

Proceeding No.: A.15-09-_____
Exhibit No.: SDG&E-01
Witness: Schavrien

PREPARED DIRECT TESTIMONY OF
LEE SCHAVRIEN
ON BEHALF OF
SAN DIEGO GAS & ELECTRIC COMPANY

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

SEPTEMBER 25, 2015



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1 **PREPARED DIRECT TESTIMONY OF LEE SCHAVRIEN**
2 **ON BEHALF OF SAN DIEGO GAS & ELECTRIC COMPANY**

3 **I. INTRODUCTION**

4 Q. Please state your name and business address.

5 A. My name is Lee Schavrien. My business address is 8330 Century Park Court, San Diego,
6 CA 92123.

7 Q. What is your current position?

8 A. I am currently the Chief Administrative Officer of San Diego Gas & Electric Company
9 (“SDG&E”) and Southern California Gas Company, a position I assumed in June, 2015. Prior to
10 assuming that position, I served for many years in a variety of roles that involved overseeing all
11 of SDG&E’s regulatory matters before this Commission and the Federal Energy Regulatory
12 Commission (“FERC”), including as Senior Vice President of Regulatory Affairs. My
13 qualifications are set forth in Appendix 1 hereto.

14 Q. Have you previously submitted testimony before the Commission?

15 A. Yes, on several occasions.

16 **II. PURPOSE OF TESTIMONY**

17 Q. What is the purpose of your direct testimony?

18 A. I am testifying as an overview witness for SDG&E’s Wildfire Expense Memorandum
19 Account (“WEMA”) Application. Through this WEMA Application, SDG&E requests
20 authorization to recover approximately \$379 million (“WEMA Costs”). Because of SDG&E’s
21 effective cost management, the WEMA Costs represent a small portion of the asserted \$4 billion
22 in claims and the \$2.4 billion in paid claims and associated legal fees arising from three wildfires
23 – the Witch Fire, the Guejito Fire and the Rice Fire – that occurred in SDG&E’s service territory

1 in late 2007 (“Wildfire Costs”). The Commission has determined that SDG&E may file an
2 application for recovery of the amounts recorded to the WEMA, “subject to [a] reasonableness
3 review.”¹ The purpose of my testimony is to show that the WEMA Costs are appropriate for
4 recovery in rates and are reasonable and prudent.

5 Q. Why is SDG&E filing this WEMA Application at the present time?

6 A. In short, because the Wildfire Costs are now virtually certain. The Wildfire Costs were
7 incurred in connection with resolving more than 2,500 lawsuits that were filed against SDG&E
8 in San Diego Superior Court by residential property owners, commercial property owners and
9 governmental entities as a result of the Witch, Guejito, and Rice Fires (“Wildfire Litigation”).
10 To ensure the reasonableness of paid claims, the process required by SDG&E to resolve these
11 claims was complicated and lengthy, but at present, all but one of the Superior Court lawsuits
12 have settled or been dismissed. Additionally, SDG&E has recovered \$824 million as a result of
13 its now-resolved claims against third-parties and \$1.1 billion under its own liability insurance
14 coverage. SDG&E has also secured authorization from the FERC to recover a portion of the
15 Wildfire Costs. These amounts represent deductions from the total \$2.4 billion of Wildfire
16 Costs. Because the total cost and the total deductions are now virtually certain,² SDG&E can
17 now calculate the WEMA Costs.

18 Q. How is the remainder of your testimony organized?

19 A. In Section III, I provide an overview of the key issues presented by SDG&E’s WEMA
20 Application. Next, in Section IV, I provide background information that provides historical and

¹ Decision (“D.”) 12-12-029.

² As discussed by SDG&E witness Mr. Craig Gentes, the \$379 million of WEMA Costs includes estimated costs of approximately \$10 million and estimated deductions of approximately \$15 million, which, in total, reduce the WEMA Costs by \$5 million. Once those estimates become actuals, SDG&E will submit an update.

1 factual context to this application. Specifically, I discuss the 2007 wildfires and the prior
2 regulatory proceedings involving those fires that have led to this WEMA Application. In Section
3 V, I explain why the Commission should authorize SDG&E to recover the WEMA Costs in
4 rates.

5 **III. OVERVIEW OF SDG&E'S WEMA APPLICATION**

6 Q. Mr. Schavrien, please provide an overview of SDG&E's WEMA Application, including
7 the key issues presented.

8 A. The WEMA Costs resulted from SDG&E's settlement of claims asserted in the 2007
9 Wildfire Litigation. Those claims, in turn, arose from damages caused by the Witch, Guejito and
10 Rice Fires, the ignitions of which were attributed to SDG&E's facilities but which also involved
11 other factors, including extreme Santa Ana winds, communications facilities and a sycamore tree
12 limb. The magnitude of the damages caused by these three wildfires was also determined by
13 factors beyond SDG&E's control, including weather and wind conditions, as well as the
14 availability and effectiveness of San Diego County firefighting resources. The Commission
15 permits utilities to recover the prudently incurred costs of claims and suits for injuries and
16 property damages in rates as costs of providing service, and it should permit that recovery here.

17 The Commission has indicated that SDG&E's application to recover WEMA Costs
18 would be "subject to [a] reasonableness review." A reasonableness review focuses on whether a
19 utility's management was prudent in decisions or actions in which it voluntarily incurred costs,
20 based on what was known or reasonably should have been known by management at the time.
21 Reasonableness reviews typically arise in Commission actions related to utility procurement
22 decisions and decisions to take on large capital projects. It can also arise in special
23 circumstances, like a utility's decision to decommission a nuclear power plant.

1 Reports issued by the California Department of Forestry and Fire Protection (“Cal Fire”)
2 and the Consumer Protection and Safety Division (“CPSD”) (now the Safety and Enforcement
3 Decision) found that SDG&E facilities were involved in the ignition of the Witch, Guejito and
4 Rice Fires. As explained further below, SDG&E was thus required by California’s inverse
5 condemnation law to pay for damage caused by these fires. Thus, the Commission’s
6 reasonableness review of the WEMA Costs should focus on whether it was reasonable and
7 prudent for SDG&E management to: (1) undertake a rigorous process to voluntarily settle the
8 claims asserted by plaintiffs in the 2007 Wildfire Litigation, in light of the application of inverse
9 condemnation and strict liability by California courts to investor-owned utilities; (2) settle the
10 claims for reasonable amounts; and (3) institute extensive efforts to reduce the amount it seeks to
11 recover in this proceeding to a fraction of the total Wildfire Costs that were incurred. FERC has
12 conducted this same inquiry with respect to the reasonableness and prudence of the FERC-
13 jurisdictional portion of the Wildfire Costs for which SDG&E has sought recovery, and approved
14 SDG&E’s request.³ This is the appropriate inquiry here as well.

15 My testimony, along with the testimony of SDG&E witness Ms. Karen Sedgwick, shows
16 that SDG&E’s decisions regarding the settlement of wildfire claims and the mitigation of costs
17 through insurance and third party recoveries were reasonable and prudent. Mr. Craig Gentes
18 provides more detailed information about the accounting treatment of the WEMA Costs,
19 explaining the various credits and deductions that comprise those costs, including a voluntary
20 deduction of 10% that I instructed him to make.⁴ Ms. Cynthia Fang then discusses the
21 ratemaking treatment of the WEMA Costs and calculates rates based on SDG&E’s proposed

³ *San Diego Gas & Elec. Co.*, 146 FERC ¶ 63,017 (2014).

⁴ As I discuss later in my testimony, SDG&E also proposes to further reduce the WEMA Costs by crediting certain collections related to miscellaneous revenue to the WEMA each year.

1 recovery, using three amortization scenarios (six, eight, and ten years) that I asked her to present,
2 which result in monthly rate impacts for a typical non-California Alternate Rates for Energy
3 (“CARE”) residential customer of \$1.67 (six years), \$1.25 (eight years), and \$1.00 (ten years).

4 Q: Is SDG&E submitting any other testimony?

5 A: Yes. Based on prior Commission and FERC proceedings related to these fires, SDG&E
6 expects opposition to this application. Accordingly, while we believe it is not necessary for the
7 Commission to make any findings in connection with this application regarding the
8 reasonableness and prudence of SDG&E’s operations leading up to the 2007 wildfires because
9 California law holds SDG&E strictly liable for the claims, SDG&E is nevertheless submitting
10 extensive testimony regarding its operational and engineering practices and procedures in order
11 to demonstrate that SDG&E acted prudently in its operations with respect to safety, reliability
12 and cost-effectiveness under the pre-fire circumstances. Mr. Dave Geier, SDG&E’s Vice
13 President for Electric Transmission and System Engineering, is the overview witness for those
14 operational and engineering issues. His testimony is supported and supplemented by the
15 testimony of SDG&E witnesses Darren Weim, Greg Walters and Don Akau. Additionally, Mr.
16 Steve Vanderburg and Dr. Jon Peterka present testimony about the extreme winds and other
17 conditions that existed in October 2007, which were major factors in the ignition and spread of
18 the 2007 wildfires.

19 **IV. BACKGROUND**

20 **A. The 2007 Wildfires**

21 Q. Please describe the 2007 wildfires.

1 A. In late October 2007, more than a dozen major wildfires⁵ spread across Southern
2 California. According to the *California Fire Siege 2007* report released by Cal Fire and other
3 agencies, these fires were spawned by “an unusually severe fire weather event characterized by
4 intense, dry, gusty Santa Ana winds.”⁶ Thousands of homes and other buildings were destroyed,
5 and hundreds more were damaged. Hundreds of thousands of people were evacuated from their
6 homes in Southern California. The wildfires burned more than 500,000 acres. Cal Fire deemed
7 the 2007 wildfires as “unquestionably one of the most devastating wildfire events in the history
8 of California.”⁷ I was living in San Diego County at the time of these wildfires and witnessed
9 that devastation first-hand. My family evacuated our home, as did the families of many SDG&E
10 employees.

11 Q. Which of these wildfires were linked to SDG&E facilities?

12 A. Reports issued by Cal Fire concluded that two of these fires (the Witch and Rice Fires)
13 were caused by SDG&E power lines and that a third fire (the Guejito Fire) occurred when a wire
14 securing a Cox Communications’ fiber optic cable came into contact with an SDG&E power line
15 “causing an arc and starting the fire.” The CPSD also issued its own report, the “Report of the
16 Consumer Protection and Safety Division Regarding the Guejito, Witch and Rice Fires” (“CPSD
17 Report”). With respect to the Witch fire, the CPSD Report found that: “SDG&E’s 69 kV
18 overhead conductors contacted each other during Santa Ana wind conditions, starting a fire.”
19 With respect to the Guejito Fire, the CPSD Report found that “a Cox Communications (Cox)

⁵ The number of wildfires that occurred in late 2007 has been counted differently by various federal and state agencies (*e.g.*, one agency counted 17 major wildfires, while another reported 24 total fire incidents).

⁶ See Appendix 2 at 6. The Commission has previously taken official notice of this report. See D.12-01-032 at 5, n.1.

⁷ *Id.*

1 lashing wire contacted an SDG&E 12 kV conductor during Santa Ana wind conditions, starting a
2 fire.” With respect to the Rice Fire, the CPSD Report found that “[a] sycamore tree limb broke
3 and fell onto SDG&E’s 12 kV conductors during Santa Ana wind conditions, starting a fire.”

4 Q. Does SDG&E dispute that its facilities were involved in the ignitions of these three
5 wildfires?

6 A. While it is impossible to say exactly how each fire started, given that there were no
7 eyewitnesses to the ignitions, SDG&E does not dispute that its facilities were involved in those
8 ignitions.

9 Q. You mentioned that the CPSD issued a report into the fires. What happened as a result of
10 that report?

11 A. The Commission initiated Orders Instituting Investigation into each of the three fires.
12 Mr. Geier describes those proceedings in greater detail. Ultimately, SDG&E and Cox
13 Communications each entered into settlement agreements with the CPSD, which the
14 Commission approved, resolving those investigations.⁸ Among other terms of the settlement,
15 SDG&E agreed to pay \$14.75 million, and it did not admit to any violations of safety General
16 Order provisions or other statutory requirements.

17 Q. How has SDG&E reacted to the 2007 wildfires?

18 A. That is a very important subject and is treated in detail in the testimony of Messrs. Geier,
19 Weim, Walters, Akau and Vanderburg. Those witnesses discuss a host of measures SDG&E has
20 undertaken in order to lessen the risk that SDG&E facilities will be involved in the ignition of
21 future wildfires. As a member of SDG&E’s management team, I can say that minimizing fire
22 risk is a key priority of our business.

⁸ D.10-04-047.

1 **B. WEBA, Z-Factor and WEMA Proceedings**

2 Q. Please describe the Commission proceedings that preceded and led to the filing of this
3 application.

4 A. In August and September 2009, SDG&E made three related filings at the Commission.
5 First, jointly with Southern California Gas Company, Southern California Edison Company, and
6 Pacific Gas & Electric Company (“Utilities”), SDG&E filed a Wildfire Expense Balancing
7 Account (“WEBA”) application, proposing a new framework and mechanism for future recovery
8 of all wildfire-related expenses for claims, litigation expenses and insurance premiums in excess
9 of amounts authorized by the Commission for recovery in distribution rates (A.09-08-020).

10 Second, SDG&E filed an application for authorization to recover unforeseen liability
11 insurance premiums and deductible expense increases as a Z-Factor event (A.09-08-019). Z-
12 Factor mechanisms allow utilities to adjust their rates for unexpected and uncontrollable events.
13 In December 2010, the Commission granted (with modifications) SDG&E’s Z-Factor
14 application.⁹

15 Third, SDG&E filed an advice letter requesting approval to establish a WEMA (Advice
16 Letter 2109-E), as did the other Utilities, by separate letters. As explained in those advice letters,
17 the establishment of a WEMA was necessary so that the Utilities could record the wildfire costs
18 prior to any decision on the WEBA. In July 2010, in Resolution E-4311, the Commission
19 approved the establishment of a WEMA for each of the Utilities, but required several
20 modifications.¹⁰

⁹ D.10-12-053 (as modified by D.11-12-023).

¹⁰ Specifically, the Commission directed the Utilities to: (1) record the same wildfire costs in the WEMA as they proposed to record in the WEBA, except for financing costs; (2) treat the recovery of costs as dependent on a Commission decision in the WEBA proceeding; (3) use a separate tariff section to address disposition of costs recorded in the WEMA; (4) include in the WEMA tariffs a credit for any

1 In December 2012, the Commission denied the WEBA application, finding that the
2 application did not present financial or operational incentives for management to reduce the risk
3 of wildfires, such that ratepayers remain subject to limitless potential liability for uninsured
4 damages to third parties.¹¹ This rationale does not apply to this Application since the amount of
5 the liability related to the 2007 wildfires is now known, and since SDG&E has taken extensive
6 measures to reduce the risk of wildfires, as discussed by Mr. Geier and recognized by the
7 Commission.¹² Moreover, in denying the WEBA application, the Commission specifically
8 allowed SDG&E to maintain the WEMA and to later seek recovery of amounts recorded to the
9 WEMA, “subject to [a] reasonableness review.”¹³

10 **V. JUSTIFICATIONS FOR WEMA COST RECOVERY**

11 Q. Why should SDG&E be permitted to recover the WEMA Costs in this proceeding?

12 A. The Commission should permit SDG&E to recover the WEMA Costs for several
13 important reasons.

14 First, under basic principles of utility regulation, the WEMA Costs are costs of the utility
15 business and, as such, are appropriate for recovery in rates. The Commission generally permits

wildfire costs recovered through revenues authorized by FERC; (5) use the three month commercial paper rate for interest on WEMA balances, and not include incremental debt/equity costs; and (6) include credit entries on their WEMAs for any wildfire costs recovered through the Z-Factor mechanisms. SDG&E filed Advice Letter 2109-E-A in response to Resolution E-4311, which the Commission found to be in compliance with that resolution.

¹¹ D.12-012-029.

¹² In the Z-Factor proceedings I discussed above, the Commission has repeatedly recognized that “SDG&E actively took steps to improve its risk profile, including expanding its existing ‘Community Fire Safety Program’ to further reduce the likelihood of strong winds causing power line fires.” Resolution E-4484 at 18; *see also* D.10-12-053 at 36-37; and Resolution E-4450 at 16. Those steps have only increased since that time.

¹³ D.12-012-029 at 19, OP 3.

1 recovery of the costs of claims and suits for injuries and property damages, and it also permits
2 recovery of costs related to natural disasters.

3 Second, in light of the application of inverse condemnation and the accompanying strict
4 liability standard to SDG&E in the 2007 Wildfire Litigation, SDG&E's decision to pursue
5 settlement of the claims was reasonable and prudent, as was the settlement process itself and the
6 final cost. Thus the WEMA Costs were reasonably and prudently incurred.

7 Third, SDG&E has taken reasonable and prudent steps to reduce or mitigate the amount
8 of costs to be recovered in this proceeding – through insurance, recoveries from other third
9 parties, and voluntary shareholder contributions. These steps, and recovery of amounts allocated
10 to FERC, have reduced the costs SDG&E now seeks to recover significantly (from
11 approximately \$2.4 billion to approximately \$379 million), further demonstrating the
12 reasonableness and prudence of the WEMA Costs.

13 I discuss each of these justifications in greater detail in the following subsections. Other
14 SDG&E witnesses for whom Mr. Geier presents overview testimony provide additional input
15 from an operational and engineering perspective.

16 **A. The WEMA Costs Are Costs of Providing Utility Service and As Such, Are**
17 **Appropriate for Recovery**

18 Q. Why are the WEMA Costs appropriate for recovery in rates?

19 A. The WEMA Costs are costs that SDG&E incurred as part of its utility business. Under
20 the regulatory compact, there is an exchange of costs and benefits involving regulated utilities,
21 ratepayers and the Commission. The utility is granted a franchised service territory and is in turn
22 obligated to serve each and every customer in that service territory, no matter how risky
23 providing such service may be. In exchange, the utility is permitted to recover its just and
24 reasonable costs and has an opportunity to earn a reasonable return on its investment. While cost

1 recovery reduces the utility's financial risk, rate regulation also means that the utility is giving up
2 financial upside in that its profits are limited, unlike an unregulated business that can charge
3 whatever the market will bear.

4 Q. But don't the WEMA Costs arise from settlement of third-party damage claims (and
5 related legal costs), rather than providing transmission or distribution service?

6 A. The WEMA Costs do arise from those settlements, and more specifically, from the
7 amount of damage claims SDG&E paid above and beyond what was covered by insurance, third
8 party recoveries, and amounts allocated to FERC-jurisdictional rates. But it is well established
9 that third-party liabilities are an inherent cost of the utility business. Thus, in their General Rate
10 Cases, utilities forecast the costs of such third-party liabilities through Account 925 (Injuries &
11 Damages), including amounts for liability insurance premiums, self-insurance costs, uninsured
12 losses, the costs of property damages, and settlement costs.¹⁴ The WEMA Costs are certainly
13 losses not covered by insurance and are also expenses incurred in the settlement of injuries and
14 damages claims. While that fact alone means that the WEMA Costs fall squarely within the
15 types of costs that are appropriate for recovery in rates, I think it is also important to recognize
16 that these costs implicate the regulatory compact in another way.¹⁵

17 Q. Please elaborate.

18 A. SDG&E cannot simply withdraw from fire prone areas in its service territory. As a
19 public utility, it has the obligation and responsibility to serve all customers who request service,

¹⁴ The instructions to FERC Account 925, in which such costs are recorded state: "This account shall include the cost of insurance or reserve accruals to protect the utility against injuries and damages claims of employees or others, losses of such character not covered by insurance, and expenses incurred in settlement of injuries and damages claims." 18 C.F.R. Part 101.

¹⁵ While, as noted, such costs are typically authorized in General Rate Cases on a forecast basis, the Commission also permits utilities to record such costs to expense memorandum accounts when projected costs or ratepayer benefits are uncertain.

1 even if the climatic and geographic conditions associated with that service carry with them a
2 heightened risk of fires or other disasters. Whereas an insurance company could decide it no
3 longer wanted to provide property insurance coverage to homeowners in particular regions due
4 to the risk of natural disasters, SDG&E does not have that option.

5 Nor does SDG&E have the option to impose rate increases on selected customers living
6 in particularly fire-prone or risky areas. That is an option an unregulated business could use as a
7 means of protecting itself from the risk of serving customers in fire-prone areas, and indeed
8 SDG&E's liability insurers took that very step in the aftermath of the 2007 wildfires, raising
9 SDG&E's premiums considerably because of the heightened risk profile they perceived as a
10 result of the fire-prone conditions in SDG&E's service territory, coupled with the applicability of
11 inverse condemnation.¹⁶

12 In sum, since the risk of operating in a fire-prone service territory is imposed on SDG&E
13 as part of the regulatory compact, it should be permitted to recover the costs associated with
14 those operations as part of the exchange of costs and benefits I described earlier.

15 Q. Does the Commission permit utilities to recover costs from natural disasters?

16 A. Yes. For example, the Commission has permitted utilities to record and recover costs
17 related to restore utility service after natural disasters through Catastrophic Event Memorandum

¹⁶ In the Z-Factor decision I mentioned earlier, the Commission specifically agreed with the insurers' assessment of SDG&E's risk profile:

We agree that SDG&E has a heightened risk profile due to its excessive wildfire risk exposure and San Diego County's inadequate firefighting resources, its legal liability under inverse condemnation, and the imposition on California investor-owned utilities of strict liability for wildfires, thus exposing it to insurance liability costs far exceeding the normal cost of doing business.

D.10-12-053 at 33-34.

1 Accounts (“CEMA”).¹⁷ The Commission authorized the establishment of CEMAs by all utilities
2 in 1991. These accounts were a response to regulatory and ratemaking issues that arose after the
3 Loma Prieta earthquake.¹⁸ The Legislature codified disaster cost recovery through CEMA in
4 Section 454.9 of the Public Utilities Code in 1994. As explained by the Commission, the
5 resolution authorizing utilities to establish CEMA was intended “to preserve the opportunity for
6 utilities incurring unusual and extraordinary costs to seek their recovery subsequently.”¹⁹

7 Under a Commission-approved settlement, SDG&E recovered a portion of the amounts
8 recorded to its CEMA for the 2007 wildfires.²⁰ The costs SDG&E recorded to CEMA were
9 incremental costs incurred for restoring utility service to customers; repairing, replacing, or
10 restoring utility facilities that were damaged in the 2007 wildfires; and complying with
11 governmental agency orders in connection with the events.

12 I recognize that CEMAs address the costs of restoring service, repairing damaged utility
13 facilities, and complying with government orders, which are of a different character than the
14 WEMA Costs sought here. But the principles embodied in CEMA are applicable to wildfire
15 claims: natural disasters cannot be predicted or controlled, and it is appropriate to include costs
16 resulting from these events in rates because they are part of the utility’s cost of doing business.

¹⁷ Similarly, through its Z-factor mechanism, the Commission permits utilities to recover costs for unforeseen, exogenous events.

¹⁸ Res., *Order Authorizing All Utilities to Establish Catastrophic Event Memorandum Accounts* (July 24, 1991), *codified as* Cal. Pub. Util Code § 454.9.

¹⁹ D.93-11-071, p. 4.

²⁰ SDG&E and the Division of Ratepayer Advocates entered into a settlement agreement in connection with SDG&E’s CEMA application, by which SDG&E’s authorized CEMA revenue requirement was \$25.44 million (or 79% of SDG&E’s originally requested recovery). The Commission approved this settlement agreement in October 2010. *See* D.10-10-004.

1 Q. Does the regulatory compact mean that SDG&E automatically gets to recover the
2 WEMA Costs?

3 A. No. In the case of extraordinary or “one-time” costs, the Commission typically engages
4 in a reasonableness review of the costs to ensure that the costs are reasonable and prudent. In
5 this instance, the Commission has specifically told SDG&E that the WEMA costs would be
6 “subject to [a] reasonableness review.”²¹ Below, I explain why the WEMA Costs are reasonable
7 and prudent.

8 **B. SDG&E’s Settlement of the 2007 Wildfire Litigation Claims Was Reasonable**
9 **and Prudent**

10 Q. Earlier, you mentioned that the Commission has indicated that it would subject SDG&E’s
11 application for recovery of the WEMA Costs to a reasonableness review. What criteria does the
12 Commission use in such a review?

13 A. My understanding is that in a “reasonableness review,” the Commission assesses whether
14 a utility management’s voluntary decisions to incur a particular cost was “reasonable” or
15 “prudent” under the *then existing* circumstances. Such decisions are viewed in light of what the
16 utility knew or should have known *at the time the decision was made*. I also understand that a
17 prudent and reasonable decision can include a spectrum of possible decisions and is not limited
18 to the best possible decision, nor is the evaluation of that decision based on a hindsight analysis.
19 Thus, it is inappropriate for the Commission to assess whether the decision was “reasonable” or
20 “prudent” based on information learned *after* the decision (or decisions) at issue were made.

21 Q. What SDG&E decisions or actions are appropriate for such a reasonableness review?

²¹ D.12-12-029.

1 A. Since SDG&E did not voluntarily incur any Wildfire Costs, I believe that the relevant
2 decisions from a reasonableness review perspective are the decisions SDG&E voluntarily made
3 in light of the imposition of those costs on SDG&E – *i.e.*, those decisions that led to the specific
4 amount of WEMA Costs. Such decisions and actions include: SDG&E’s decision to settle
5 claims raised in the 2007 Wildfire Litigation in light of the applicability of inverse
6 condemnation; its settlements for reasonable amounts; and the steps SDG&E took to reduce the
7 Wildfire Costs by approximately \$2 billion, to the amount for which SDG&E is seeking recovery
8 (approximately \$379 million).

9 Q. Why was SDG&E’s settlement of the 2007 Wildfire Litigation claims reasonable and
10 prudent?

11 A. SDG&E’s decision to settle the claims was reasonable, in light of the application by
12 California courts of the doctrine of inverse condemnation to investor-owned utilities. SDG&E
13 engaged in a well-conceived and careful settlement process intended to ensure that the settlement
14 payments were also reasonable.

15 Q. What is your understanding of inverse condemnation?

16 A. Inverse condemnation is a type of claim under the California Constitution by which a
17 plaintiff may assert that the government has taken or damaged private property for public use
18 without just compensation. In such cases, a strict liability standard applies, meaning that a
19 government entity or public utility must provide just compensation to the property owner,
20 whenever its facilities are involved in the taking, regardless of fault or the foreseeability of the
21 resulting damage.

22 Q. In your previous answer, you referred to “government” takings or damages. Does inverse
23 condemnation only apply where the government has taken or damaged private property?

1 A. No. Inverse condemnation was originally applied to governmental or public entities, but
2 that application was extended by California courts to privately-owned public utilities.²²

3 Q. Why has inverse condemnation been applied to privately-owned public utilities?

4 A. California courts treat power lines as dedicated to the public use – and so damage
5 resulting from power lines is considered a “taking” for public use that should be paid for by the
6 public. The rationale is that a privately-owned public utility (through rates), like a governmental
7 entity (through taxes), is able to spread costs, so that the property owner who suffers damage is
8 not disproportionately burdened by the public use.

9 Q. Was inverse condemnation asserted by plaintiffs against SDG&E in the 2007 Wildfire
10 Litigation?

11 A. Yes. In the 2007 Wildfire Litigation, *all* plaintiffs asserted an inverse condemnation
12 claim against SDG&E. SDG&E objected to this claim by filing a demurrer challenging the
13 notion that inverse condemnation may properly be asserted against a privately-owned public
14 utility. The trial court overruled that demurrer. SDG&E then filed a petition for a writ of
15 mandate in the Court of Appeals, asking it to review the trial court decision. That petition was
16 summarily denied. Lastly, SDG&E filed a petition for review with the California Supreme
17 Court, which was also summarily denied without an opinion. So even though SDG&E sought to
18 avoid the application of inverse condemnation to it in the context of the wildfire claims,
19 California courts rejected SDG&E’s position, giving plaintiffs a strict liability claim against
20 SDG&E.

²² See, e.g., *Barham v. Southern Cal. Edison Co.*, (1999) 74 Cal. App. 4th 744.

1 Q. Was the applicability of inverse condemnation to SDG&E a factor in management's
2 decision to pursue settlement of the damage claims asserted by plaintiffs in the 2007 Wildfire
3 Litigation?

4 A. Yes, it was the major factor. As noted in my previous answer, SDG&E took all the legal
5 steps it could to shield itself from the application of inverse condemnation. Once those efforts
6 failed, SDG&E made the reasonable and prudent decision to settle the damage claims.

7 Q. Why was it reasonable and prudent to settle the damage claims under these
8 circumstances?

9 A. First, SDG&E faced a difficult litigation position as a result of strict liability. The
10 involvement of SDG&E facilities meant that SDG&E would owe damages. Given that we
11 would be held strictly liable for damages, it made sense to settle cases brought against SDG&E.

12 Second, litigation poses many risks and costs that can be minimized through reasonable
13 settlements. For example, a jury might award a plaintiff far more than SDG&E believes the
14 plaintiffs' claims are worth, and, thus, far more than it would pay to settle the case. This risk is
15 particularly present, for example, in emotional cases such as this in which a plaintiff's home and
16 personal possessions have been destroyed. Furthermore, continued litigation – particularly
17 where, as here, there are thousands of claims – would have led to increased legal fees and costs
18 for both sides, which inverse condemnation law would require SDG&E to solely bear.

19 Ultimately, settling a case for a known amount results in final resolution of a dispute reduces the
20 risk and costs of litigation.

21 Q. How did SDG&E ensure that the settlement payments it agreed to make were reasonable
22 and prudent?

1 A. As discussed in more detail in Ms. Sedgwick's direct testimony, plaintiffs in the Wildfire
2 Litigation asserted claims of approximately \$4 billion. SDG&E analyzed the plaintiffs' claims in
3 detail. Based on that analysis, and in light of applicable law, SDG&E, its counsel and experts
4 determined the amount at which they believed it would be reasonable to settle the damage claim.
5 SDG&E used this process to settle approximately 2,500 claims brought by residential,
6 commercial, and governmental plaintiffs, for a total of approximately \$2.4 billion.

7 Q. Why is it important for the Commission to take account of the applicability of inverse
8 condemnation here?

9 A. This may be the first Commission proceeding (and certainly the first where the costs were
10 of this magnitude) where the interplay of inverse condemnation and a Commission
11 reasonableness review has arisen, and I think that is an important consideration. Because
12 California courts apply inverse condemnation and strict liability to SDG&E and other utilities,
13 the Commission should recognize how it influences the decisions SDG&E must make under the
14 circumstances. Inverse condemnation (and strict liability for damages) applies to utilities
15 irrespective of considerations of prudence and reasonableness.

16 Moreover, as I noted above, the key rationale California courts have articulated for
17 applying inverse condemnation to privately-owned public utilities is cost spreading, the idea that
18 a utility, through rates, can spread costs associated damage caused by a public good (electricity)
19 broadly throughout the community that benefits from that public good. If a municipally-owned
20 utility had been involved in the 2007 wildfires, it would have recovered damages or settlement
21 payments through taxes. The situation should be no different here. Through this Application,
22 SDG&E is seeking only to spread costs in the very fashion assumed by the California courts
23 when they apply inverse condemnation to privately-owned public utilities.

1 Q. In the FERC proceedings regarding SDG&E’s proposal to recover the portion of the
2 Wildfire Costs allocated to FERC rates, was there any consideration of the importance of inverse
3 condemnation in relation to the prudence of SDG&E’s decision-making?

4 A. Yes, FERC explicitly considered that issue. In a proceeding on one of SDG&E’s formula
5 rate filings to recover a portion of the Wildfire Costs allocated to FERC-jurisdictional rates, the
6 Administrative Law Judge (“ALJ”) specifically directed the parties to brief the issue of how
7 inverse condemnation affects the determination of the reasonableness and prudence of its
8 decisions that led to the Wildfire Costs. The FERC decision then found as follows:

9 As pointed out by the Staff, under California law an inverse
10 condemnation action can be initiated by one whose property was
11 ‘taken’ for public use. California Courts have interpreted this to
12 mean that ‘any actual physical injury to real property proximately
13 caused by a public improvement as deliberately designed and
14 constructed is compensable . . . whether foreseeable or not.’ I find
15 it telling that California jurisprudence holds the ‘presence or
16 absence of fault by the public entity ordinarily is irrelevant.’ It
17 applies to utilities whose facilities were involved in fires that
18 damaged private property. Under the present circumstances,
19 therefore, it is highly probable that California’s inverse
20 condemnation policy would result in SDG&E’s strict liability for
21 the damages resulting from the 2007 wildfires. In fact, a 2009
22 Minute Order issued by the Superior Court of California, County
23 of San Diego found that plaintiffs seeking damages for the 2007
24 wildfires had ‘adequately alleged a cause of action for inverse
25 condemnation against SDG&E.’

