The Piute Fire was fully contained on July 25.

Popcorn/Peterson Complex



STATISTICS

Number of Fires: 3
Major Fires: Popcorn, Peterson, H-1
County: Shasta and Lassen
Affected Communities: Little Valley and Pittville

Agencies in Command: Unified Command, USFS, CAL FIRE
Teams Assigned: Type 1 Southern Red Team (Ruggerio)
Start Report Date: 6/21 4:00 PM

Containment Date: 6/30/2008
Total Acres: 7,842 acres
Direct Fire Suppression Costs: \$2,649,044
Firefighters Assigned at Peak: 404

Structures Destroyed: 0
Fatalities: 0
Fuels: Timber, brush, and grass
Cause: Lightning

Popcorn/Peterson Complex (continued)

The Peterson Complex was composed of three fires: the H-1, Popcorn Fire and Peterson Fires, all located twelve miles east of Cassel. The fires started during the lightning storm on June 21st and burned in timber, brush and grass on steep southern aspects.

The Popcorn Fire originated in Shasta County under the SHU Burney Battalion LCA, and quickly burned onto the Lassen - Modoc Unit (LMU) and was included in the LMU June Lightning Complex. On June 23 the Popcorn Fire was separated from the LMU June Lightning complex and was reported as a separate incident.

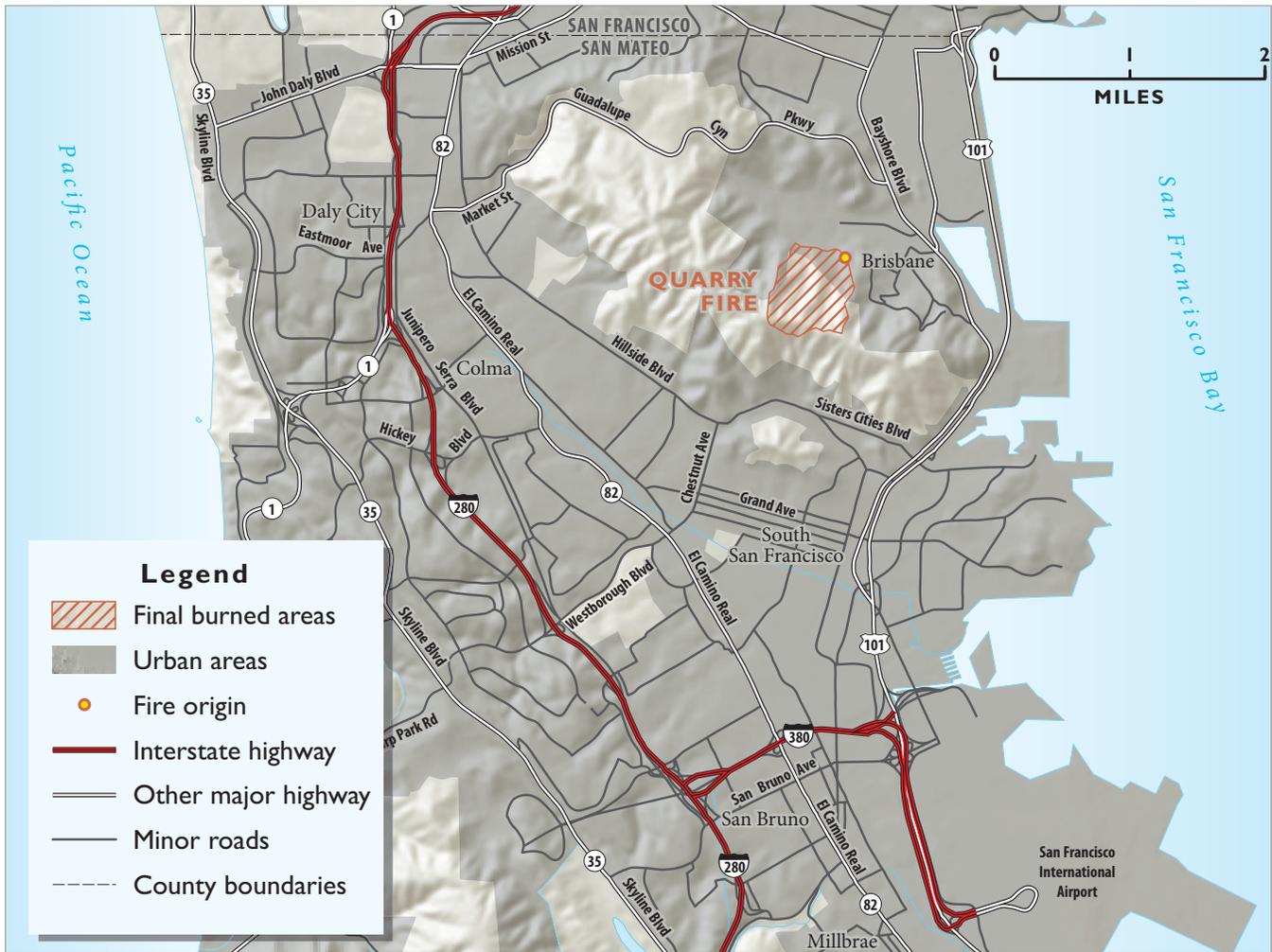
The Peterson Fire was reported by the Lassen National Forest. The Communities of Little Valley and Pittville were threatened and under precautionary evacuation. As predicted, the 3,000 acre Popcorn Fire and the 1,200 acre Peterson Fire merged.

When the Popcorn Fire merged with the Peterson Fire on June 24, unified command with CAL FIRE and USFS was established. On June 25, the Type 1 team under unified command with CAL FIRE transitioned and the fires were moved to a new incident number (CA-LNF-002725) named the Peterson Complex.

The fire damaged and threatened a PG&E power line, which was shut down. The fire also posed a threat to the railroad lines and an endangered trout species. Spot fires continued to hamper containment strategies for many days. On June 28, Red Flag warnings were in place for a threat of dry lightning. Resources from the Peterson Complex were made available as the team prepared to transition the Complex to a type 3 organization under the Forest.

The Peterson Complex was 100% contained at 7,842 acres on June 30th. The morning of July 1, the fire transitioned management back to the LNF.

Quarry Fire



STATISTICS

County: San Mateo
 Affected Communities: Brisbane
 Agencies in Command: CAL FIRE

Teams Assigned: CAL FIRE San Mateo-Santa Cruz Unit (CZU)
 Start Report Date: 6/22 7:33 PM
 Containment Date: 6/23/2008

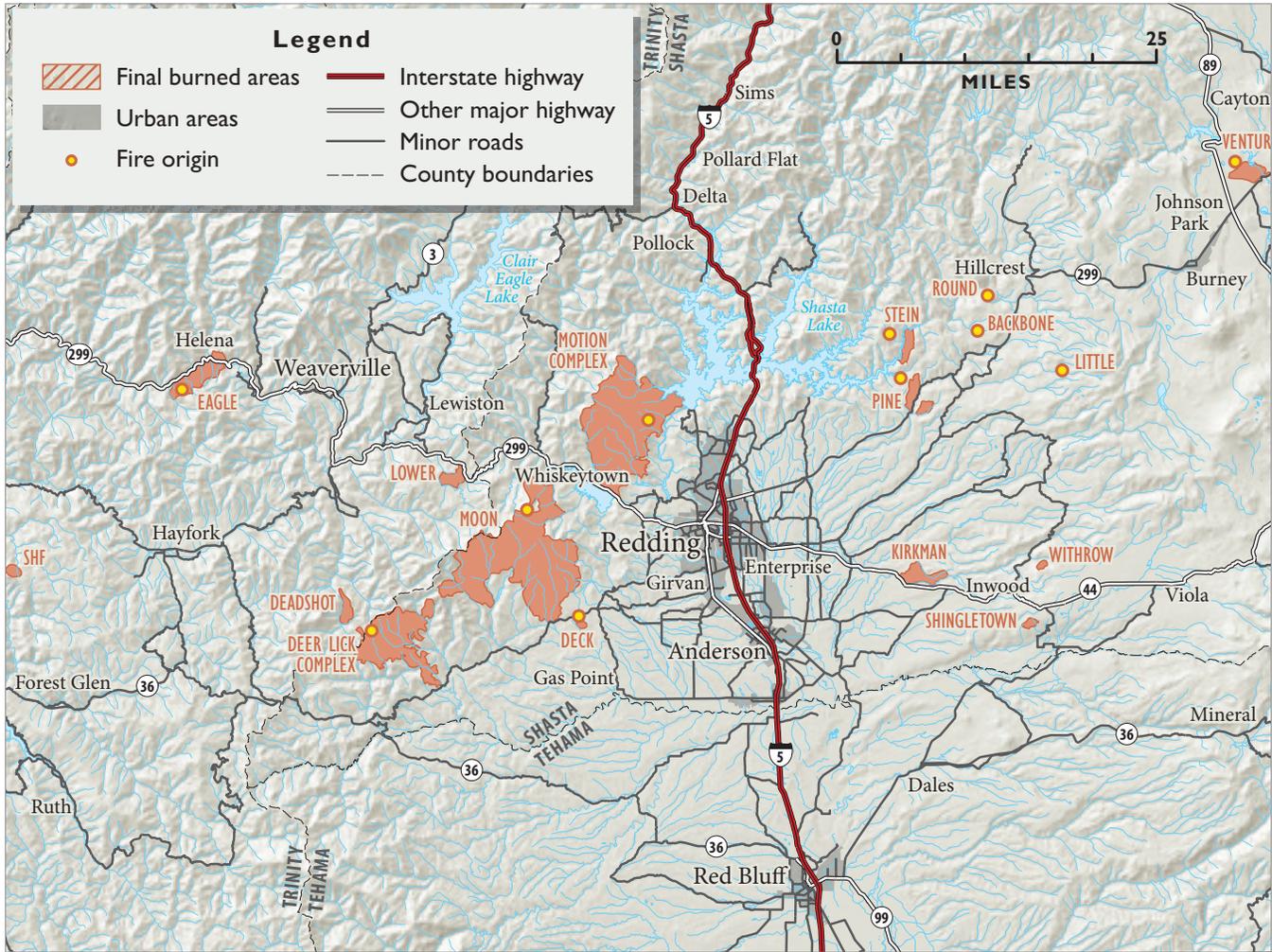
Total Acres: 300 acres
 Direct Fire Suppression Costs: Unknown
 Firefighters Assigned at Peak: 87

Structures Destroyed: 0
 Fatalities: 0
 Fuels: Grass and brush
 Cause: Under investigation

The Quarry Fire started June 22, threatening 450 structures. A major high-voltage transmission line was over the fire. An additional concern for the firefighters and public was the proximity of the fire to San Francisco International Airport. The air traffic in and out of the airport impacted firefighting aircraft

supporting ground resources. Smoke from the fire had the potential to impact national and international flights. By the morning of June 23rd, the fire had grown to 300 acres but was 85% contained. Evacuations were lifted and full containment was achieved by June 24th.

Shasta Lightning Complex



STATISTICS

Number of Fires: 158

Major Fires/Containment Date/Acres:

Moon	7/21	29,031
Motion	7/26	28,336
<i>(Merged with Democrat – contained 7/3)</i>		
Deerlick	7/15	12,701
Pine fire	6/27	3,000
Kirkman	6/27	2,500
Venture	6/26	1,500

County: Shasta & Trinity CAL FIRE's Shasta-Trinity Unit
Affected Communities: Douglas City, Weaverville, Junction City, Lewiston, Keswick, Iron Mtn. Road, Shasta Dam, French Gulch, Whiskey Creek, Centerville, Igo, Ono, Rainbow Lakes, Platina, Jones Valley, Oak Run, Whitmore, Montgomery Creek, Burney and Shingletown

Agencies in Command: CAL FIRE ICT #10 (Kerschen)
Start Report Date: 6/21 0500 hrs.
Containment Date: 7/25/08
Total Acres: 86,500
Direct Fire Suppression Costs: \$56,171,112
Firefighter Assigned at Peak: 2,779 on 7/16

Structures Destroyed: 22 total (6 residences and 16 outbuildings)
Fatalities: 0
Fuels: Timber, Oak woodland, brush and grass
Cause: Lightning

The storm entered Western Trinity County at approximately 1730 hours on the afternoon of June 20th. By 6:30 a.m., June 21st, the command center begins receiving reports of fires. An initial report of 40 confirmed fires was released.

By June 23rd the lightning subsided but reports of new fires continued. A total of 158 fires were started by the lightning event with all areas of the unit (western Trinity and Shasta County) with active fires. All of the unit's engines and fire crews were assigned and personnel were called back to staff the reserve and camp fire engines. This left the Unit with one available Shasta County Fire engine and one CAL FIRE engine for additional initial attack fires and medical emergencies. Assistance from local fire agencies was requested until additional CAL FIRE resources were moved in to the area.

CAL FIRE assumed command on June 23rd. Given the priority of life and property protection over natural resource values, the strategy for the complex was to attack the small fires first, and concentrate scarce resources such as aircraft on the fires on the east side of the Sacramento Valley that posed threats to more populated areas, particularly the Whitmore and Shingletown communities. Located uphill from heavy brush fuels, the homes concentrated in these scenic woodland and timber settings were particularly vulnerable. An additional concern was to keep the two main eastbound highways (44 and 299) from Redding open, if possible.