26 Under these circumstances it is clear that SDG&E’s proactive steps
27 in settling the related third-party claims were justified since they
28 would have been exposed to strict liability for third party claims in
29 any event. By settling, SDG&E avoided facing considerable
30 litigation risk and disposed of the claims for significantly less than
31 the amount demanded by the claimants. Therefore, I find
32 SDG&E’s conduct was rational and prudent.²³

²³ 146 FERC ¶ 63,017 at PP 61-62 (internal citations omitted). While this decision was an Initial Decision issued by the ALJ, FERC’s regulations specify that if no party takes exception to the Initial

1 I believe that the Commission should reach the same conclusion here.

2 **C. SDG&E Took Reasonable and Prudent Steps to Substantially Reduce the**
3 **Costs**

4 Q. What is the total amount that SDG&E has paid to settle claims raised in the 2007
5 Wildfire Litigation?

6 A. The total amount of Wildfire Costs (including settlements and associated legal fees) is
7 approximately \$2.4 billion.

8 Q. Earlier you mentioned that the WEMA Costs SDG&E seeks to recover in this proceeding
9 is approximately \$379 million. Why are the WEMA Costs so much lower than the total Wildfire
10 Costs?

11 A. Again, Mr. Gentes describes the elements of the WEMA in more detail, but in brief,
12 SDG&E reduced the amount through substantial liability insurance coverage, recoveries from
13 third parties, FERC recovery, as well as through voluntary shareholder contributions.

14 Q. Were the actions that SDG&E took to reduce the amount of the Wildfire Costs reasonable
15 and prudent?

16 A. Yes, I believe that those decisions were reasonable and prudent. First, as discussed by
17 Ms. Sedgwick, at the time of the 2007 wildfires, SDG&E had \$1.1 billion in insurance, more
18 than a reasonable amount of liability insurance coverage, particularly since we had as much or
19 more liability insurance as any utility in California, even though SDG&E serves a relatively
20 smaller service territory. Second, as Ms. Sedgwick also discusses, SDG&E obtained \$824
21 million from third parties. Through those settlements, SDG&E recovered more than the amount
22 for which it seeks recovery in this Application, to the benefit of ratepayers. Third, even though

Decision (and none did), and there is no further action by the FERC, the Initial Decision becomes the final decision of the Commission.

1 the reasonableness and prudence of SDG&E's recoveries through FERC proceedings is not
2 within the scope of what this Commission considers, those recoveries further reduced the costs
3 for which SDG&E seeks recovery. Lastly, SDG&E is proposing a voluntary deduction of 10%
4 of the remaining costs (after these deductions, and the amounts allocated to FERC ratepayers),
5 and it is also proposing to credit revenues it collects above the amount of Commission authorized
6 miscellaneous revenue to the WEMA balance each year.

7 Q. Why has SDG&E proposed the 10% voluntary deduction?

8 A. This 90/10 allocation was based on a Commission decision approving a settlement
9 mechanism for the recovery of hazardous waste cleanup costs.²⁴ This mechanism was created
10 primarily because California investor-owned utilities were subject to environmental claims under
11 state and federal laws. Under the settlement mechanism, 90% of the costs – including cleanup
12 costs, settlement costs paid to third parties for losses and damages, and related litigation costs –
13 were to be recovered from ratepayers, while the remaining 10% were to be recovered from utility
14 shareholders. SDG&E believes that the 90/10 cost sharing represents a reasonable approach in
15 this context as well.

16 Q. Please describe SDG&E's proposal to further reduce the costs for which it seeks
17 recovery using miscellaneous revenues.

18 A. Miscellaneous revenues consist of fees and revenues that SDG&E collects for the
19 provision of specific products or services. These include revenues from items such as service
20 establishment charges, collection charges and rents. The Commission authorizes a specific
21 amount of miscellaneous revenues in SDG&E's General Rate Case, and miscellaneous revenues

²⁴ D.94-05-020.

1 are incorporated into rates as a reduction to the electric distribution and gas base margin revenue
2 requirements charged to customers for utility services, thereby lowering rates.²⁵

3 Each year, SDG&E collects an amount of miscellaneous revenues that is either greater or
4 less than the amount authorized by the Commission. If the actual collections exceed the
5 authorized amount, SDG&E retains those funds, and if the opposite occurs, SDG&E must fund
6 the difference. SDG&E's proposal is to take any actual collections of electric distribution
7 miscellaneous revenues that exceed the authorized amount and to credit those funds to the
8 WEMA each year, thereby reducing the balance in the WEMA to be collected by customers
9 using funds that would otherwise be retained by shareholders.²⁶

10 Q. When would such credits be implemented?

11 A. From a timing perspective, the actual collections of miscellaneous revenues are known by
12 April of the year following the year in which they were collected. SDG&E would apply the
13 credit, and it would file an annual advice letter to recompute the balance of WEMA Costs and
14 reduce rates accordingly.

15 Q. Do you know what the magnitude of these credits would be?

16 A. Not with certainty. It really depends on what miscellaneous income we receive in a given
17 year, as well as the amount of miscellaneous revenues that the Commission authorizes us to
18 collect, which is currently an issue in SDG&E's pending General Rate Case before the
19 Commission.

20 Q. How does SDG&E propose to recover the WEMA Costs in rates?

²⁵ Miscellaneous revenues authorized by the Commission in SDG&E's General Rate Cases exclude such revenues associated with electric transmission properties and facilities, wheeling charges, and other non-distribution sources recovered through FERC-jurisdictional ratemaking mechanisms.

²⁶ SDG&E would not, however, deduct undercollections of miscellaneous revenues from the WEMA Costs.

1 A. That recovery is presented in the testimony of Cynthia Fang. I have instructed Ms. Fang
2 to present three scenarios for rate recovery – amortization periods of six, eight and ten years.

3 Q. Why did you instruct Ms. Fang to present these three amortization scenarios?

4 A. I did that to enable the Commission to select the recovery approach that it views in its
5 judgment as the most sensible for ratepayers.

6 Q. Do you have a recommendation as to amortization schedule the Commission should
7 adopt?

8 A. Yes. I recommend the six year amortization period since the recovery takes place more
9 quickly.

10 Q. Please summarize what the rate impacts would be under the six, eight and ten year
11 amortization proposals.

12 A. A typical non- CARE residential customer living in the Inland climate zone and using
13 500 kilowatt-hours (“kWh”) per month under the current residential rate structure could see the
14 following monthly summer bill increases:

15 (1) Six Year Amortization: \$1.67

16 (2) Eight Year Amortization: \$1.25

17 (3) Ten Year Amortization: \$1.00

18 These rate impacts could be further reduced each year if SDG&E receives miscellaneous
19 revenues above the amount authorized by the Commission since we propose to credit such
20 revenues to the WEMA, as I described above.

21 **D. Opposition to This Application**

22 Q. Earlier you said that SDG&E expects opposition to this Application. How do you
23 respond to the argument that SDG&E should not be permitted to recover the WEMA Costs
24 because it caused the Witch, Guejito and Rice Fires?

1 A. I think that is an overly simplistic and unpersuasive argument for several reasons. As an
2 initial matter, we expect that any such opposition will be driven by the amount (approximately
3 \$379 million) that SDG&E seeks in this Application. If the WEMA Costs had been covered by
4 SDG&E's liability insurance, or if the amount of costs not covered by insurance had been
5 minimal, SDG&E would not have needed to establish a WEMA or file this Application. But it is
6 important to recognize that the ultimate cost of a wildfire is completely out of SDG&E's control,
7 and so the amount of the WEMA Costs should not determine whether they can be recovered.

8 Once a wildfire begins, the factors that determine whether it will cause \$2 or \$2 billion in
9 damages include the strength of the winds, the local geography and terrain, the dryness and
10 density of fuel, the density (and value) of the real estate or other property in the fire's path, the
11 number of other fires that may be simultaneously in progress, and the availability of local
12 firefighting resources. These factors have been repeatedly recognized in post-fire reports issued
13 by federal and state agencies regarding the 2007 wildfires.

14 For instance, the *After Action Report* issued by the City of San Diego following the 2007
15 wildfires highlighted the role of the winds in the spread of the Witch Fire:

16 Due to the significant winds, fire behavior was extreme, with rates
17 of spread on occasion in excess of 5 miles per hour, long range
18 spotting over half a mile, and flame lengths often in excess of 80'
19 to 100' high. Locals in the San Pasqual Valley area reported *wind*
20 *gusts of over 100 mph*. Strong Santa Ana winds pushed the fire
21 west towards the coast. Ember production and transport was a
22 significant contributor to fire spread and structure losses.²⁷

23 And, as noted by Cal Fire and other agencies, winds and other conditions that contribute to the
24 rapid spread of wildfires can also render fire suppression resources ineffective:

²⁷ See Appendix 3 at 5 (emphasis added).

1 Just 40 miles north of the Harris Fire, the Witch Fire is reported at
2 12:35 p.m. in the rural area of Witch Creek, east of Ramona in San
3 Diego County. Aircraft diverted from the Harris Fire take
4 immediate action due to imminent structure threat and rapid rate of
5 spread toward Ramona. Air tanker drops are ineffective due to the
6 winds, and the air attack is cancelled.²⁸

7 Obviously, if that air attack had been successful, the Witch Fire would have been quickly
8 contained. Indeed, according to the California Office of Emergency Services, 251 wildfire starts
9 (or more than 10 times the number of wildfires that ultimately spread throughout Southern
10 California) were caught on initial contact between October 20 and 25, 2007, including 45 in San
11 Diego County alone.²⁹ Unfortunately, the Witch, Guejito and Rice Fires were not among those
12 fires that were immediately contained.

13 Additionally, the firefighting resources available in parts of Southern California are
14 limited, and in recent years, California has faced multiple fires at once, stretching firefighting
15 resources to the limit. This resource limitation is repeatedly emphasized in the *California Fire*
16 *Siege 2007* report. For example, in describing the events of October 22, 2007, the report states:
17 “Competition for firefighting resources continues to pose major problems ... The Witch Fire is
18 reported at over 145,000 acres. No containment progress has been made to due to rapid fire
19 spread and limited on-scene resources.”³⁰

20 A Grand Jury Report issued in San Diego County, *The Fire Next Time – Will We Be*
21 *Ready?*, likewise concluded that both San Diego County and the City of San Diego had not
22 developed or funded sufficient fire-fighting resources.³¹ With respect to the City of San Diego,

28 See Appendix 2 at 20.

29 See Appendix 4 at 33.

30 See Appendix 2 at 28.

31 See Appendix 5.

1 for instance, the Grand Jury Report found that its fire department did not meet national
2 standards, that many of its engine districts exceed the standard nine square mile service area, and
3 that 46% of the time the department cannot meet the national five-minute response time. With
4 respect to San Diego County, the report noted that (at the time) it spent only \$8.5 million
5 annually on fire protection, far less than was spent by Orange County (\$260 million) or Los
6 Angeles County (\$860 million). The report further noted: “In spite of Santa Ana conditions,
7 insufficient rainfall, longer fire seasons and urban sprawl, the County remains without a unified
8 fire protection agency and no central command.”³²

9 As a result of these deficiencies, the City of San Diego, in its *After Action Report*, made a
10 host of recommendations regarding beefing up its firefighting resources, including procuring
11 additional fire engines, helicopters and other firefighting equipment.³³ However, the *After*
12 *Action Report* also highlighted important accomplishments and successes in firefighting efforts.
13 For instance, it noted that while hundreds of structures and homes were destroyed in Rancho
14 Bernardo and the City of San Diego by the Guejito Fire, “it is estimated that approximately 6,000
15 homes in the path of the fire were saved as a result of aggressive firefighting action taken by
16 SDFD firefighters.”³⁴ Without such firefighting, the damages from that fire would undoubtedly
17 have been far worse.

18 Ultimately, the Witch, Guejito and Rice Fires were devastating *not* because the ignition
19 source may have been power lines but rather because of these factors beyond SDG&E’s control.

³² *Id.* at 8.

³³ Indeed, SDG&E’s settlement with the County funded many similar upgrades, including \$9.5 million dollars spent to replace a fire station and the county’s outdated radio system.

³⁴ *See* Appendix 2 at 6.

1 Because the 2007 wildfires were essentially natural disasters, akin to hurricanes and tornadoes in
2 other jurisdictions, SDG&E should be allowed to recover the associated costs.

3 Moreover, although SDG&E's facilities may have been involved, SDG&E acted
4 reasonably in light of the risks known prior to the 2007 wildfires. All of the facilities linked to
5 each of the three wildfires had been safely in place for many years and had been appropriately
6 inspected and maintained, as discussed by Mr. Weim, Mr. Walters, and Mr. Akau. In addition, a
7 number of factors contributed to the ignitions of the Witch, Guejito and Rice Fires, including the
8 extreme wind and weather conditions discussed by Mr. Vanderburg and Dr. Peterka; Cox
9 Communications' facilities (in the case of the Guejito Fire), as discussed by Mr. Walters; and a
10 sycamore tree limb (in the case of the Rice Fire) as discussed by Mr. Akau. The confluence of
11 these factors was extraordinary, and SDG&E had no reason prior to the 2007 wildfires to predict
12 the level of damages that resulted from those wildfires.

13 **VI. CONCLUSION**

14 Q. Does this conclude your prepared direct testimony?

15 A. Yes it does.

APPENDIX 1

STATEMENT OF QUALIFICATIONS OF LEE SCHAVRIEN

My name is Lee Schavrien. I am currently the Chief Administrative Officer of San Diego Gas & Electric Company (“SDG&E”) and Southern California Gas Company (“SoCalGas”), a position I assumed in June, 2015.

I joined SDG&E in 1978 as a laborer. In 1979 I began working in the Regulatory Affairs Department. Between 1979 and 1989 I held various positions of increasing responsibility within SDG&E’s Regulatory Affairs Department, including working on numerous SDG&E General Rate Cases. In 1989, I was promoted to Manager of Business Planning and Budgets at SDG&E. In that position I was responsible for SDG&E’s centralized budgeting and business planning activities. In 1991, I became SDG&E’s Manager of Revenue Requirements. My responsibilities included overall project management of SDG&E’s 1993 General Rate Case. In 1992, I became SDG&E’s Manager of Regulatory Affairs, with responsibility for all state regulatory matters, including revenue requirements. In 1996, I became SDG&E’s Director of Regulatory Affairs. In October 1996, I was appointed the project manager of the Enova/Pacific Enterprises Merger. I served in that assignment until I assumed the responsibility of Director Regulatory Affairs for SDG&E and SoCalGas. In January of 2002, I was appointed to the position of Vice President of Regulatory Affairs for SDG&E and SoCalGas. In December of 2006, I was promoted to Senior Vice President of Regulatory Affairs. In November of 2008, I became Senior Vice President – Finance, Regulatory & Legislative Affairs for SDG&E and SoCalGas. In that capacity, I was responsible for all federal and state regulatory matters, including revenue requirements and tariffs, as well as all financial and accounting matters for SDG&E and SoCalGas. I held that position until I assumed my current position.

I have a Bachelor of Business Administration from National University, and I have previously testified before the California Public Utilities Commission.

APPENDIX 2

CALIFORNIA FIRE SIEGE 2007

AN OVERVIEW





Cover photos from top clockwise:

The Santiago Fire threatens a development on October 23, 2007.

(Photo credit: Scott Vickers, istockphoto)

Image of Harris Fire taken from Ikhana unmanned aircraft on October 24, 2007.

(Photo credit: NASA/U.S. Forest Service)

A firefighter tries in vain to cool the flames of a wind-whipped blaze.

(Photo credit: Dan Elliot)

The American Red Cross acted quickly to establish evacuation centers during the siege.

(Photo credit: American Red Cross)

Opposite Page:

Painting of Harris Fire by Kate Dore, based on photo by Wes Schultz.



Introductory Statement

In October of 2007, a series of large wildfires ignited and burned hundreds of thousands of acres in Southern California. The fires displaced nearly one million residents, destroyed thousands of homes, and sadly took the lives of 10 people.

Shortly after the fire siege began, a team was commissioned by CAL FIRE, the U.S. Forest Service and OES to gather data and measure the response from the numerous fire agencies involved. This report is the result of the team's efforts and is based upon the best available information and all known facts that have been accumulated.

In addition to outlining the fire conditions leading up to the 2007 siege, this report presents statistics—including availability of firefighting resources, acreage engaged, and weather conditions—alongside the strategies that were employed by fire commanders to create a complete day-by-day account of the firefighting effort.

The ability to protect the lives, property, and natural resources of the residents of California is contingent upon the strength of cooperation and coordination among federal, state and local firefighting agencies. By utilizing the information contained within this report, fire managers will create lessons learned that will be utilized continually to improve the response to wildfires.

RUBEN GRIJALVA
Director
California Department
Forestry and Fire Protection
(CAL FIRE)

RANDY MOORE
Regional Forester
Pacific Southwest Region
U.S. Forest Service

HENRY RENTERIA
Director
Office of Emergency Services
(OES)



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Introduction

In late October 2007, Southern California experienced an unusually severe fire weather event characterized by intense, dry, gusty Santa Ana winds. This weather event drove a series of destructive wildfires that took a devastating toll on people, property, natural resources, and infrastructure. Although some fires burned into early November, the heaviest damage occurred during the first three days of the siege while the winds were the strongest.

During this siege, 17 people lost their lives, 10 were killed by the fires outright, three were killed while evacuating, four died from other fire siege related causes, and 140 firefighters and an unknown number of civilians were injured. A total of 3,069 homes and other buildings were destroyed, and hundreds more were damaged. Hundreds of thousands of people were evacuated at the height of the siege. The fires burned over half a million acres, including populated areas, wildlife habitat and watershed. Portions of the electrical power distribution network, telecommunications systems, and even some community water sources were destroyed. Transportation was disrupted over a large area for several days, including numerous road closures. Both the Governor of California and the President of the United States personally toured the ongoing fires. Governor Schwarzenegger proclaimed a state of emergency in seven counties before the end of the first day. President Bush quickly declared a major disaster. While the total impact of the 2007 fire siege was less than the disastrous fires of 2003, it was unquestionably one of the most devastating wildfire events in the history of California.



An untouched home in the background stands in contrast to the destruction of neighboring properties.

KEVIN KEY

Purpose

This report provides a broad, factual overview of the fire siege, documenting key events, providing summary statistics and serving as a reference for other reviews, investigations, studies and reports.

While firefighters gained control of the fires, a team of state and federal fire specialists gathered information to develop this factual report to recount the collective response of various organizations to the siege. The team has attempted to present the complexities of managing a large fire siege, and has included a broad array of information. The report provides detailed information about the day-to-day tactical firefighting effort, as well as the numerous social and political considerations that influenced strategic decisions.

This report is not an in-depth analysis and assessment of specific fire events, as these issues will be addressed in other efforts that will continue for several years.



The Contents

Fire Events and Policy includes a synopsis of significant large and damaging wildfires in California since 1923. It describes some key public policy actions establishing the multi-agency firefighting organization in place during this siege. It places a special emphasis on relevant activities and events that took place from 2004 through 2006.

The Prelude to the Siege describes events that took place during the year prior to the fire siege. It emphasizes major fires and the development of conditions that increased the magnitude of the October wildfires beyond what normally would have been expected.

Meteorological Events Timeline and Preparation recounts the six days leading up to the siege detailing the developing fire weather conditions, and actions taken by state and federal wildland fire agencies and local fire departments to prepare for the possibility of a major fire event.

The Fires provides a daily chronology written from the perspective of a fire chief working at a regional scale. Each day is a snapshot of the complex and rapidly changing fire environment, including weather, fire location and size, firefighting resource commitments, and public safety and evacuation impacts, that influence regional strategic decisions. The daily chronology follows specific fire activity, detailing the efforts of firefighters suppressing major fires while continuously responding to new outbreaks. It also describes the human and environmental impacts of the fires, including evacuations, structures damaged and destroyed, and damage to critical watershed and natural resources.

The Epilogue describes the continuation of the 2007 fire season into late November, placing it into the fire season as a whole, making the important point that the fire season did not end when the siege was over.

Fire Siege Coordination highlights examples of strategic regional coordination of several management systems and technologies.

The Aftermath summarizes the October fire siege, placing it into the context of both the 2007 fire season, and wildfire history.

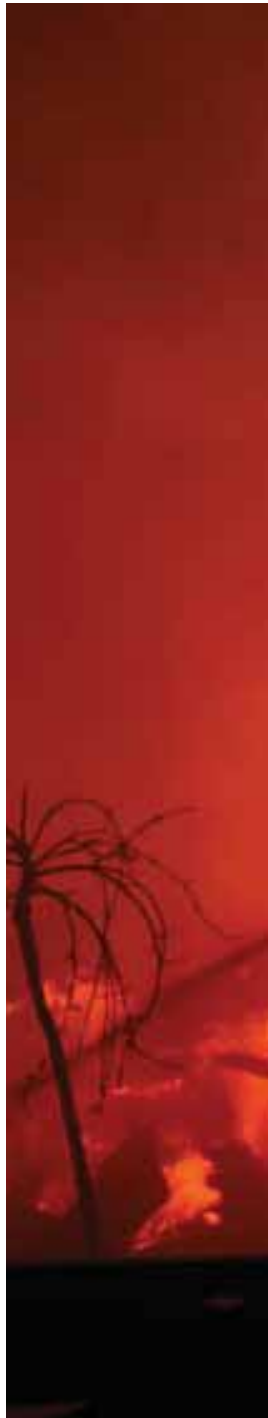
The Appendices include summary statistics for the siege, maps and descriptions of the fires by incident, a brief description of evacuations, a list of some after-action reports, copies of key advisories, proclamations, and declarations.

Glossary of Terms, and ***Acknowledgements*** of those responsible for producing the report.

Fire Events and Policy

Years 1923–2006

California has a long history of catastrophic Wildland Urban Interface fires. The following timeline discusses some of those fires and highlights key policies.



1923

Berkeley Fire destroyed 584 structures. Embers falling on wood shingles accelerated the spread of the fire.

1932

The Economy Act was passed by the U.S. Congress, enabling use of military resources in peacetime events. The intent of Congress was to encourage civilian employment prior to committing military resources.

1933

The Griffith Park Fire in Los Angeles started on October 3, 1933. This 47-acre fire killed 29 firefighters and injured 150 others.

1943

The Hansen Creek Fire started on October 2, 1943 on the Cleveland National Forest. Ten marines and one army firefighter are killed. Seventy-three other military personnel are injured on this 13,145-acre fire.

1946

The California State Board of Forestry declared the San Bernardino Mountains around Crestline and Lake Arrowhead as a “Zone of Infestation” for forest insects.

1947

Helicopters are used to assist during wildland fires for the first time in Southern California and the usefulness for moving firefighters around the fire was quickly recognized.

1950

The State of California, all 58 counties and nearly all city governments signed a “Master Mutual Aid Agreement.”

1960

California Public Resource Code 4291 was adopted. This code requires a minimum of 30 feet clearance of flammable vegetation around structures in State Responsibility Areas.



1961

Santa Ana winds fanned a wildland fire in the Bel Air community of Los Angeles County destroying 484 homes, many owned by Hollywood stars. Researchers studying the fire's impacts identified a demand for regulations limiting expansion in the wildlands and improving structure survivability.

1971

After the devastating fire season of 1970, the California fire services were severely criticized for failure to provide leadership in solving the issues of cooperation, command and control, communications and training. In response, state and federal legislative action authorized funding for a five-year research program coordinated by the Governor's Office of Emergency Services (OES) called FIREScope (Firefighting Resources of Southern California Organized for Potential Emergencies). The FIREScope research team identified a new fire management system containing the following elements:

- Incident Command System
- Multi-Agency Coordination System
- Information Management System
- Technological Support
- Common Communications

President Nixon created the "National Commission on Fire Prevention and Control." The commission completed a report in May 1973, titled "America Burning." The report covered structural and wildland fires and stated, "Fire is a major national problem."

1972

The Southern California Geographic Area Coordination Center (OSCC) was established to provide coordinated multi-agency logistical support and intelligence for wildfires in Southern California. Components of the center include the Intelligence Section, Logistical Support Center, Southern Operations Emergency Command Center and the South Zone Training Unit.

1980

Major Santa Ana wind-driven wildfires occurred in Southern California. At least 325 homes were burned in San Bernardino. The fires prompted Federal, State and Local officials to study the problem of fires coming from the wildland into developed communities. The California legislature established the Vegetation Management Program (VMP) to reduce hazardous fuel conditions.

1987

Pebble Beach Fire in Monterey County destroyed 31 structures. Roof type, window type and vegetation clearance were determining factors of structural survival.



1989

The California Legislature added the FIRESCOPE program to the California Health and Safety Code and authorized OES, in cooperation with CAL FIRE and the State Fire Marshal, to carry out the program.

1990

The Paint Fire in Santa Barbara County killed one resident and destroyed 479 homes and other major buildings. Researchers from the University of California, Berkeley, conducted a study of the causal factors that led to structure damage. The study found that 86% of the buildings survived when they had both 30 feet of vegetation clearance and an ignition resistant roof. Researchers also found that approximately 90% of buildings are completely destroyed once they catch fire.

1991

In October 1991 the Oakland Hills fire burned 1,600 acres, killed 25 people and destroyed 2,900 homes. The fire was almost completely within the city limits of Oakland and Berkeley and was considered an urban conflagration rather than a wildland or urban intermix. Six acres of SRA wildland burned on the perimeter of the fire. Combustible roofing material was implicated in the spread of fire. The high density of structures contributed to extreme radiant heat that spread fire to adjacent structures.

1993

The Laguna Beach fire alone destroyed 441 homes. The October 1993 fire siege in Southern California resulted in four fatalities and 1,200 structures destroyed. After the fire, residents formed the Laguna Coast FIRESAFE Council to help protect the region from future disasters.

The California Legislature passed the Standardized Emergency Management System (SEMS) Act for California. SEMS required state agencies responding to emergencies to use a standardized management system. Incident Command System (ICS) is a component of SEMS.

1994

Thirty-four wildland firefighters were killed while fighting fires in the United States, prompting the five federal wildland fire agencies to review federal fire management policy and programs.

1995

A new federal fire management policy was adopted. The policy concluded:

- The first priority in wildland fire management is the protection of human life.
- The second priority is the protection of natural resources, cultural resources, and property.
- Wildland fire, as a critical natural process, must be reintroduced into the ecosystem.



1996

CAL FIRE and the Office of the State Fire Marshal publish “California’s I Zone,” a nationally recognized in-depth study of past and projected problems of wildland/urban intermix fires.

The California Department of Forestry and Fire Protection developed the “California Fire Plan,” a framework for reducing costs and losses from wildfire. The Fire Plan emphasized that residents need to be involved in planning for fire safety. Fire Safe Councils were established. State and federal funding was made available for civilian-supported fuel reduction projects. The U.S. Forest Service (USFS) amended the program to include training for local fire service personnel in firefighting tactics in the Wildland Urban Interface (WUI).

2000

In August 2000, President Clinton directed the Secretaries of Agriculture and the Interior to develop a plan to respond to severe wildland fires in order to reduce their impacts on rural communities, and to assure sufficient firefighting capacity in the future. The Secretaries developed the National Fire Plan (NFP) to increase firefighting capabilities to better protect natural resources, to reduce the threat to communities adjacent to federal lands, and to reduce the cost of fighting large fires.

2001

The U.S. Forest Service began implementing key points of the National Fire Plan by building up fire preparedness and suppression resources beyond historic levels. NFP assigned the highest priority for hazardous fuel reduction treatments to communities at risk, and other important local features, where conditions favor uncharacteristically intense wildfires. California Wildfire Coordinating Group (CWCG) identified communities at risk from wildfire and recorded them in the Federal Register.

2002

The Mountain Area Safety Taskforce (MAST) was organized to address public safety and forest health issues on both public and private land in San Bernardino and Riverside counties. This was one of the most extensive, pre-event planning efforts to ever take place. The three part strategy deals with: 1) emergency preparedness response, 2) fuel reduction around communities and key evacuation routes, and 3) long-term planning and treatments to restore forest health.

In San Diego County, new county fire code required 100-foot clearance around structures, and the Forest Area Safety Taskforce (FAST) was formed.

2003

Local, state and federal agencies focus on identifying priority WUI areas in California to establish better protection strategies that will result in meaningful changes in fire behavior and mitigate the severity of fire effects at a watershed scale. These strategies are consistent with the interagency report: “A Collaborative Approach for Reducing Wildland Fire Risks to Communities



and the Environment, Western Governor's 10-Year Comprehensive Strategy Implementation Plan and the Memorandum of Understanding for the Development of a Collaborative Fuels Treatment Program.”

A multi-agency Joint Information Center (JIC) operating plan was developed in conjunction with the MAST plan to coordinate information release to the community and the media.

All national forests in Southern California began environmental analyses to increase the scale and intensity of vegetation treatments to protect communities from wildland fire.

October 21, 2003 marked the beginning of one of the most devastating periods in Southern California fire history, the Fire Siege of 2003. During the ensuing 15 days, 14 major fires burned more than 750,000 acres and destroyed more than 3,700 homes. Twenty-four people are killed, including one firefighter. Before the last fire was contained, an interagency team was assembled to chronicle the siege resulting in “The Story – California Fire Siege 2003.”

In November 2003, Governor Gray Davis and Governor-elect Arnold Schwarzenegger created the Governor's Blue Ribbon Fire Commission to review the effort to fight the California's 2003 wildfires, and provide recommendations to limit destruction from future fires.

2004

In April the Governor's Blue Ribbon Fire Commission released its final report which included 33 findings and 48 recommendations in five categories: 1) Jurisdictional and Operational Barriers; 2) Training; 3) Interstate/ Regional Mutual Aid System; 4) Local Building, Planning and Land Use Regulations/ Brush Clearance and Fuel Modification; and 5) Communications Interoperability, Information Technology, and Public Outreach.

Congress began funding hazardous fuel reduction projects. By 2006 more than \$181 million in federal, state, and local treated more than 96,000 acres in California.

The USFS Pacific Southwest Region developed and implemented the “FIREWATCH” program, utilizing excess military Cobra helicopters to provide state-of-art command and control, infrared capable remote sensing, and downlink capability.

The USFS Pacific Southwest Region developed an aviation training simulator for agency and interagency cooperators pilots and international governmental aviation personnel.

Beginning in 2004, Governor Schwarzenegger issued annual Executive Orders to minimize the impacts of large and damaging wildfires.

The California legislature amended the Public Resources Code and Government Code to require 100 feet of clearance around structures in the State Responsibility Area and Very High Fire Hazard Severity Zones in Local Responsibility Areas. The law took effect January 1, 2005.

Many local governments adopt or strengthen ordinances requiring clearance and removal of flammable vegetation and other materials.



CAL FIRE San Diego established an operation plan with the U.S. Navy Helicopter Squadron from North Island allowing the San Diego unit to access assets during major incidents. This included annual training.

2005

CAL FIRE units intensify hazardous brush treatment by cutting and piling brush as part of a shaded fuel break for wildland interface protection.

CAL FIRE begins year-round staffing of department stations.

The Topanga Fire, starting in Los Angeles County and moving into Ventura County, burned 24,175 acres. Of the nearly 1,000 residences threatened, three homes were destroyed and one damaged. Defensible space, fire safe design and ignition resistant construction is credited with reducing the impact of this fire in populated WUI.

2006

The USFS Pacific Southwest Region established an agreement with United States Marine Corps CH-53 Squadron at the Marine Corps Air Station Miramar in San Diego. The agreement outlines the annual pre-fire season training and experience requirements for pilots in command.

NASA's Dryden Flight Research Center and the USFS Pacific Southwest Region agree to test aerospace technologies to aid wildfire imaging and mapping through use of a remotely piloted unmanned aircraft.

Governor Schwarzenegger authorized contracting for a 12,000 gallon DC-10 air tanker during the peak fire season. This air tanker provides a large-load backup capability to supplement CAL FIRE's regular fleet of 23 Grumman S2T air tankers.

On October 26, 2006, five USFS firefighters were entrapped while engaged in structure protection operations on the Esperanza Fire in Riverside County, California. Three of the firefighters were killed at the scene, one died en-route to the hospital and the fifth died on October 31.

Prelude to the Siege 2007

Rainfall totals for the winter of 2006-2007 were far below average, leaving Southern California far drier than normal at the beginning of the 2007 fire season. Conditions were particularly dry at higher elevations, prompting concern for potentially severe fires. Early “green-up” of vegetation at mid-and-higher elevations produced lower than normal peak Live Fuel Moisture (LFM). The annual drying cycle began in May, and by June, moisture levels in live and dead vegetation were declining one-to-two months ahead of normal. LFM’s fell below the critical level of 60% by July. By early September they had fallen to the mid-50-to upper-40 percentiles.

January 11, 2007

An Arctic cold front swept through the state, killing native and ornamental vegetation, creating an above-average volume of dead fuels in the Wildland Urban Interface.