This strategy resulted in all but 5 of the 158 total fires being contained by June 27th. The Stein Fire was contained on July 1st and the Lower Fire was

contained on the Fourth of July, which left only three fires uncontained.

Unfortunately, the three remaining fires (the Deerlick, Moon, and Motion Fires) were well-established and in very difficult terrain. At the end of the second week, temperatures exceeded 110 degrees with unusually strong northerly winds. This weather pattern caused the greatest single increase in fire behavior for the entire incident.

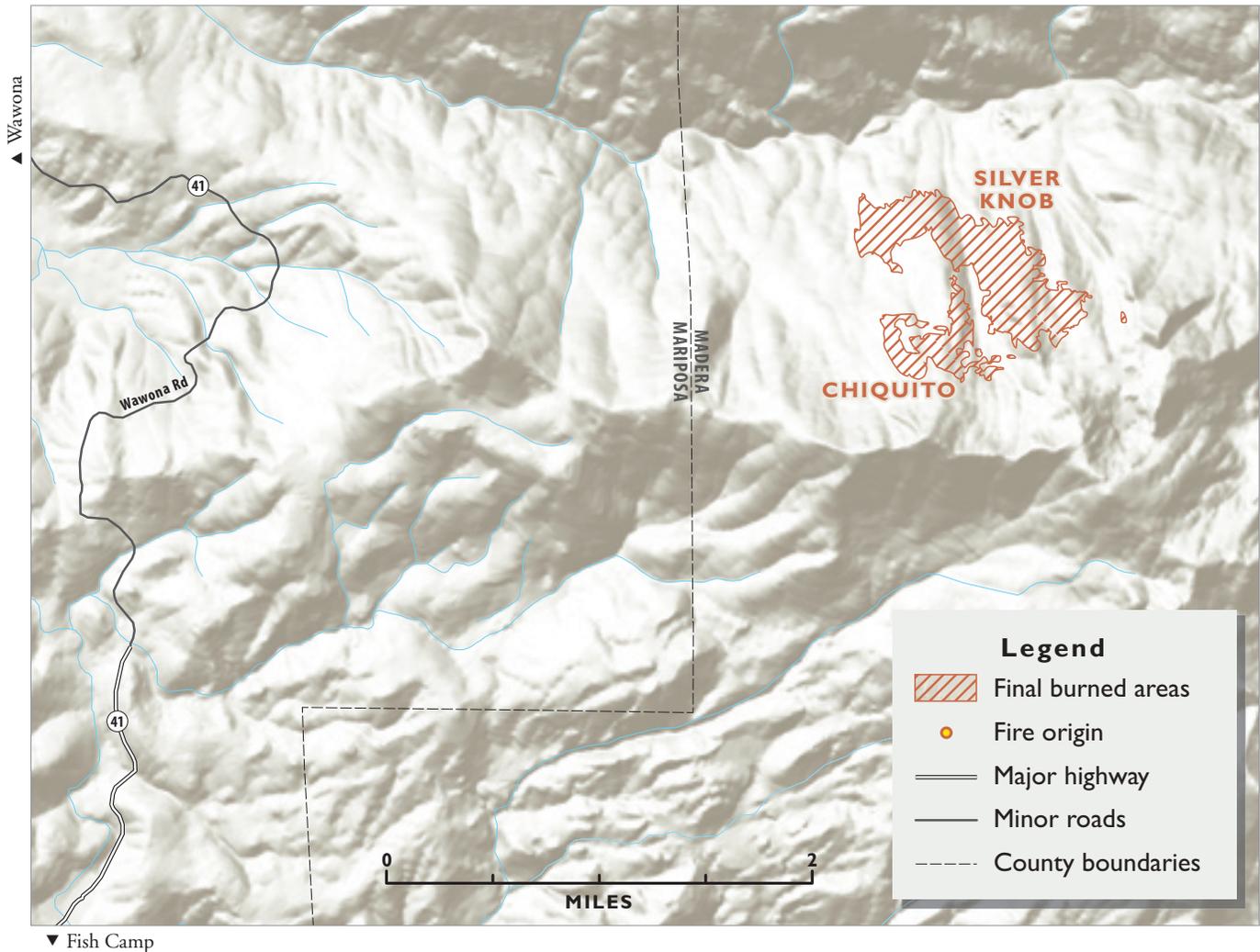
The Motion Fire burned in the Off-Highway Vehicle Recreation Area west of Lake Shasta. This fire posed a significant threat to the Western Power Grid electric generation and transmission facilities at Shasta Dam.

The Moon Fire burned in the vicinity of the small communities of Igo and Ono, west of Redding and eventually merged with the fires burning in the Whiskeytown National Recreation Area. On July 9, high temperatures, low RH, gusty, erratic winds drove the Moon Fire into the populated areas of these communities, and firefighters spent an exciting, but exhausting afternoon and evening of house-to-house fire combat.

The Deer Lick Fire was located in the remote, rugged mountainous terrain along the Trinity/Shasta county line. This fire was not an immediate threat to any populated areas, but was in terrain requiring large numbers of hand crews, which were in extremely short supply for a long time.

After several weeks of intensive effort, the Deer Lick Fire was contained on July 15th; the Moon Fire was contained on July 21st; and the Motion Fire was contained on July 26th.

Silver Complex



STATISTICS

Number of Fires: 6

Major Fires:

Silver Knob and Chiquito Fires

County: Madera and Mariposa

Affected Communities: Bass Lake,

North Fork, and Fish Camp

Agencies in Command: USFS

Teams Assigned:

Sierra National Forest

Start Report Date: 6/21

Containment Date: 7/2

Total Acres: 1,161 acres

Direct Fire Suppression Costs:

\$3,360,000

Firefighters Assigned at Peak: 529

Structures Destroyed: 0

Fatalities: 0

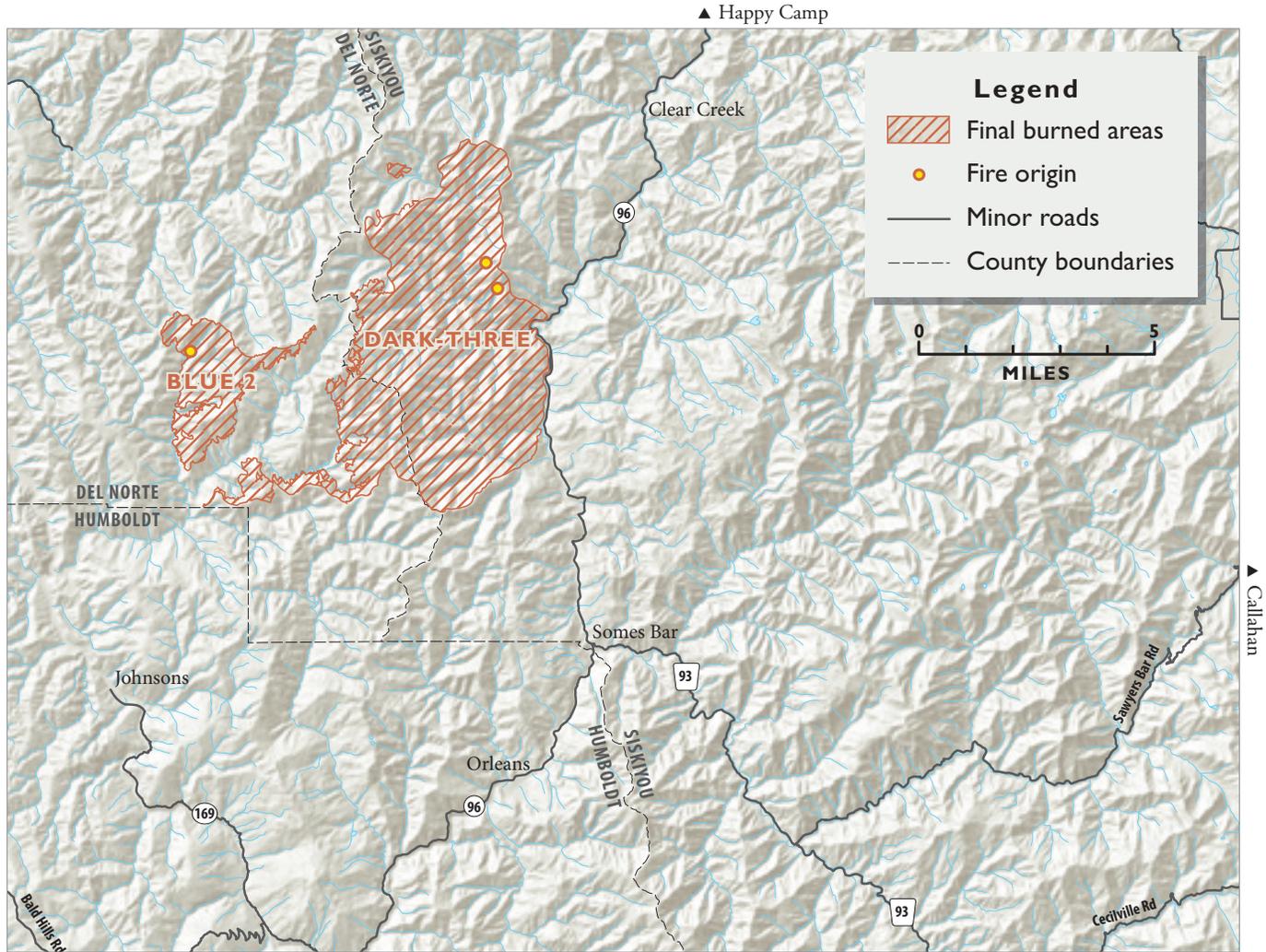
Fuels: Brush and timber

Cause: Lightning

The fires burned in steep inaccessible terrain and required significant air support for successful containment. One of the fires in the complex, the Oliver Fire, was separated from the complex to

facilitate its control. The Silver Complex was managed by a NIMO Team. Given its remote location, the Silver Complex had minimal impacts on the public, residences or infrastructure.

Siskiyou Complex



STATISTICS

Number of Fires: 6 fires total (5 original; with Blue 2 fire added on 8/13)

Major Fires: Mill Fire, Dark-Three Fire, Jackass Too, Headwaters, Blue2

County: Siskiyou

Affected Communities: Structures along Klamath River, Dillon Creek

Campground, and Sacred Native American sites

Agencies in Command: USFS

Teams Assigned: USFS – 6/22 ORCA IMT-2, (Paul); 7/6 NorCal IMT 1, (Swartzlander); 7/21 CIIMT 5, (Dietrick); 8/2 Alaska T-1, (Wilcock); 8/19 ORCA IMT-2, (Paul); 9/1 IMT T-3, (Bowers); 9/13,

NIMO, (Gage under Klamath Theatre).

Start Report Date: 6/21 2:00 a.m.

Containment Date: 9/26

Total Acres: 9/26 – 88,069 acres

Direct Fire Suppression Costs: Siskiyou (\$44,566,566); Blue 2 (\$21,725,190); Combined (\$66,291,756)

Firefighters Assigned at Peak: 1,522 on 8/3

Structures Destroyed: 0

Fatalities: 1 (grader operator injured on 9/5 succumbed to injuries on 9/11)

Fuels: Timber, brush

Cause: Lightning

Siskiyou Complex (continued)

The Siskiyou Complex Fires were started on June 21 by lightning around 2:00 a.m. Located 20 miles southwest from Happy Camp, the Siskiyou Complex, they didn't immediately threaten structures or private land. The 5 fires that were initially included in the complex, Mill, Dark, Three, Jackass Too, and Headwater were located in very rugged, steep terrain with few roads and contain stands of large trees.

By June 26, the Siskiyou Complex was estimated at 5,000 acres and 12% contained. The Mill, Three, and Dark Fires merged and were then referred to as the Dark-Three Fire. Structures were threatened, and Highway 96 and Dillon Creek Campground were closed. Significant cultural and religious sites of the Karuk and Yurok tribes were at risk. The high elevation fires, the Jackass Too and Headwater fires, remained smaller than 100 acres.