January 29, 2007

The Building Standards Commission adopted the updated California Building and Fire Codes. This new code requires ignition-resistant construction for new building in State Responsibility Area (SRA) and Very High Fire Hazard Severity Zones in Local Responsibility Area (LRA).

Insect damage and drought stress combined to produce visible mortality in upland forests. Lower elevation coastal areas trended closer to normal in terms of moisture due to marine influences. Heavy frost in January 2007, caused considerable die-back of vegetation in Ventura, Orange, and San Diego counties.

March 11, 2007

The 241 Fire was reported along State Route 241 near the Wind Ridge Toll Plaza in Orange County. Influenced by high winds, high temperatures, and low humidity, this unusually early fire event burned 2,036 acres in less than three hours. One residence was damaged and two outbuildings were destroyed.

May 8, 2007

The Griffith Park Fire burned 817 acres in Los Angeles City. High power transmission lines were destroyed causing a loss of power to local neighborhoods. Over 400 structures and the Observatory were threatened. Fire caused the evacuation of over 1,000 people from the Los Angeles Zoo, Golf Course, Gene Autry Museum, Zoo Magnet School, and Griffith Park Boys Camp.

May 9, 2007

Governor Schwarzenegger issued an executive order directing CAL FIRE to mobilize additional resources and to work closely with federal, state, and local government agencies to maximize fire fighting and prevention capabilities within California.

May 10, 2007

The Island Fire started on Santa Catalina Island, 26 miles off the coast of Los Angeles. Extreme fire behavior was reported with spotting 1/4 to 1/2 mile in advance of the head of the fire due to low relative humidity, high erratic winds and low fuel moistures. More than 3,800 people were evacuated from the island via the Catalina Island Express to the city of Long Beach. While 4,750 acres were burned, threatening more than 900 structures, only one residence and five outbuildings were destroyed; four outbuildings were damaged.

June 20, 2007

USFS issued a Fuels and Fire Behavior Advisory for low fuel moisture and potentially severe fire behavior.

June 24, 2007

An unattended campfire in the area southwest of South Lake Tahoe set off the destructive Angora Fire. Driven by strong erratic winds in heavy timber with a large dead and down component, the burn exhibited extreme fire behavior causing the evacuations of several subdivisions within the first burning period. The fire was contained on July 2 at 3,100 acres, after destroying 242 residences and 67 outbuildings.

July 4, 2007

The Zaca Fire started in the rugged, inaccessible area 15 miles northeast of Buellton, in Santa Barbara County. High temperatures and low relative humidity combined with steep terrain hampered control efforts. Fuel moisture levels were at levels typically seen in late August or September. The Zaca Fire, the second largest fire in California history, was contained at 240,207 acres two months after it started.

July 25, 2007

Following the Angora Fire, California Governor Arnold Schwarzenegger and Nevada Governor Jim Gibbons signed a joint memorandum of understanding which established the California-Nevada Tahoe Basin Fire Commission. The joint fire commission was charged to conduct a comprehensive overview of forest management in the Lake Tahoe Basin, including effective fuels management, to help prevent fires from starting or escalating.

July 30, 2007

CAL FIRE issued a Fire Behavior Alert discussing the potential for extreme fire behavior this season, based on low fuel moisture conditions.

Summer weather was seasonably dry with very little precipitation. By October, Southern California remained dry, with much of San Diego and desert regions near the border with Baja California extremely dry. All these factors increased the potential for severe fires in the fall.

Meteorological Events Timeline and Preparations

October 15–20, 2007

Predictive Services at the Southern California Geographic Area Coordination Center (OSCC) continued to forecast an extreme fire weather event of strong, hot, dry, winds. Regional Chief Officers, representing CAL FIRE, USFS, and OES at OSCC, monitored developing conditions and initiated actions within their specific agencies to preposition wildland firefighting resources.

Monday October 15–Wednesday, 17

Daily and 7-day forecasts discussed strong offshore flow conditions predicted for Sunday, October 21, and Monday, October 22.

Thursday, October 18

“High Risk Days” were added to the 7-day forecast for Sunday, October 21, and Monday, October 22, highlighting the prediction that this anticipated offshore event would be strong and widespread, and accompanied by very warm and very dry conditions.

Predictive Services and the National Weather Service participated in daily conference calls to coordinate weather information. Predictive Services invited local fire agencies to join in wildland fire agency briefings regarding the upcoming Santa Ana wind event.

Regional Chief Officers issued a regional special staffing pattern to go into effect Sunday, October 21:

- Staff all CAL FIRE fire crews in the Southern California Conservation Camps
- Staff all CAL FIRE bulldozers in Southern California 24 hours per day
- Staff three CAL FIRE fire crews per camp in Central California CAL FIRE Conservation Camps
- Pre-position a CAL FIRE Strike Team of Type 3 engines (five engines and a leader) from Central California into Ventura and Los Angeles Counties on October 20
- Request that Riverside County Fire Department staff five reserve Type 3 Engines

Friday, October 19

Predictive Services forecasters added Tuesday, October 23, as a High Risk Day in the 7-day report. Daily conference calls with the National Weather Service and fire agencies continued.

Regional Chief Officers placed the following requests for Sunday, October 21:

Orange County Fire Authority to staff one additional Engine Strike Team, one additional bulldozer and one additional fire crew.

- Santa Barbara County Fire Department to staff one additional task force consisting of three engines and one water tender.
- Increase Chief Officer and Emergency Command Center staffing in the Southern California Units, and place two CAL FIRE Incident Command Teams on standby.
- Reposition three Northern Region air tankers to Paso Robles, Hemet, and Ramona air attack bases.
- Activate the DC-10 Supertanker.

- Authorize extended staffing for federal initial attack engine modules (increasing initial attack capabilities by 30%) and federal Hotshot Crews.
- Authorize the four Southern California Forests to extend staffing to 24 hours per day.

Saturday, October 20

Predictive Services continued to forecast a strong widespread offshore wind event, Sunday through Tuesday. Saturday started with an onshore wind, but by late that night and into early Sunday morning, the winds in Southern California gradually shifted, blowing from the north and northeast.

Regional Fire Officers pre-positioned federal firefighting resources including:

Four Type 1 Incident Management Teams

- Five Type 2 Incident Management Teams
- Seven heavy helitankers
- Seven Type 2 helicopters
- Eight heavy air tankers
- Local federal fire officers on the Cleveland National Forest implemented 24 hour staffing.
- Local federal fire officers on the remaining three southern forests, San Bernardino, Los Padres, and Angeles National Forests implemented 24-hour staffing effective the following day.

Sunday, October 21

The anticipated Santa Ana wind event was under way.



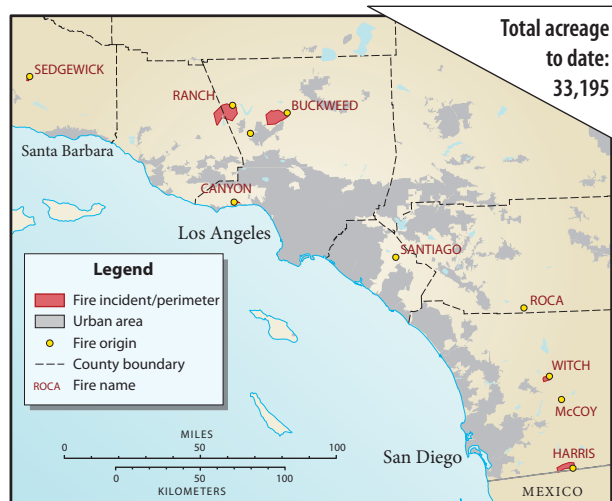
Energy Release Component

The Energy Release Component (ERC) is an NFDRS (National Fire Danger Rating System) index relating to how hot a fire can burn. It is directly related to the 24-hour, potential worst case, total available energy (BTUs) per unit area (in square feet) within the flaming front at the head of a fire.

The ERC can serve as a good characterization of fire season as it tracks seasonal fire danger trends. The ERC is a function of the fuel model and live and dead fuel moistures. Fuel loading, woody fuel moistures, and larger fuel moistures all have an influence on the ERC, while the lighter fuels have less influence and wind speed has none. ERC has low variability, and is the best fire danger component for indicating the effects of intermediate to long-term drying on fire behavior (if it is a significant factor) although it is not intended for use as a drought index. Throughout most of the Southern region, ERCs had hovered around the 90 to 100% level from July onward. By late September all but one of the seven Predictive Service Areas (PSAs) were displaying ERCs at 95 to 100%—at or above the recorded maximum values. Fuels and slope-driven fires were burning with remarkable intensity and moved upslope as if they were driven by the wind.

The Fires: Day 1

■ Sunday, October 21, 2007



Predictive Services Morning Report:

A strong ridge of high pressure will build into California from the Pacific Ocean bringing a warming trend and very low humidity to the region through Wednesday. There will be widespread strong and gusty north to east winds over Southern California through Wednesday morning. Winds will be 20-to-40 miles per hour with much higher gusts over the mountains and below the canyons and passes of Southern California.

Today's Events:

The anticipated Santa Ana wind event is under way. Southern California is experiencing widespread sustained wind speeds of 20-to-40 miles per hour, with gusts of 70-to-80 miles per hour in more wind-prone areas. These winds persist throughout the day, diminishing somewhat by late afternoon. Humidity values tumble into the single digits and teens.

The **Ranch Fire** is reported Saturday night, October 20, at 9:42 p.m., along Interstate-5 six miles north of Castaic in Los Angeles County. The fire is driven by 25-to-30 mile per hour winds with gusts up to 40 miles per hour. Extreme wind conditions and heavy brush contribute to erratic fire behavior creating control problems. Spotting is noted 1/2 mile ahead of the fire. The communities of Fillmore, Piru, Ventura, and Ojai are threatened. The Condor Reserve and Sespe Wilderness areas are identified for protection. Reconnaissance

■ Daily Snapshot

Incident Name	MACS Priority* a.m. / p.m.	Crews	Engines	Dozers	Overhead	Acres**	Contained %
Buckweed	na / 5	10	26	2	65	10,000	0
Canyon	na / 1	14	247	2	92	2,200	10
Harris	na / 2	6	37	2	13	2,000	0
Ranch	na / 4	15	56	5	22	12,000	10
Roca	na / 8	7	37	3	14	250	40
Santiago	na / 9	2	69	2	29	4,000	5
Sedgewick	na / 7	0	0	0	0	710	50
Witch	na / 3	12	20	1	8	2,000	1
Contained Fires***		10	39	3	0	35	100
Totals		76	531	20	243	33,195	

* Multi-Agency Coordination System (MACS) priority setting for resource allocation is based on the following criteria: Life Threatening Situations, Real Property Threatened, High Damage Potential, Incident Complexity, Potential for Timely Containment.

** Figures for acreage are cumulative for the incident throughout the siege.

*** When a fire is 100% contained, the fire name is deleted but the acreage burned and additional resources (used in mop-up) is added to the "Contained Fires" section.

Data used above was extracted from the Incident Status Summary (ICS-209).

On October 21, 2007, resources commence battling eight fires starting within hours of one another. Dry winds gusting up to 70 miles an hour in some areas, threaten thousands of structures. Of over 2,000 structures threatened, destroyed structures total 53 on day one of the siege.



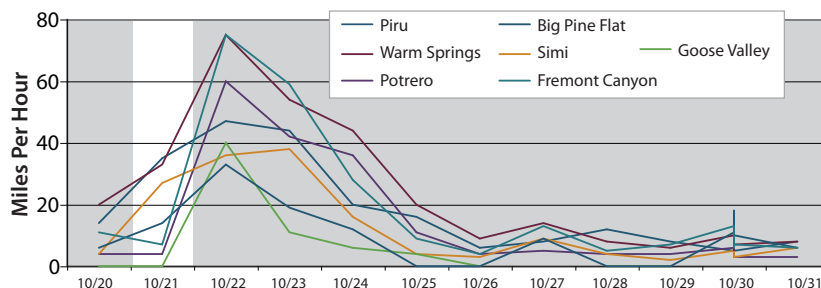
flights by lead plane pilots determine winds and turbulence are too great for air tanker operations, so only helicopter operations are planned. By afternoon, the Ranch Fire reports “extremely hellacious & erratic fire behavior,” driving the number of acres burned to 6,000, with 300 structures threatened.

The **Canyon Fire** is reported at 4:55 a.m. in Malibu Canyon, Los Angeles County. The fire threatens 300 structures and evacuations in progress create severe traffic congestion along the narrow, winding roads. The Malibu coastline is without power. Fifty mile-per-hour winds drive the fire through dense six-foot tall chaparral. Both fixed-wing aircraft and helicopters are used all day with great effect. Two of the heavy air tankers do not fly because lead planes are a committed to other fires.

Due to the unusually dry fuel condition, spotting occurs 1/2 mile ahead of the main fire. With a rapid rate of spread of two miles per hour, the fire has the potential to grow to 3,000 acres within 24 hours. The fire is spreading in a south-southwest direction into homes, businesses and historical sites including Serra Retreat House and Pepperdine University.

■ Peak Wind Speeds: October 20–31, 2007

October 21 highlighted



■ Governor Schwarzenegger declared a state of emergency in seven counties: Los Angeles, Orange, Riverside, San Bernardino, San Diego, Santa Barbara, and Ventura, due to the damages caused by wildfires and continued fire threat.

California Fire Siege October 21, 2007

The Governor's Office Of Emergency Services requested four California National Guard helicopters to support firefighting efforts.

At 6:00 a.m., slightly over an hour after the Canyon Fire is reported, the **Sedgewick Fire** begins, possibly started by arcing power lines igniting dry grass. Burning near Sedgewick Ranch and Figueroa Mountain In Santa Barbara County, the fire spreads quickly. The Woodstock area receives an evacuation warning.

The initial aircraft order of four air tankers and four helicopters is increased by four additional heavy air tankers, a lead plane and one additional helicopter. By day's end, the fire is held with retardant at approximately 710 acres.

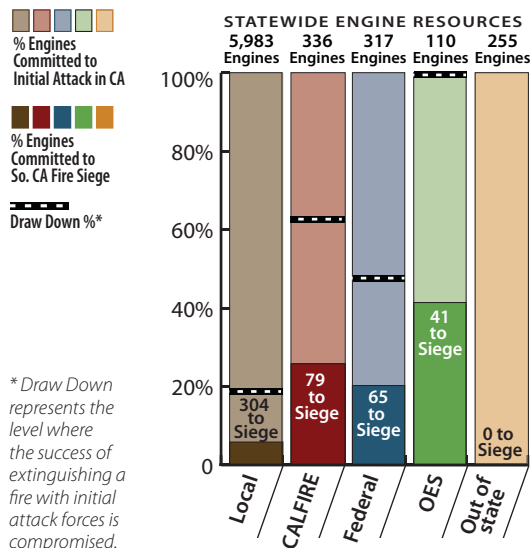
Farther to the south the **Harris Fire** is reported at 9:30 a.m. along Highway 94 near the U.S.-Mexico border town of Potrero in San Diego County. Strong winds hamper suppression efforts as the fire spreads rapidly in dry brush and grass. A second small fire in the area diverts resources briefly. By 11:00 a.m., the fire is burning around the CAL FIRE Potrero fire station with one engine on scene protecting the structure. Approximately 250 residences are threatened in the community of Potrero. By day's end, there are reports of possible fatalities and numerous injuries, including the burnover of an engine. Air tankers are held out of the area and a helicopter is sent to search for the injured personnel. In spite of high winds and poor visibility, the injured parties are found and transported to the Potrero Forest Fire Station. Two other medivacs use five Emergency Medical System (EMS) helicopters to transport ten public burn cases to the University of California San Diego Burn Center.

Air tanker operations are unable to continue due to the deteriorating conditions caused by blowing smoke and dust, turbulence and 70 mile per hour winds. Four Type 2 helicopters and two helitankers work the fire until cutoff. Multiple structures are destroyed. The communities of Dulzura and Tecate are threatened as well as the transmission power line serving a large portion of San Diego County. In a little more than 12 hours, the Harris Fire burns more than 16,000 acres.

Just 40 miles north of the Harris Fire, the **Witch Fire** is reported at 12:35 p.m. in the rural area of Witch Creek, east of Ramona in San Diego County. Aircraft diverted from the Harris Fire take immediate action due to imminent structure threat and rapid rate of spread toward Ramona. Air tanker drops are ineffective due to the winds, and air attack is cancelled.

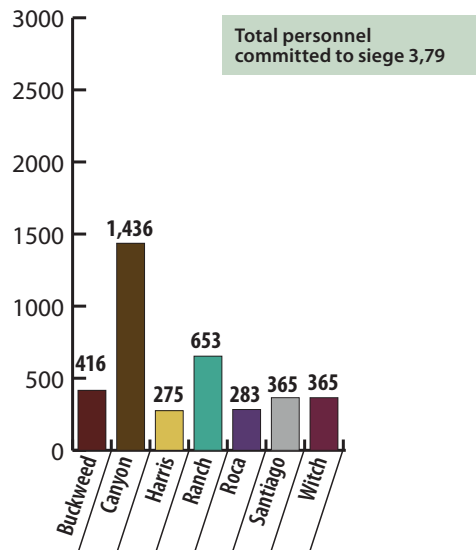
Resources Committed:

Engines, October 21, 2007



Resources Committed:

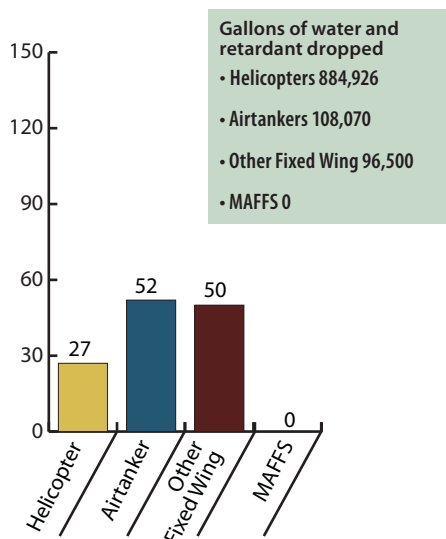
Personnel, October 21, 2007



The fire spreads rapidly toward the communities of Northeast Ramona, San Diego Country Estates, and Barona Mesa in roughly the same area that was burned by the Cedar Fire in 2003. Over 175 structures are threatened. With multiple fires already burning in Southern California, competition for resources is anticipated. By evening, the western edge of the fire jumps Interstate-15 and establishes itself in the river drainage. An estimated 10,000 acres burn. Multiple structures are destroyed in Rancho Bernardo and Poway. The communities of Ramona, San Diego Country Estates, Barona Mesa, Barona Indian Reservation, Poway and San Pasqual are all threatened.

Just before 1:00 p.m., less than 30 minutes after the inception of the Witch Fire, the **Buckweed Fire** is reported along Mint Canyon Road directly east of Six Flags Magic Mountain in Los Angeles County. Within hours, the wind-driven fire threatens 200 residences and evacuations are initiated. By evening the fire consumes an estimated 10,000 acres, threatening the communities of Santa Clarita, Castaic, Leona Valley,

Resources Committed: Aircraft, Flight Hours, October 21, 2007



Remote Automated Weather Stations

Remote Automated Weather Stations (RAWS) are solar-powered weather stations strategically positioned throughout the United States, often in isolated areas. These units collect, store, and transmit important weather information on an hourly basis. RAWS sensors monitor:

- Wind speed and direction
- Wind gusts
- Precipitation
- Air temperature
- Solar radiation
- Relative humidity
- Fuel moisture
- Soil moisture and temperature

In addition to fire weather, data collected from the more than 1,800 stations are used in numerous applications, including climatology, resource management, flood warning, noxious weed control, all-risk management, and air quality management.

The map below shows the location of the seven RAWS stations used for wind gusts data in developing the daily peak wind speed graph for this report.



California Fire Siege October 21, 2007

Green Valley, Acton, Agua Dulce and Mint Canyon. There are unconfirmed reports of several civilian burn victims and two destroyed residences. More than 3,800 structures are threatened. Large-scale evacuations are ordered for Bouquet Canyon and San Francisquito areas. Additional threats to infrastructure include water distribution systems along Interstate-5, Bouquet Canyon and San Francisquito Canyon, as well as power lines in Bouquet Canyon and along the State Route-14 corridor. The smoke column has risen to approximately 15,000 feet and the winds are gusting on the surface up to 70 miles-per-hour.

Two scoopers (air tankers that “scoop” water from water bodies while in flight) pick up water from Castaic Reservoir. Even though their water drops are made from extremely low altitudes, the wind dissipates the water to the extent that the drops are deemed ineffective. The extreme fire behavior is exceeding on-scene firefighting resource capabilities.

At 3:52 p.m. a strike team of CAL FIRE Type 3 engines on the way to fires in San Diego reports the **Roca Fire**, east of Temecula in Riverside County. High winds drive the fire down canyon at dangerous rates of spread toward the Cleveland National Forest, threatening the Agua Tibea Wilderness and the Palomar Mountain State Park.

■ A FEMA Fire Management Assistance Grant (FMAG) was authorized for the Canyon Fire in Los Angeles County.

The Roca Fire has the potential to burn up to 10,000 acres. The Jojoba Hills Resort and Rancho California RV Park receive mandatory evacuation orders for 700 residences. An evacuation center is set up at Temecula Community Center.

Seven major fires, exacerbated by relentless winds, are now blazing in Southern California. With resources already stretched, the **Santiago Fire** begins shortly before 6:00 p.m. in the foothills north of Irvine and east of the city of Orange in Orange County. This fire reportedly started in two separate spots, along Santiago Canyon Road, and west of Silverado Canyon Road.

Wind speeds are reported at 50 miles-per-hour causing large runs and major spotting. More than 2,000 residences and 50 commercial properties are threatened near Irvine. As the eighth major fire start in 20 hours, suppression efforts on the Santiago Fire are greatly limited by a lack of additional available resources.

“The flames are about 1,000 yards from the prison.”

Jim Amormino
Orange County Sheriffs’ Department Spokesman



While fire commanders had their hands full with the increasing number of fires and the stretching of resources, local law enforcement confronted unprecedented evacuation issues.

The James A. Musick Branch Jail in Irvine stood in the path of the Santiago fire. With the smoke growing thicker and the flames within 1,000 yards of the buildings, law enforcement was able to empty the prison and move all prisoners with no injury or incident.

Other facilities cooperated by making temporary space for the displaced prisoners. Within 36 hours the jail was repopulated with inmates.

Within a matter of days, 17 lives would be lost and up to 900,000 residents would be displaced. However, thousands of lives, homes and commercial properties were saved in spite of Santa Ana winds and drought conditions.



The ninth large fire of the day for Southern California, the **McCoy Fire**, is reported at 11:37 p.m. in the Boulder Creek area of San Diego County. The McCoy Fire burns in the area near the 2003 Cedar Fire in light fuels of grass and chamise regrowth. High winds drive the fire in all directions. No resources are available for initial attack.

Regional Chief Officers at OSCC respond to the escalating fire situation by initiating a series of strategic resource movements. They order all CAL FIRE fireline personnel in the Sierra Units and Northern Region to remain on duty. They also move three federal Incident Management Teams to Southern California and activate the Master Mutual Aid System to request OES and local government resources from Northern California. Northern Region Chiefs begin moving engines, crews, bulldozers, and Incident Command Teams to Southern California.

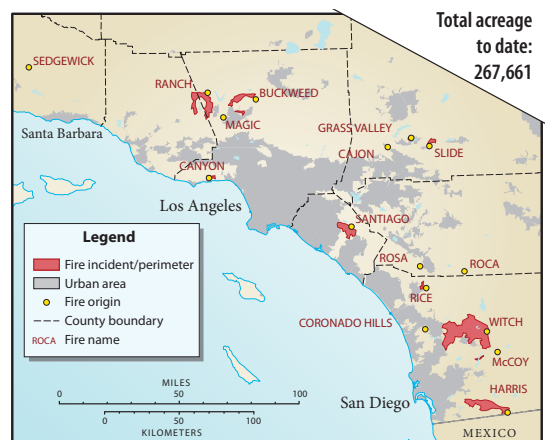
Regional Chief Officers also initiate movement of aerial resources to Southern California by activating California National Guard and active duty military helicopters, the Martin Mars air tanker from Canada, and all available “off contract” CAL FIRE air tankers. They also request two Oregon State DC-7 air tankers, reposition three Northern California helicopters, and bring two out-of-state federal heavy air tankers into the area.

■ Southern California Regional
Emergency Operations Center
activated.

By day’s end on October 21, fire managers are administering multiple incidents with extreme wind-driven fire behavior and limited resource availability. The Santa Ana winds are expected to continue through the night. The Southern California Wildland Fire Siege of 2007 is well under way.

The Fires: Day 2

Monday, October 22, 2007



Predictive Services Morning Report:

With the strong ridge of high pressure over California temperatures will be 10 to 20 degrees above normal. There will be widespread strong and gusty north-to-east winds over Southern California through Wednesday morning. Winds will be 20-to-40 miles per hour, with much higher gusts over the mountains and below the canyons and passes of Southern California through Tuesday morning.

Today's Events:

Southern California awakens to the news that the Fire Siege of 2007 has grown. By dawn, four new large fires have been reported: Coronado Hills, Guajito, Rice, and Grass Valley.

The **Coronado Hills Fire** is reported at 1:46 a.m., south of California State University, San Marcos, in San Diego County. The fire is racing through dense chaparral fanned by winds up to 40 miles per hour. Multiple structures are destroyed and evacuations begin. Fire threatens the communities of Discovery Hills, Coronado Hills, San Elijo Hills, Elfin Forest and Harmony Grove.

12 American Red Cross (ARC) shelters open.

Daily Snapshot

Incident Name	MACS Priority* a.m. / p.m.	Crews	Engines	Dozers	Overhead	Acres**	Contained %
Buckweed	1 / 4	21	129	9	72	35,547	20
Canyon	4 / 5	24	210	6	94	3,800	8
Coronado Hills	- / -	0	23	0	3	300	0
Grass Valley	- / 1	5	56	0	119	75	0
Harris	3 / 3	6	37	2	13	22,000	50
Magic	- / -	4	60	1	5	1,200	0
McCoy	- / -	0	5	0	3	300	50
Ranch	5 / 6	20	66	7	89	41,000	10
Rice	- / 8	0	5	0	5	1,500	0
Rosa	- / -	7	34	4	12	350	70
Santiago	6 / 7	2	94	2	37	15,225	30
Slide	- / 1	4	20	0	0	150	0
Witch	2 / 2	9	87	10	31	145,000	0
Contained Fires***		41	83	16	64	1,214	100
Totals		143	909	57	547	267,661	

* Multi-Agency Coordination System (MACS) priority setting for resource allocation is based on the following criteria: Life Threatening Situations, Real Property Threatened, High Damage Potential, Incident Complexity, Potential for Timely Containment.

** Figures for acreage are cumulative for the incident throughout the siege.

*** When a fire is 100% contained, the fire name is deleted but the acreage burned and additional resources (used in mop-up) is added to the "Contained Fires" section.

Data used above was extracted from the Incident Status Summary (ICS-209).

High winds prevented the water drop above from ever reaching its target.



WES SCHULTZ

At approximately 4:00 am, a new fire is reported south of the San Diego Wild Animal Park, burning in the San Pasqual River drainage. Within 30 minutes this new fire, the **Guajito Fire**, burns west to Interstate- 15. The California Highway Patrol closes this major highway in both directions, disrupting the evacuation of communities threatened by the Witch Fire. The Guajito Fire burns under a bridge along Interstate-15 racing toward Rancho Bernardo. Later in the day, the Guajito and the Witch Fires merge.

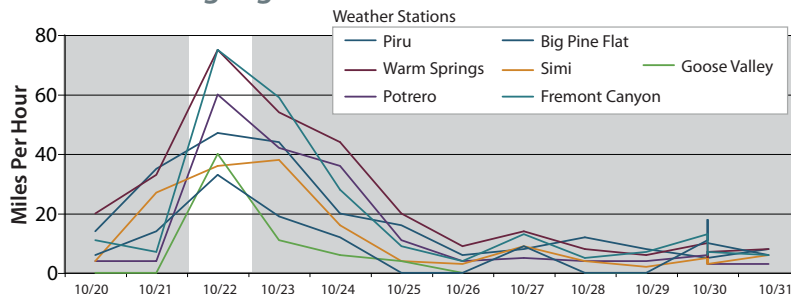
The **Rice Fire** is reported at 4:16 a.m. in Rice Canyon, north San Diego County burning in grass and brush with rapid fire spread and spotting. One structure burns and 250 structures are threatened. No mandatory evacuations are in place.

At 5:08 am, less than one hour after the Rice Fire is reported, the **Grass Valley Fire**, also known as the **Valley Fire**, is reported. This new fire is in the Deer Lodge Park area near Lake Arrowhead in San Bernardino County. Burning in timber with heavy winds, the fire poses an immediate threat to 100 structures. Evacuations commence immediately for Deer Lodge Park. As the fire progresses, it poses a threat

U.S. Department of Defense announced that six Modular Airborne Fire Fighting Systems (MAFFS) equipped aircraft have been directed to assist in Southern California.

Peak Wind Speeds: October 20–31, 2007

October 22 highlighted



President Bush issued a declaration of emergency in California for the seven counties struck by wildfires (direct federal assistance, debris removal, emergency protective measures).

California Fire Siege October 22, 2007

to thousands of residents in and around the town of Lake Arrowhead as well as endangering a nearby power plant. Fierce competition for resources hinders suppression efforts and all local resources are depleted. Due to winds over 30 miles per hour, aircraft are unable to effectively drop retardant.

The Governor directed California National Guard to make 1,500 guardsmen available at the direction of the OES to support the firefighting efforts in Southern California.

By 8:00 am the Multi-Agency Coordination (MAC) Group convenes at the Southern California Geographic Area Coordination Center (OSCC) to prioritize the incidents based on the most current information and coordinate the allocation of firefighting resources supporting the siege as a whole. In addition to the MAC Group member agency representatives, a representative for the San Diego County fires is included.

Morning reports from ongoing fires describe erratic fire behavior associated with extreme weather conditions. Thousands of homes are threatened and massive evacuations are underway.

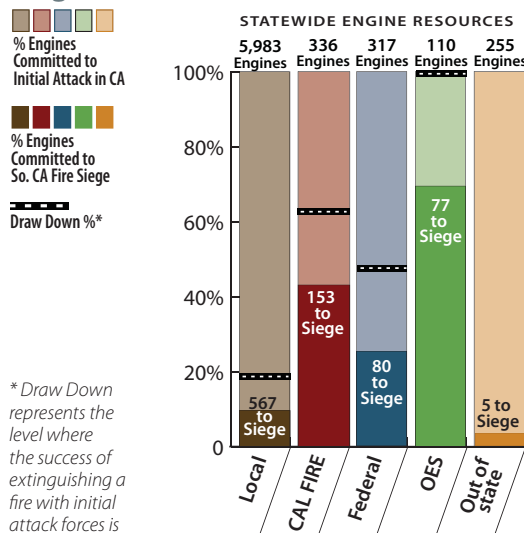
Roaring through chaparral, mixed brush and grass, the **Buckweed Fire** continues to exceed the capabilities of on-scene resources. Helicopters and two CL215s (Canadian water scooping air tankers) are working effectively. On the eastern flank, no structures are in danger. There are insufficient ground forces to assign fire fighters to the eastern portion of the fire. Without the support of ground forces, and with strong winds blowing, no air drops occur on the eastern side of the Buckweed.

The winds increase through the canyons. Officials receive unconfirmed reports of three civilian burn victims. The Texas Canyon USFS Ranger Station district office, the Bouquet Canyon/Vasquez Canyon Bridge and the Sierra Highway/Vasquez Canyon Bridge are destroyed. Major transmission lines are threatened as the fire burns toward the Magic Mountain theme park. By noon, more than 50,000 structures are threatened, and 25 have been destroyed. An estimated 15,000 residents are under mandatory evacuation.

The **Witch Fire** continues to threaten many communities in the San Diego area and jumps Interstate-15 as it heads west. The fire is well established in the river drainage burning downhill, down canyon. Driven by 31 miles-per-hour winds, with gusts up to 47 miles-per-hour, spotting occurs up to 1/2 mile. The area between the Paradise Fire (2003) and the Cedar Fire (2003) has not burned for at least 25 years. Fire reaches the community of Ramona and evacuations take place. Highway 78 from Ramona to Santa Ysabel, Wildcat Canyon and Highway 67 from Poway Road to Ramona are closed. The fire continues to move west and

Resources Committed:

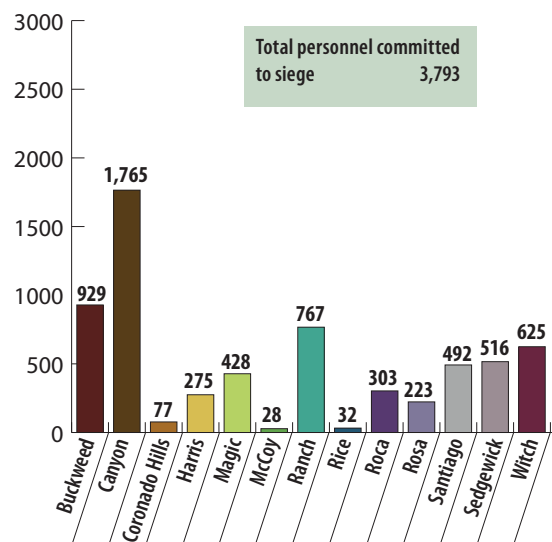
Engines, October 22, 2007



* Draw Down represents the level where the success of extinguishing a fire with initial attack forces is compromised.

Resources Committed:

Personnel, October 22, 2007



southwest. Widespread spotting and numerous new starts occur in the surrounding areas due to electrical wires falling as a result of the high winds.

High winds in excess of 40 miles per hour ground aircraft and hamper suppression efforts on the **Harris Fire**. Covering over 20,000 acres, the fire burns in the areas of Deer Horn, Mother Grundy, and east of Otay Lake. San Diego County Sheriff officers and U.S. Border Patrol agents are busy handling immigrant issues including the rescue, medical treatment, and identification of individuals. There are reports of an additional fatality. Multiple structures are destroyed in Dulzura. Mandatory evacuations are ordered for Coyote Holler, Round Potrero and Deer Horn Valley. An evacuation center is established at Steel Canyon High School. Several roads are closed. Winds reaching 70 miles per hour with moderate to severe turbulence are reported. Ground visibility is extremely poor due to blowing dust and ash. Due to the poor visibility, fixed-wing aircraft are unable to fly safely until afternoon. The San Diego Gas & Electric southwest major transmission line remains inoperable. All firefighting efforts are focused on protecting life and property.

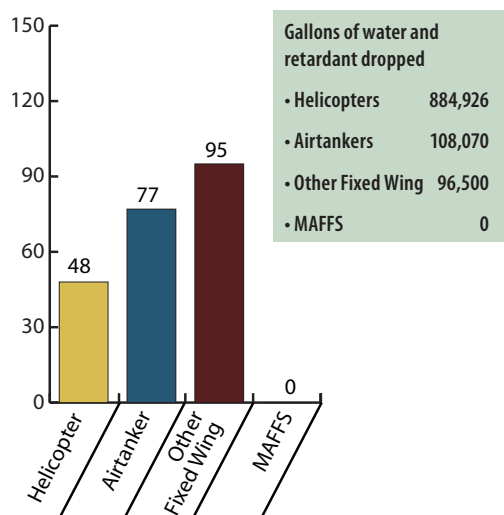
■ Governor Schwarzenegger directed inmate firefighters and staff from the California Department of Corrections and Rehabilitation (CDCR) to deploy firefighting resources to work with state and local firefighters.

Burning through heavy brush, grass, and oak, the **Ranch Fire** remains very active overnight with large wind-driven runs, long distance spotting, fire whirls, and flame sheeting. The fire spreads further west and south with the east and north flanks holding. Highway 126 is closed. Evacuations continue in the Hasley Canyon, Oak Springs, Val Verde and Piru areas. Firefighters successfully contain a new fire in Hopper Canyon.

At 8:02 a.m., another fire, the **Slide Fire**, is reported in the San Bernardino Mountains between Green Valley Lake and Running Springs. Located in a dense residential area with bug-killed timber, the fire burns at an extreme rate of spread with numerous structures threatened. Mandatory evacuations are ordered in Green Valley Lake and Arrow Bear. The fire also poses a significant threat to timber, watershed and recreation areas.

With resources already stretched thin, the **Cajon Fire** is reported at 11:38 a.m. along Interstate-15 in Devore, also in San Bernardino County. The combination of dense chaparral and high winds present control problems, causing active fire behavior including long-range spotting and high rates of spread. The fire threatens Interstate-15, a natural gas line, railway, and power lines.

■ Resources Committed: Aircraft, Flight Hours, October 22, 2007



At 2:17 p.m., the **Magic Fire** is reported west of Interstate-5 near the Old Road and Magic Mountain Parkway. Driven by Santa Ana winds, the fire shows critical fire spread with numerous spot fires. The potential for large-scale loss is great as the fire moves through heavy fuels impacted by severe weather conditions. The new fire start causes some electrical outages in the area. Numerous residential properties are at risk. Two water-scooping air tankers and several county helicopters work the area along with federal air attack. Four air tankers are used until the winds and intensity of the fire limit the retardant's effectiveness. The incident commander's ability to control this fire in the early stages is limited by the fierce competition for available resources.

By evening, a decision is made to manage the **Grass Valley** and **Slide** fires as one incident. This incident is designated the number one priority by the Southern California Geographic Area Multi-Agency Coordination (MAC) Group. Burning

California Fire Siege October 22, 2007

at extreme rates of spread in high density residential property intermixed with standing dead timber, the fire very quickly destroys multiple structures in Lake Arrowhead and Grass Valley. Thousands of structures are threatened and evacuations begin in Arrow Bear, Lake Arrowhead, Running Springs, Green Valley Lake, and Twin Peaks. Between the two fires, over 200 homes are damaged or destroyed. All roads to mountain communities are closed. Competition for firefighting resources continues to pose major problems. Aircraft are not able to drop retardant on either fire due to the wind and turbulence. The two Type 1 helicopters ordered can't fly due to strong winds and turbulence. Anticipating a break in the winds, orders are placed for two additional Type 1 helicopters, a DC 10 heavy air tanker, and any other available heavy air tankers.



■ A border crossing is engulfed by flames.

The second and third priority fires, the Witch and Harris fires, are the two largest fires burning in San Diego County.

The **Witch Fire** is reported at over 145,000 acres. No containment progress has been made due to rapid fire spread and limited on-scene resources. The fire exhibits extreme behavior with long-range spotting in excess of 1/4 mile and rapid spread rates over 2.5 miles-per-hour eventually merging with the **Guajito Fire**. The high winds with high temperature and low humidity are expected to continue through Wednesday, October 24. The fire continues to move west and southwest, threatening the communities of San Diego, Poway, Ramona, Escondido, Lakeside, Valley Center, San Marcos and Rancho Santa Fe. The fire burned with exceptional speed, driven by blowing embers in the strong winds. Islands of unburned fuel are left behind, creating an additional hazard of reburn when the winds shift. Mandatory evacuations are placed for Scripps Ranch, Rancho Bernardo, Poway, Valley Center, San Marcos and Rancho Santa Fe. By the end of the day, an estimated 500 homes have been destroyed and 250 damaged; 100 commercial buildings have been destroyed and 75 damaged. More than 5,000 homes and 1,500 commercial buildings remain threatened. There are reports of civilian injuries.

■ FEMA Fire Management Assistance Grants (FMAGs) authorized for the Santiago Fire, the Ranch Fire, the Witch Fire, the Buckweed Fire, the Harris Fire, the Grass Valley Fire and the Rice Fire.

The **Harris Fire** reports extreme fire behavior due to weather conditions. Driven by 40-to-60 mile per hour winds, the fire spreads west toward Otay Lake, and north to Lyon's Valley. Smoke and weather conditions make air operations difficult. More than 600 structures and multiple heritage sites are threatened. Evacuations progress in the threatened communities of Potrero, Barrett Junction, Barrett Lake, Lawson Valley, Jamul, Lyons Valley and Otay Mountain. Some civilians

refuse to evacuate and create rescue problems. Three additional civilians suffer burns and are transported to local hospitals. One civilian has died and 17 have been injured by this fire. The San Diego Gas & Electric Southwest major transmission line remains shut down. Most resource orders remain unfilled due

to competing incidents in the area. All firefighting efforts focus on protection of life and property, and on firefighter safety. Incident base is moved to Gillespie Field.

Extreme fire behavior is also reported from the Buckweed Fire. Influenced by strong north-northeast Santa Ana wind conditions and critically low fuel moisture levels, the fire is spotting up to 1/2 mile ahead of the main fire, and burning toward Magic Mountain theme park. On the positive side, the west flank is holding in San Francisquito Canyon. Progress is also made on the north end. The south flank is slowed significantly as it runs into a subdivision with a greenbelt established around it. At 5:45 p.m., evacuations are lifted and residents are allowed to return.

■ Governor Schwarzenegger and San Diego City Mayor Sanders visit the evacuation center at Qualcomm Stadium.

The **Ranch Fire** reports control problems due to extreme wind conditions and steep terrain. Threats to infrastructure, including Interstate-5 and state highways 126, 150 and 33, multiple power line and pipelines systems, create additional challenges. Strong winds and low relative humidity cause intense fire behavior with rapid wind-driven runs and short-range spotting. Fine and patchy fuels within the Piru Fire

(2003) area limit the fire spread to the southwest. The fire is moving further west, and burns through Hasley Canyon. By afternoon, Highway 126 is closed. The Ranch, Buckweed, and Magic fires are expected to burn together within 24 to 48 hours.

With strong Santa Ana conditions, the **Canyon Fire** spots 1/2-mile ahead of the fire front and flame heights reach 30 to 50 feet. Two-miles-per-hour rates of spread are observed. Mandatory evacuations and voluntary evacuations are implemented in many areas. Numerous road closures take effect. Competition for fire resources and ongoing Santa Ana winds continue to impact operations. Offshore winds in the area make helicopter and air tanker drops ineffective with excessive amounts of drift. Severe downdrafts are reported by the air tankers' lead plane pilots. The terrain is steep and the drops have little effect.

Homes in numerous communities along the Santa Ana Canyon corridor continue to be threatened by the **Santiago Fire**. Continued Red Flag weather conditions produce extreme and erratic fire behavior with high rates of spread and long-range spotting. Precautionary shelter deployments occur in the unincorporated area of Silverado as the fire makes several runs into the WUI. Crews undertake aggressive structure protection within the communities of Lake Forest and Foothill Ranch, with evacuations under way in Foothill Ranch. Open resource orders due to the extraordinary regional fire activity hampers containment efforts. Air tankers are unable to fly due to dangerous wind conditions.

Driven by 40-to-50 mile per hour winds, the **Rice Fire** crosses Interstate-15 and Highway 395, posing an imminent threat to 500 to 1,000 homes in the Fallbrook area within the next 24 hours. Approximately 100 homes have already been destroyed. The entire town of Fallbrook, with a population of 29,000, is evacuated. Five air tankers help support structure protection efforts of ground forces on both sides of Interstate-15. Firefighting efforts are hampered by extreme fire behavior.

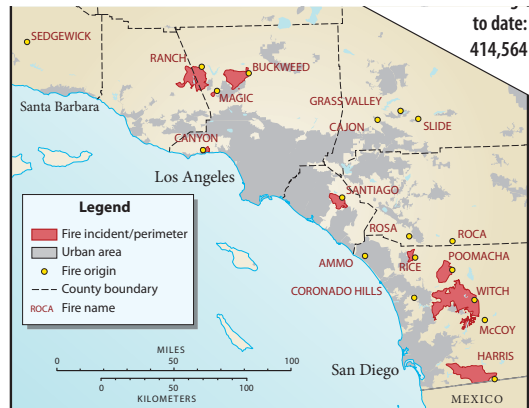
■ FMAG requested for the Rosa Fire in Riverside County.

In spite of the winds, good progress is made on three of the fires. The **Sedgewick Fire** reaches 100% containment at 710 acres, and the Coronado Hills Fire is 100% contained at 250 acres. It is recognized that immediate engagement and aggressive initial attack contributed to the Roca Fire being contained at only 270 acres.

Progress toward containment on a few of the fires gives overworked firefighters on other incidents hope that more resources will become available. However another fire, the **Rosa Fire**, is reported at 11:10 p.m. near Temecula in Riverside, County. Suppression efforts are hampered by strong winds, difficult access, and poor water supply in the area. More than 100 structures are threatened and evacuations are ordered for Deluz, Tenaja, Temecula and the Santa Margarita Ecological Reserve.

The Fires: Day 3

Tuesday, October 23, 2007



President Bush signs Emergency Declaration FEMA-3279-EM-CA for seven California counties.

Predictive Services Morning Report:

Gusty Santa Ana winds will continue over portions of the region with sustained speeds between 15 and 25 miles per hour, gusting from the 30s-to-mid-40s. Gusty conditions will continue to be problematic, especially over San Diego County.

Today's Events:

With Santa Ana wind conditions expected to continue, existing firefighting resources are not sufficient to fill all resource requests from the siege fires. Southern California has eleven fires burning in seven counties: Los Angeles, Orange, Riverside, San Bernardino, San Diego, Santa Barbara and Ventura.

Day three of the siege begins with reports of a new start; the **Poomacha Fire**, reported at 3:13 a.m. on the La Jolla Indian Reservation, in San Diego County. Starting in a structure, the fire quickly burns into six-foot-tall

Daily Snapshot

Incident Name	MACS Priority* a.m. / p.m.	Crews	Engines	Dozers	Overhead	Acres**	Contained %
Ammo [†]	- / 11	0	5	0	0	350	0
Buckweed	8 / 8	28	144	13	130	37,812	80
Canyon	9 / 10	17	90	3	99	4,500	75
Grass Valley	3 / 1	16	58	2	160	1,000	0
Harris	6 / 6	16	93	2	116	72,000	10
Magic	10 / 0	0	21	0	5	2,000	80
McCoy	- / -	1	5	0	4	300	95
Poomacha	5 / 3	8	20	4	145	20,000	0
Ranch	7 / 7	26	145	12	99	47,240	10
Rice	4 / 4	14	101	6	68	7,500	10
Rosa	11 / 9	7	34	4	12	411	70
Santiago	2 / 5	5	109	2	43	19,191	30
Slide	3 / 1	3	83	0	97	4,000	0
Witch	1 / 2	39	230	22	142	196,420	10
Contained Fires***		23	57	7	74	1,840	100
Totals		203	1,195	77	1,194	414,564	

* Multi-Agency Coordination System (MACS) priority setting for resource allocation is based on the following criteria: Life Threatening Situations, Real Property Threatened, High Damage Potential, Incident Complexity, Potential for Timely Containment.

** Figures for acreage are cumulative for the incident throughout the siege.

*** When a fire is 100% contained, the fire name is deleted but the acreage burned and additional resources (used in mop-up) is added to the "Contained Fires" section.

† Resource data for Ammo Fire does not include military personnel. Fire was on a Military Reservation. Data used above was extracted from the Incident Status Summary (ICS-209).

A game of cards helps keep fears at bay for displaced children in one of the many evacuation centers. Volunteers and employees of the American Red Cross provided support and supplies for thousands of fire victims.



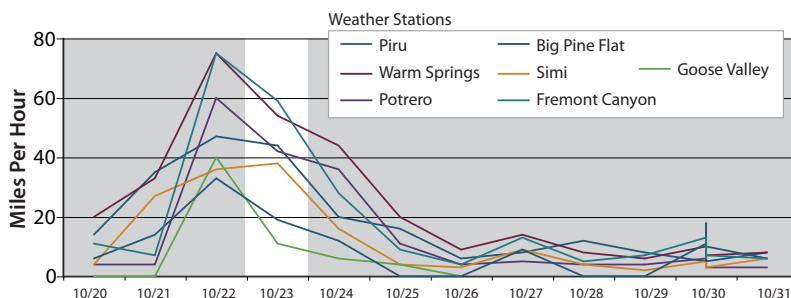
AMERICAN RED CROSS

chaparral. Driven by 50 mile per hour winds, the fire consumes 1,000 acres and threatens 2,000 residences in the Yellowbrick Road area of Valley Center. Reverse 911 evacuations are conducted for the entire Highway 76 corridor. Firefighters are unable to engage in direct fire suppression or formulate an effective strategy due to extreme fire behavior and limited resources at hand. Eight injuries are reported.

The Poomacha Fire increases substantially throughout the day. At one point the fire grows in size from 3,000 acres to 23,000 acres in an hour and a half. By afternoon, 50 residences have been destroyed. The fire threatens the communities of Valley Center, Rincon, and Deer Springs. Although some resources begin to arrive at the incident, no significant perimeter control has been initiated due to structure protection priorities as the fire burns toward Palomar Mountain.

The largest of the fires, the **Witch Fire**, continues to spread west and southwest passing through many communities. Multiple evacuations are ordered. In the early morning hours, there is a dramatic increase in wind and fire activity. The fire behavior is extreme with long-range spotting in excess of 1/4 mile and rapid rates of spread in excess of 2.5 miles-per-hour. Fire continues to burn through some areas very rapidly,

■ Peak Wind Speeds: October 20–31, 2007
October 23 highlighted



■ California Department of Food and Agriculture (CDFA) opened fairgrounds and other facilities to provide urgent shelter for displaced residents as well as horses and other animals threatened by the wildfires.

California Fire Siege October 23, 2007

leaving behind unburned fuels and creating a dangerous re-burn potential.

Mandatory evacuations take effect for Scripps Ranch, Rancho Bernardo, Poway, Valley Center, San Marcos, and Rancho Santa Fe. By dawn, 500 homes have been destroyed and 250 are damaged; 100 commercial buildings have been destroyed, and 75 damaged. More than 5,000 homes and 1,500 commercial buildings are still threatened. Hopes for containment are tempered due to competition for resources combined with predictions for more winds. By early afternoon, the Witch Fire destroys an additional 100 homes over a three-hour period.

The **Santiago Fire** morning report shows current acreage at 18,000 acres with 30% containment. While good progress is made along the north and west portions of the fire, red flag conditions produce extreme and erratic fire behavior. Numerous communities along the Santa Ana Canyon corridor remain threatened. While damage assessment is ongoing, early reports show 13 structures destroyed and 20 structures damaged. About 4,500 structures remain



Firefighters take quick action to suppress a spot fire on the roof of a structure.

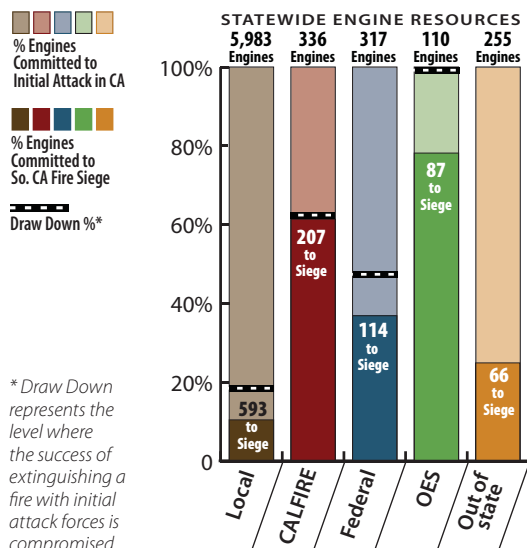
threatened. By noon, erratic winds push the fire in Modjeska Canyon, and threaten an additional 750 homes in the eastern foothill communities of Modjeska, Silverado and Santiago Canyons. Ground level winds are 20-to-30 miles per hour. Turbulence is moderate to severe for aircraft operating in the area. Air tankers are being used for limited structure protection and to put retardant imbs the lower ridges

above Modjeska Canyon. Smoke creates visibility problems throughout the day as the winds shift from offshore to on-shore. The ongoing competition for resources continues to hamper containment efforts.

By evening, some requested resources begin to arrive, and some progress is made. Extreme fire behavior

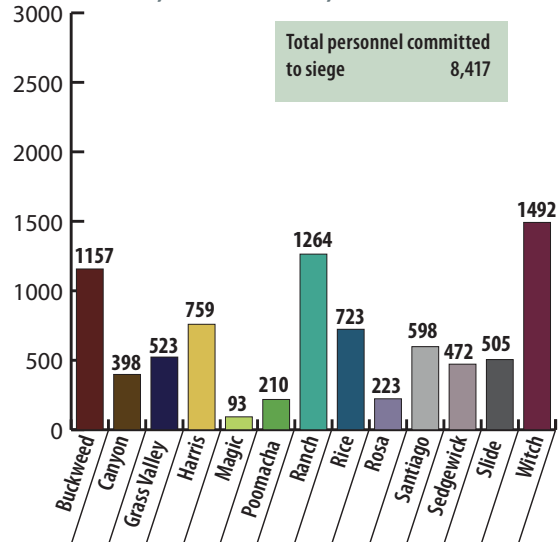
Resources Committed:

Engines, October 23, 2007



Resources Committed:

Personnel, October 23, 2007



continues with the wind-driven head of the fire running into the urban interface areas of the eastern Orange County foothills. The fire moves into the heavier fuels of the Cleveland National Forest and makes runs into the community of Modjeska Canyon. Six homes have been destroyed, and several more damaged. Structure protection proceeds in several eastern foothill canyon areas. Mandatory evacuations are ordered for Silverado, Modjeska, Williams, Ladd, Trabuco, Holy Jim and Live Oak Canyons.

■ California Emergency Services Authority activate Disaster Medical Assistance Teams (DMATs) from New Mexico and Washington.

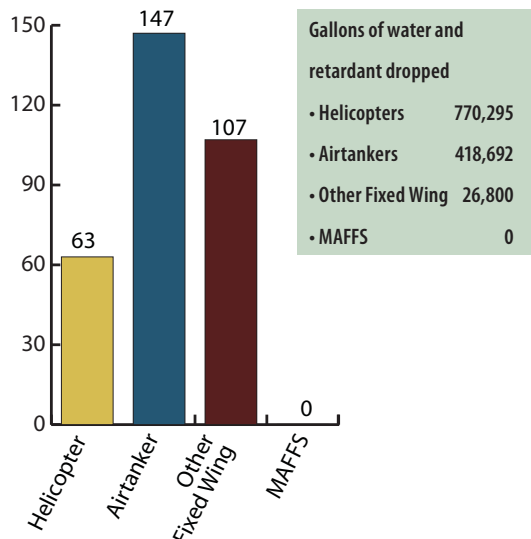
With the fires burning at extreme rates of spread, the **Slide/Grass Valley** fires still threaten hundreds of structures. Mandatory evacuations are ordered for Arrow Bear, Lake Arrowhead, Running Springs, Green Valley Lake, and Twin Peaks. All roads into the mountain communities are closed. The command teams from the Slide and Grass Valley incidents are now sharing meetings and resources. Extreme, wind-driven fire behavior, including group torching, crown runs and spotting, results in the Grass Valley fire making significant runs through structures. Aerial resources provide structure protection and cool the advancing flames so that ground resources can successfully engage. In several cases, ground crews have been unable to work on the fire's edge, and aerial resources are successfully used for structure protection.

Mandatory evacuations are in place from Crestline east to Snow Valley Ski Area. Voluntary evacuations are in effect west of Crestline, including Valley of the Enchanted and Cedar Pines Park. Evacuations to the south include North Highlands. The Mountains Community Hospital in Lake Arrowhead is evacuating patients.

Mountain Area Safety Taskforce (MAST) Plans are reviewed and implementation begins with available resources. Over 2,000 people are sheltered at evacuation centers. Closure of the San Bernardino National Forest is in effect, with limited open access. Early estimates state that between the Grass Valley and Slide Fire, nearly 300 structures have been damaged or consumed by the fire. The damage assessment team has limited access to confirm initial reports of damage. More than 10,000 structures remain threatened. Firefighter fatigue becomes a serious issue.

The entire community of Green Valley is evacuated as the Slide Fire surrounds the area. Firefighters were forced to withdraw from the area yesterday due to extreme fire behavior. The fire perimeter is currently within the community of Running Springs, with some loss of structures. The fire threatens several

■ Resources Committed: Aircraft, Flight Hours, October 23, 2007



■ Wind pushes fire and embers into structure

DAVE ELLIOT

- Governor Schwarzenegger, U.S. Department of Homeland Security Secretary Michael Chertoff, Federal Emergency Management Agency Administrator David Paulison and San Diego Mayor Jerry Sanders toured the emergency evacuation center at Qualcomm Stadium.



The “Devil Winds”

Santa Ana winds are a California firefighter’s nightmare. These blustery, dry, and often hot winds blow out of the desert and race through canyons and mountain passes on their way toward the coast. The air is hot not because it is bringing heat from the desert, but because it is flowing downslope from higher elevations. As summer ends and fall progresses, cold air begins to sink into the Great Basin deserts to the east of California. As the air piles up in the desert basins, high pressure builds and the air begins to flow downslope toward the coast. When winds blow downslope, the air is compressed, causing it to warm and dry out. In fact, the air can warm at a rate of 10 degrees Celsius per kilometer of descent (29 degrees Fahrenheit per mile). Canyons and passes funnel the winds, which increases their speed. Not only do the winds spread the fire, but they also dry out vegetation, making it even more flammable.

Courtesy NASA

communities in the Running Springs and Arrowbear, as well as Calvary Chapel Camp, National Children’s Forest and Visitors Center and Snow Valley and Nordic Rim ski areas.

Driven by 50 mile per hour winds, the Rice Fire makes major runs toward the town of Fallbrook and is positioned to burn into Santa Margarita and Sandia Creek Drainages. It is anticipated this fire will combine with the Rosa Fire. Reports indicate that as many as 500 residences may have been destroyed, and up to 30 damaged. Over 2,500 residences are currently threatened. Smoky conditions preclude the use of air tankers and only a limited number of helicopters are able to fly.

Evening provides no relief, and the Rice Fire continues to experience erratic and extreme fire behavior, with active burning in the Rainbow Glen area and the Santa Margarita drainage. Evacuation of the Deluz Canyon area is in progress. Red flag warnings will remain in effect until 3:00 p.m. tomorrow. Approximately 1,500 residences are threatened in Fallbrook. An estimated 20,000 avocado trees have been incinerated.

The Harris Fire reports extreme fire behavior due to weather conditions. The fire threatens to establish in the Otay River drainage and burn through Chula Vista. Most resource orders remain unfilled due to extraordinary resource competition. The fire burns over 100 homes in Deerhorn Valley and Honey Springs. Residents are sheltered at Fire Station 66. Fire moves rapidly to the west-southwest toward Chula Vista and Otay Lake, and north toward the south end of Barrett Lake. A critical power sub-station and a water treatment plant are endangered and firefighters are actively engaged in protection. An additional 200 to 500 homes have been destroyed or damaged, and more than 2,000 are still threatened. Almost 5,000 people are being evacuated, with more evacuations being ordered.

Smoke and weather conditions make air operations difficult and dangerous. However, aircraft is used to protect ground troops. By evening, the Harris Fire reports that a wind change aids in successful structure protection in Chula Vista and San Diego City toward Otay. The returning onshore flow moves the fire to the northeast and threatens structures along Highway 94 from Jamul to the east, and Jamacha to the west. The Evacuation Center at Steele Canyon is threatened where 200 people are sheltered in place. Structures are destroyed in the communities of: Lyons Valley, Lawson Valley, Rancho San Diego, Millar

Ranch, Indian Springs and Jamul. Two critical communications sites are threatened in San Miguel and Monte Vista.

One additional civilian suffers burns and is treated and transported to a local hospital. To date, one civilian has been killed by this fire and 21 civilians have been injured.

The Ranch Fire poses a threat to the communities of Fillmore, Piru, Ventura, and Ojai. Evacuations continue. The fire also threatens the Condor Sanctuary, Sespe Wilderness Area and Hopper Canyon National Wildlife Refuge. Major transmission lines are also threatened. Fire control problems continue due to extreme wind conditions, steep terrain and infrastructure challenges. Infrared Imagery indicate the areas embodying the most heat are on the north flank in Turtle Canyon and Sharps Canyon near the Day Fire (2006) burn, and to the west of Hopper Canyon. The Buckweed, Ranch and Magic fires are anticipated to burn together within 24-to-48 hours. The Magic and Ranch fires are now on opposite sides of Highway 126 at the Los Angeles/Ventura County line, about two miles apart.

By evening, the Ranch Fire experiences cautious optimism. The fire moves into Ventura County with some active backing fire in Violin Canyon near Interstate-5 and Castaic. Wind-driven runs advance toward Oat Mountain and Oak Flat. The fire begins to spread by rollout into Little Sespe Creek. The prediction of the Ranch, Buckweed, and Magic fires merging is no longer a concern.

Reports from the Buckweed Fire show moderate fire behavior. The fire continues to threaten a large number of residential and commercial structures in the communities of Santa Clarita, Castaic and Mint Canyon. By evening, major progress on line construction is made with little to no spread expected. Evacuations are lifted for all areas except Bouquet Canyon. The fire stands at 80% contained.

The Magic Fire is caught quickly and full containment is expected on October 24.

With decreased winds, firefighters on the Canyon Fire continue to make effective progress. The fire reports 75% containment and the demobilization of resources begins.

On the Rosa Fire, poor water supply and limited road access leads to competition between fire equipment and evacuees. However, good progress is made overnight with direct fire line construction. By evening, evacuation and road closure restrictions are lifted.

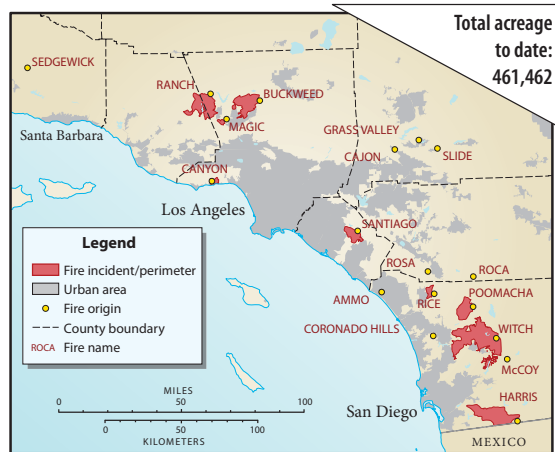
As progress is being made on some incidents, a new start is reported. At 9:20 a.m., the Ammo Fire starts at the Camp Pendleton Marine Corp Base, in San Diego County. Erratic fire behavior was observed as the fire burned into dense chaparral over steep terrain. Some mandatory evacuations occur within the camp. By evening, the Ammo Fire reports 50% containment at 3,000 acres, with full containment expected on October 25.

Meanwhile, good progress is made on the **Cajon Fire**, which reports 90% containment at 250 acres.

- A toll-free phone line was set up for businesses to use for the efficient collection and distribution of large quantity donations to evacuation centers.

The Fires: Day 4

Wednesday, October 24, 2007



President Bush declared major disaster, for seven counties for Individual Assistance, Public Assistance Categories A and B, and Hazard Mitigation Grant Program statewide.

Predictive Services Morning Report:

With the strong ridge of high pressure over California, temperatures will remain 10-to-20 degrees above normal and minimum humidity will remain in the single digits and teens today. Northeast-to-east winds will be locally 10-to-20 miles per hour with gusts up to 30 miles per hour over the mountains and below the canyons and passes of Southern California this morning. Winds will become light this afternoon over Southern California, with onshore winds over the coastal areas and upslope winds over most foothill and mountain locations.

Today's Events:

As the Santa Ana wind event begins to subside, many of the large fires report moderate fire behavior. However, the anticipated change in wind direction to a more normal onshore flow raises the potential for a new set of dangers. The intense wind speeds caused some fuels to be passed over by rapidly moving fires. This unburned fuel is now vulnerable to re-burn with the reversing winds.

More progress is made on the **Grass Valley Fire** due to a decrease in winds combined with increased relative humidity and effective perimeter control. Fire behavior is limited to creeping and backing fire with short uphill runs. Even with the decrease in erratic fire behavior,

Daily Snapshot

Incident Name	MACS Priority* a.m. / p.m.	Crews	Engines	Dozers	Overhead	Acres**	Contained %
Ammo†	10 / 8	3	15	0	10	10,000	0
Canyon	11 / 0	17	50	3	99	4,500	85
Grass Valley	1 / 1	16	109	3	1,015	1,100	30
Harris	6 / 6	33	149	4	169	75,000	10
Poomacha	3 / 3	24	73	10	67	35,000	10
Ranch	7 / 7	27	60	16	99	54,716	70
Rice	4 / 4	19	112	11	181	9,000	20
Santiago	5 / 5	11	276	4	67	22,000	30
Slide	1 / 1	12	92	2	87	10,800	0
Witch	2 / 2	45	293	22	190	196,240	20
Contained Fires***		41	59	5	168	43,106	100
Totals		248	1,288	80	2,152	461,462	

* Multi-Agency Coordination System (MACS) priority setting for resource allocation is based on the following criteria: Life Threatening Situations, Real Property Threatened, High Damage Potential, Incident Complexity, Potential for Timely Containment.

** Figures for acreage are cumulative for the incident throughout the siege.

*** When a fire is 100% contained, the fire name is deleted but the acreage burned and additional resources (used in mop-up) is added to the "Contained Fires" section.

† Resource data for Ammo Fire does not include military personnel. Fire was on a Military Reservation. Data used above was extracted from the Incident Status Summary (ICS-209).

Firefighters work shoulder to shoulder as they advance on the blaze that threatens to consume a home in the Wildland Urban Interface.



large-scale evacuations and road closures remain in effect for the surrounding fire area. Damage assessment teams enter the fire area.