By July 12, the Jackass Too fire merged with the Dark-Three fire for combined total of 32,453 acres and 16% containment. Red Flag conditions for low relative humidity, hot temperatures, and gusty winds, initiated very active fire behavior, especially in areas where the wind aligns with steep slopes. The fire jumped the south containment lines in excess of 1,000 acres and

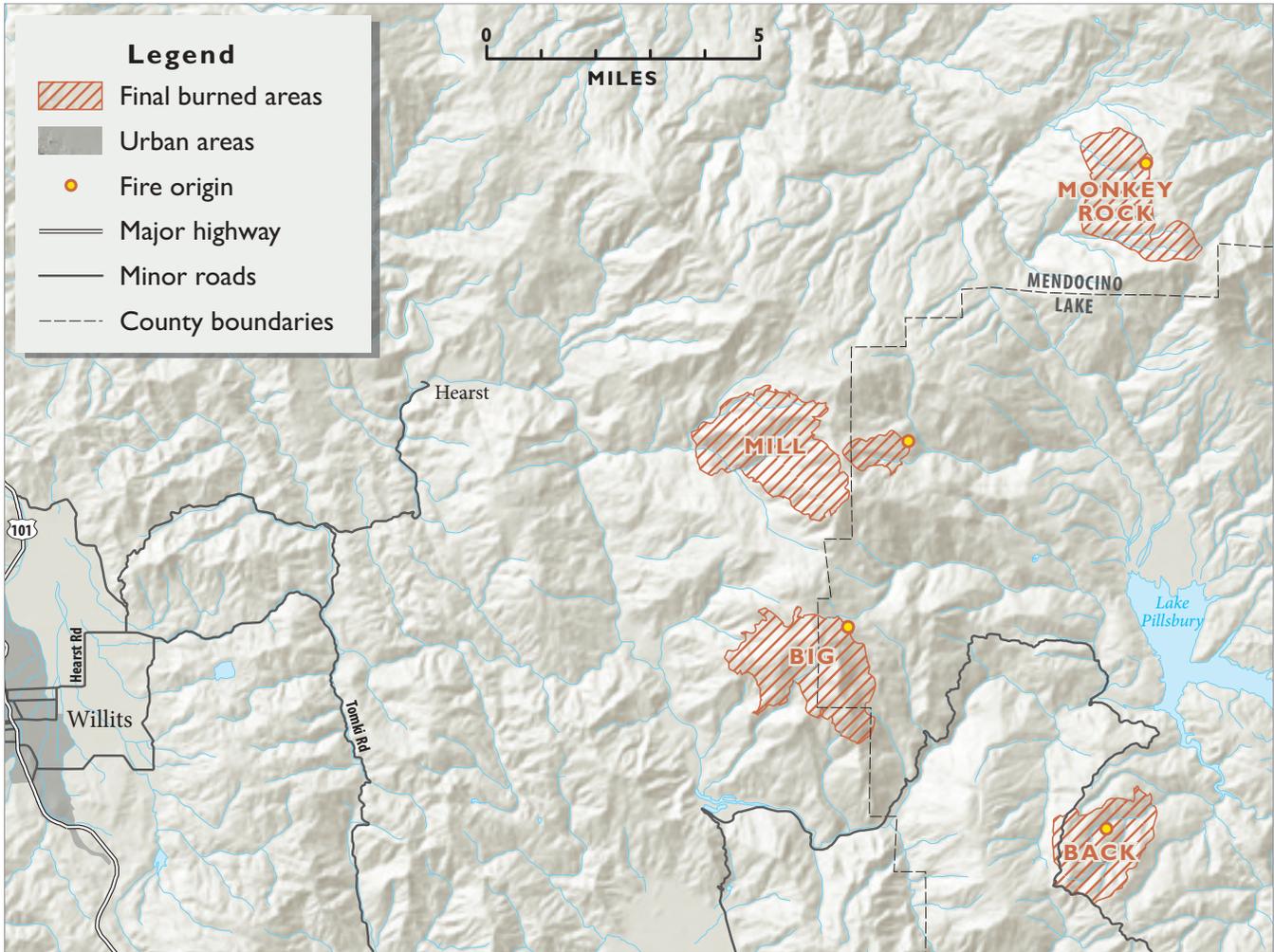
direct line construction was initiated. Firefighters prepared indirect contingency lines for firing operations along Lonesome Ridge Road west to Blue Creek, which had the potential to expand the fire to the projected 88,150 acres. The Headwaters fire was 231 acres and 0% contained. It was converted from a fire managed for resource benefit to a suppression fire.

By July 23, the Siskiyou Complex was 54,559 acres with 36% contained. Very little fire growth was observed as established containment lines continued to hold. Firefighters completed firing operations near the Klamath River and prepared for firing operations from No Name Creek south towards containment lines along Bean Ridge. Firefighters continued to build a contingency line along the southern edge of the complex toward the Blue 2 Fire.

On August 13 the Siskiyou and the Blue 2 Complexes were managed under a single containment strategy and the combined acres for the Siskiyou and Blue 2 fires were estimated at 72,571 acres and 72% contained.

On September 11 Curtis Hillman, a road grader operator injured on August 25, succumbed to his injuries.

Soda Complex



STATISTICS

Number of Fires: 4

Major Fires/Containment Date/Acres:

Big Fire	7/5	2,193
Back Fire	6/29	1,567
Monkey Rock	7/14	1,829
Mill Fire	7/26	3,034

County: Lake, & Mendocino

Affected Communities: Upper Lake, Potter Valley Rd, Lake Pillsbury

Agencies in Command: USFS; Unified Command w/ CAL FIRE on 7/15

Teams Assigned: T-2 team (Heinz); T-2 Team #3 (Fiorella); CAL FIRE Team (Bradley)

Start Report Date: 6/21 1255 hrs.

Containment Date: 7/26

Total Acres: 8,652 acres

Direct Fire Suppression Costs: \$17,538,075

Firefighters Assigned at Peak: 890 on 7/22

Structures Destroyed: 4

(2 residential & 2 outbuildings)

Fatalities: 0

Fuels: Brush, oak woodland, grass & timber

Cause: Lightning

Soda Complex (continued)

The Soda Complex originally included the Mill Fire and Monkey Rock fires (CA-MNF-000645) that were started by lightning on June 21. On June 25, Northern Rockies IMT was assigned to the Soda Complex and the Big and Back Fires were incorporated. The Mill Fire entered the Sanhedrin wilderness on July 1. The Monkey Rock Fire that was burning completely within the Yuki Wilderness, though not staffed, was monitored by air.

On July 11, the firefighters were forced to disengage from the Mill Fire due to conflicts with marijuana growers. Conflicts continued and by July 13, armed and uniformed law enforcement officers were needed to mitigate threats against fire crews to provide for safety on the fireline due to illegal marijuana cultivation in the fire area.

On July 14, Unified Command was established for the Mill fire. Air resources from the MEU complex

assisted with containment of a sloop over. Unified Command with USFS and CAL FIRE was established on July 15 and remained in effect until July 25.

There were 7 injuries reported on the Soda Complex. On June 26, a contract crewmember burned the palm of his hand during suppression of the Back Fire. On the evening of June 27 a crew member's eye was injured. On June 28, a vender's delivery vehicle had an accident and the driver received medical attention. On July 9, a crewmember sprained his back and received a doctor recommendation for 4 days of light duty. Injuries were also reported on July 16, July 18, July 19, but were not described.

The primary values at risk in the Soda Complex were 7 structures adjacent to the Mill Fire, various heritage sites, spotted owl activity centers and wilderness values. The Soda Complex was fully contained on July 26 at 8,652 acres.

TCU Lightning Complex

STATISTICS

Number of Fires: 12
Major Fires: None
Affected Communities:
Big Trees State Park

Agencies in Command: CAL FIRE
Teams Assigned: CAL FIRE's
Tuolumne-Calaveras Unit (TCU)
Start Report Date: 6/21
Containment Date: 6/22

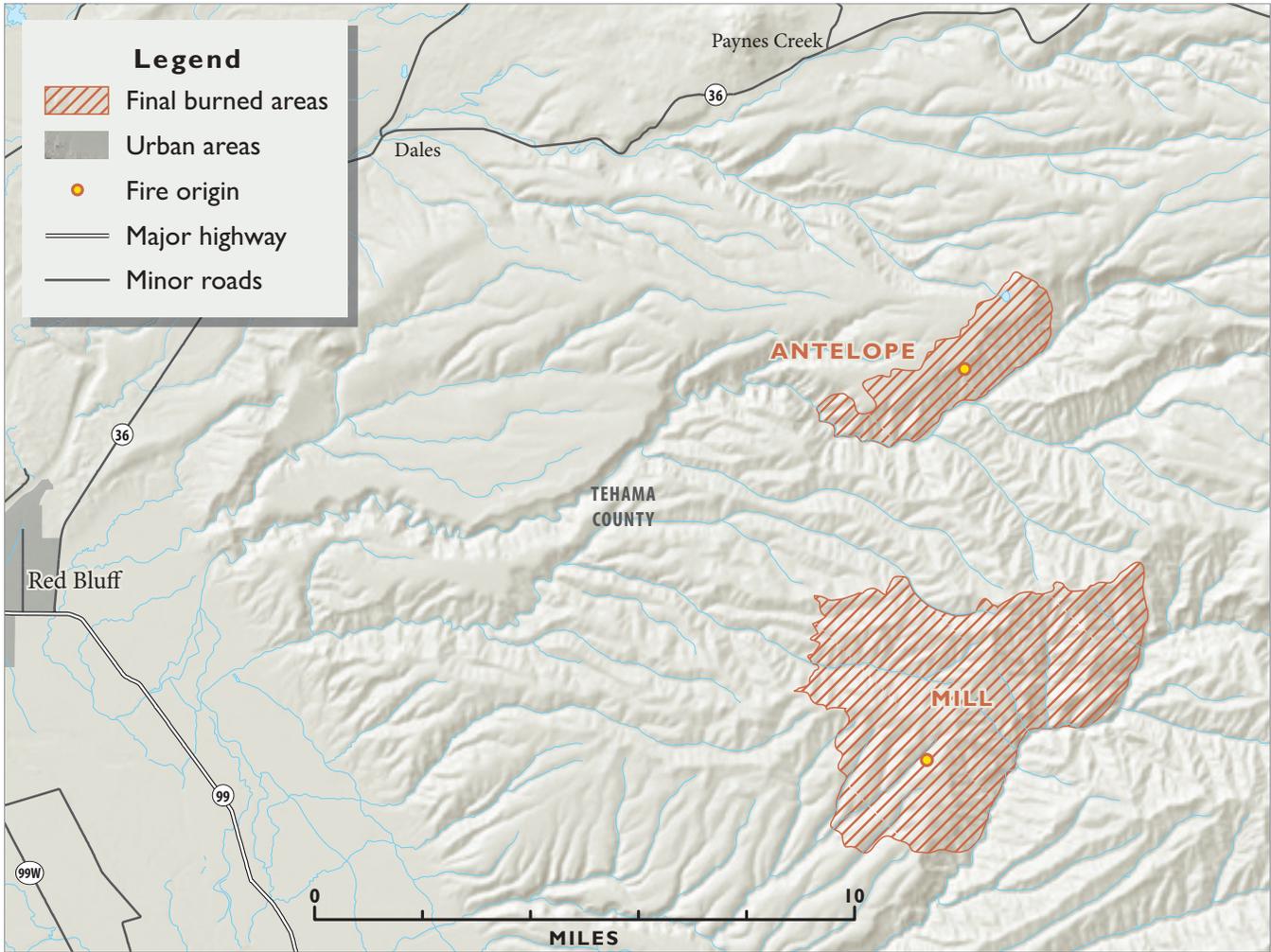
Total Acres: 133 acres
Direct Fire Suppression Costs:
Undetermined
Firefighters Assigned at Peak: 389
Structures Destroyed: 3

Fatalities: 0
Fuels: Timber and grass
Cause: Lightning

The TCU Lightning Complex consisted of 12 forest and grass fires which started as a result of the lightning storm that swept across the Sierra Nevada Mountains on June 21st. The TCU Unit quickly recognized the

need to organize into a complex, and established the TCU Lightning Complex. All of the fires were contained within two days and an additional week was required for complete control.

Tehama-Glenn Complex



STATISTICS

Number of Fires: 39
 Major Fires: Antelope, Mill, Noble,
 County: Tehama
 Affected Communities: Platina

Agencies in Command: CAL FIRE
 Teams Assigned: CAL FIRE's
 Tehama-Glenn Unit (TGU)
 Start Report Date: 6/21
 Containment Date: 7/4

Total Acres: 22,907 acres
 Direct Fire Suppression Costs:
 \$2,159,923
 Firefighters Assigned at Peak: 301

Structures Destroyed: 5
 (2 residential and 3 outbuildings)
 Fatalities: 0
 Fuels: Grass, brush, and timber
 Cause: Lightning

Tehama-Glenn Complex (continued)

By the time thunderstorms spread into the Tehama-Glenn Unit on the afternoon of June 21st, the unit had already committed a portion of its suppression resources to fires in other units. The unit coped with 34 new fires that morning and afternoon with a skeleton force of 8 state fire engines, 2 Schedule A engines, one state and two private bulldozers, three hand crews (out of 17 total normally available) and one state helicopter.

The unit lightning plan was activated, the ECC staffing was expanded, and all resources were committed to the lightning fires. An “all call” was placed to Tehama County Fire Department for all volunteer firefighters to cover their equipment. The department staffed 16 of its 19 total Type 2 and Type 3 fire engines, and 7 of its 9 water tenders for the duration of the complex. These units were assigned to the lightning fires or cover empty CAL FIRE stations for initial attack on new fires. Immediately upon completion of their training, the unit’s firefighter academy class formed into a hand crew, as most of the engines that they normally staff were out of the unit. Additional resources were provided by Sierra Pacific Industries (the major industrial timberland owner in the county).

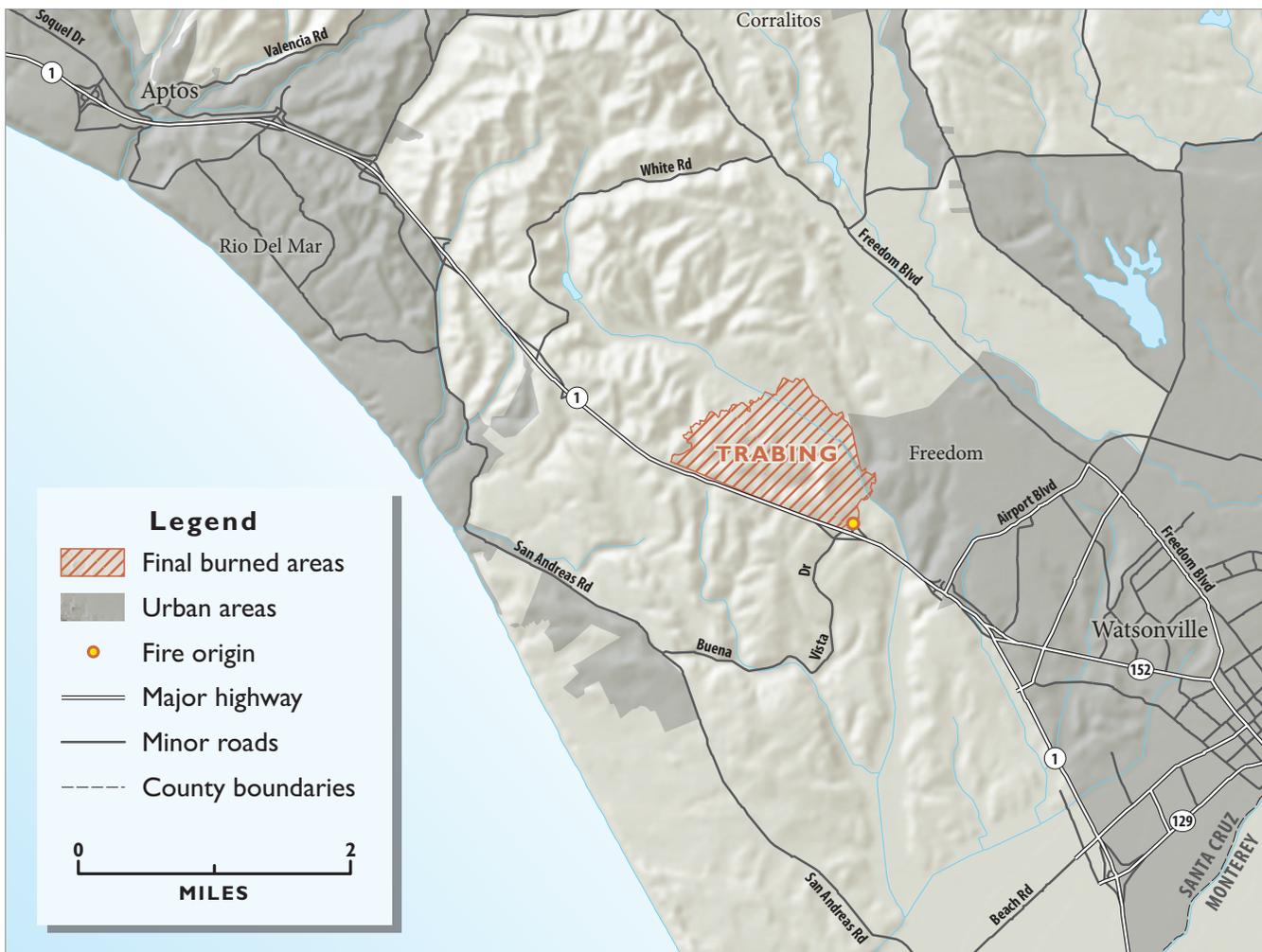
Because additional agency suppression resources were scarce and the two big fires were not threatening populated areas, the available forces were split into two 12+ hour shifts and assigned to “bump and run” or hot spotting tactics on the smaller fires. Firefighters successfully contain all but the two largest of the fires by June 24th.

The Mill Fire and the Antelope Fire are contained by June 30th, with indirect tactics included: the construction, burning out and holding of seven miles of fireline from Antelope Creek to Highway 36 use of total force of two private bulldozers and the one firefighter hand crew. Four other bulldozers cut line around the other side of the fire and it was contained at 3,400 acres.

One of the early lightning strikes knocked out the main electrical power supply to the Emergency Command Center. Although the back-up generator came on and ran, a damaged circuit breaker remained open, causing the entire telecommunications system to run on only the battery back-up. As the power drained from the UPS batteries, the ECC began to experience the loss of its computer systems; then the telephone system failed. Cell phones were activated as a temporary measure. Then the radio console failed and the dispatchers had to resort to hand-held radios and a vehicle parked outside the window. The final blow came when the computer-aid dispatch system failed. It took an hour to diagnose and correct the electrical failure.

The unit made multiple major commitments of resources, especially fire engines for structure protection, to the Noble Fire burning in the Shasta-Trinity National Forest near Platina over a period of about two weeks. The TGU Complex was contained on July 4, 2008 at 22,907 acres.

Trabing Fire



STATISTICS

County: Santa Cruz
 Affected Communities: Watsonville, Aptos, and Corralitos

Agencies in Command: CAL FIRE
 Teams Assigned: CAL FIRE
 Start Report Date: 6/20 1:58 p.m.
 Containment Date: 6/22/2008
 Total Acres: 630 acres

Direct Fire Suppression Costs: Unknown
 Firefighters Assigned at Peak: 645
 Structures Destroyed: 75 (26 residential and 49 outbuildings)

Fatalities: 0
 Fuels: Eucalyptus, grass and brush
 Cause: Under investigation

Trabing Fire (continued)

The Trabing Fire was reported at 1:58 p.m. on June 20th, just north of Watsonville along Highway 1. Hot particles from a vehicle exhaust caused five starts along Highway 1 over a $\frac{3}{4}$ mile stretch just north of the Buena Vista Rd. exit. These fires moved rapidly into a large eucalyptus grove, merged, and consumed 630 acres before being contained on June 22nd.

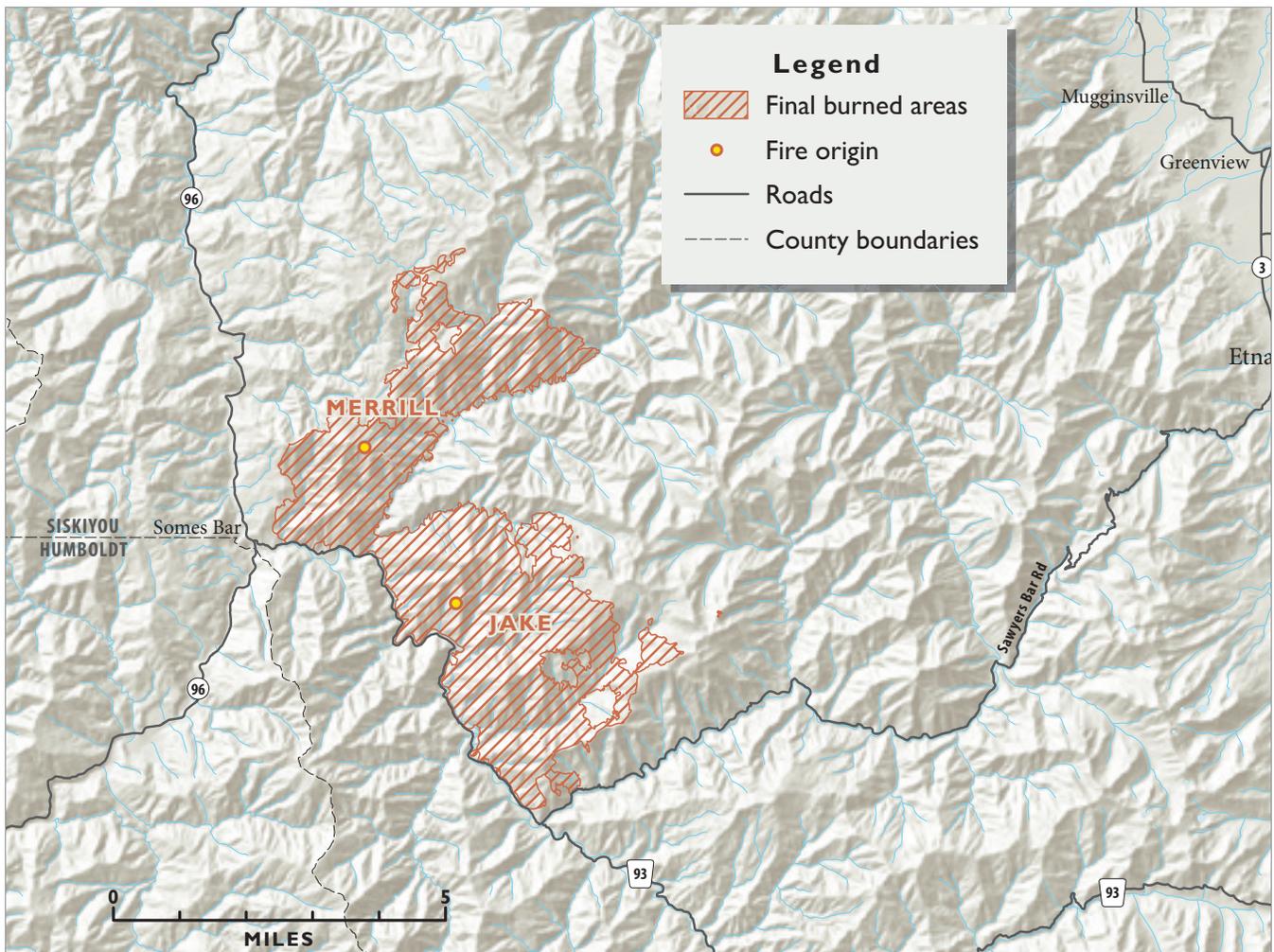
The weather was unseasonably hot and dry with the relative humidity in the low teens. The marine layer was absent. At the fire's peak 90 engines, 12 handcrews, 4 bulldozers, 9 water tenders, 6 air tankers, 4 helicopters, and 20 overhead were assigned.

During the fire, an estimated 2,000 people were evacuated, along with 220 horses and livestock and 50 small domestic animals. The Trabing Fire destroyed

26 residential structures, 49 outbuildings, and 44 vehicles. Twelve other residences were damaged and 89 others were seriously threatened. When the Trabing fire started the local Unit still had resources assigned to the Summit and Martin Fires.

During mop-up of the Trabing Fire on June 21st command staff on the incident was advised of a lightning storm approaching off the Pacific Ocean with Lightning Activity Levels of 5-6. Around 1 p.m., storm cells crossed the incident, resulting in two $\frac{1}{4}$ acre lightning fires within one mile of the Trabing Incident. A water spout was observed near the Santa Cruz pier. The June 2008 siege was beginning.

Ukonom Complex



STATISTICS

Number of Fires: 9

Major Fires: Jake, Merrill, Mountain, Haypress, Blue Fire

County: Initially reported as Humboldt; beginning 7/1 reported as Siskiyou

Affected Communities: Orleans, Some Bar, Oak Bottom, Camp 3 Rd., Salmon River, Forks of Salmon, and Pollacks Subdivision

Agencies in Command: USFS

Teams Assigned: USFS – T-2 (Lund); ORCA T-2 (Paul); CIIMT 5, (Dietrick); Alaska T-1 (Wilcocks);

FUMT (Beckman); NIMO, (Gage under Klamath Theatre).

Start Report Date: 6/20 12:00 a.m.

Containment Date: 11/5

Total Acres: 58,871

Direct Fire Suppression Costs: \$25,757,622

Firefighters Assigned at Peak: 727 on 7/20

Structures Destroyed: 0

Fatalities: 0

Fuels: Timber, logging slash, brush, snow damage and wind throw

Cause: Lightning

The Ukonom Complex started during the June 20th storm in the Some Bar area of the Six Rivers National Forest as 9 lightning fires. Six fires remained active in steep terrain and heavy fuel threatening structures, important cultural resources, and local fisheries.

By June 26th, several fires merged and the Ukonom Complex consisted of three fires: Jake Fire (combination of Portuguese and Jake fires), Merrill Fire (combination of the Mountain, Haypress, and Merrill fires), and the Blue Fire. The complex was

Ukonom Complex (continued)

reported at 4,100 acres and 3% contained. Firefighting resources concentrated on the Blue Fire. An archeologist assisted the Heritage Resource Advisor in identifying important cultural resources for protection.

On July 1st the Ukonom complex, at 6,358 acres and 5% contained, posed several social, economic, and cultural risks. The fires were threatening important Native American cultural and spiritual areas including the only known fully intact Karuk spiritual site. The fires also threatened historic structures including the Wooley Creek cabins (used by President Hoover), Forest Service recreation and administrative sites at Oak Bottom, anadromous fisheries and spawning grounds along Wooley Creek and the Salmon River, and the Marble Mountain wilderness. Fire managers anticipated increased public exposure due to the opening of gold dredging on the Salmon River. A new fire in the area, the Crapo Fire, had still not been located. On July 6, IMT 2 (Svalberg) took over the Blue Fire, now called Blue 2.

Red Flag Warnings for hot, dry conditions combined with strong down canyon winds to increase fire spread were issued for July 8th. The Merrill and Jake fires were expected to merge at the confluence of the Salmon River and Wooley Creek. There was heightened concern on behalf of residents in Salmon River drainage as fire moved down to the river with a 6 mile wide front.