The **Slide Fire** reports moderate intensity fire behavior with three-to-six-foot flame lengths; the fire mainly spreading by spotting, group torching and short crown runs. Additional structures are destroyed in Running Springs and Fredalba. A damage assessment team arrives on scene. At 4:30 p.m., the winds shift to the west-northwest and the fire once again threatens the evacuated communities between Running Springs, Snow Valley and Nordic Rim Ski Resort.

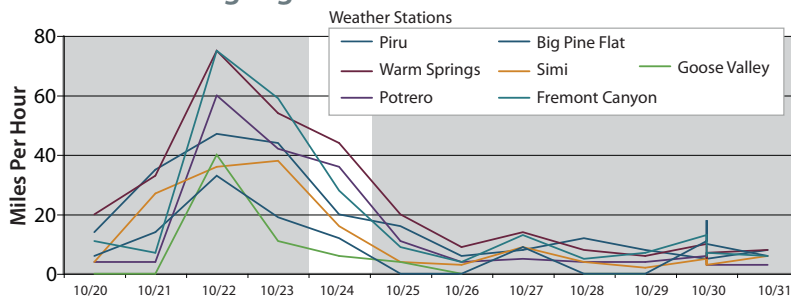
Acreage for the **Witch Fire** remains at 196,420 acres with an estimated 20% containment. Fire progression slows to the west, southwest, and northwest due to improvement in weather and additional resources being assigned to the fire. Winds in the fire area remain variable with coastal influence returning to the valleys. Warm, dry and unstable conditions exist at the higher elevations and the eastern areas of the fire. Fire continues to burn within and around structures with moderate to high intensity. Perimeter growth persists on the eastern side of the fire in mature, heavy brush and brush that resprouted after the 2003 fire siege.

The **Poomacha Fire** continues to burn close to the north flank of the Witch Incident. Favorable progress on containment is made on the eastern flank. Conditions improve sufficiently to evaluate the return of residents to the communities of Poway, Escondido, Rancho Santa Fe and Rancho Bernardo.

A shift in the wind drives the **Poomacha Fire** in a northeasterly direction resulting in an increase in fire

Peak Wind Speeds: October 20–31, 2007

October 24 highlighted



The Slide Fire experiences group torching and short crown runs today.

California Fire Siege October 24, 2007

■ Governor Schwarzenegger announced a \$50,000 reward for information leading to the arrest and conviction in a California court of the person or persons responsible for setting the Santiago Fire.

acreage to 35,000. Thirty mile-per-hour winds, long-range spotting and extreme rates of spread occur. Perimeter control is initiated with the arrival of some requested resources. Structure protection remains in place. Visibility to the west is extremely poor, and MAFFS aircraft are able to make only one drop each before sunset.

Valley Center, Rincon, Deer Springs, Pauma Valley, Escondido, Vista, Mt. Palomar Community, Palomar Observatory, and communications towers continue to be threatened. An estimated 50 structures have been destroyed.

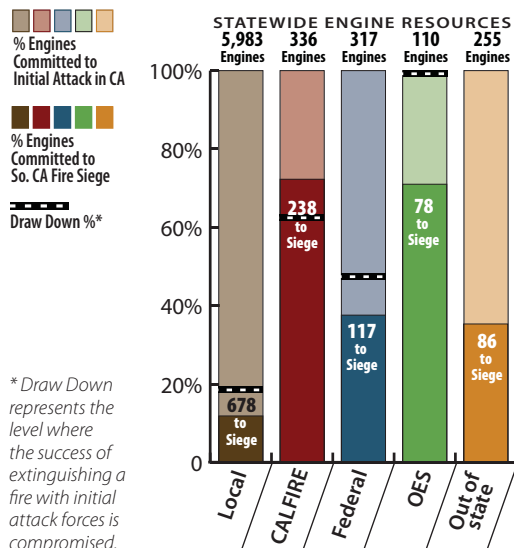
Strong, gusty winds overnight produce rapid rates of spread and frequent spotting on the **Rice Fire**, allowing the fire to become established in the Santa Margarita drainage. However, fire spread slows, experiencing only isolated runs due to a decrease in afternoon winds. Progress is made with perimeter control and structure protection. Evacuation orders remain in effect for Fallbrook and outlying areas with over 45,000 evacuees from the Fallbrook and Deluz area.

On the **Santiago Fire**, changing wind patterns and critical fire weather conditions persist, maintaining severe fire behavior with rapid rates of spread. The fire is very active overnight and additional structures are destroyed in Modjeska Canyon. Significant effort is made to effectively and safely protect assets in the vicinities of Williams Canyon, Modjeska Canyon, and Harding Truck Road. The fire progresses to the northeast. Due to difficult terrain and fire activity, control opportunities in the immediate fire location on the eastern flank are extremely limited. Evacuations are in effect in canyons along Santiago Canyon Road and the communities of Silverado, Modjeska, Trabuco, Live Oak, Williams, Holy Jim and the Cleveland National Forest. The San Onofre/Chino power transmission grid is threatened. The lack of available resources continues to be a concern.

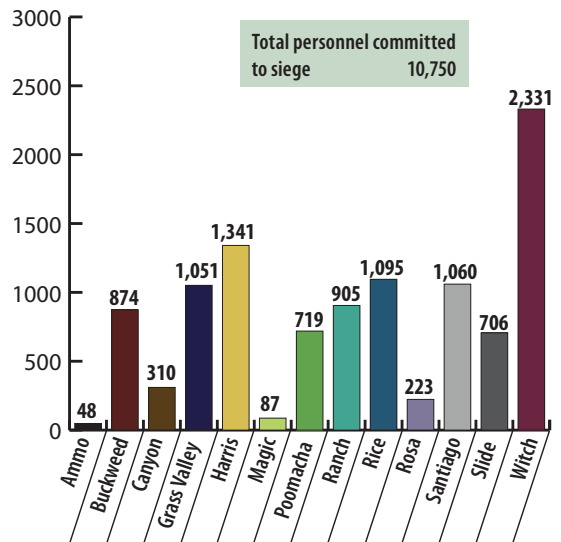
■ Amendment No. 1 to FEMA-3279-EM-CA designates the counties of Los Angeles, Orange, Riverside, San Bernardino, San Diego, Santa Barbara and Ventura for Individual Assistance.

Erratic fire behavior due to changing weather conditions continues to be the norm on the Harris Fire. While east-northeast winds remain active on the eastern portion of the fire, the normal onshore flow begins to influence the western portion. This returning onshore flow moves the fire to the northeast, threatening structures along

Resources Committed: Engines, October 24, 2007



Resources Committed: Personnel, October 24, 2007



Dry fuels and changing winds threaten new areas of the Harris (at left) and other fires.



Federal Incident Response Team (FIRST) Atlanta and Task Force San Diego activated to provide situational awareness and support to mission requirements at QualComm Stadium.

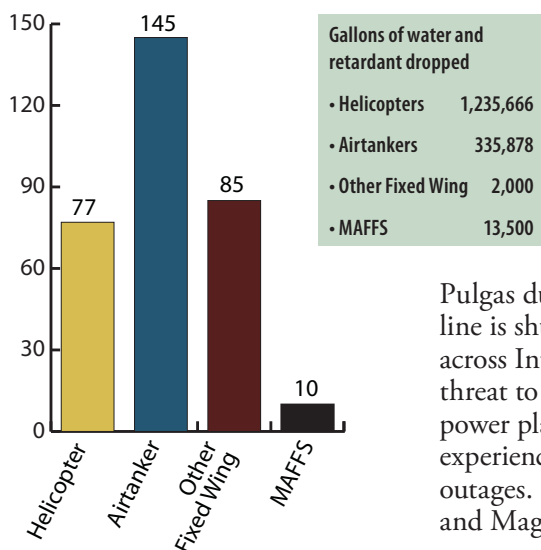
Highway 94 from Jamul to the east and Jamacha to the west. Lyons Peak burns when the fire jumps perimeter control lines, damaging the regional communications equipment and destroying the back-up generator. Crews quickly install a portable repeater to support fire communications. The fire burns north in the Barrett Lake area, consuming old, heavy fuels. With a detailed damage assessment about 55% complete, it is estimated that 1,500 homes have been threatened with 200 of those destroyed or damaged.

Most initial attack resources have been engaged continuously since the beginning of the fire; crew fatigue has become a serious problem. Most resource orders remain unfilled as the demand from incidents in the southern part of the state continues and available resources from out of the region have been drained down. Knowing this, incident commanders make adjustments to mitigate resource shortages

The **Ranch Fire** reports considerably slowing fire spread, with no significant new fire activity. Light winds and extremely dry fuels result in small isolated slope-driven runs in the southwest portion of the fire. The north flank runs into the Day Fire (2006) burn. Good progress is made on the west flank.

Evacuations are lifted in all areas and all roads reopen. A red flag fire weather warning for the Ranch Fire is cancelled at 3:30 p.m. The NASA Ikhana Unmanned Aerial System flight provides thermal intelligence regarding the fire, including perimeter information.

Resources Committed: Aircraft, Flight Hours, October 24, 2007



Containment is estimated at 70%. Demobilized resources are reassigned to assist other Southern California incidents.

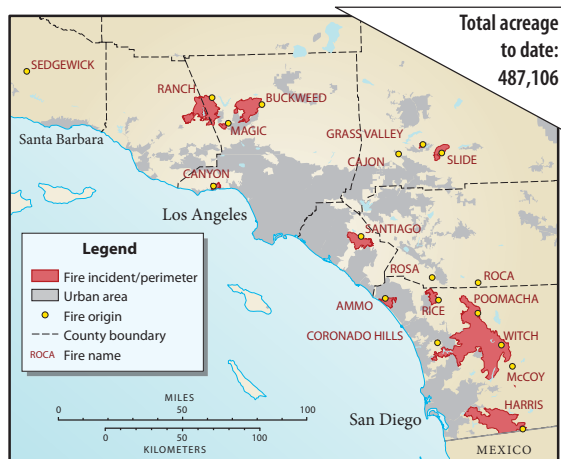
Early morning reports for the **Ammo Fire** show good progress and optimistic predictions. Acreage burned stands at 7,500, with 50% containment. Later in the day, however, the fire escapes containment on the south flank, spreading southeast and parallel to Interstate-5. Because visibility is estimated at only one mile, the MAFFS are diverted to the Poomacha Fire. By evening, the Ammo Fire has grown to 10,000 acres, and is only 10% contained. Interstate-5 southbound is closed at Basilone and northbound at Las

Pulgas due to smoke and downed power lines. The Metro Link Rail line is shut down from milepost 212.3 to milepost 225.3. Fire spots across Interstate-5 into San Onofre State Park although there is no threat to the nearby nuclear power plant. Camp Pendleton experiences sporadic power outages. Both the Buckweed and Magic fires are contained.

FEMA Joint Field Office (JFO) established in Pasadena.

The Fires: Day 5

Thursday, October 25, 2007



Small Business Disaster Assistance Loan Guarantee Program was activated.

Special load permits issued for trucks carrying disaster relief supplies.

Daily Snapshot

Incident Name	MACS Priority* a.m. / p.m.	Crews	Engines	Dozers	Overhead	Acres**	Contained %
Ammo [†]	6 / 6	3	28	0	31	15,000	50
Grass Valley	8 / 8	20	72	3	215	1,100	70
Harris	2 / 2	33	149	4	169	84,000	20
Poomacha	3 / 3	34	147	18	164	38,500	30
Ranch	- / 9	11	45	8	99	56,235	81
Rice	7 / 7	19	111	12	174	9,000	40
Santiago	4 / 4	28	216	11	130	26,000	30
Slide	1 / 1	25	213	6	55	11,675	15
Witch	5 / 5	53	365	22	228	197,990	30
Contained Fires***		21	10	5	150	47,606	100
Totals		247	1,356	89	1,415	487,106	

* Multi-Agency Coordination System (MACS) priority setting for resource allocation is based on the following criteria: Life Threatening Situations, Real Property Threatened, High Damage Potential, Incident Complexity, Potential for Timely Containment.

** Figures for acreage are cumulative for the incident throughout the siege.

*** When a fire is 100% contained, the fire name is deleted but the acreage burned and additional resources (used in mop-up) is added to the "Contained Fires" section.

Data used above was extracted from the Incident Status Summary (ICS-209).

Predictive Services Morning Report:

The ridge of high pressure over the southwestern states will weaken. However, temperatures will remain above normal, and humidity will remain low through Friday. For the most part, there will be typical diurnal winds over the region through early next week. Winds will be light offshore or downslope nights and mornings, and light onshore or upslope in the afternoons.

Today's Events:

The wind pattern returns to a more normal diurnal flow, and acts favorably on many of the ongoing fires. However, fire personnel remain cautious as changes in wind direction can cause sudden, erratic fire behavior.

The **Grass Valley Fire** reports little perimeter growth during the night. During the day, isolated interior tree torching with some backing, creeping, and smoldering fire behavior is observed. Evacuation and road closure orders remain in effect for a large area surrounding the Grass Valley and **Slide Fires**. Progress is made on line construction and burning out in Miller Canyon. Damage assessment teams continue their work. The fire team works with cooperating agencies and utilities to plan for residents' re-entry into the mandatory evacuation area.

The **Slide Fire** reports moderate fire behavior with some backing, occasional torching, and short range spotting. A fire line is successfully established in some areas. Continued success with a perimeter control strategy is anticipated as critical resources begin to arrive. Plans for re-entry into the mandatory evacuation area are made.

Fire progression for the **Witch Fire** slows to the west, southwest, and northwest due to improvement in weather and additional resources assigned to the fire. Coastal influence and westerly winds return to low-lying areas and coastal valleys. Progress on containment is favorable on

the west side, allowing the return of residents into Poway, Escondido, Rancho Santa Fe, San Diego and Rancho Bernardo. Warm, dry and unstable conditions still exist at the higher elevations and in the eastern areas of the fire where the perimeter continues to grow. The fire is burning in mature heavy brush and resprouted brush from the 2003 fire siege. The Poomacha Fire merges with the Witch Fire. San Diego Gas & Electric (SDG&E) begins to re-establish utility service in some affected areas. President Bush, Governor Schwarzenegger and Senator Feinstein survey the fire area and visit Incident Base in the morning. Damage assessments report 239 destroyed vehicles.

Ongoing firing operations and line construction continue throughout the day on the **Poomacha Fire**. The control line, which is tied into the Witch Fire, is holding although some spotting across the line occurs. Mop-up and patrolling is underway in the flats, but there is still fire actively burning in the Pauma Reservation and Palomar Mountain areas. The fire enters the Aqua Tibia Wilderness where control operations remain difficult due to steep terrain, inaccessibility, and lack of handcrew. Active structure protection is ongoing in the Mt. Palomar area where 450 structures are threatened. Re-entry plans are being developed for displaced residents.



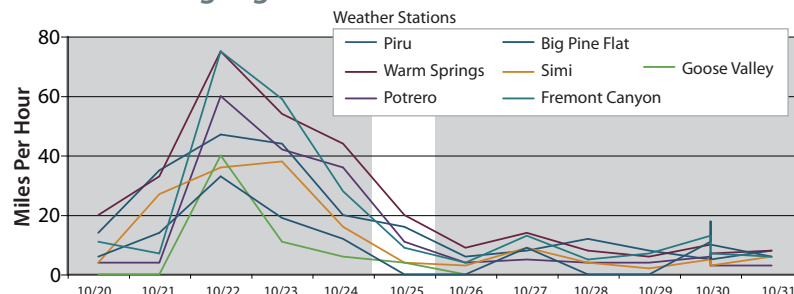
WES SCHULTZ

■ Operation strategies are evaluated and revised as winds slow.

■ U.S. Department of Labor approved a \$50 million grant to hire workers in disaster assistance jobs.

■ Peak Wind Speeds: October 20–31, 2007

October 25 highlighted



WES SCHULTZ

California Fire Siege October 25, 2007

President Bush, Senator Feinstein, Congressman Bilbray, and Governor Schwarzenegger meet with firefighters at incident base camps, meet homeowners at Rancho Bernardo Community Center, tour a Rancho Bernardo neighborhood destroyed by fires, and take an aerial tour of the burned areas of Rancho Bernardo, Poway, and Escondido in Marine One.

Good progress is made on the **Rice Fire**. Crews construct and improve portions of the line, anticipating a dangerous change in wind direction with the potential to push the fire into Riverside County toward Temecula and endanger fire fighters. Fire activity is generally limited to localized flare-ups. Although structure protection is still in place, portions of Fallbrook are reopened to residents. Plans are made for a gradual lifting of additional evacuations over the next several days.

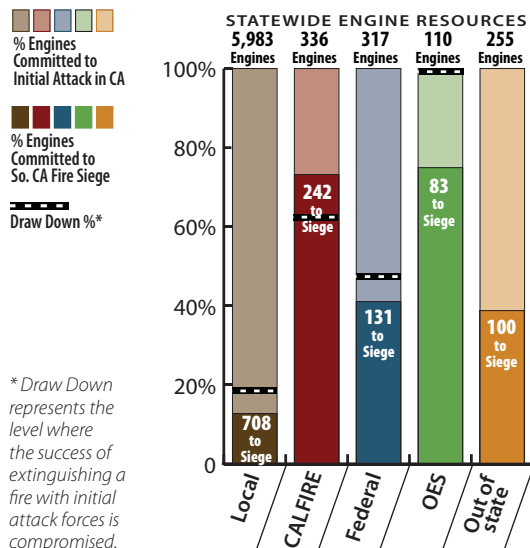
Changing wind patterns and critical fire weather, combined with problematic fuel and topographic conditions, produce very active fire behavior with rapid rates of spread on the **Santiago Fire**. The fire burns east to within one mile of Modjeska Peak. A contingency group is formed to triage extremely critical telecommunication sites along the main divide. In the meantime, good progress is made in burning around and securing structures in the Modjeska Canyon area. Resource shortages continue to be a challenge in meeting incident control objectives.

Denver Mobile Emergency Response Support/Mobile Emergency Operations Vehicle (MERS/MEOV) activated and deployed.

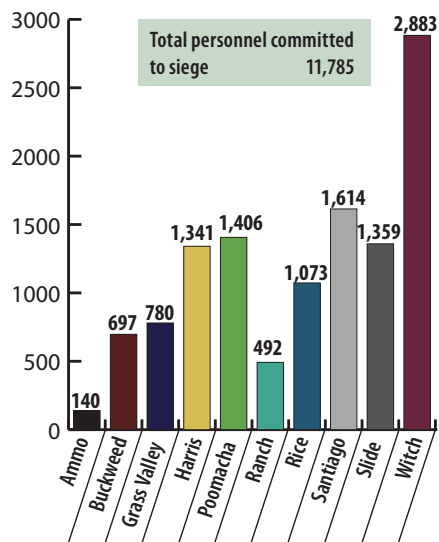
Riverside County develops a comprehensive strategic contingency plan in the event that the Rice, Poomacha, or Santiago fires cross into the county.

The **Harris Fire** remains active in old and extremely dry fuels with active burning on the northern and eastern portions of the fire. The heavy fuels and steep terrain on the northern edge of the fire present few control opportunities. Active structure protection continues in Lyons Valley. The fire spots across the southwest arm of Barrett Lake and approximately 500 more homes are evacuated. Evaluation of re-entry of civilians to other evacuated areas continues today. Residents in the Thousand Trails, Potrero and Tecate neighborhoods are allowed to return. The cities of Chula Vista and San Diego are no longer threatened. Four additional fatalities are discovered inside the fire perimeter. A total of five civilians have been killed

Resources Committed: Engines, October 25, 2007



Resources Committed: Personnel, October 25, 2007



and 21 injured by this fire. Personnel are exhausted. Some additional resources begin trickling in, however, many resource orders remain unfilled as demand exceeds the immediately available supply.

Successful suppression efforts limit fire spread in most locations of the **Ranch Fire**. Dry fuel conditions and up-canyon winds stimulate runs on the north side of the fire that spread into the Day Fire burn (2006). Fire crews rappel on the west end of the fire and construct a direct line in the Hopper Mountain, Oat Mountain, and Little Sespe Creek areas. Good progress is made in mopping up contained areas. Estimated control date is extended by five days to allow for mopping up in difficult-to-access areas where the threat of fire is low.

By 6:00 p.m. the **Ammo Fire** reports burned acreage of 15,000 with 50% containment. The fire still poses a threat to base facilities.

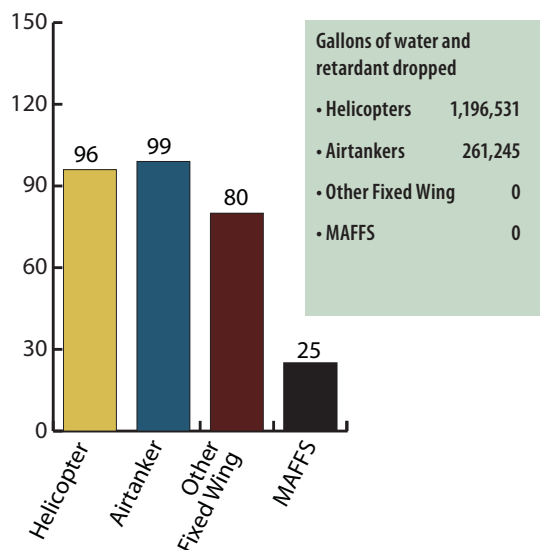
The **Ammo** Incident Team (Team 5) and the **Rice** Incident Team (Team 3) form a unified command to share incident base facilities with the North County Fire Protection District, including supplies and services.

■ 54 shelters are open with a total population of approximately 19,440.

Evacuees in Qualcomm Stadium in San Diego find ways to pass the time.



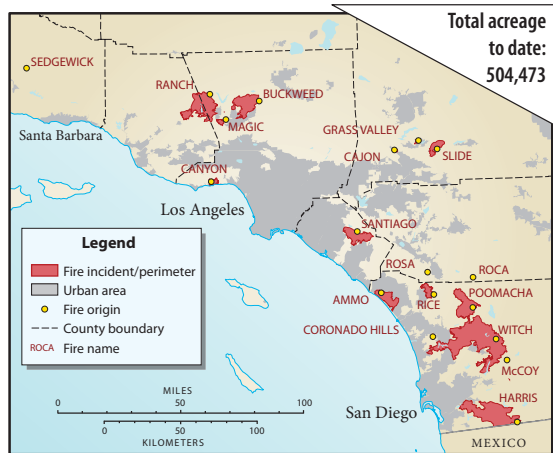
■ Resources Committed: Aircraft, Flight Hours, October 25, 2007



A member of an engine crew is silhouetted by brilliant flames as he works the fire line at night.

The Fires: Day 6

Friday, October 26, 2007



State and Consumer Services Agency sets up a toll-free number to take reports of scams, fraud, and abuse and to provide information on contractors, loan officers and other licensed professionals to assist victims of the fires.

Predictive Services Morning Report:

A trough over Northern California will enhance the marine layer along the central and Southern California coast, bringing cooler temperatures, higher humidity, and a little stronger onshore flow to the entire region today and Saturday. In the fire areas, temperatures will mainly be in the 70s and 80s, and humidity values in the 15 to 25% range both today and Saturday. Winds will turn southwest-to-west by this afternoon, at five-to- 15 miles per hour.

Today's Events:

As the Santa Ana wind event subsides and the normal onshore flow returns to the area, most of the nine remaining large fires report minimal fire spread and estimate full containment within the next five days.

The **Harris Fire** remains active in old, extremely dry fuels and steep terrain, in particular, along the northern edge of the fire. Active structure protection continues in Lyons Valley. The team continues to develop contingency plans to protect communities to the north toward Interstate-8, and to the east along Buckman Springs Road. Residents of Thousand Trails, Potrero, Tecate and western Jamul areas are allowed re-entry. The estimated containment date is October 31.

Daily Snapshot

Incident Name	MACS Priority* a.m. / p.m.	Crews	Engines	Dozers	Overhead	Acres**	Contained %
Ammo†	6 / 7	0	49	0	33	21,004	90
Grass Valley	8 / 8	16	79	2	152	1,140	75
Harris	2 / 1	41	219	25	313	85,000	35
Poomacha	3 / 3	48	164	29	150	42,000	35
Ranch	9 / 0	7	27	6	89	58,401	94
Rice	7 / 6	19	103	2	173	9,000	60
Santiago	4 / 4	37	212	18	186	27,600	35
Slide	1 / 2	27	321	35	107	13,700	20
Witch	5 / 5	64	352	22	235	197,990	45
Contained Fires***		3	16	0	19	48,558	100
Totals		262	1,542	139	1,457	504,473	

* Multi-Agency Coordination System (MACS) priority setting for resource allocation is based on the following criteria: Life Threatening Situations, Real Property Threatened, High Damage Potential, Incident Complexity, Potential for Timely Containment.

** Figures for acreage are cumulative for the incident throughout the siege.

*** When a fire is 100% contained, the fire name is deleted but the acreage burned and additional resources (used in mop-up) is added to the "Contained Fires" section.

† Resource data for Ammo Fire does not include military personnel. Fire was on a Military Reservation. Data used above was extracted from the Incident Status Summary (ICS-209).

Flames and smoke billow through the dense brush on a hillside. The winds begin to subside today allowing firefighters to make substantial progress on most fires.



The **Slide Fire** reports moderate intensity, active surface and backing fire with short runs, torching, and short-range spotting. Structure protection remains in place for Lake Arrowhead Scout Camps. An additional structure is destroyed this morning in Running Springs. Contingency plans for fire movement toward Lake Arrowhead are developed. Damage assessment continues.

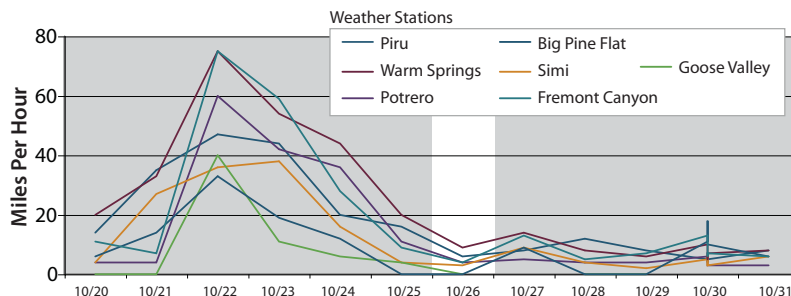
The **Poomacha Fire** reports active fire behavior as the fire continues to burn in the Aqua Tibia Wilderness. Re-entry of residents begins in some areas. Extensive assessment progresses and 78 structures are reported destroyed.

The **Santiago Fire** has burned to Modjeska Peak and poses a threat to the San Onofre/Chino power grid and telecommunications facilities. A secondary line is planned along the Orange/Riverside County border.

The **Witch Fire** reports containment progress on the west flank of the fire. However, onshore winds continue to affect control lines with warm, dry, and unstable conditions at high elevations and on eastern areas of the fire. The Poomacha and Witch fires merge. Protecting the San Diego Wild Animal Park and a local Indian reservation remain a concern. Re-entry of residents continues in Poway, Escondido, Rancho Santa Fe, San Diego and Rancho Bernardo, as well as in Julian, Wynola, Cuyamaca, Del Dios and Lake Hodges. Ramona evacuations are lifted. The estimated containment date is October 31.

Peak Wind Speeds: October 20–31, 2007

October 26 highlighted



■ Governor Schwarzenegger issued Executive Order S-13-07 directing state agencies to take numerous actions:

- β suspend the one-week waiting period for unemployment insurance
- β waive fees in the replacement of certain vital documents
- β expedite cleanup and debris removal

California Fire Siege October 26, 2007

With the change in wind direction, the **Rice Fire** reports significant progress on fire line construction, although portions of the fire perimeter are still in need of line construction. Deluz and areas north of Mission Road continue to be threatened. Meanwhile, re-entry continues for portions of Fallbrook. The estimated containment date is set at October 28.

The **Ammo Fire** commanders predict no fire spread for the next operational period. Acreage burned to date is 21,084 acres, with 90% containment.

The **Grass Valley Fire** reports good progress in the Miller Canyon drainage with no perimeter growth anticipated in this operational period. Mandatory evacuation orders for the Crestline community are reduced to voluntary status. All other evacuation and road closures remain in effect. Current acreage burned stands at 1,140 acres with 75 % containment. The estimated containment date is set for October 28.

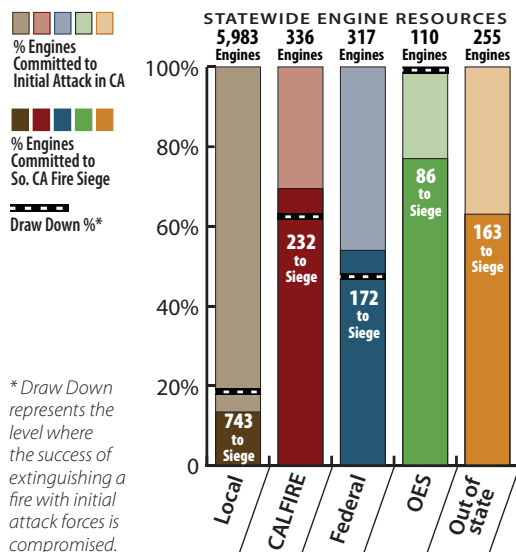
The **Ranch Fire** reports complete line construction on the west perimeter of the fire with good progress made overall. The team sets an expected containment date of October 30.



Firefighters feel a cautious optimism as the Santa Ana Winds begin to slow.

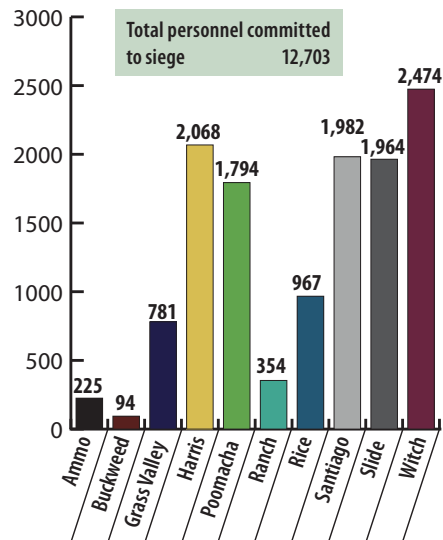
Resources Committed:

Engines, October 26, 2007



Resources Committed:

Personnel, October 26, 2007



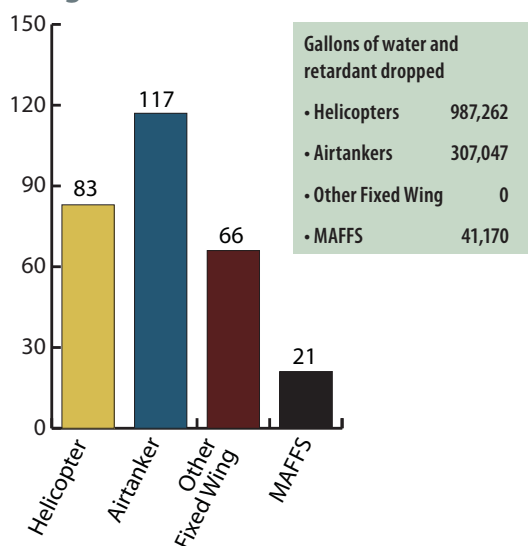
President George W. Bush shakes hands with firefighters during his tour of the siege.



■ ESF-4 resources arrive in California and are dispersed to incidents.

■ Evacuation center at Qualcomm Stadium closed.

■ Resources Committed: Aircraft, Flight Hours, October 26, 2007



■ A resident surveys the damage done by the Santiago fire.

KEVIN LABIANCO

The Fires: Day 7

Saturday, October 27, 2007

Predictive Services Morning Report:

A trough off the California coast will combine with some subtropical moisture to produce widespread cloudiness today across region, along with a few light showers or sprinkles. Temperatures will be seasonable and the humidity will rise a little over most of the fires with the mid-level moisture overhead. In the fire areas, temperatures will mainly be in the 70s-to-low-80s and humidity values should rise to the 15-to-30% range. East-to-southeast winds this morning will switch to the southwest and west at 8-to-18 miles per hour this afternoon.

Today's Events:

Fire activity on the **Harris Fire** decreases dramatically as humidity increases. Evacuation orders are lifted for all areas. Firing operations are successful along Wilson Creek. Direct line construction continues in Hauser Canyon near Barrett Lake. Alternate control lines are constructed to support the Lawson Valley contingency plan. Air tanker operations on the fire are concluded. Helicopter operations continue to support ground troops.

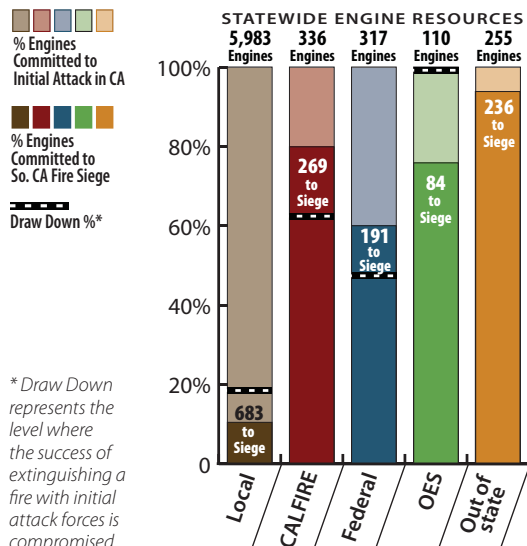
■ Governor Schwarzenegger holds a press conference to reinforce the state and law enforcement's commitment to capture and prosecute arsonists and to discuss further actions to protect fire victims against price gouging and insurance scams.