A new incident management team assumed command of the Blue Fire within the Ukonom Complex. The name of the fire changed to the Blue 2 Fire. This 1,090 acre fire was located in a remote area 15 miles southeast of Gasquet and was 8% contained. Several forest roads

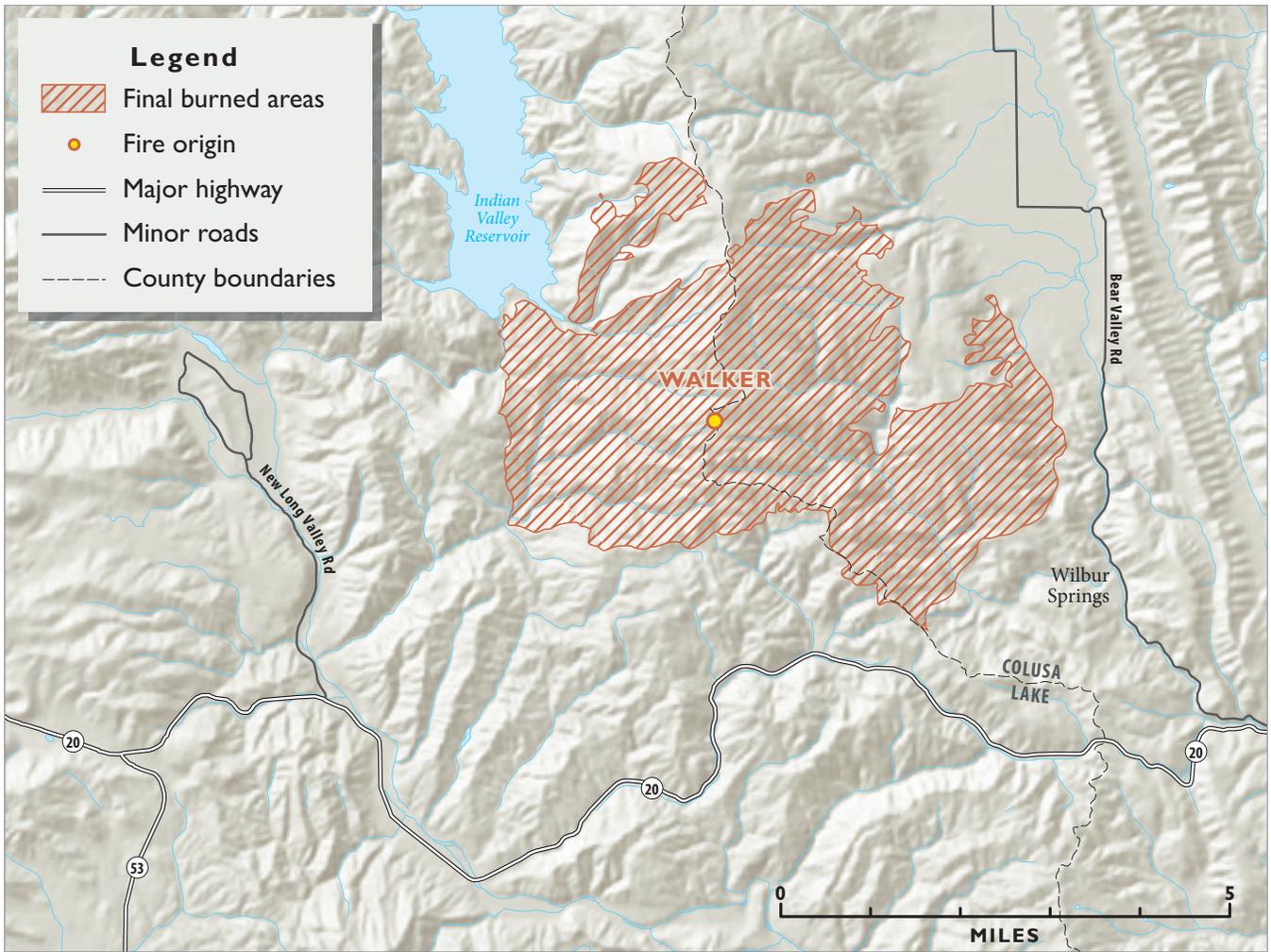
and trails were closed for public safety. July 11, IMT T-2 (Paul) assumed command.

By July 14th, the Merrill and Jake fires had merged with 22,000 acres burned and 22% containment. Very dry fuel and extreme temperatures continued to increase fire spread into critical areas toward the Bear Wallow Complex. The two complexes were separated by only 6 miles. Coordination and sharing of resources occurred among the Bear Wallow, Blue 2, Siskiyou, and Ukonom complexes.

On July 26th the Ukonom Complex threatened 45 residences and 58 outbuildings which prompted a voluntary evacuation of the Forks of the Salmon and Pollacks subdivisions. Also at risk were the Forest Service compound at Oak Bottom, the main telecommunication radio facility for the area, Native American cultural and religious sites, Wild and Scenic Rivers corridor, old growth timber, and anadromous fisheries habitat.

On August 1, a sunrise memorial service honoring Chief Daniel Packer who perished while assigned to the Panther Fire was held at the Ukonom Complex Incident Command Post in Orleans. By August 6th the Ukonom Complex had burned 47,728 acres and was 81% contained. The fire line construction was complete and burnout operations were continuing to secure the line. On August 16th, the northern portion of the Ukonom Fire (north of Wooley Creek) was transferred to the Panther Fire. The portion of the fire south of Wooley Creek was referred to as Ukonom-South. The Ukonom-South was 100% contained on 11/5/2008.

Walker Fire



▼ Clearlake

STATISTICS

County: Lake
 Affected Communities:
 Double Eagle Ranch subdivision,
 Wilbur Hot Spring Resort

Agencies in Command: CAL FIRE
 Teams Assigned: CAL FIRE ICT #3
 (Morris)
 Start Report Date: 6/22 4:20 p.m.
 Containment Date: 6/28

Total Acres: 14,500
 Direct Fire Suppression Costs:
 \$3,617,769
 Firefighters Assigned at Peak:
 Structures Destroyed: 0

Fatalities: 0
 Fuels: Grass, brush, and woodland

Walker Fire (continued)

The Walker Fire was reported on the afternoon of 6/22/2008, and when Copter-104 arrived a few minutes later it was already about 500 acres with a rapid rate of spread and long-range spotting in heavy brush. Initial resources tried to cut off the fire by burning out along Walker Ridge Road, but the fire jumped the road at about 6:30 p.m. and headed toward Bear Valley Road. Air tankers were released early at about 7:00 p.m. due to ineffectiveness and the inability of ground crews to follow up the retardant drops in the heavy brush. By nightfall, the fire was well over 2,000 acres.

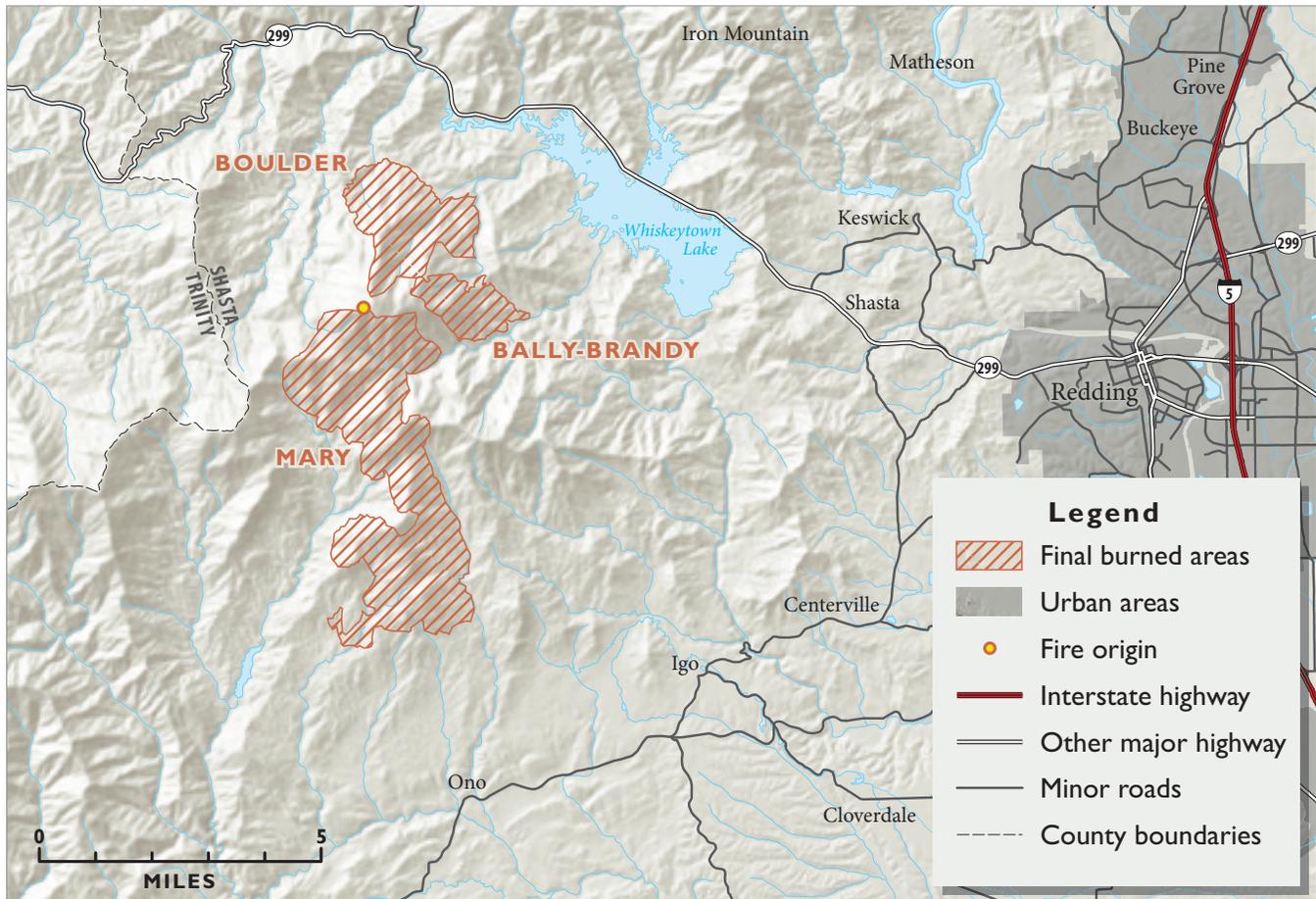
The Walker Fire threatened a subdivision, scattered residences, the Wilbur Hot Springs Resort, numerous mountaintop communications towers, high-capacity electric transmission lines, and the control facilities for the dam at Indian Valley Reservoir. Numerous environmentally sensitive areas were also threatened. The fire burned primarily on BLM lands, some of which were under lease for a wind power development project.

By the next morning the fire reached about 8,000 acres, with limited resources available. Line construction efforts were limited to burning out along existing roads. The weather continued to be hot and dry, with a southwest wind.

CAL FIRE's Incident Command Team 3 redeployed from the Wild Fire to the south and assumed command of the fire on Wednesday morning. On Thursday, additional fire engines and bulldozers arrived, and firefighters were successful in keeping the fire north of Highway 20. On Friday, the wind shifted from the northeast, aiding the firefighters building direct line on the north side of the fire. Evacuation orders were lifted for the Double Eagle Subdivision and the Wilbur Hot Spring Resort. By Friday night, the situation allowed for only a small contingent of engines to patrol the perimeter, as the other resources were finally able to get some rest.

At its peak, the Walker Fire had 66 fire engines, 27 bulldozers, 19 hand crews, 17 water tenders, 8 helicopters, and four fixed-wing aircraft assigned. The fire was contained on 6/28/2008.

Whiskeytown Complex



STATISTICS

Number of Fires: 5

Major Fires: Mary Fire, Bally Fire, Boulder Fire, Brandy Fire

County: Shasta

Affected Communities: Igo, Ono, Shasta, Redding
 Agencies in Command: NPS, Whiskeytown National Recreation Area (WNP)
 Teams Assigned: T-3 (Chapman/Robb), NR T-2 (McNitt)

Start Report Date: 6/21 0600 hrs.

Containment Date: 7/14

Total Acres: 6,240 acres

Direct Fire Suppression Costs: \$9,400,000

Firefighters Assigned at Peak: 448

Structures Destroyed: 0

Fatalities: 0

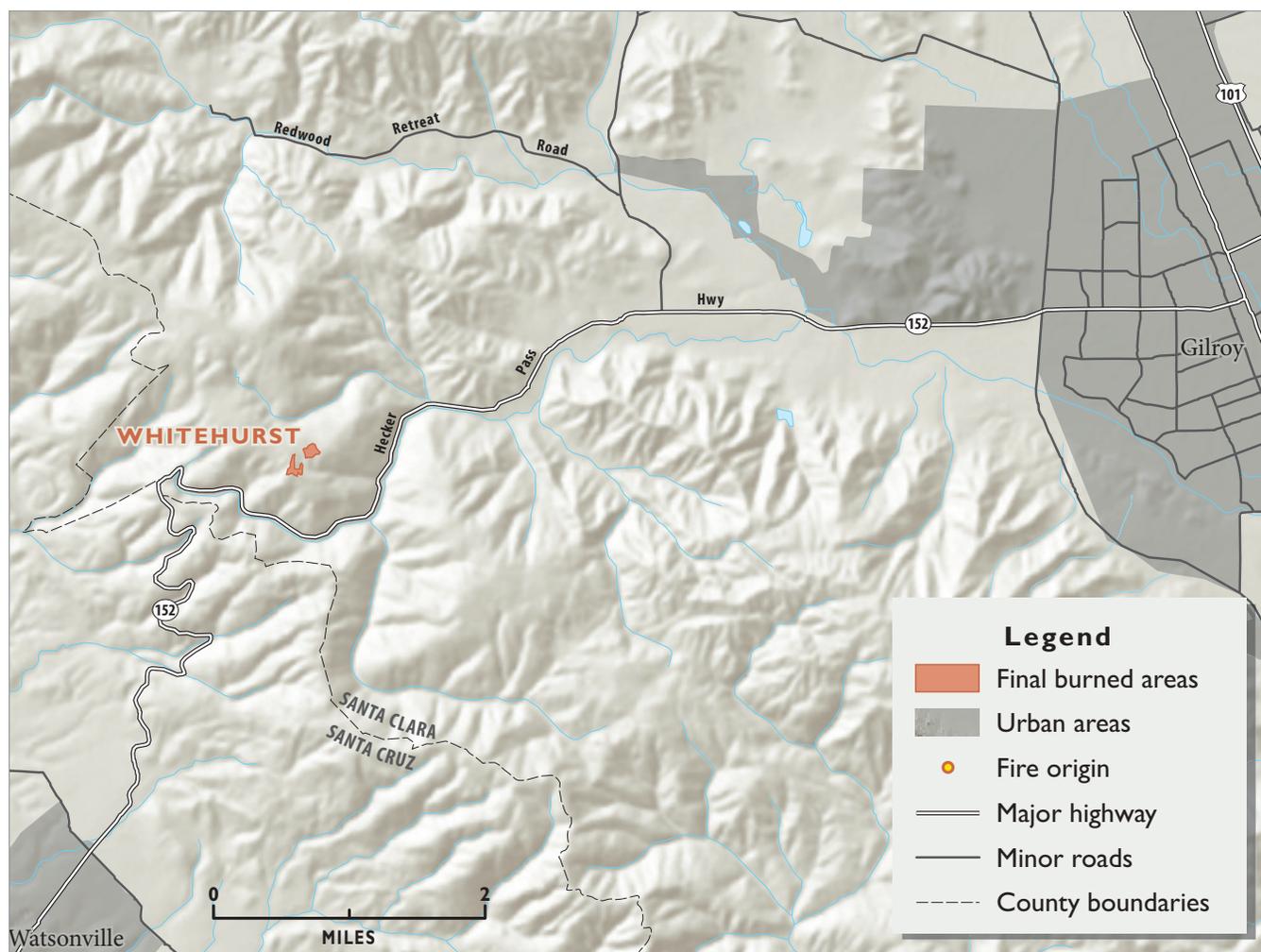
Fuels: Timber, & brush

Cause: Lightning

The Whiskeytown Complex threatened commercial communications towers and associated infrastructure on Shasta Bally. These towers are used by television, radio, numerous public and private agencies, and for two-way radio communications in the Redding area. The WAPA high voltage transmission lines, primary power supplies for northern California, were also threatened. Managing fire around power lines created safety and operational challenges. A power line arcs

when retardant is dropped on it, shutting down power to communications facilities. Evacuations occurred along Whiskey Creek Road and Highway 299 was temporarily closed. By July 1, several fires had nearly burned together, to form the Whiskeytown Fire and merged with the Moon Fire in Shasta Lightning Complex. Beginning July 10, the fires were known as the Whiskeytown Complex.

Whitehurst Fire



STATISTICS

County: Santa Clara
Affected Communities:
Gilroy and Watsonville

Agencies in Command: CAL FIRE
Teams Assigned: CAL FIRE
Start Report Date: 6/21 1:57 p.m.
Containment Date: 6/24

Total Acres: 200 acres
Direct Fire Suppression Costs:
\$380,000
Firefighters Assigned at Peak: 265

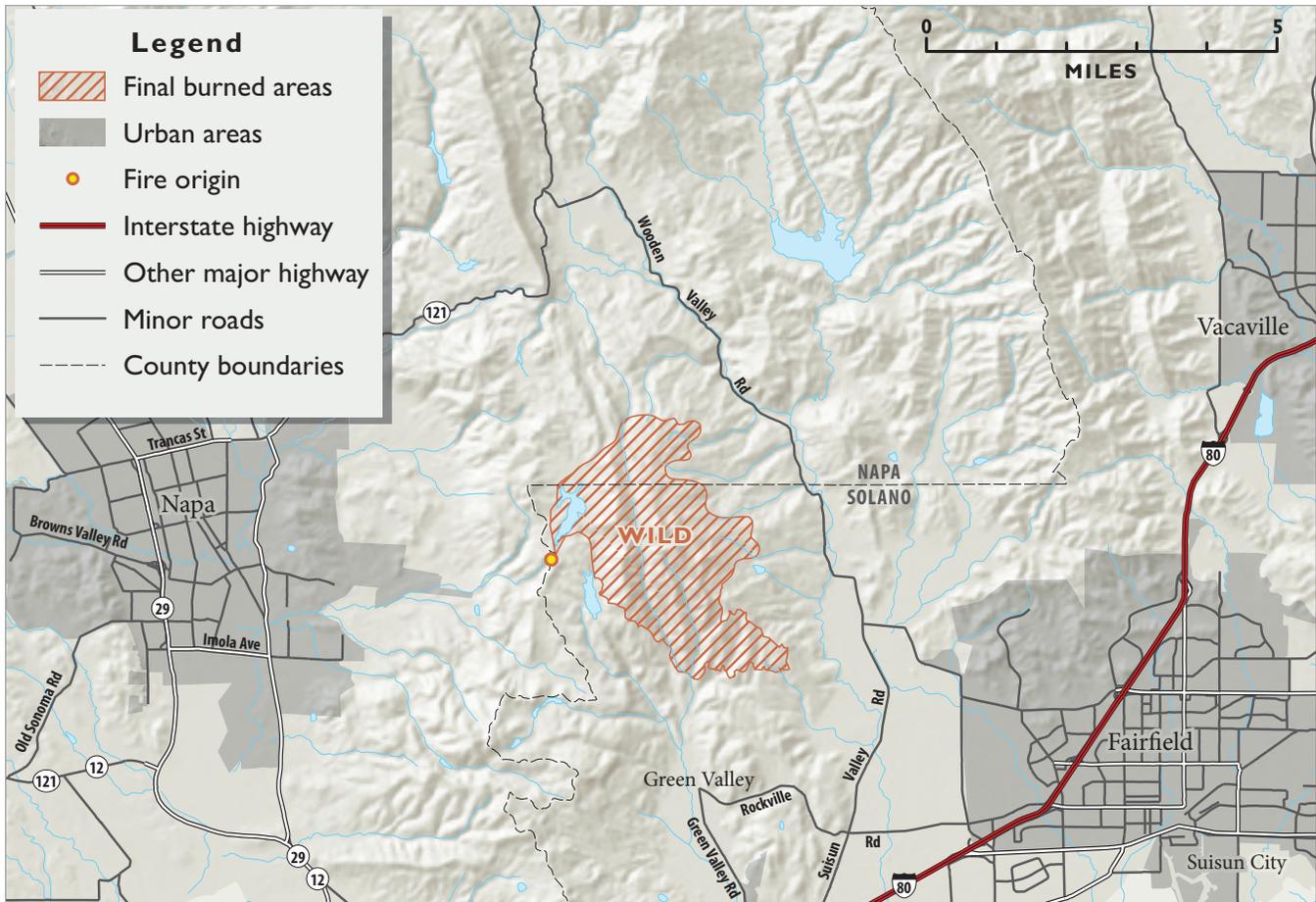
Structures Destroyed: 0
Fatalities: 0
Fuels: Brush, and timber
Cause: Lightning

The Whitehurst fire was west of Gilroy and North of Highway 152, burning heavy brush and redwood timber and threatening Mt. Madonna County Park. The fire had the potential to burn several thousand acres. The vegetation and conditions were similar to those during the Summit Fire that burned at the end of May. Smoke was visible from Highway 152 (Hecker Pass) slowing traffic. Highway 152 was heavily used by commuter

route, connecting the Silicon Valley and Gilroy, to western Monterey and southern Santa Cruz Counties.

The arrival of additional hand crews and engines enabled fire personnel to limit the fire to 200 acres. Highway 152 re-opened to residents with ID on June 23rd, and opened to all traffic with full containment on the morning of June 24th.

Wild Fire



STATISTICS

County: Napa

Affected Communities:

Wooden Valley Rd, Suisun Valley,
and Green Valley

Agencies in Command: CAL FIRE

Teams Assigned: CAL FIRE ICT #3
(Morris)

Start Report Date: 6/21 4:00 p.m.

Containment Date: 6/25

Total Acres: 4,089 acres

Direct Fire Suppression Costs:
\$1,243,265

Firefighters Assigned at Peak: 540

Structures Destroyed: 1

(outbuilding)

Fatalities: 0

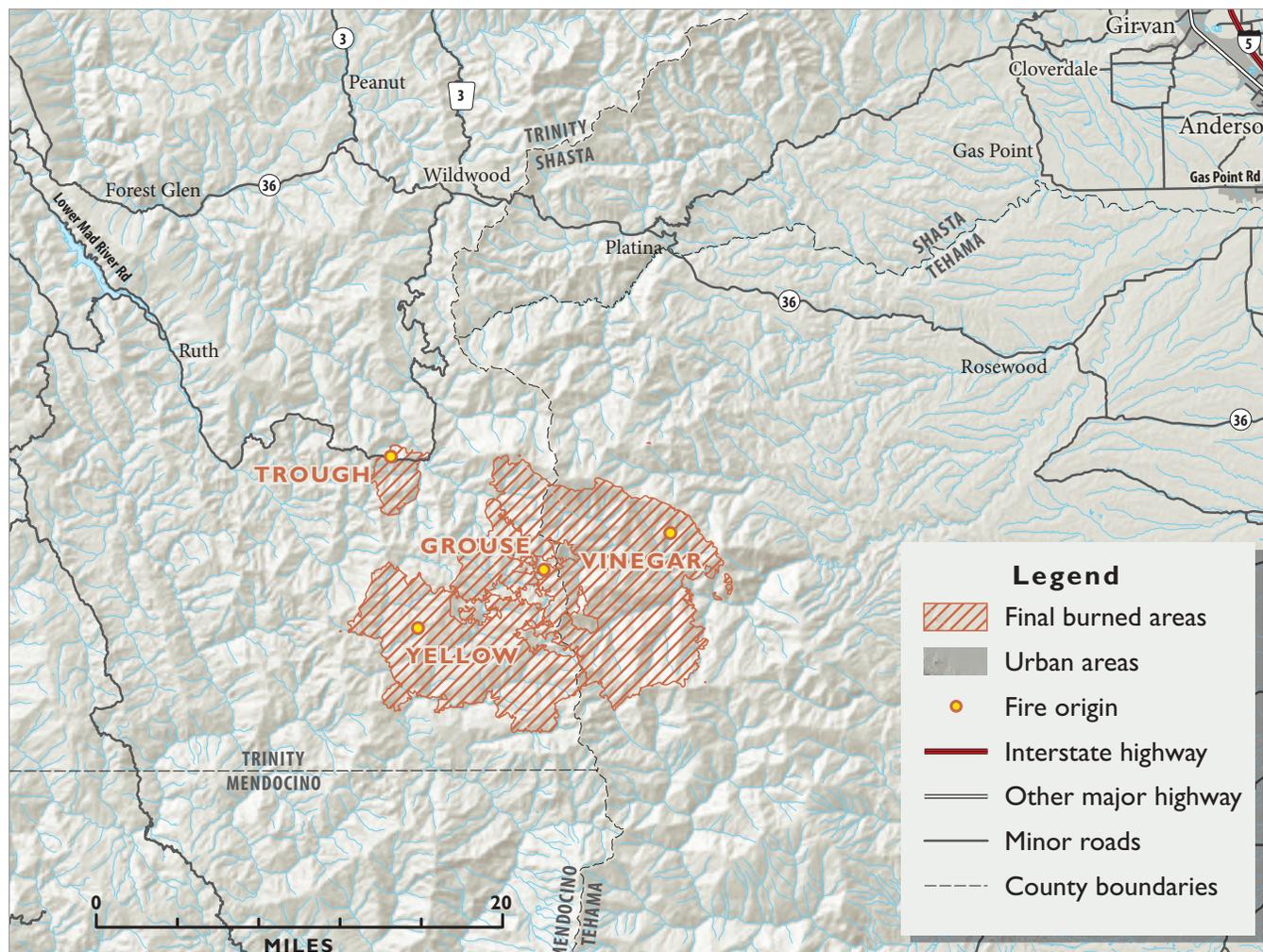
Fuels: Brush, woodland and grass

Cause: Under investigation

As initial attack forces arrive, the Wild Fire was spreading rapidly through light fuels around Wildhorse Valley Road. The fire jumped Lake Madigan, burned in multiple directions with erratic gusty winds. The fire was spotting up to $\frac{1}{4}$ mile ahead of the fireline. Retardant drops from four air tankers were ineffective due to the winds. Firefighters kept the fire out of the Wildhorse subdivision. By midnight the fire was over 1,000 acres and had spread into difficult terrain.