Various aerial infrared platforms fly the fire to identify hot spots and help refine the fire perimeter map. Search and rescue operations continue. Damage inspection of burned structures is ongoing. Assessments of areas for fire suppression rehabilitation needs are under way.

Good progress is made in containing fire spread on all flanks of the **Slide Fire**. The estimated number of residences threatened in the communities of Crab Flats, Running Springs, Smiley Park and Arrowbear decreases from 10,000 to 5,500. However, closure orders remain in effect. Utility companies work hard to support re-entry of evacuated residents. Very light precipitation occurs over some areas of fire.

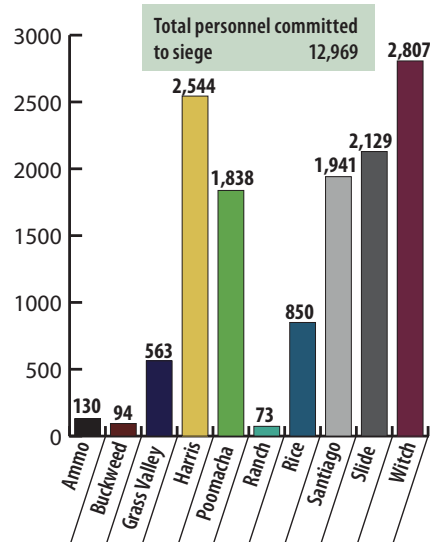
Resources Committed:

Engines, October 27, 2007



Resources Committed:

Personnel, October 27, 2007



The **Poomacha Fire** experiences moderate fire behavior with short runs upslope to ridge tops. The estimated number of residences threatened decreases from 2,000 to 500. The reported number of residences destroyed increases from 78 to 136. There is a short period of light rain on the fire, but it has little effect.

■ ESF-2 demobilized.

Cooler weather and cloud cover slow down fire behavior on the **Santiago Fire**. However, a potential change in the weather bringing warmer and drier conditions is forecast for tomorrow. Current and future threats to property and structures still exist as the fire slowly backs down Silverado Canyon. Bulldozers continue to work to tie in control lines above Silverado Canyon and North Main Divide.

■ California Department of Social Services to administer cash grants of up to \$10,000 to help individuals who have suffered losses in the fires.

The **Witch Fire** experiences no significant fire spread overnight, and good progress on containment occurs on all

branches. Open line in the San Diego river drainage and the Poomacha Fire interface area is an ongoing concern. Warm, dry and unstable conditions still exist at the higher elevations. Re-entry begins to the Del Dios, Alpine and Peutz Valley areas. San Diego Gas and Electric starts restoring utility service to some affected areas. Meanwhile, firefighters continue to implement strategies to minimize the impacts to the Agua Tibia Wilderness.

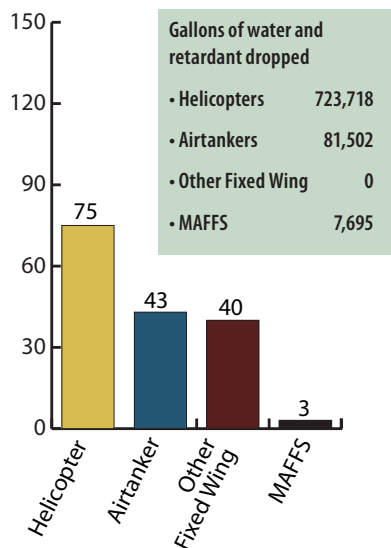
Line construction on fire perimeter and mop-up around structures is almost complete for the **Rice Fire**. Full containment of the fire is expected tomorrow as light precipitation aids mop-up operations. All portions of Fallbrook are opened to residents. Demobilization of excess resources continues.

The fire line is completed for the **Grass Valley Fire**, with effective mop-up of the perimeter progressing.

The **Slide Fire** reports progress containing the fire spread on the south and southwest flanks. Area closure orders remain in effect for a large area surrounding the Grass Valley and Slide Fires. Power, gas, and water companies work in fire areas to restore services. Coordinated efforts with cooperating agencies and utility companies for re-entry into the mandatory evacuation area continue.

At the **Ammo Fire**, evacuation orders are lifted for the camp and power is restored. Demobilization is planned for the next day.

■ Resources Committed: Aircraft, Flight Hours, October 27, 2007



A pair of trees frame a smoky sunset during the October siege.



Wes Schmitz

The Fires: Day 8



Firefighters survey fire damage

Sunday, October 28, 2007

Predictive Services Morning Report:

A ridge of high pressure over California will bring warmer temperatures and lower humidity to the region today. Temperatures will be around 10 degrees above normal, and humidity will be mainly between 15% and 30%. Winds will continue to be very light today.

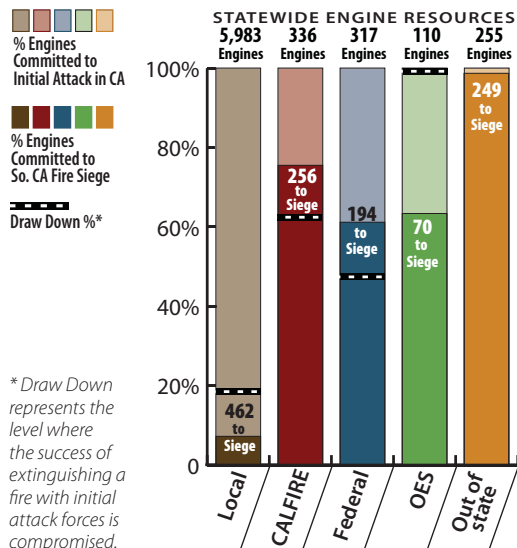
Today's Events:

Direct line construction on the fire perimeter is nearly completed for the **Santiago Fire**, but threats to property and structures continue. Continued aircraft support is deemed critical. Fire behavior is moderate with creeping and some short runs when the fire aligns with fuels and topography. Structure protection remains in place in Silverado & Trabuco Canyons. A burn plan is approved for Silverado Canyon and remains an option for future use.

The **Poomacha Fire** experiences active backing fire north of Palomar divide, and moderate runs upslope in the interior of the burn. The DC-10, Martin Mars, six C-130 (MAFFS), and six heavy air tankers are working together to contain the spread of the fire. The estimated containment date is pushed back two days to October 31. Firefighters continue structure protection and perimeter control. Crews

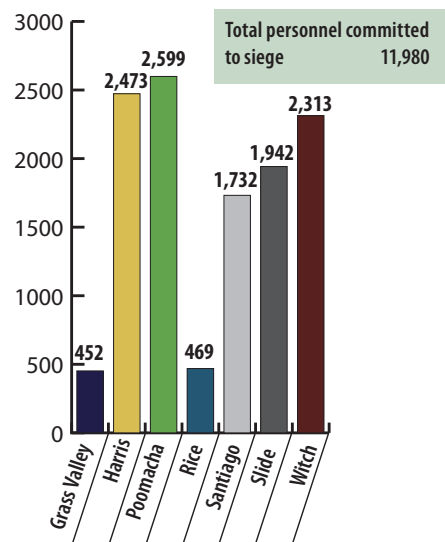
Resources Committed:

Engines, October 28, 2007



Resources Committed:

Personnel, October 28, 2007



experience difficulties in mop-up in the Agua Tibia Wilderness. A complete re-entry of residents is expected by this evening.

There is minimal fire activity with no significant fire spread on the **Harris Fire**. To prevent future escape, significant mop-up is required in steep terrain with heavy fuels. Residents re-enter the fire area. Navy Seabees work contingency lines and assist in demobilization. The fire team reports excellent production by out-of-state crews.

With the **Witch Fire** 95% contained, the cities of San Diego, Poway and Escondido along with the Rancho Santa Fe Fire Protection District transition out of Unified Command and serve as Agency Representatives. All communities are repopulated and San Diego Gas and Electric continues to restore utility services. Damage assessment and fire line suppression repair continues. Significant demobilization is under way.

Evacuation and closure orders remain in effect for the **Grass Valley** and **Slide** fire areas. However, mandatory evacuations are lifted east of Heaps Peak. Re-entry for Lake Arrowhead area is expected shortly. Power, gas, and water companies work in the fire area to restore services. Meanwhile, crews continue to mop-up and patrol residential areas with helicopter infrared (IR) to identify hot spots and prioritize mop-up.

The **Ammo Fire** is contained at 21,004 acres.

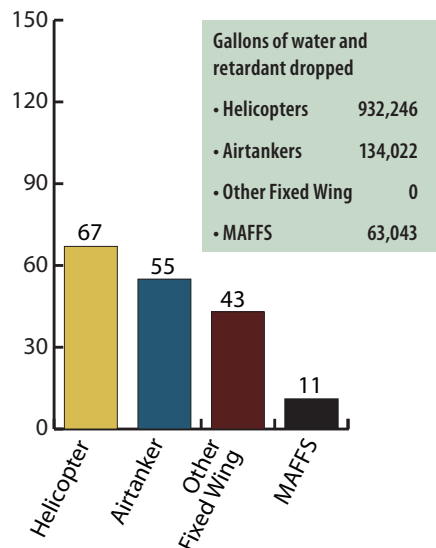
■ Tribal Task Force established to provide liaison and address concerns with impacted tribes in San Diego County.

■ Governor Schwarzenegger toured the local assistance center at Cuyamaca College.

■ Subject Matter Specialists from Planning, Logistics, Community Relations, Public Assistance and External Affairs deployed from the FEMA Joint Field Office in Pasadena to San Diego.

The California National Guard (CNG) has 2,388 personnel committed to supporting the siege. Since October 22, CNG has mobilized a total of 10 helicopters, helped deploy 6 C-130 aircraft with Modular Airborne Fire-fighting System (MAFFS), and coordinated airborne tactical reconnaissance aircraft. While two Air Guards were placed on standby for Search-and-Rescue, additional CNG resources provided security at evacuation centers at Del Mar Raceway and Qualcomm Park.

■ Resources Committed: Aircraft, Flight Hours, October 28, 2007



Flames subsided but smoky skies remained the norm throughout the week.

The Fires: Day 9

Monday, October 29, 2007

Predictive Services Morning Report:

A couple of weak low-pressure areas will move through Central California bringing much cooler temperatures and much higher humidity to the region through Wednesday. These weak low-pressure areas will also bring scattered showers mainly to Central California this afternoon through Wednesday. There will also be scattered thunderstorms over Central California this afternoon. Most Central California locations will receive less than a quarter-inch of rainfall, and locations over Southern California will receive little or no measurable rainfall through Wednesday. There will be gusty south-to-west winds over the mountains and deserts this afternoon.



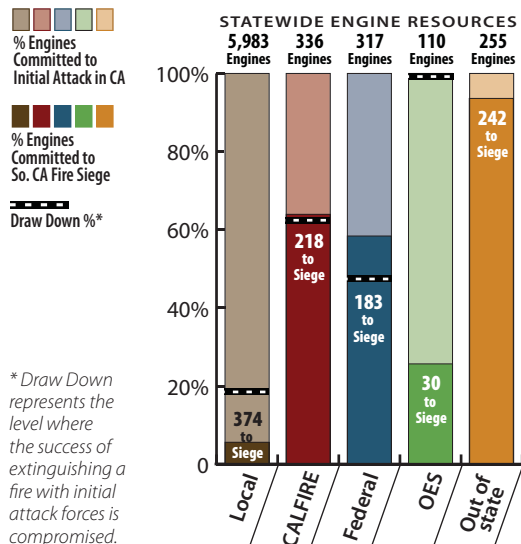
Many communities built with fire safe building practices passed the ultimate test by surviving the siege.

Today's Events:

The **Santiago Fire** continues to threaten structures and private property within the Silverado area. Direct line construction is chosen over burning out to limit the potential for long-term effects, in particular flooding and rock fall. Changing wind patterns and problematic fuel and topographic conditions have produced severe fire behavior during past several burning periods. Although fire behavior has moderated, a mild-to-moderate offshore wind event is forecast for the coming weekend. Continued aircraft support is considered critical.

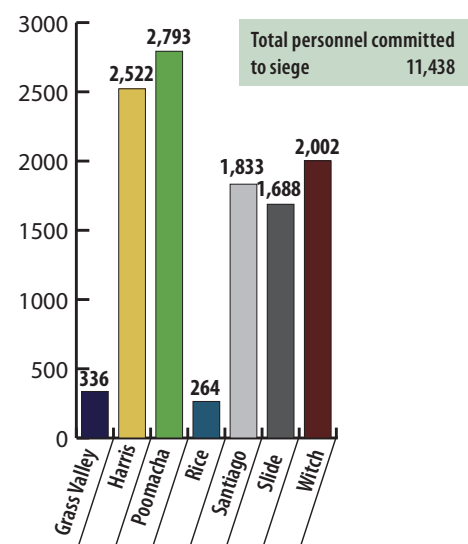
Resources Committed:

Engines, October 29, 2007



Resources Committed:

Personnel, October 29, 2007



■ State Superintendent of Public Instruction announced assistance and fiscal relief for schools affected by the wildfires.

The wind hampers efforts for a firing operation planned for the steep terrain in the north/northeast areas of the **Poomacha Fire**. Fire activity consists of a slow backing fire north of Palomar, divided with moderate runs upslope within the interior of the burn. Although bulldozer and hand line are complete around slop-overs, these areas are still of concern. Evacuation orders for

Palomar Community and the La Jolla Indian reservation areas are evaluated.

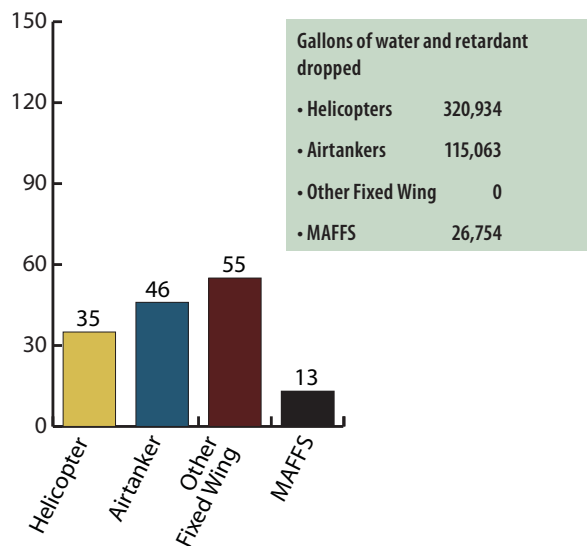
Line construction and improvements are nearly complete in all branches of the **Witch Fire**. San Diego Gas and Electric continues to restore utility service to affected areas. Damage assessment and fire line suppression repair are ongoing. Personnel from the cities of San Diego, Poway, Escondido, the Rancho Santa Fe Fire Protection District and Heartland Fire Zone transition out of unified command to serve as Agency Representatives. Arrival of additional resources allows initial attack resources in San Diego County to return to their respective jurisdictions. Heavy demobilization occurs.

Crews on the **Slide Fire** continue to make good progress in closing the open fire line perimeter in the south/southeast areas of the fire. With 100% containment expected at the end of this operational period, the **Grass Valley Fire** prepares to transfer command to the Slide Fire incident management team. Demobilization of excess local resources continues.

Crews continue secondary searches, improvement of control lines, mop-up and patrol on the **Harris Fire**. Interpretation of infrared imagery continues to be used to identify hot spots and focus mop-up efforts. Inspection of affected structures and fire suppression rehabilitation needs continues. Excess resources are demobilized.



■ Resources Committed: Aircraft, Flight Hours, October 29, 2007



The Fires: Day 10

Tuesday, October 30, 2007

Predictive Services Morning Report:

A weak Pacific trough will bring cooler temperatures and higher humidity to the region today. A ridge of high pressure will build into California from the Pacific Ocean bringing warmer temperatures and lower humidity Friday and Saturday.

Today's Events:

Good progress continues on the **Santiago Fire** with the completion of the remaining open fire line. The fire remains a threat to structures within the Silverado area, and evacuation orders are still in effect for Silverado Canyon. Meanwhile, residents are allowed to return to the communities of Williams, Modjeska, and Santiago Canyons. Containment is at 90%.

Again, conditions are not favorable to firing operations on the **Poomacha Fire**. There is minimal fire activity north of the Palomar Divide although slop-over potential still concerns firefighters. With aerial support, crews continue direct hand line construction on the north side of the fire to minimize impact to Aqua Tibia Wilderness and Palomar Mountain.

The **Witch Fire** reports progress on closing the last portions of open line. All residents have returned to evacuated communities.

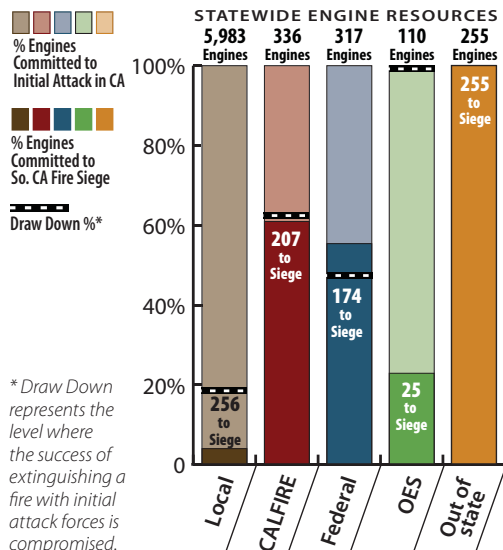
Full containment of the **Slide Fire** is predicted for evening.

Governor Schwarzenegger meets San Diego County local officials and discusses the state's ongoing response to the wildfires and actions needed for recovery.

The **Grass Valley Fire** is fully contained. Fire areas are opened to the public for residential site visits throughout the day. Plans are made to reopen Grass Valley area to residents on October 31.

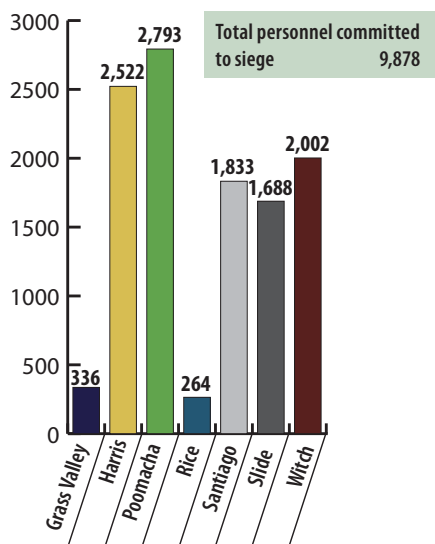
Resources Committed:

Engines, October 30, 2007



Resources Committed:

Personnel, October 30, 2007





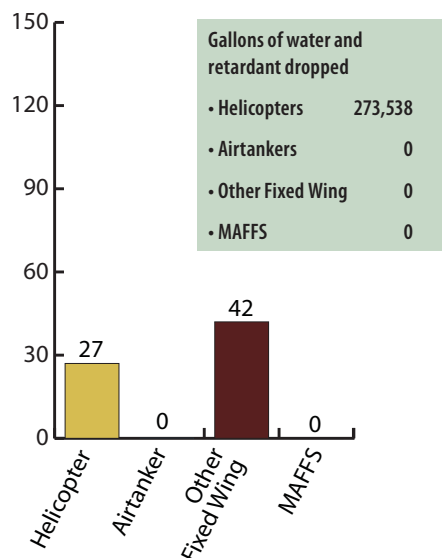
PR Gibbs

A billboard welcoming people to San Pasqual Agricultural Preserve stands scorched by the roadside after fire. Inset shows the same billboard before the fire.

Voluntary re-entry into Lake Arrowhead is ongoing. The opening of roads and communities causes some traffic congestion in the area.

Although mop-up is still needed around some interior islands and the northwestern portion of the fire line, the **Harris Fire** reports 90% containment. Heavy fuels near the line still hold significant heat. Infrared interpretation continues to be used to identify hot spots and focus mop-up efforts. Fire suppression rehabilitation continues.

Resources Committed: Aircraft, Flight Hours, October 30, 2007



As the winds slow and fires are contained, resources are demobilized.

The Fires: Day 11

Wednesday, October 31, 2007

Predictive Services Morning Report:

The back side (trailing edge) of a Pacific trough will bring near normal temperatures and humidity through Thursday. A strong ridge of high pressure will build into California from the Pacific Ocean bringing above normal temperatures and very low humidity to most of the region Friday through the middle of next week. There will be locally strong and gusty northeast-to-east winds over the mountains and below the canyons and passes of Southern California Saturday morning. Winds will be light Sunday through the middle of next week.

The Governor directed the California National Guard, CAL FIRE and Office of Emergency Services to proactively prepare for the forecasted return of Santa Ana winds.

Today's Events:

The **Santiago Fire** continues to threaten structures within the Silverado area. Residents are allowed to return to the communities of Williams, Modjeska, and Santiago Canyons. The evacuation order for Silverado Canyon remains in effect.

Crews on the **Poomacha Fire** continue construction of a direct hand line within the north part of the fire while mop-up and patrol progress in other areas. Highway 76 reopens. Operations and burn area rehabilitation are expected to continue into November with the transition of incident management from a state team to a federal team set for November 5.

Good progress continues on the **Witch Fire** with full containment expected by evening.

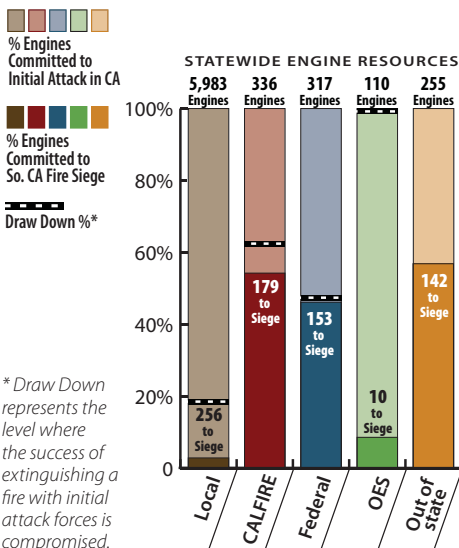
Full containment of the **Slide Fire** is expected by evening.

The **Harris Fire** reports 100% containment. Extensive demobilization of excess resources occurs. Fire suppression rehabilitation continues.

Resources Committed:

Engines,

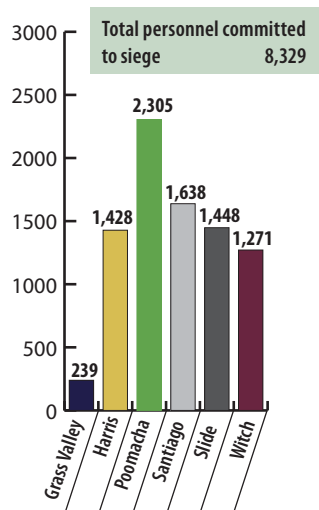
October 31, 2007



Resources Committed:

Personnel,

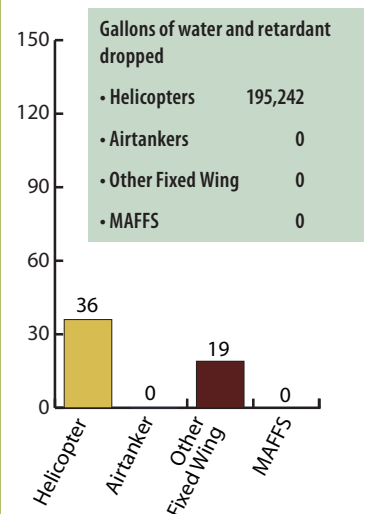
October 31, 2007



Resources Committed:

Aircraft, Flight Hours,

October 31, 2007



Aftermath

The fire siege of October 2007 will be known for the speed of its evolution.

On October 21, the first day of the siege, the Harris Fire in the southern part of San Diego County killed one resident, severely burned another and burned over a fire engine, requiring the crew to be airlifted to safety.

That same morning, 40 miles north of the Harris Fire, the Witch Fire began in the Witch Creek area. By noon it had charred 8,000 acres and was advancing into the same area that had been devastated by the Cedar Fire in 2003. Meanwhile, the Harris Fire had already burned 20,000 acres and was still growing.



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

From the very beginning, these fires were propelled by Santa Ana winds, clocked as high as 90 miles per hour. One gust on Laguna Peak north of Los Angeles was clocked at 112 miles per hour. Air tankers and helicopters were ineffective in the heavy winds, and at times were unable to fly in these extraordinarily adverse conditions.

By dawn of October 22, barely one day into the siege, new fires had ignited in Fallbrook, San Marcos and near the San Diego Wild Animal Park. Twenty thousand homes were without power. Qualcomm Stadium had opened as an evacuation center, and officials there were preparing for as many as 100,000 evacuees. By noon, October 22, the Witch Fire had jumped Interstate-15 and was burning in Poway. San Diego businesses, government offices, and schools began closing.

Soon, 17 significant fires and dozens of smaller ones were burning from Santa Barbara to the Mexican border. Major highways and surface streets were closed to traffic as residents began what would become the largest evacuation in California history. Officials believe as many as 900,000 people were displaced at the height of the emergency.

California Fire Siege Aftermath

If the rapid advancement of the fires was the news headline, then evacuation was the common theme. Hundreds of thousands of people moved out of the fire areas into hotels and evacuation centers. Many slept in their cars on the side of the road. Hundreds of people brought their pets with them.

These fires occurred in horse country, and many evacuees were moving livestock. People loaded up their horse trailers and headed to nearby fairgrounds hoping to find safe, empty stalls.

Governor Schwarzenegger visited several areas the evening of the second day, promising help to the displaced residents and calling for military support for the firefighters. California declared a state of emergency, and in Washington, D.C., President Bush declared a national disaster area.

The smoky haze from the fires was visible from space and health officials expressed concern about respiratory problems. State and local public health officials visited the evacuation centers and offered free flu shots. Mental health officials began to monitor the toll that stress was having on the emotional health of the evacuees, especially children who weren't able to go to school. Information on coping with disasters was widely distributed.

Some of the most emotional moments seemed to come when residents were allowed back into their neighborhoods only to see their homes in ruins.

Seventeen people lost their lives as a result of the siege. Ten were killed by the fires outright, three were killed while evacuating, and four died from other fire siege related causes. Though none were killed, more than 100 firefighters were injured. Of these, four were very seriously injured and two will require lengthy rehabilitation.

Although the fires of October 2003 were the worst fire siege in California's history, the effective response to the Fire Siege of 2007 set the record for the number of people who were safely evacuated and cared for by emergency responders and volunteers.

Considering the destruction of the fires, the disruption of people's lives, the damage to health and the loss of business and tourism, ultimately millions of people were impacted by these fires, directly or indirectly. Those impacts will be felt for years to come.



Given the scope of the siege, investigation, damage assessment and rehabilitation of wildlands will continue for years.

Epilogue

As the siege fires were put out and resources were demobilized, fire managers kept an eye on weather forecasts for the remainder of the season. In mid-November, the National Weather Service and Predictive Services began issuing forecasts for another Santa Ana wind event. The 2007 fire season was not over.

The **Corral Fire** in Malibu started on Saturday, November 24 from an illegal campfire near the mouth of Corral Canyon Cave. Winds up to 60 miles per hour and low relative humidity quickly spread the fire. In spite of pre-positioning and planning, the fire burned 4,901 acres, destroyed 53 homes and damaged another 35. Most of the damage occurred during the early hours of the fire in Latigo Canyon and the neighborhoods along Newell Road and Sea Breeze Drive. There were no civilian injuries reported, but seven firefighters were injured.

By late November, a major shift in the overall upper air pattern took place. Rain came to Southern California in December.



When the siege was over, the destruction to wildlands and personal property stood in smoldering contrast to the spectacular sunsets created by the smoky skies.

Fire Siege Coordination

Coordinating the firefighting efforts during a Southern California fire siege presents a challenge that is distinctly different from coordinating individual fires. These sieges are characterized by strong Santa Ana winds with many ignitions, including multiple large fires burning simultaneously in extremely dry, heavy fuels over steep terrain. New starts spread very quickly, shortening the time that firefighters can effectively contain the fires with initial attack forces. The large number of expanding fires quickly create multiple, immediate demands for available firefighting resources. Southern California fire sieges are also distinctive in the significant regional impact on people, property and natural resources in the extensive Wildland-Urban Interface.

This section describes the regional coordination of several management systems and technologies that were used during the 2007 siege, some for the first time, to support the multiple-agency response.

Pre-positioning and pre-fire attack planning took place due to wind predictions and drought conditions. Firefighters and other emergency service providers gather at a staging area.



WEB SCHULTZ

Remote Sensing

During the 2007 Southern California Fire Siege, regional chief officers augmented the established MAC intelligence function by activating a Situation Status Cell (Sit Stat Cell) at the Southern California Geographic Area Coordination Center level.

The Sit Stat Cell integrated remote sensing capabilities and geospatial operations across the geographic area, regardless of source, to provide direct support for on-the-ground incident response needs from Incident Command Teams, the GACC, and the State Operations Center (SOC) recovery missions. The Sit Stat Cell executed this function using a team of remote sensing specialists deployed to the Southern California GACC and a strategic analysis staff located at the SOC. The GACC team coordinated remote sensing aircraft mission tasking. The SOC team compiled, and analyzed the data to produce map based reports. These reports assisted in the orientation of crews and staff, and provided information on the operating area in support of firefighter and public safety. This coordinated effort resulted in one of the largest deployments of remote sensing and geospatial technologies for wildland firefighting.

The table at the right provides a description of the broad array of remote sensing systems that were used in support of the 2007 Fire Siege.

SYSTEM	SOURCE	CAPABILITY
RC-26 Full Motion Video	California National Guard (with assistance from Texas National Guard)	Night and day fire perimeter spotting in direct support of incident command teams
P-3 Full Motion Video	United States Navy (coordinated through United States Northern Command)	Night and day fire perimeter spotting in direct support of incident command teams
Civil Air Patrol	United States Air Force (coordinated through United States Northern Command)	Digital imagery of burn areas for critical infrastructure assessment and fire behavior analysis
Ikhana Unmanned Aerial Vehicle	NASA and the National Interagency Fire Center	Night and day multispectral and thermal mapping of fire and damage areas
U-2	United States Air Force (coordinated through United States Northern Command)	High resolution imagery of operations area (Southern California)
Global Hawk Unmanned Aerial Vehicle	United States Air Force (coordinated through United States Northern Command)	Night and day digital infrared imagery of fire perimeters and threatened land/structures
National Infrared Operations Support (Cessna Citation)	National Interagency Fire Center	Night and day thermal mapping of fire areas
Fire Mapper	USFS Pacific Southwest Research Station	Night and day multi-spectral and thermal mapping of fire areas
Commercial Satellite Imagery	Coordinated by Federal Emergency Management Agency (FEMA) and the National Geospatial-Intelligence Agency. Data delivered by Nevada National Guard (Eagle Vision) and Army Strategic Command (coordinated through United States Northern Command)	Broad-area high resolution and color imagery of operations area

Decision Science

Federal fire analysts located at the U.S. Forest Service Pacific Southwest Regional Office provided regional chief officers and incident commanders with a decision support product known as the Wildland Fire Decision Support System (WFDSS). They produced map products for ten of the siege fires: the Ammo, Buckweed, Grass Valley, Harris, Poomacha, Ranch, Santiago, Sedgewick, Slide, and Witch.

WFDSS is a web-based application that utilizes fire behavior modeling, economic principles, and information technology to develop probabilities of potential fire spread and impacts. The two main components are Fire Spread Probability (FSPro) and the Rapid Assessment of Values at Risk (RAVAR). FSPro calculates and maps the probability of fire spread within a specific time, based on fuel, topography and weather conditions. RAVAR then uses that spread probability information to estimate the impact of the fire on primary-resource values in the path of a fire.

Fire-Cause Investigations

The wildland firefighting agencies conduct a cause-and-origin investigation for every wildland fire. Fire prevention bureau chiefs use this information to develop programs to prevent future ignitions, and as supporting documentation for legal actions against those who intentionally or negligently cause a fire. Fire-cause investigators must conduct their investigations quickly before firefighting actions or other activities destroys evidence at the origin of the fire.

The number of new fires during the siege quickly exceeded the investigation capacity of the various firefighting agencies. In response to the growing workload, regional law enforcement coordinators established a regional cause and origin investigation group to support investigation efforts on all fires on State Responsibility Area (SRA) in the Southern California counties. Investigators from throughout California assembled at OSCC. USFS and CAL FIRE investigation leaders coordinated efforts and assigned

California Fire Siege Fire Siege Coordination

investigation responsibilities for fires that burned across federal and state direct protection area. Investigators worked as a team during the investigation of these multi-jurisdiction incidents.