On Sunday, June 22, erratic winds spread the fire to the east and south. Tanker 910 (the DC-10) was instrumental in helping firefighters keep fire out of the heavily populated Green Valley area. Progress slowed on Monday as the lack of reinforcement's forced firefighters to split into two shifts to provide rest. The winds died down on Tuesday. Hand and dozer lines were established around the southwest side of the fire. The Wild Fire was contained June 25, and all resources were redeployed north to the Walker Fire.

Yolla Bolly Complex



STATISTICS

Complex Fire #: CA-MNF-000663

Number of Fires: 24

Major Fires/Containment Date/Acres:

Yellow	8/20	32,250
Vinegar	8/20	47,802
Grouse	8/20	6,246
Trough	7/21	3,696

County: Mendocino, Tehama & Trinity

Affected Communities: Unknown

Agencies in Command: USFS; T-2

IMT (Harvey); T-1 IMT (Wilcocks);

Northern Rockies IMT T-1 (Larsen);

Rocky Mtn IMT T-2 (Blume);

Eastern Great Basin Team T-3 (Lund)

Start Report Date:

6/21 0600 hrs.

Containment Date:

8/19 1830 hrs 100%

Total Acres: 89,994

Direct Fire Suppression Costs:

\$16,100,000

Firefighter Assigned at Peak:

570 – 7/11/08

Structures Destroyed: 0

Fatalities: 0

Fuels: Brush, oak woodland, grass & timber

Cause: Lightning

The Yolla Bolly Complex started during the lightning storm on June 21. Initially called the MNF ABCD June Lightning Complex, the Yolla Bolly Complex was managed as part of the Lime Complex from July 11 through July 24. On July 14 the Iron, Wilderness and Harvey fires from the Lime complex merged with the Vinegar Fire. On July 25 at the Lime Complex and Yolla Bolly Complexes were separated and the Yolla Bolly Complex includes the Yellow, Vinegar, Trough and Grouse Fires. The jurisdictions within the Yolla Bolly Complex included the Mendocino NF, Shasta-Trinity NF, Six Rivers NF, California state lands, private inholdings, and the Bureau of Land Management. Much of the complex

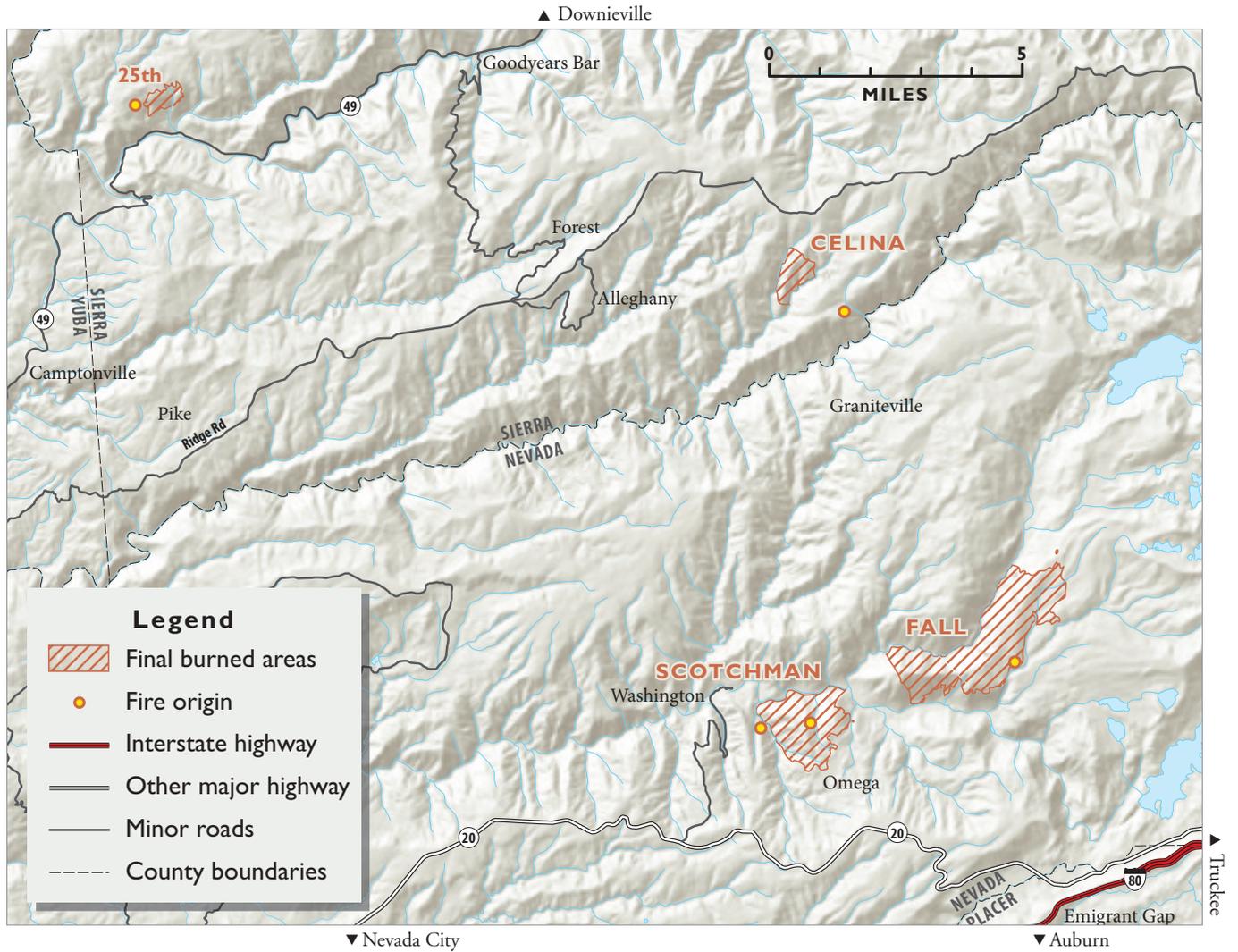
burned in or near wilderness, which required an operation with numerous spike camps.

The steep and inaccessible terrain with limited safety zones required most operational resources to be worked out of remote spike camps and communications with ICP were a challenge.

The Martin Mars was used for water drops and this complex also received assistance from the National Guard MAFFS.

Values at risk included spotted Owl habitat, steelhead trout/salmon fisheries, sensitive plant species, cultural sites, and wilderness values.

Yuba River Complex



STATISTICS

Number of Fires: 13

Major fires/Containment Date/Acres:

Scotchman 7/3 1,230

Fall 7/15 2,420

County: Yuba, Nevada, Sierra

Affected Communities:

Washington, Fuller Lake, Bowman,

Cal Ida, Graniteville, and Rucker

Agencies in Command: USFS

Teams Assigned: USFS, Tahoe

National Forest (TNF),

T2 IMT (Joseph)

Start Report Date: 6/21 2:00 p.m.

Containment Date: 7/15/2008

Total Acres: 4,254 acres

Direct Fire Suppression Costs:

\$7,500,000

Firefighters Assigned at Peak: 772

Structures Destroyed: 0

Fatalities: 0

Fuels: Timber, and brush

Cause: Lightning

The Yuba River Complex started as a series of fires ignited by the June 21 lightning storm 15 miles northeast of Nevada City, in Sierra County. The complex included the 25, Omega I, Omega II, Scotchman, Fall, Celina, Gaston, Clear and Deer Fires, plus four fires that are were contained at 3 acres or less.

Within 24 hours the Yuba River Complex was reported at 590 acres with extremely active fire behavior. Summer home tracts and residences were evacuated in the Fall Fire and Scotchman Fire area. The communities of Fuller Lake, Bowman, Cal Ida, Graniteville and Rucker as well as power infrastructure (PG and E) and Nevada Irrigation District (NID) property were threatened. Contingency plans were developed to evacuate the town of Washington. Road closures included Bowman Rd from Highway 20 and FS25 Rd to Cal Ida from Highway 49. On June 27 there was a Red Flag warning for dry lightning.

June 28 the Yuba River Complex was estimated at 3,169 acres and 57% containment. Firefighters had

already contained nine of the fires. The Scotchman and Fall Fires were spreading into areas that could allow them to become “summer long campaign fires” that burned thousands of acres of prime public and private forestlands, and damaged miles of critical habitat and watershed.

By July 1, at 3,579 acres and 61% contained, the smoke from this complex continued to pose a public health hazard to local communities. High-use camping and recreational areas were closed through the 4th of July weekend, which impacted the local tourist-based economy. The Fall Fire reached the Canyon Creek area and threatened historic sites, homes, and active mining operations. Weight limits on the bridge prevented access to fire engines. Crews hiked in and established hose lays with portable pumps to protect these sites. Helicopters slowed fire spread and minimized fire growth. On July 5 the Yuba River complex, at 3813 acres and 95% contained, was transitioned from T2 IMT (Joseph) back to the local unit.



Executive Orders

Executive Orders S-03-08

WHEREAS last year California experienced devastating wildfires that destroyed lives, property, businesses, and the environment and resulted in the largest deployment of firefighting resources and the highest number of evacuations in state history; and

WHEREAS this year, California once again finds itself facing an imminent threat of devastating wildfires and imminent peril to people and property; and

WHEREAS the number of dead, dying and diseased trees continues to increase as a result of bark beetle infestation in Southern California, providing a readily available fuel load which creates an imminent threat of catastrophic fires; and

WHEREAS current below-normal precipitation, seasonally higher-than-normal temperatures, strong winds, and low relative humidity have contributed to heavy fuel loads and the early drying of wildland vegetation; and

WHEREAS reductions in federal aviation assets limit federal initial attack capabilities; and

WHEREAS coordinated fire prevention, aggressive fuel reduction programs and strong initial attack resources are essential to protect people, property and the environment in California; and

WHEREAS the increased risk of catastrophic wildfires throughout California may result in harmful, secondary environmental effects, including increased emissions of air pollutants; diminished air and water quality; impacted watershed and soil stability; and compromised populations and habitats of sensitive and endangered fish and wildlife species; and

WHEREAS the increased risk of catastrophic wildfires could significantly impact state efforts to reduce greenhouse gases due to significant uncontrolled emissions of greenhouse gases caused by wildfire; and

WHEREAS immediate action is needed to respond to these conditions and to protect the people, property, economy, and environment in California.

NOW, THEREFORE, I, Arnold Schwarzenegger, Governor of the State of California, in accordance with the authority vested in me by the Constitution and statutes of the State of California, do hereby issue the following orders to become effective immediately:

IT IS HEREBY ORDERED that the California Department of Forestry and Fire Protection (CAL FIRE) shall secure and deploy additional resources that are necessary, as determined by the Director, to protect the safety of persons and property from wildfires during periods of elevated fire risk as follows:

- (A) Staff additional fire crews, fire engines, helitack crews, fire bulldozers, equipment and aviation resources as warranted based on fire threat conditions.
- (B) Assign a crew of four firefighters to selected CAL FIRE fire engines as warranted based on fire threat conditions.
- (C) Provide for immediate availability and utilization of the Supertanker aircraft.
- (D) Assign additional resources in the CAL FIRE Contract Counties as warranted based on fire threat conditions.
- (E) Coordinate with the Governor's Office of Emergency Services (OES) and the California National Guard for those military resources that may be available for assistance during emergencies in California.
- (F) Assign additional fire safe inspectors where and when beneficial to reduce fire risk, assist with fire hazard reduction, conduct defensible space inspections, and promote fire safe practices, public education and prevention programs.
- (G) Assign fire lookouts during peak fire conditions as part of CAL FIRE staffing patterns.
- (H) Increase staffing for command and control functions at CAL FIRE Unit Emergency Command Centers, Northern and Southern Operations Centers and the CAL FIRE Sacramento Coordination Center when necessary to respond to significant fire events.
- (I) Assign additional staff as necessary to provide emergency incident support and burn area emergency assessment and response activities.

IT IS FURTHER ORDERED that CAL FIRE utilize staff as necessary to support a heightened level of fire prevention public awareness and education utilizing CAL FIRE Volunteers in Prevention, Fire Safe Councils, and the Office of the State Fire Marshal.

IT IS FURTHER ORDERED that CAL FIRE develop and implement aggressive interdiction plans for the enforcement of laws regarding arson and illegal and dangerous fireworks, focusing on high traffic, high impact, high volume distribution and transportation points which may be the sources for the ignition of wildland fires in California.

IT IS FURTHER ORDERED that CAL FIRE continue, within its authority, to expedite the processing of contracts and grants of federal funds to communities, and continue to support local and regional responses to the bark beetle affected tree eradication and community emergency planning efforts.

IT IS FURTHER ORDERED that OES shall, in consultation and coordination with CAL FIRE and as fire threat conditions warrant, (a) deploy OES fire engine strike teams to ensure a substantial response capability to any wildland fire situation in California, with the costs of the deployment to be reimbursed consistent with the California Fire and Rescue Mutual Aid Plan and the California Fire Assistance Agreement, and (b) augment personnel at OES operations centers and emergency incident support teams as necessary to respond to significant fire events.

IT IS FURTHER ORDERED that the California National Guard prepare its aviation assets, and pre-position ground support equipment, as appropriate for immediate response to major wildfires and report to OES weekly on the status of all aircraft.

IT IS FURTHER ORDERED that the California Department of Corrections and Rehabilitation, including the Division of Juvenile Justice, establish the highest priority for assignment of minimum custody or camp-approved inmates and wards to Conservation Camp Fire Crews.

IT IS FURTHER ORDERED that the California Conservation Corps (CCC) report to CAL FIRE daily on the readiness of all CCC support crews for response to wildfires.

IT IS FURTHER ORDERED that OES review the preparedness of state agencies and departments to ensure readiness for response to wildfires.

IT IS FURTHER ORDERED that CAL FIRE and OES work closely with federal, state and local government agencies, bordering states, and the Mexico border states to maximize California's fire prevention and fighting capabilities and to provide appropriate reciprocal assistance when requested.

IT IS FURTHER ORDERED that, to the extent authorized by applicable law, the purchasing authority of CAL FIRE and OES (and other state agencies and departments as deemed necessary by the Director of OES) shall be raised to \$100,000 to expedite the contracts necessary to prepare and respond to emergencies during this fire season.

IT IS FURTHER ORDERED that the Department of General Services (DGS), in coordination with OES, shall establish short and long-term procurement mechanisms to secure the unique goods and services that may be required to support communities in an emergency.

IT IS FURTHER ORDERED that OES, in consultation and coordination with the California Resources Agency and the California Environmental Protection Agency, initiate preparedness and training efforts for local governments to ensure that post-fire watershed assessments, emergency protective measures, effective debris removal efforts, post-fire burn area assessments, and mitigation efforts to evaluate potential hazards, are implemented to address needed remediation.

IT IS FURTHER ORDERED that the California Environmental Protection Agency and the California Resources Agency shall oversee the Climate Action Team's development of measures for wildfire fuels reduction and biomass utilization.

IT IS FURTHER ORDERED that CAL FIRE shall provide educational information to homeowners on defensible space and California Building and Fire Codes ignition-resistant building materials, and shall develop training for defensible space inspection and building ignitability in consultation with the Department of Insurance, OES, and the Federal Emergency Management Agency (FEMA).

IT IS FURTHER ORDERED that CAL FIRE shall conduct vigorous defensible space inspections, and shall impose fines and/or liens pursuant to applicable authority if necessary.

IT IS FURTHER ORDERED that to assist landowners to meet their 100-foot defensible space requirements to reduce hazardous vegetation and landscaping, CAL FIRE, in consultation with the California Biomass/Biofuel Collaborative, may enter into contracts, agreements, and arrangements for the chipping, hauling, burning, or other methods of disposal of hazardous vegetation removed by landowners as required by Public Resources Code section 4291 and Government Code section 51182.

IT IS FURTHER ORDERED that OES shall continue to support the development of fire hazard information and shall continue to make it available to the public.

IT IS FURTHER ORDERED that OES shall assist local communities to help ensure that federal hazard mitigation grants are focused on the areas of greatest vulnerability in the Wildland Urban Interface in California.

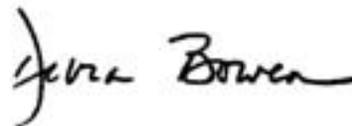
This Order is not intended to, and does not, create any rights or benefits, substantive or procedural, enforceable at law or in equity, against the State of California, its agencies, departments, entities, officers, employees, or any other person.

I FURTHER DIRECT that as soon as hereafter possible, this Order be filed in the Office of the Secretary of State and that widespread publicity and notice be given to this Order.

IN WITNESS WHEREOF I have hereunto set my hand and caused the Great Seal of the State of California to be affixed this 9th day of May 2008.



ARNOLD SCHWARZENEGGER
Governor of California



ATTEST: DEBRA BOWEN
Secretary of State

State and Federal Declarations

Federal Register Notice

Billing Code 9110-10-P

Department of Homeland Security

Federal Emergency Management Agency

[FEMA-3287-EM]

California; Emergency and Related Determinations

Agency:

Federal Emergency Management Agency, DHS.

Action:

Notice.

Summary:

This is a notice of the Presidential declaration of an emergency for the State of California (FEMA-3287-EM), dated June 28, 2008, and related determinations.

Effective Date:

June 28, 2008.

For Further Information Contact:

Peggy Miller, Disaster Assistance Directorate, Federal Emergency Management Agency, 500 C Street, SW, Washington, DC 20472, (202) 646-2705.

Supplementary Information:

Notice is hereby given that, in a letter dated June 28, 2008, the President declared an emergency declaration under the authority of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. 5121-5206 (the Stafford Act), as follows:

I have determined that the emergency conditions in certain areas of the State of California resulting from wildfires beginning on June 20, 2008, and continuing, are of sufficient severity and magnitude to warrant an emergency declaration under the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. §§ 5121-5206 (the Stafford Act). Therefore, I declare that such an emergency exists in the State of California.

You are authorized to provide appropriate assistance for required emergency measures, authorized under Title V of the Stafford Act, to save lives and to protect property and public health and safety, and to lessen or avert the threat of a catastrophe in the designated areas. Specifically, you are authorized to provide assistance for emergency protective measures (Category B), limited to direct Federal assistance, under the Public Assistance program. This assistance excludes regular time costs for subgrantees' regular employees. In addition, you are authorized to provide such other forms of assistance under Title V of the Stafford Act as you may deem appropriate.

Federal Register Notice

Billing Code 9110-10-P

Department of Homeland Security

Federal Emergency Management Agency

[FEMA-3287-EM]

California; Amendment No. 2 to Notice of an Emergency Declaration

Agency:

Federal Emergency Management Agency, DHS.

Action:

Notice.

Summary:

This notice amends the notice of an emergency declaration for the State of California (FEMA-3287-EM), dated June 28, 2008, and related determinations.

Effective Date:

July 9, 2008.

For Further Information Contact:

Peggy Miller, Disaster Assistance Directorate, Federal Emergency Management Agency, 500 C Street, SW, Washington, DC 20472, (202) 646-2705.

Supplementary Information:

The notice of an emergency declaration for the State of California is hereby amended to include the following areas among those areas determined to have been adversely affected by the catastrophe declared an emergency by the President in his declaration of June 28, 2008.

Butte, Kern, Mariposa, Mendocino, Monterey, Plumas, Santa Barbara, Santa Clara, Santa Cruz, Shasta, and Trinity Counties for emergency protective measures, (Category B), including direct Federal assistance,

under the Public Assistance program, for a period of up to 60 days beginning on June 20, 2008, and ending on August 20, 2008, or the close of the incident period, whichever occurs first.

(The following Catalog of Federal Domestic Assistance Numbers (CFDA) are to be used for reporting and drawing funds: 97.030, Community Disaster Loans; 97.031, Cora Brown Fund; 97.032, Crisis Counseling; 97.033, Disaster Legal Services; 97.034, Disaster Unemployment Assistance (DUA); 97.046, Fire Management Assistance Grant; 97.048, Disaster Housing Assistance to Individuals and Households In Presidential Declared Disaster Areas; 97.049, Presidential Declared Disaster Assistance - Disaster Housing Operations for Individuals and Households; 97.050 Presidential Declared Disaster Assistance to Individuals and Households - Other Needs, 97.036, Disaster Grants - Public Assistance (Presidentially Declared Disasters); 97.039, Hazard Mitigation Grant.)



R. DAVID PAULISON

Administrator,

Federal Emergency Management Agency

Federal Register Notice

Billing Code 9110-10-P

Department of Homeland Security

Federal Emergency Management Agency

[FEMA-3287-EM]

California; Amendment No. 3 to Notice of an Emergency Declaration

Agency:

Federal Emergency Management Agency, DHS.

Action:

Notice.

Summary:

This notice amends the notice of an emergency declaration for the State of California (FEMA-3287-EM), dated June 28, 2008, and related determinations.

Effective Date:

August 20, 2008.

For Further Information Contact:

Peggy Miller, Disaster Assistance Directorate, Federal Emergency Management Agency, 500 C Street, SW, Washington, DC 20472, (202) 646-3886.

Supplementary Information:

Notice is hereby given that the incident period for this emergency is closed effective August 20, 2008.

(The following Catalog of Federal Domestic Assistance Numbers (CFDA) are to be used for reporting and

drawing funds: 97.030, Community Disaster Loans; 97.031, Cora Brown Fund; 97.032, Crisis Counseling; 97.033, Disaster Legal Services; 97.034, Disaster Unemployment Assistance (DUA); 97.046, Fire Management Assistance Grant; 97.048, Disaster Housing Assistance to Individuals and Households In Presidentially Declared Disaster Areas; 97.049, Presidentially Declared Disaster Assistance - Disaster Housing Operations for Individuals and Households; 97.050 Presidentially Declared Disaster Assistance to Individuals and Households - Other Needs, 97.036, Disaster Grants - Public Assistance (Presidentially Declared Disasters); 97.039, Hazard Mitigation Grant).



R. DAVID PAULISON

Administrator,

Federal Emergency Management Agency

Federal Register Notice

Billing Code 9110-10-P

Department of Homeland Security

Federal Emergency Management Agency

[FEMA-3287-EM]

California; Amendment No. 4 to Notice of an Emergency Declaration

Agency:

Federal Emergency Management Agency, DHS.

Action:

Notice.

Summary:

This notice amends the notice of an emergency declaration for the State of California (FEMA-3287-EM), dated June 28, 2008, and related determinations.

Effective Date:

September 16, 2008.

For Further Information Contact:

Peggy Miller, Disaster Assistance Directorate, Federal Emergency Management Agency, 500 C Street, SW, Washington, DC 20472, (202) 646-2705.

Supplementary Information:

The notice of an emergency declaration for the State of California is hereby amended to include the following areas among those areas determined to have been adversely affected by the catastrophe declared an emergency by the President in his declaration of June 28, 2008.

Hoopa Valley Tribe and Yurok Tribe of the Yurok Reservation for emergency protective measures, (Category B), including direct Federal assistance,

under the Public Assistance program, for a period of up to 60 days beginning on June 20, 2008, and ending on August 20, 2008.

(The following Catalog of Federal Domestic Assistance Numbers (CFDA) are to be used for reporting and drawing funds: 97.030, Community Disaster Loans; 97.031, Cora Brown Fund; 97.032, Crisis Counseling; 97.033, Disaster Legal Services; 97.034, Disaster Unemployment Assistance (DUA); 97.046, Fire Management Assistance Grant; 97.048, Disaster Housing Assistance to Individuals and Households In Presidentially Declared Disaster Areas; 97.049, Presidentially Declared Disaster Assistance - Disaster Housing Operations for Individuals and Households; 97.050 Presidentially Declared Disaster Assistance to Individuals and Households - Other Needs; 97.036, Disaster Grants - Public Assistance (Presidentially Declared Disasters); 97.039, Hazard Mitigation Grant).



R. DAVID PAULISON

Administrator,

Federal Emergency Management Agency

Designated Counties for California Wildfires

Disaster Summary For
FEMA-3287-EM, California

Declaration Date: June 28, 2008

Incident Type: Wildfires

Incident Period: June 20 - August 20, 2008

Designations and Types of Assistance:

The Department of Homeland Security, Federal Emergency Management Agency (FEMA), is authorized to provide appropriate assistance for required emergency measures, authorized under Title V of the Stafford Act, to save lives and to protect property and public health and safety, or to lessen or avert the threat of a catastrophe in the designated areas with respect to (uncontained) fires existing at this time. Specifically, FEMA is authorized to provide emergency protective measures (Category B), limited to direct Federal assistance, under the Public Assistance program at 75% Federal funding.

This assistance is for the counties of Butte, Mendocino, Monterey, Santa Clara, Santa Cruz, Shasta, and Trinity.

Butte, Kern, Mariposa, Mendocino, Monterey, Plumas, Santa Barbara, Santa Clara, Santa Cruz, Shasta, and

Trinity Counties for emergency protective measures, (Category B), including direct Federal assistance, under the Public Assistance program, for a period of up to 60 days beginning on June 20, 2008, and ending on August 20, 2008, or the close of the incident period, whichever occurs first.

Hoopa Valley Tribe and Yurok Tribe of the Yurok Reservation for emergency protective measures, (Category B), including direct Federal assistance, under the Public Assistance program, for a period of up to 60 days beginning on June 20, 2008, and ending on August 20, 2008.

Other:

Additional designations may be made at a later date after further evaluation.

Decision Not to Approve New or Continued Wildland Fire Use or Prescribed Fire

File Code: 5140

Date: July 9, 2008

To: Forest Supervisors

Based on current statewide fire activity and air quality considerations in California, I have decided not to approve any new or continued Wildland Fire Use (WFU) or Prescribed Fire applications on National

Forest System lands in the Pacific Southwest Region effective immediately. This decision will remain in effect until the National, and Geographic Area, Preparedness Levels have decreased to 3 or lower.

Acknowledgements

Thank you to the entire project team for making the 2008 June Fire Siege publication possible.

A special thank you goes to Joan Steber for providing valuable guidance and advice in the publication and contracting process.

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Photos in this document are provided from agency sources unless otherwise indicated.

DESIGN

Kasman/Squillante



This document was written and printed by the California Department of Forestry and Fire Protection (CAL FIRE), the Governor's Office of Emergency Services (OES), the United States Department of the Interior (National Park Service, Bureau of Land Management, Bureau of Indian Affairs, and U.S. Fish and Wildlife Service) and the United States Department of Agriculture (U.S. Forest Service) with the in cooperation of other local, state and federal agencies. Produced in cooperation with the USDA Forest Service, which is an equal opportunity service provider and employer.