FEMA enacted Homeland Security Presidential Directive Five (HSPD5) ESF#13 (Public Safety and Security) because investigators determined that one of the fires was caused by arson. Alcohol Tobacco and Firearms (ATF) and Federal Bureau of Investigation (FBI) agents were then assigned to investigative support. CAL FIRE and the Orange County Sheriff's Department provided additional investigators and technical support.

CAL FIRE's chief law enforcement officer joined the team at the OSCC to establish communication links between the incident investigators and the CAL FIRE director, approve information releases to the media, and establish consultation link with the Deputy Attorney General assigned to cases that would go to trial.

Surge Capacity

With predictions of severe fire weather, regional fire chiefs anticipated a need to build firefighting resource depth in Southern California. Local, state, and federal authorities have been established and systems designed to facilitate the movement of resources. Regional fire chiefs moved firefighters to Southern California before the siege began. This movement of resources continued and expanded during the early stages of the siege. Eventually the siege became a national mobilization and assistance was also provided by Mexico, sending bomberos (firefighters) from Tijuana and Tecate.

The Federal Department of Homeland Security's National Response Plan uses Emergency Support Functions (ESF) as the primary mechanism to organize and provide assistance to local and state governments and tribal agencies. The purpose of the ESF is to provide the greatest possible access to the capabilities of the federal government, regardless of agency. The Stafford Act authorizes FEMA, a function of the Department of Homeland Security, to coordinate support from across the federal agencies and certain non-government organizations. FEMA invokes one or more of the 15 ESFs to funnel resources to disasters and emergencies. During an ESF-4 declaration, the US Forest Service is the lead agency, and is tasked with coordinating the federally activated resources.

On October 22, Governor Schwarzenegger requested a federal emergency declaration for the Southern California fire siege and FEMA activated ESF-4. On October 24, President Bush signed Disaster



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In addition to the use of numerous out-of-state resources, the October Siege utilized the Bomberos from Tijuana, Mexico.

Declaration 1731-DR-CA and the Governor’s Office of Emergency Services requested that FEMA provide 125 strike teams of engines, 300 overhead personnel, and other resources. FEMA processed the request and the resources were on scene by October 27.

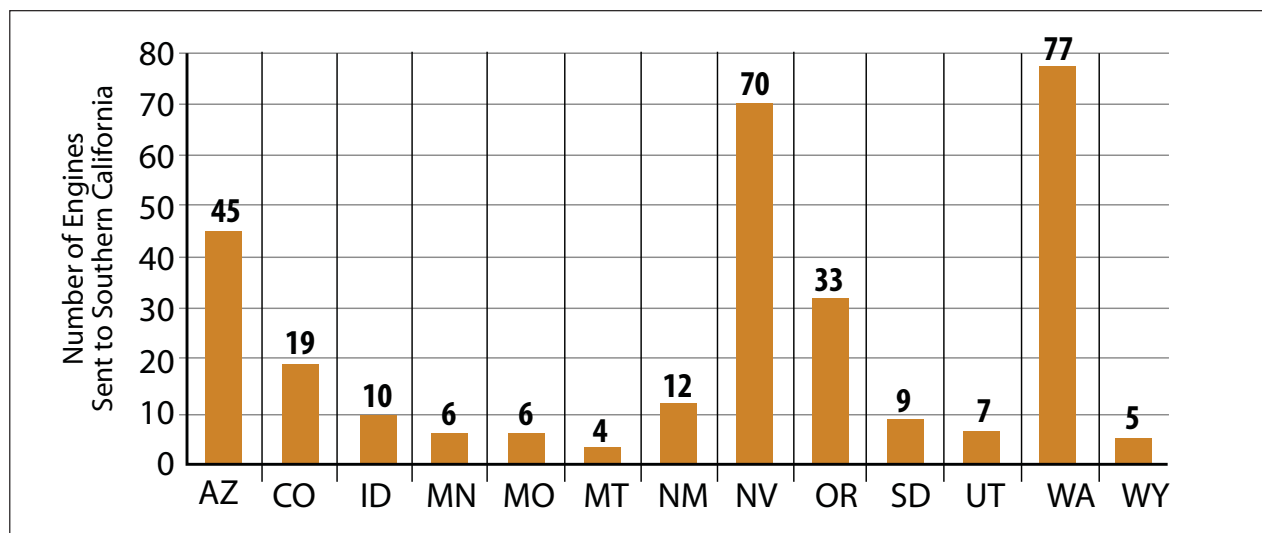
The Emergency Managers Assistance Compact (EMAC) is a congressionally ratified organization that gives form and substance to mutual aid between member states. EMAC has resolved issues of liability and reimbursement so that a state suffering a disaster can request and receive assistance from other member states quickly and efficiently. Through standard operating procedures and reimbursement guidelines, states can request and receive needed resources in a timely manner.

Out-of-state engines played a vital role in assisting the local, state and federal firefighters already engaged on the Southern California fire siege. This siege saw the first activation of resources through the EMAC compact. On October 23, the Office of Emergency Services activated the Emergency Managers Assistance Compact (EMAC) and requested 50 strike teams of engines from EMAC member states. Out-of-state resources were able to integrate easily with forces already engaged in the firefight. Engine crews assisted not only on the fireline, but also staffed empty stations whose local crews were working on siege fires.

On October 26, a federal management team was assigned to the newly established FEMA Mobilization Center at the Chino Airport. Resources arrived at the Mobilization Center through several dispatching channels and funding sources, including FEMA, EMAC, California’s master mutual aid system, and other state and federal resource ordering processes. Although the original assignment was to establish a Mobilization Center to provide support for incoming FEMA resources as they were being moved to incidents, the mission grew to encompass a full-range mobilization-and-staging area. Within hours, there were over 700 firefighting resources at the center, and the numbers continued to increase the following day.

The following chart shows the number of out-of-state engines, by state. The chart includes resources arriving prior to October 26 that went directly to incidents, as well as those arriving from October 26 to 31 that were assigned to incidents through the FEMA Mobilization.

**Out-of-state Resources
Engines sent to siege by state**



Information and the Media

Managing the tremendous flow of information during a major siege can be a daunting task. Firefighting agencies had quickly realized that a well coordinated, multi-agency, large-fire strategy would be required to address the large number of rapidly developing region-wide disasters impacting millions of Californians. Based on the area-wide magnitude of this developing disaster, news media coverage was immediately intense. Local, regional, and national print, broadcast, and electronic media became engaged in twenty-four hour disaster news coverage. One vital element of this strategy included the agencies' ability to deliver clear, accurate, and timely information to the public and news media. Incident commanders immediately assign information officer responsibilities as fires grow to major proportions.

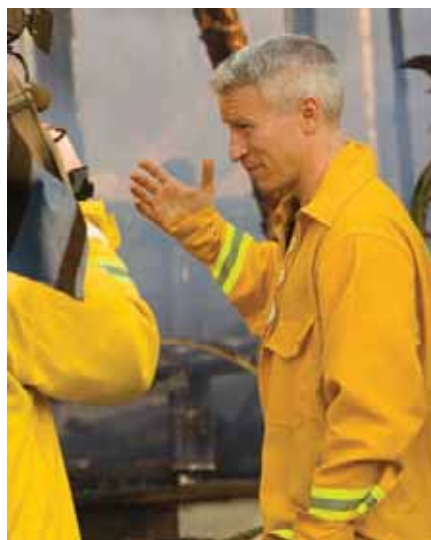
On October 23, regional fire chiefs organized a joint information center (JIC) to provide consistent emergency information from the incident management teams to the various government agencies and the media. Operational and sensitive issues were discussed with executive leadership. The JIC Information Officer's task was to support incident information functions and ensure that accurate and timely incident information was distributed to the affected public, agency administrators, and elected officials, while serving as a Southern California regional point of contact for the state and national Joint Information Centers. The Southern Region JIC unified and coordinated information flow on the large and developing incidents



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The siege was covered in the news at local, national and international levels. From left, clockwise; Katie Couric, CBS Evening News; Geraldo Rivera, Fox News; and Anderson Cooper, CNN.

An untouched home in the background stands in contrast to the destruction of neighboring properties.



KEVIN KEY

to support Area Command information needs. The JIC monitored news media coverage of the disaster to ensure accuracy of disseminated information and consistency of key messages at all levels and across all involved agencies.

The JIC ensured that disseminated information was accurate, timely, and met the needs of the member agencies and the public, as well as the print, broadcast and electronic news media. The JIC handled more than 400 local, regional, national, and international print, television, and radio news media contacts during the period of operation from October 23 to November 11. International news contacts included media from several countries including England, Japan, Budapest, Argentina, and Belgium.

The JIC developed and observed several operational protocols to provide for consistent information management during the siege. Federal and state agencies agreed to use a standard methodology and source (209 snapshot) to ensure consistency for daily operational period update, daily situational status and resources (2003 Blue Ribbon Commission recommendation). Working with the Intelligence Unit, the JIC reconciled and disseminated the 209 snapshot and incident summary to federal and state agencies and each incident command team twice daily at 0700 and 1900 hours.

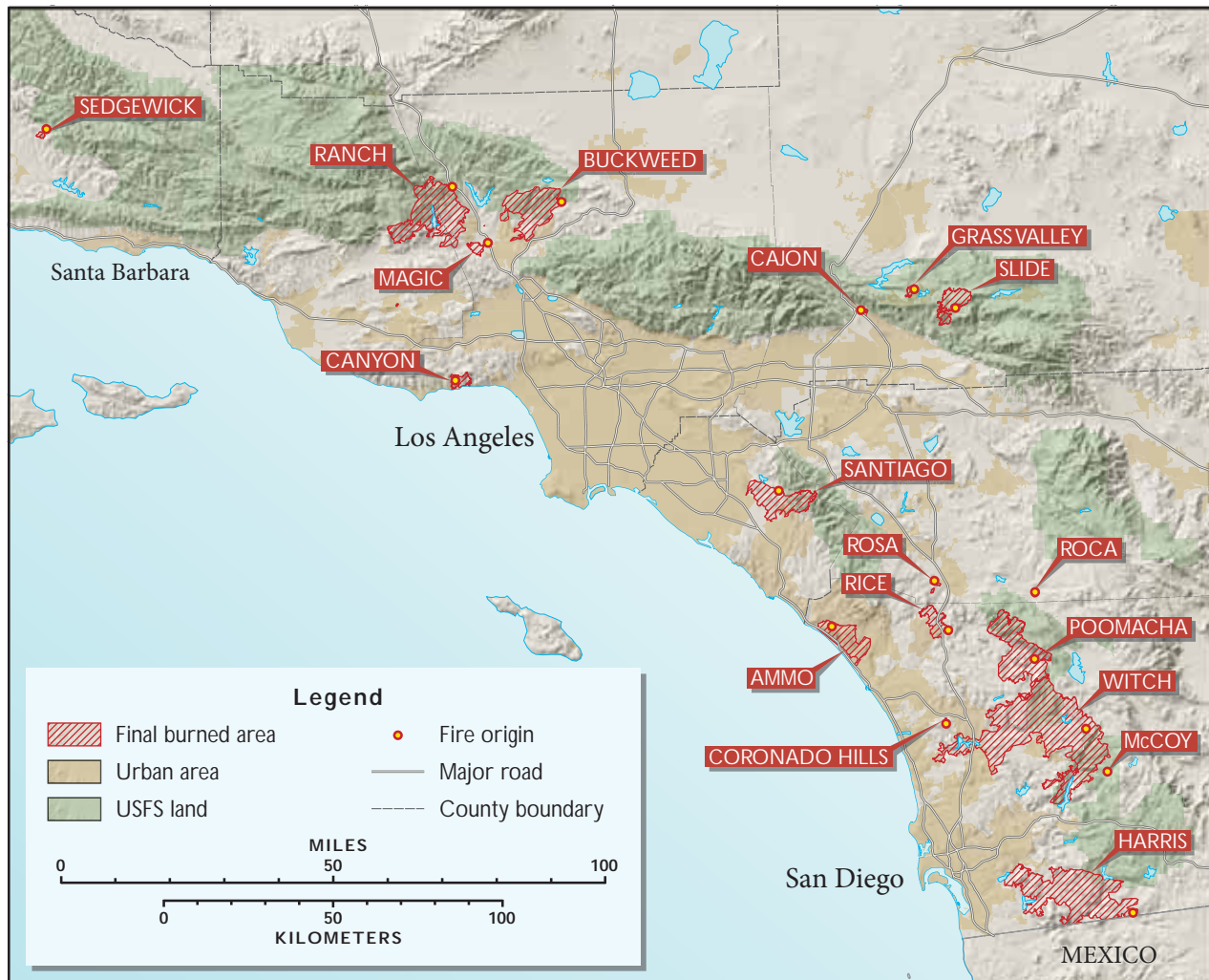
Daily conference calls were utilized to effectively communicate issues and processes with Area Command, San Diego County JIC, State Operations Center-JIC (SOC-JIC), National Interagency Fire Center (NIFC), Federal Emergency Management Agency-Joint Field Office (FEMA-JFO), National Interagency Coordination Center (NICC), and National Emergency Management Organization (NEMO).

OES supplied Governor's talking points to the JIC. This information was disseminated to personnel and agencies participating in the distribution of incident related information. JIC personnel fielded media inquiries related to incident/resource status, aircraft utilization, pre-deployment of assets, MAC operations, command and control function at South Ops, defensible space, building construction materials and standards, and state and federal emergency management practices, emerging technologies, real-time digital imaging, and advanced mapping technologies.

The JIC provided support for dignitary visits to South Ops, including research and preparation of briefing packages, researched background material and responded to requests for information related to 2003 fire siege and Blue Ribbon Commission findings and recommendations. JIC PIOs conducted television, radio, and print interviews at South Ops, and in the field, and facilitated media requests for "feature" stories.

The JIC developed proactive, strategic messages for dissemination through news releases and/or use at agency executive levels and/or internal briefings for lead agencies and the Governor's office. The JIC established and maintained daily contact with PIOs on twenty-two incidents, ensuring coordination, consistency, and continuity of message dissemination, and provided support for each incident's information operation.

Appendix I: Statistical Information



A NASA satellite captured this image of the siege in progress on October 22. The strong off-shore progress of the smoke plumes illustrate the strong winds that hampered suppression efforts. Areas indicated in red have been digitally added to show fire perimeters.



Incident Starts and Duration

Containment Percentages **Start** 0-39% 40-59% 60-79% 80-99% 100%

Incident	10/20	10/21	10/22	10/23	10/24	10/25	10/26	10/27	10/28	10/29	10/30	10/31
Ranch	START	0-39%	0-39%	0-39%	40-59%	80-99%	80-99%	80-99%	80-99%	80-99%	100%	
Canyon		START	0-39%	80-99%	80-99%	100%						
Sedgewick		START	80-99%	100%								
Buckweed		START	0-39%	60-79%	100%							
Harris		START	0-39%	0-39%	0-39%	0-39%	0-39%	60-79%	60-79%	80-99%	80-99%	100%
Witch		START	40-59%	40-59%	40-59%	40-59%	40-59%	60-79%	80-99%	80-99%	80-99%	100%
Santiago		START	0-39%	0-39%	0-39%	0-39%	0-39%	40-59%	60-79%	60-79%	80-99%	80-99%
Roca		START	100%									
Coronado Hills			START 100%									
Magic			START	0-39%	100%							
Rice			START	0-39%	0-39%	40-59%	60-79%	80-99%	100%			
Rosa			START	60-79%	100%							
Grass Valley				START	0-39%	0-39%	60-79%	60-79%	80-99%	80-99%	100%	
Slide				START	0-39%	0-39%	0-39%	60-79%	80-99%	80-99%	80-99%	100%
Ammo				START	0-39%	40-59%	80-99%	80-99%	100%			
Poomacha				START	0-39%	0-39%	0-39%	40-59%	40-59%	60-79%	60-79%	80-99%

Daily Resource & Acreage Summary

Date	10/20	10/21	10/22	10/23	10/24	10/25	10/26	10/27	10/28	10/29	10/30	10/31
Engines		531	909	1,195	1,288	1,333	1,542	1,458	1,169	1,028	732	589
Personnel		3,793	6,460	8,417	11,750	11,785	12,703	12,969	11,980	11,438	9,878	8,329
Acreage		31,195	267,661	414,564	461,462	487,106	504,473	507,677	516,938	517,367	517,421	517,937

Southern California Fire Siege Summary, 2007

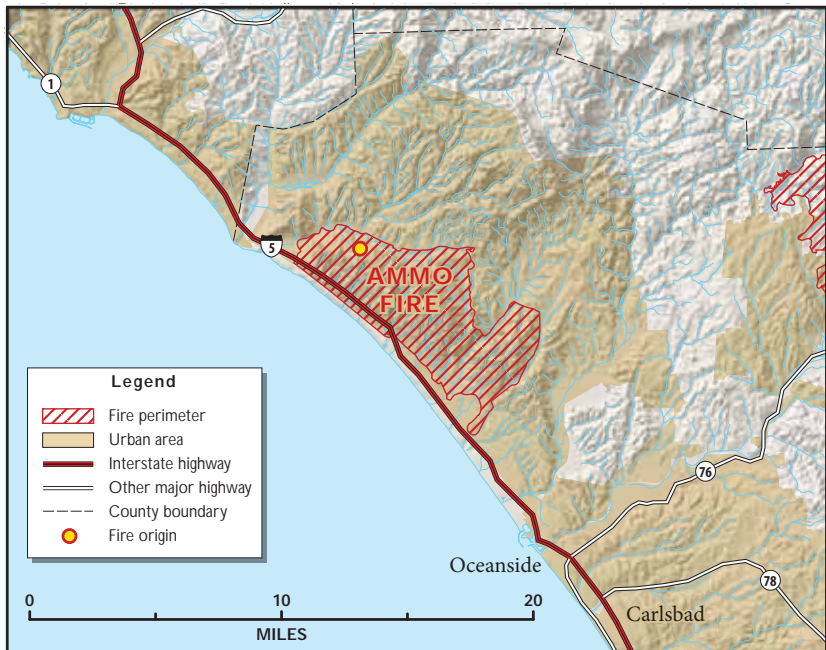
Incident	Acreage	Engines	Helicopters	Water/Retardant Gallons Dropped	Structures Destroyed	Structures Damaged	Fatalities	Firefighter Injuries	USFS Preliminary Costs*	CAL FIRE Est. Costs*
Ammo	21,004	49	8	104,740	0	0	0	6	\$35,500	\$708,047
Buckweed	38,356	144	5	409,100	63	30	0	1	\$5,810,000	\$2,135,148
Canyon	4,521	247	13	925,826	8	14	0	3	\$109,400	\$5,846,256
Coronado Hills	250	23	0	0	2	0	0	0	\$16,500	---
Grass Valley	1,247	109	3	207,256	178	22	0	1	\$4,900,000	\$767,330
Harris	90,440	219	26	2,427,947	373	259	8	40	\$5,030,000	\$21,157,453
Magic	2,824	60	5	147,514	0	0	0	0	\$125,000	\$900,196
Poomacha	49,410	164	13	1,581,726	217	12	0	13	\$6,842,500	\$19,368,014
Ranch	58,401	145	6	86,214	10	2	0	8	\$9,945,000	\$3,031,397
Rice	9,472	112	9	457,509	248	0	0	6	---	\$6,757,077
Roca	270	37	0	3,200	1	1	0	1	---	\$358,267
Rosa	411	34	0	0	2	0	0	0	\$59,850	\$670,486
Santiago	28,400	276	15	1,986,789	26	20	0	13	\$10,325,000	\$10,509,353
Sedgewick	710	26	5	207,191	0	0	0	0	\$3,465	\$1,053,945
Slide	12,759	321	13	1,305,527	315	0	0	8	\$13,545,000	\$1,771,997
Witch	197,990	365	18	787,705	1,624	103	2	40	\$5,393,500	\$17,792,887
TOTALS					3,069	463	10	140	\$62,124,215	\$92,827,853

* Estimated firefighting costs only. This figure does not include other emergency related costs such as evacuations, shelters, law enforcement, etc.

Appendix II: Incident Fire Summaries

Ammo Fire

- **Incident#:** MCP-001111
- **County:** San Diego
- **Agencies in Command:** Camp Pendleton
Marine Corps, CAL FIRE
- **Start Report Date:** October 23, 2007
- **Containment Date:** October 28, 2007
- **Total Acres:** 21,004
- **Direct Fire Suppression Cost:***
US Forest Service \$35,500
CAL FIRE \$708,047
- **Firefighters Assigned at Peak:** 225
- **Structures Destroyed:** 0
- **Structures Damaged:** 0
- **Firefighters Injured:** 6
- **Fatalities:** 0
- **Fuels:** Chaparral
- **Cause:** Undetermined



The Ammo Fire was reported October 23, 2007 on Camp Pendleton Marine Corps Base.

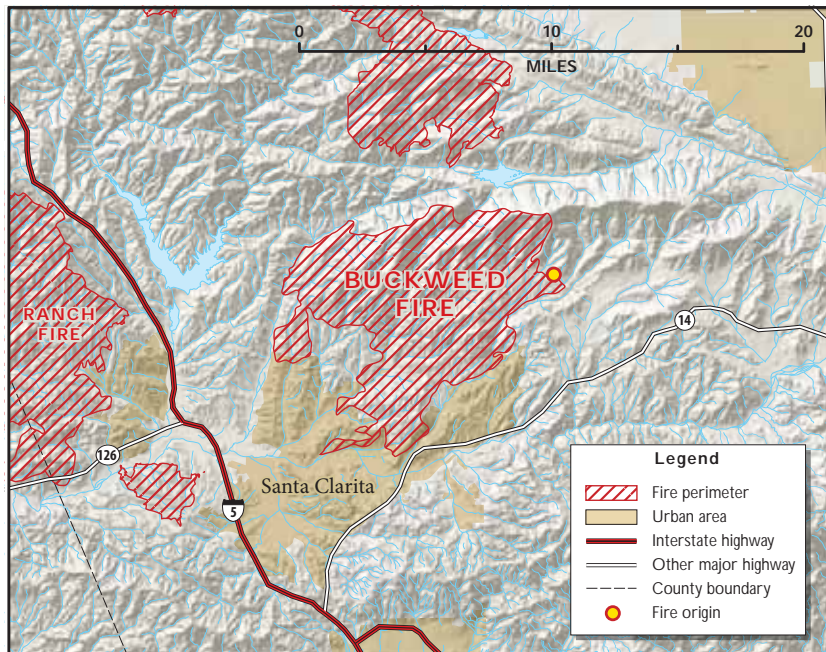
Military barracks, high voltage power grid lines originating from San Onofre Power Plant, and a communications site (repeater) for several agencies housed on San Onofre Peak, were threatened. The wind blown fire burned in heavy fuels over steep terrain. During the morning of October 24, 7,500 acres had burned, and the fire was 50% contained. Interstate-5 southbound was closed at Basilone, and northbound at Las Pulgas due to smoke and downed power lines. The fire escaped containment on the south flank, spreading southwest and parallel to Interstate-5. By afternoon the fire spotted across Interstate-5. While there was no threat to the nearby San Onofre Nuclear Power Plant, there were sporadic power outages in Camp Pendleton, and the Metro Link Rail line was temporarily shut down. The fire grew to 15,000 acres on October 25, and to over 21,000 acres by October 26. On October 27, the fire was 90% contained, evacuation orders were lifted, and power was restored to all affected areas of the camp.

The Ammo Fire was 100% contained on October 28, 2007.

*Figures shown reflect direct suppression cost estimates by stated agency. Other federal, state and local agency costs are not included. Additional expenses not related to direct suppression (rehabilitation, agency overhead, etc.) are not included.

Buckweed

- **Incident#:** LAC-07232185
- **County:** Los Angeles
- **Agencies in Unified Command:** Los Angeles County Fire Department, USFS
- **Start Report Date:** October 21, 2007
- **Containment Date:** October 24, 2007
- **Total Acres:** 38,356
- **Direct Fire Suppression Cost:***
US Forest Service \$5,810,000
CAL FIRE \$2,135,148
- **Firefighters Assigned at Peak:** 1,157
- **Structures Destroyed:** 63
- **Structures Damaged:** 30
- **Firefighters Injured:** 1
- **Fatalities:** 0
- **Fuels:** Chaparral, mixed brush and grass
- **Cause:** Undetermined



The Buckweed Fire was reported near Mint Canyon Road and Sierra Highway at 12:55 p.m. on October 21, 2007.

It was rapidly spread by strong, gusty Santa Ana winds. By 4:30 p.m., about 2,000 acres had burned, Sierra Highway and many other roads were closed, and the fire was moving toward the city of Santa Clarita. At 5:43 p.m. the fire was reported to be about 10,000 acres, numerous structures had been destroyed, and another 200 were threatened. Evacuations were in progress for upper Bouquet Canyon, San Francisquito Canyon, and Green Valley areas. Evacuation centers were established at Hart High School, Saugus High School, Crown Valley Middle School, and Meadowlark School.

As of 8:25 a.m., on October 22, the Santa Ana winds continued. The area had burned nearly 30,000 acres, and at least 25 structures had destroyed. As the fire burned toward the Magic Mountain area of Santa Clarita, evacuations continued and now included Vasquez Canyon, Copperhill, and areas up to Spunky Canyon. A total of 3,800 residences as well as major electrical transmission lines were threatened. The L.A. County Sheriff, and Animal Control coordinated animal evacuations. Only residents were allowed into the evacuation areas. Both the Saugus Union School District and the Castaic School District cancelled classes. The incident exceeded capabilities of available firefighting resources.

By 2:00 p.m. the burn area exceeded 35,000 acres. It was estimated that 15,000 people were evacuated from 5,500 homes. The south flank slowed significantly when it ran into a sub-division surrounded by a greenbelt. The west flank held in San Francisquito Canyon. As winds eased later that afternoon, the fire spread slowed, containment lines held, containment increased and the threat to the communities diminished. It was noted that there were impacts to archeological sites along the service road to Drinkwater Reservoir and along Del Sur Ridge, and also that fires threatened the endangered the Red Legged frog, Arroyo toad and Stickleback fish. At 5:45 pm, conditions had improved, evacuations were lifted and residents were allowed return.

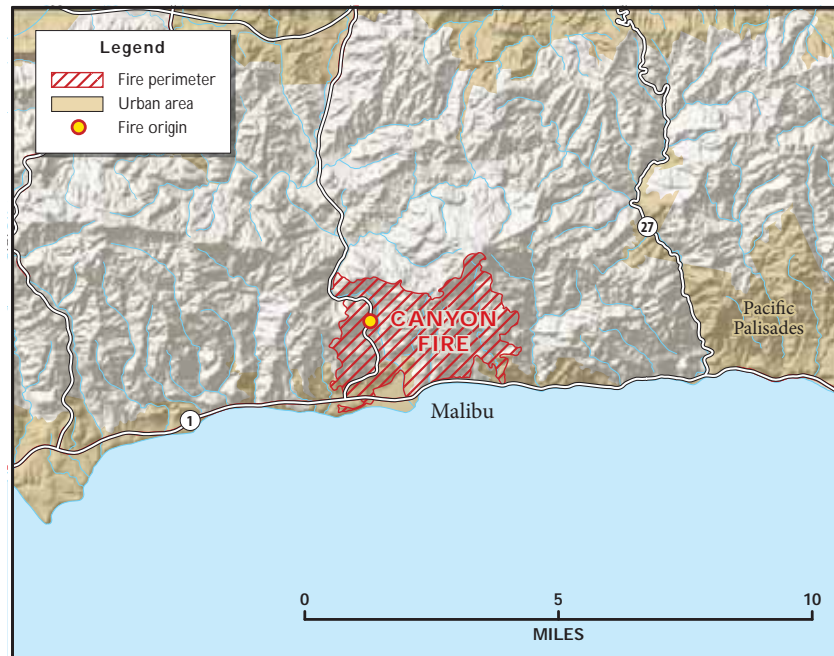
By 6:00 p.m. on October 23, containment was at 80%, and mop-up, patrol, and containment line improvement were the main focuses.

Both the Buckweed and nearby Magic Fires were 100% contained on October 24, 2007.

**Figures shown reflect direct suppression cost estimates by stated agency. Other federal, state and local agency costs are not included. Additional expenses not related to direct suppression (rehabilitation, agency overhead, etc.) are not included.*

Canyon

- **Incident#:** LAC-07231849
- **County:** Los Angeles
- **Agency in Command:** Los Angeles County Fire Department
- **Start Report Date:** October 21, 2007
- **Containment Date:** October 25, 2007
- **Total Acres:** 4,521
- **Direct Fire Suppression Cost:***
US Forest Service \$109,400
CAL FIRE \$5,846,256
- **Firefighters Assigned at Peak:** 1,765
- **Structures Destroyed:** 8
- **Structures Damaged:** 14
- **Firefighters Injured:** 3
- **Fatalities:** 0
- **Fuels:** Chaparral
- **Cause:** Power line



The Canyon Fire was reported at 4:55 a.m. on October 21, 2007, north of the Pacific Coast Highway near the community of Malibu, in Los Angeles County.

The wind-driven fire rapidly spread toward houses. By 6:30 a.m. the fire reached 500 acres following its historical footprint, burning east up Malibu Canyon, and west down-canyon into Malibu. By 9:30 a.m. the communities of Pepperdine & Piuma Canyon were evacuated, and over 200 homes were threatened. Three homes, one church, and two commercial buildings were destroyed and, one home was reported damaged.

By the end of the day 1,150 personnel were assigned to the fire, which had reached 2,200 acres, and was only 10% contained. There was a loss of electrical infrastructure over a large area of the Malibu coast. The Pacific Coast Highway was closed between Topanga Canyon and Kanan-Dune Rd; Malibu Canyon Road was closed between the Pacific Coast Highway and Piuma Rd. Evacuation centers were established at Agoura and Palisades High Schools. School closures were issued for October 22 at Malibu High School, Webster, Point Dume, Cabrillo, and Topanga Elementary Schools. The fire was considered to have a strong potential to move through high value residential and commercial properties, and historical sites. By the end of the first day, fire lines were holding, but there was concern over predictions of increased winds.

During the morning of October 22, winds were driving the fire toward Carbon Mesa and Sweetwater Mesa. Mandatory evacuations were in effect, and there were massive structure protection efforts in the Palm Canyon and Cross Creek areas. The fire headed northeast toward the Rambler Pacifica area. By 10:00 p.m., 3,800 acres were burning, 900 structures were threatened, and six residences and two commercial buildings had been destroyed. Nine other residences and five commercial buildings were damaged and containment was down to 8%. Winds and topography caused channeling down the Malibu canyons, and electrical power was lost over a large area of the Malibu coast.

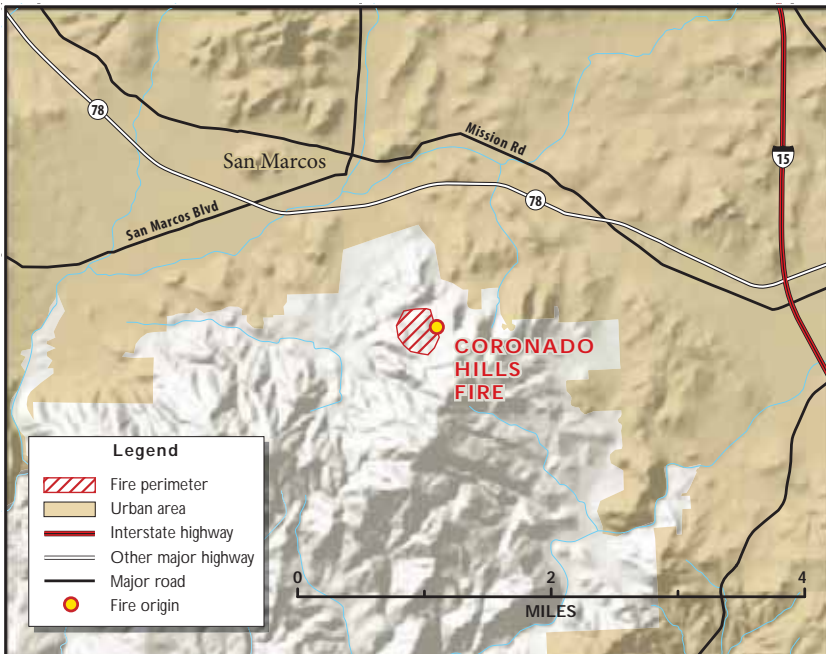
By the morning of October 23, the area burned had reached 4,400 acres. Although the winds decreased and firefighting efforts through the night were effective, containment stood at only 15% and several hundred structures were still considered threatened. Favorable weather conditions that evening enabled firefighters to hold the fire at Las Flores Ridge. Containment was at 75% and operations moved to extensive mop up. Demobilization of significant number of resources began.

The Canyon fire was 100% contained at 11:00 a.m. on October 25, 2007.

*Figures shown reflect direct suppression cost estimates by stated agency. Other federal, state and local agency costs are not included. Additional expenses not related to direct suppression (rehabilitation, agency overhead, etc.) are not included.

Coronado Hills

- **Incident#:** 20070005532
- **County:** San Diego County
- **Agency in Command:** San Marcos Fire Department
- **Start Report Date:** October 22, 2007
- **Containment Date:** October 22, 2007
- **Total Acres:** 250
- **Direct Fire Suppression Cost:***
US Forest Service -
CAL FIRE -
- **Firefighters Assigned at Peak:** 77
- **Structures Destroyed:** 2
- **Structures Damaged:** 0
- **Firefighters Injured:** 0
- **Fatalities:** 0
- **Fuels:** Chaparral
- **Cause:** Undetermined



The Coronado Hills Fire was reported at 1:46 a.m. on October 22, off of Atterbury Drive, south of the campus of California State University, San Marcos.

This fast moving fire grew to 300 acres, driven by Santa Ana winds gusting to 40 miles per hour. By 9:30 a.m., multiple structures had been destroyed. Fire was threatening the communities of Discovery Hills, Coronado Hills, and San Elijo Hills, Elfin Forest and Harmony Grove, and evacuations were in progress. Resources committed included 23 engines, a water tender, and three chief officers, for a total of 77 personnel.

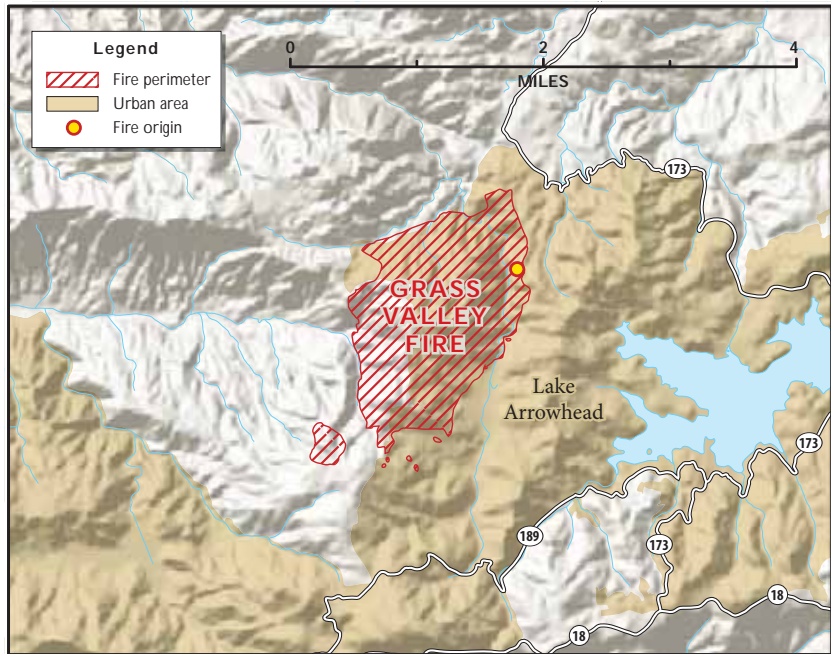
By 12:40 p.m. containment was still at 0%, multiple structures had been destroyed in Discover Hills and San Marcos and the flames were heading toward Elfin Forest and Harmony Grove, pushed by 40 mile per hour winds.

The aggressive initial attack paid off, and the Coronado Hills Fire was 100% contained at 3:25 p.m. on the same day it started.

**Figures shown reflect direct suppression cost estimates by stated agency. Other federal, state and local agency costs are not included. Additional expenses not related to direct suppression (rehabilitation, agency overhead, etc.) are not included.*

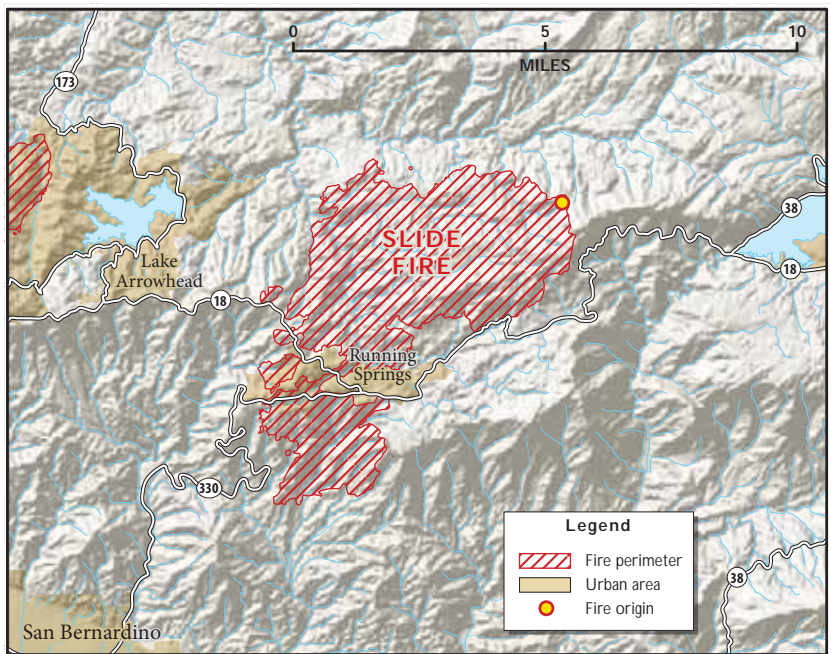
Grass Valley

- **Incident#:** BDF-10566
- **County:** San Bernardino
- **Agencies in Command:** USFS, San Bernardino County Fire, San Bernardino County Sherriff
- **Start Report Date:** October 22, 2007
- **Containment Date:** October 29, 2007
- **Total Acres:** 1,247
- **Direct Fire Suppression Cost:***
US Forest Service \$4,900,000
CAL FIRE \$767,330
- **Firefighters Assigned at Peak:** 1,051
- **Structures Destroyed:** 178
- **Structures Damaged:** 22
- **Firefighters Injured:** 1
- **Fatalities:** 0
- **Fuels:** Timber
- **Cause:** Power lines



Slide

- **Incident#:** BDF-10570
- **County:** San Bernardino
- **Agencies in Command:** USFS, San Bernardino County Fire, San Bernardino County Sherriff, Running Springs Fire Department
- **Start Report Date:** October 22, 2007
- **Containment Date:** October 31, 2007
- **Total Acres:** 12,759
- **Direct Fire Suppression Cost:***
US Forest Service \$13,545,000
CAL FIRE \$1,771,997
- **Firefighters Assigned at Peak:** 2,129
- **Structures Destroyed:** 315
- **Structures Damaged:** 0
- **Firefighters Injured:** 8
- **Fatalities:** 0
- **Fuels:** Equipment use
- **Cause:** Under Investigation



*Figures shown reflect direct suppression cost estimates by stated agency. Other federal, state and local agency costs are not included. Additional expenses not related to direct suppression (rehabilitation, agency overhead, etc.) are not included.

The Grass Valley Fire was reported at 5:08 a.m. on October 22, 2007, west of Lake Arrowhead in San Bernardino County. The Slide Fire started a little farther to the east at 8:02 p.m. that same day, close to Green Valley Lake near Running Springs in San Bernardino County.

Both fires were driven by extremely strong, gusty Santa Ana winds. Burning at an extreme rate of spread through timber, they posed an immediate threat to communities, timber, watershed and recreation areas. Several structures were threatened and mandatory evacuations were issued for Green Valley Lake and Arrow Bear.

By 1:30 p.m., it was estimated that 115 structures had been destroyed on the Slide Fire, and thousands of others were threatened. Evacuations were extended to include Arrowhead, Running Springs, and Twin Peaks. All roads into the mountain communities were closed. By nightfall the Slide Fire had grown to 1,500 acres and the Grass Valley fire to 500 acres. The large number of fires burning in Southern California made the lack of firefighting resources a major problem.

The fire burned fiercely through the night, and on morning of October 23 was still burning at an extreme rate of spread and new evacuations were issued for Lake Arrowhead and Deer Park Lodge. By 6:41 p.m., the Slide Fire had burned over 4,000 acres and 200 structures. The Grass Valley Fire reached 1,000 acres and destroyed 100 structures. The community of Running Springs also had structures destroyed. Green Valley, surrounded by fire, was evacuated. Firefighters were forced to disengage due to extreme fire behavior. Accurate damage reports were impossible to establish because the damage assessment teams were unable to gain access to the area. Evacuations are extended to Crestline, east to Snow Valley Ski Area. Mountains Community Hospital in Lake Arrowhead was evacuated of patients. Firefighters had been engaged for 36 hours without rest.

On October 24, CA-IMT #1 assumed command of the Slide Fire at 6:00 a.m. NorCal Team II remained in command of the Grass Valley Fire. Both incidents were unified in planning and resource allocation. The Slide Fire had burned over 5,000 acres and destroyed 200 structures. Damage assessment access remained a problem. The lack of firefighting resources, staffing, and rest have become larger issues. High-density residential properties, intermixed with bug-killed timber in areas with limited access, and continued adverse weather are all major factors working against suppression efforts. By afternoon, the wind direction shifts to the west-northwest, driving the fire in a new direction. The fires are now threatening Green Valley, Running Springs, Live Oak, Fredalba, Smiley Park, Calvary Chapel Camp, National Children's Forest and Visitors Center, Arrowbear Lake, Snow Valley, and Nordic Rim Ski Resort. All are evacuated.

By the morning of October 25, containment is still at 0% and the area burned in the Slide Fire is more than 11,000 acres. The Grass Valley Fire is now about 1,100 acres. As other fires in Southern California are coming under control, more firefighting resources become available, allowing progress in perimeter control. Progress is made over the next few days as more resources become available and the weather cooperates. The focus of firefighting efforts gradually shifts to mop-up and patrol in residential areas.

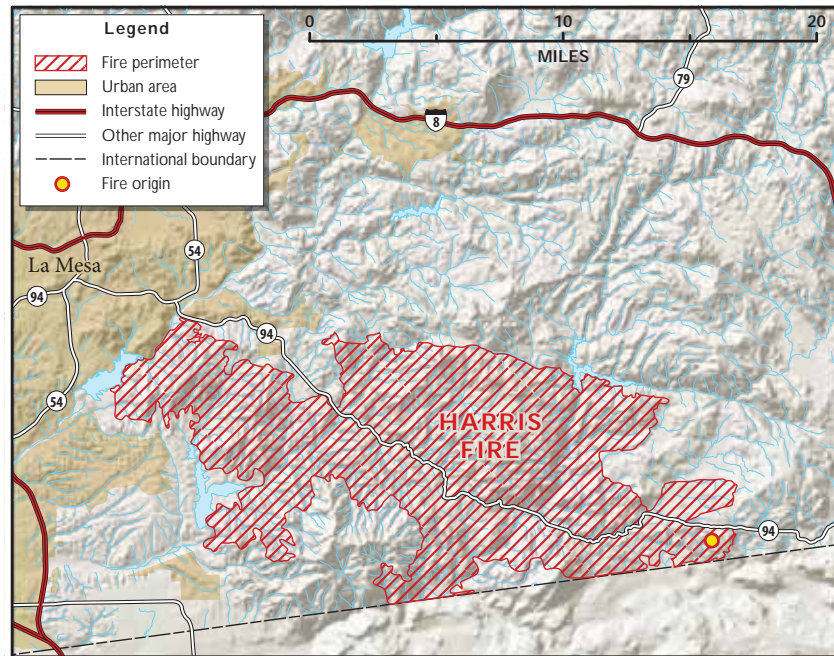
On October 28, the Grass Valley Fire is 95% contained, and Slide Fire is 85% contained. Threats to communities are diminished. Significant demobilization of firefighting resources is under way. By October 30, residents are allowed to return for site visits throughout the day. Highway 18 is completely re-opened on October 29.

The Grass Valley Fire was 100% contained on October 29, 2007.

The Slide fire was 100% contained on October 31, 2007.

Harris

- **Incident#:** MVU-010427
- **County:** San Diego
- **Agencies in Command:** CAL FIRE, USFS, San Diego City, Chula Vista, San Miguel
- **Start Report Date:** October 21, 2007
- **Containment Date:** October 31, 2007
- **Total Acres:** 90,440
- **Direct Fire Suppression Cost:***
 - US Forest Service \$5,030,000
 - CAL FIRE \$21,157,453
- **Firefighters Assigned at Peak:** 2,544
- **Structures Destroyed:** 373
- **Structures Damaged:** 259
- **Firefighters Injured:** 40
- **Fatalities:** 8
- **Fuels:** Brush and grass
- **Cause:** Undetermined



The Harris Fire was reported at 9:30 a.m., October 21, 2007, in a thickly vegetated draw east of the small community of Potrero.

The fire quickly spread through grass and tinder-dry brush and across the flats of Potrero Valley into the steep hills to the west. Evacuations were immediately ordered and ground forces concentrated their efforts on life and structure protection. Fixed-and-rotary-wing aircraft working under the most difficult conditions were pressed into action to support and protect ground forces engaged in firefights to save homes and lives. During this time the firefighters on CAL FIRE Engine 3387 were caught in a fire-storm trying to evacuate a home, resulting in one civilian death, one civilian burn victim, and four seriously burned firefighters. The engine was destroyed. In order to rescue the firefighters, the pilot of a US Forest Service contract helicopter made a heroic approach and landing to get to the firefighters and civilian who were injured.

The fire burned fiercely through the day and night, and by Monday evening had burned through several small communities and had charred 22,000 acres. Many structures were destroyed, multiple roads were closed, and the fire was still listed at only 5% containment. Aircraft remained grounded due to high winds. The San Diego General Electric Southwest major transmission line was shut off. Hundreds of structures remained threatened. Extreme fire was spreading to the west-southwest towards Otay Lake, and north into Lyon's Valley and Honey Springs Road. Threat extended to the communities of Potrero, Barrett Junction, Barrett Lake Lawson Valley, Jamul, Lyons Valley and Otay Mountain. Base Camp was moved to Gillespie Field.

Protecting lives and structures became the order of the day during the first three days of the fire. Despite evacuation orders, some citizens refused to evacuate, forcing firefighters to make rescues and plead with unwilling residents to leave, using valuable time that could have been used to protect other homes. In one case a CAL FIRE/Riverside County Type 1 strike team, ST RVC 6003A, used three engines and the Strike Team Leader to heroically rescue a disabled man from the garage of a home surrounded by fire.

*Figures shown reflect direct suppression cost estimates by stated agency. Other federal, state and local agency costs are not included. Additional expenses not related to direct suppression (rehabilitation, agency overhead, etc.) are not included.

The winds continued unabated through Tuesday, October 23, pushing the 70,000-acre fire to the Chula Vista City limits and destroying an additional 100 homes in Deerhorn. The winds calmed but changed direction, pushing the fire to the north and east, toward Deerhorn and Lyons Valley, and prompting the evacuations of Lawson Valley and Carve Acre. By evening, 5,400 people had been evacuated, with additional evacuations ordered. Hundreds of structures had burned and thousands more threatened. Fire threatens the communication site on San Miguel Mountain, and the water treatment plant. The lack of firefighting resources due to the large number of fires in Southern California continues to hinder suppression efforts. Unified Command for the fire includes the U.S. Forest Service, CAL FIRE, San Diego City, Chula Vista and San Miguel.

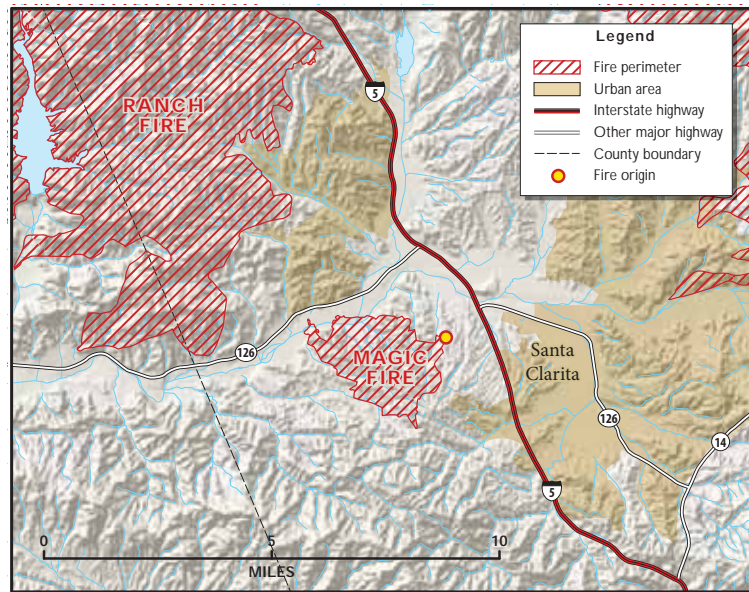
On October 24, the onshore flow moves the fire to the northeast. The fire was held at the edge of Chula Vista and San Miguel. Evacuations have been lifted for the 1000 Trails RV Park. During the next few days, fire behavior remains active on the north side with evacuations for the Lake Morena, Lawson Valley and Carve Acres areas ongoing. Structures are threatened along Highway 94 from Jamul on the east, to Jamacha on the west. Fire is a threat to the north side of the Cleveland National Forest, and is also moving east towards Lyons Valley, and burning Lyons Peak. On October 25 the fire exceeds 84,000 acres in size, but grows more slowly over the next several days as the weather become favorable for firefighters.

Residents are allowed to re-enter the Thousand Trails, Potrero, Tecate and western Jamul areas on October 26th. On October 27th evacuation orders are lifted for all areas. All residents are allowed to re-enter all fire areas on October 28.

The Harris Fire was 100% contained on October 31, 2007.

Magic

- **Incident#:** LAC-07233077
- **County:** Los Angeles
- **Agency in Command:** Los Angeles County Fire Department
- **Start Report Date:** October 22, 2007
- **Containment Date:** October 24, 2007
- **Total Acres:** 2,824
- **Direct Fire Suppression Cost:***
 - US Forest Service \$125,000
 - CAL FIRE \$900,196
- **Firefighters Assigned at Peak:** 428
- **Structures Destroyed:** 0
- **Structures Damaged:** 0
- **Firefighters Injured:** 0
- **Fatalities:** 0
- **Fuels:** Chaparral
- **Cause:** Undetermined



The Magic Fire started shortly after 2:00 p.m., October 22, near the Six Flags Magic Mountain amusement park on the western side of Santa Clarita.

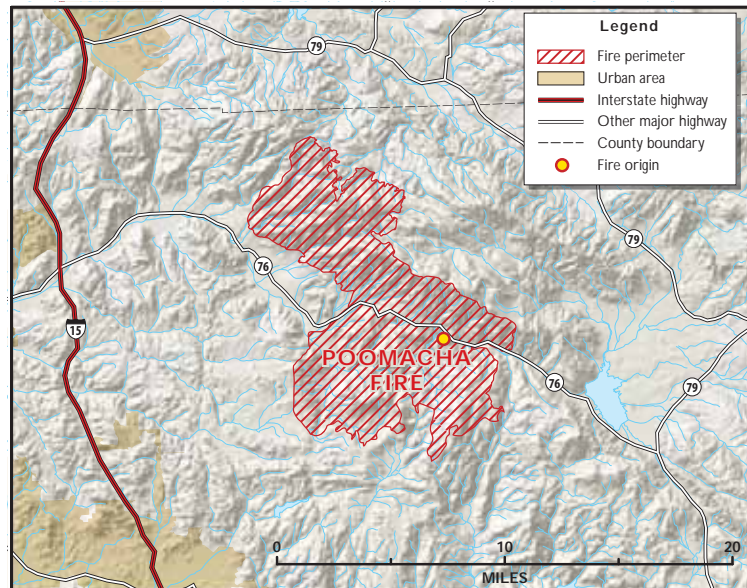
By October 23 the fire had grown to 1,200 acres. Only 20% contained, it was considered a threat to Simi Valley if the winds continued. However, weather conditions improved, and by evening there was little fire spread, and control lines were holding. Efforts shifted to mop-up and patrol.

The Magic Fire was 100% contained on October 24, 2007.

**Figures shown reflect direct suppression cost estimates by stated agency. Other federal, state and local agency costs are not included. Additional expenses not related to direct suppression (rehabilitation, agency overhead, etc.) are not included.*

Poomacha

- **Incident#:** MVU-010643
- **County:** San Diego
- **Agency in Command:** CAL FIRE, USFS
- **Start Report Date:** October 23, 2007
- **Containment Date:** November 13, 2007
- **Total Acres:** 49,410
- **Direct Fire Suppression Cost:***
US Forest Service \$6,842,500
CAL FIRE \$19,368,014
- **Firefighters Assigned at Peak:** 2,793
- **Structures Destroyed:** 217
- **Structures Damaged:** 12
- **Firefighters Injured:** 13
- **Fatalities:** 0
- **Fuels:** Chaparral
- **Cause:** Structure fire



The Poomacha Fire was reported on October 23, at 3:13 a.m., as a structure fire on the La Jolla Indian Reservation, and rapidly spread to the adjacent vegetation.

Reverse 911 was used to contact residents in an effort to evacuate the entire Highway 76 corridor on the first day of the fire. The combined lack of resources and extreme fire weather were so serious on the first day that firefighters could not take action on the fire. It grew from 3,000 acres to 23,000 acres in an hour-and-a-half on day one. Eight injuries were reported.

By the morning of October 24 the area burned had grown to 25,000 acres, and 50 structures had been destroyed. Structure protection remained a priority as several communities, the Palomar Observatory, and a communication tower were threatened.

On October 25, the fire merged with the south side of the Witch Fire.

On October 26, the perimeter control lines of the Poomacha Fire were tied to those for the Witch Fire. The burn area burned reached 42,000 acres, and containment was at 35%. Extensive damage assessment confirmed 78 structures destroyed. Fire has entered the Aqua Tibia Wilderness and strategies were implemented to reduce impacts. Work in the wilderness is slow due to steep terrain. Residents are allowed to re-enter some areas.

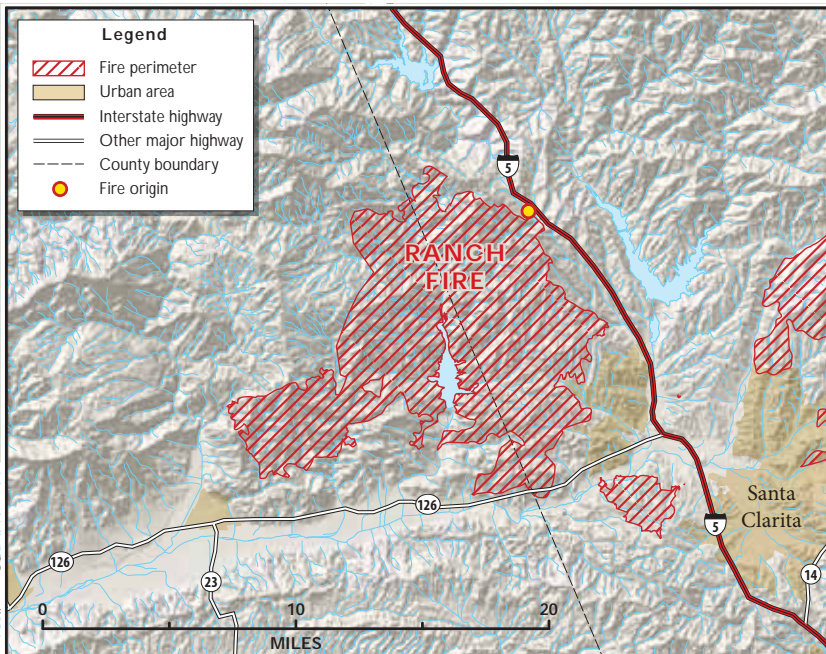
On October 27 the fire progressed to 45,000 acres and was 45% contained. The number of structures destroyed rose to 136, and the number of structures threatened declined from 2,000 to 500. On October 28, the fire perimeter encompasses 49,140 acres. Efforts for the rest of the incident shift toward securing the perimeter, mopping up, and addressing hot spots within the perimeter. Fourteen planes flew the fire on October 28, to contain the spread. It was the first day planes were able to fly in this area. Complete re-entry of residents is expected by evening. By November 1, infrared flights show very little heat left inside the fire perimeter.

The Poomacha Fire was 100% contained on November 13, 2007.

**Figures shown reflect direct suppression cost estimates by stated agency. Other federal, state and local agency costs are not included. Additional expenses not related to direct suppression (rehabilitation, agency overhead, etc.) are not included.*

Ranch

- **Incident#:** ANF-4306
- **County:** Los Angeles
- **Agencies in Command:** Los Angeles County
Fire Department, USFS
- **Start Report Date:** October 20, 2007
- **Containment Date:** October 30, 2007
- **Total Acres:** 58,401
- **Direct Fire Suppression Cost:***
US Forest Service \$9,945,000
CAL FIRE \$3,031,397
- **Firefighters Assigned at Peak:** 1,264
- **Structures Destroyed:** 10
- **Structures Damaged:** 2
- **Firefighters Injured:** 8
- **Fatalities:** 0
- **Fuels:** Chaparral
- **Cause:** Equipment use



The Ranch Fire started at 9:42 p.m., October 20, 2007, on the west side of Interstate-5, approximately seven miles northwest of the community of Castaic, in Los Angeles County, and was burning to the southwest toward Ventura County.

Santa Ana winds were blowing 25-to-30 miles per hour, and gusting to 40 miles per hour. The fire was spotting up to 1/2 mile, and by 6:00 a.m. October 21, it had burned 500 acres but was slowing down. The winds had calmed to 10 miles per hour, with gusts to 20 miles per hour, and the relative humidity rose to 45%. Additional resources arrived and there was no eminent threat to structures unless the winds picked up again. Three hours later at 9:00 a.m., the fire was still holding at 500 acres. However, the winds picked up again and spread the fire from a rural area without threat to structures, to 6,000 acres. By the end of the day, it threatened the communities of Fillmore, Piru, Ventura, Ojai, and the Condor Reserve and Sespe Wilderness areas.

Winds continued to drive the fire, and by the morning of October 23, the area burned exceeded 50,000 acres, and the fire became well established in Ventura County. If the winds continued, the Buckweed, Magic, and Ranch fires were expected to burn together in 24-to-48 hours.

By October 23, seven structures were reported destroyed, and Highway 126 was closed. An evacuation center was established at the Fillmore Veterans Memorial Building. Large animals were evacuated to the Ventura County Fairgrounds and small animals were moved to the Camarillo Animal Shelter. Evacuations occurred in Chiquito Canyon, Halsey Canyon, Val Verde, Hopper Canyon and toward Fillmore. Structure protection was provided for Hasley, Piru, Sespe, Fillmore, and structures along Highway 126.

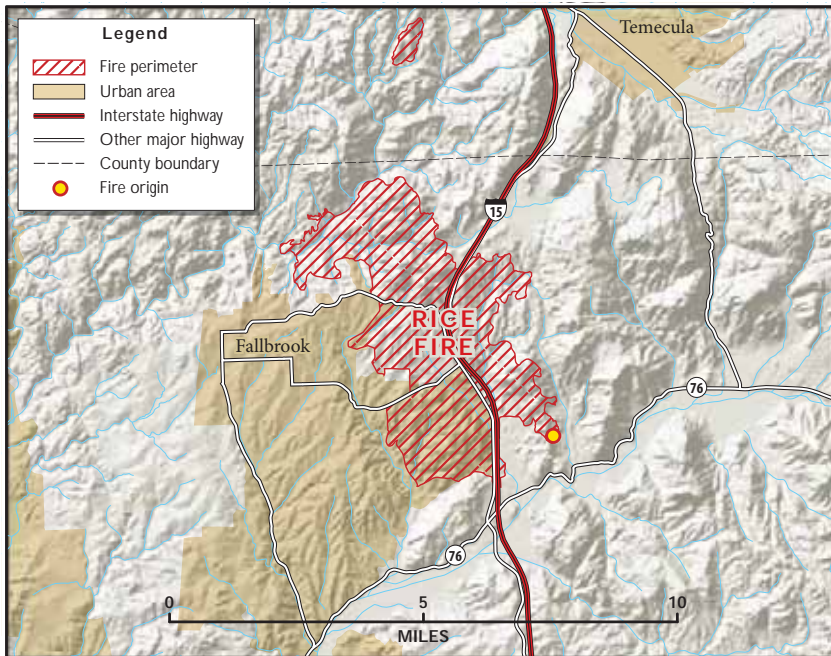
By the morning of October 24, the winds had calmed and fire activity was minimal with some topography-driven short distance runs; flames were visible from Interstate-5. Evacuations were lifted and efforts refocused on securing the perimeter and mopping up. Line construction was completed on the west perimeter of the fire on October 26; the fire was 97% contained by October 27.

The Ranch Fire was 100% contained on October 30, 2007.

**Figures shown reflect direct suppression cost estimates by stated agency. Other federal, state and local agency costs are not included. Additional expenses not related to direct suppression (rehabilitation, agency overhead, etc.) are not included.*

Rice

- **Incident#:** MVU-010502
- **County:** San Diego
- **Agencies in Command:** CAL FIRE, North County Fire Protection District
- **Start Report Date:** October 22, 2007
- **Containment Date:** October 28, 2007
- **Total Acres:** 9,472
- **Direct Fire Suppression Cost:***
US Forest Service —
CAL FIRE \$6,757,077
- **Firefighters Assigned at Peak:** 1,073
- **Structures Destroyed:** 248
- **Structures Damaged:** 0
- **Firefighters Injured:** 6
- **Fatalities:** 0
- **Fuels:** Grass and brush
- **Cause:** Human/Electrical



The Rice Fire was reported at 4:16 a.m. on October 22, burning into an agricultural area of Rice Canyon and initially threatening 250 structures.

Wind gusts of 40-to-50 miles per hour hampered early suppression efforts intended to keep fire within a perimeter defined by Rice Canyon to east, Interstate-15 to the west, Rainbow Height to north, and Highway 76 to south. Before 12:30 p.m. the fire had crossed Interstate-15 and Highway 395. By 3:30 p.m. on the first day, about 1,000 acres had burned, destroying 100 structures in Fallbrook and threatening up to a thousand others. The entire town of Fallbrook, as well as Fallbrook Hospital, was evacuated.

By the morning of October 23, the fire had burned 6,100 acres, numerous structures were destroyed or damaged, thousands more were threatened, and 20,000 avocado trees had been incinerated. As fire spread toward Santa Margarita and the Sandia Creek drainage, and it was feared that the Rice Fire would merge with the Rosa fire. By the end of the day, over 200 structures had burned, and the fire covered 7,500 acres. It was only 10% contained.

On day three, additional evacuations were ordered in the DeLuz area, north of Fallbrook. The fire covered 9,000 acres, and was moving toward Santa Margarita. The San Onofre main electrical transmission line was threatened.

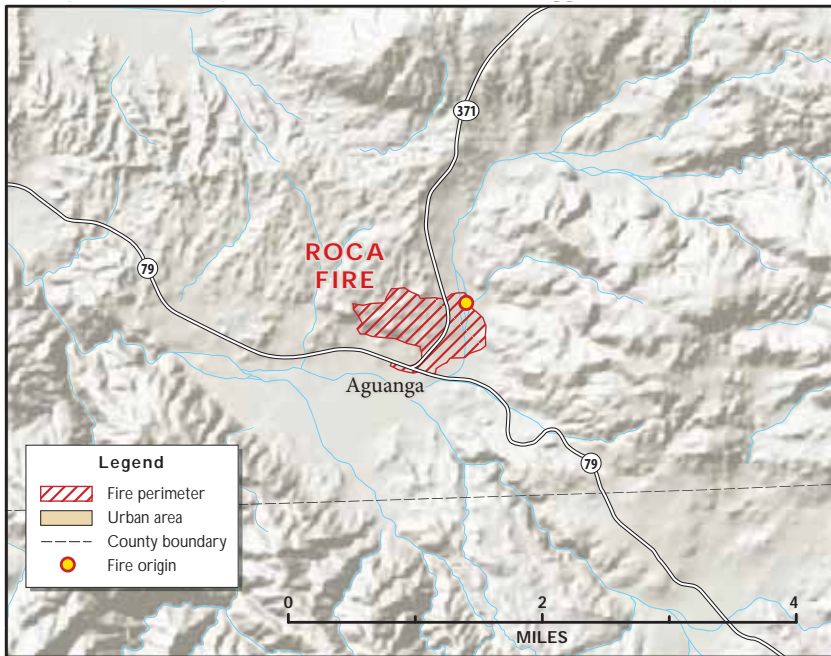
On the morning of October 25, fire spread slowed due to decreasing winds, and some residents were allowed to return home. Over the next two days, significant progress was made on fire line construction, increasing containment. Evacuation orders for all of Fallbrook lifted on October 27.

The Rice Fire was 100% contained on October 28, 2007.

**Figures shown reflect direct suppression cost estimates by stated agency. Other federal, state and local agency costs are not included. Additional expenses not related to direct suppression (rehabilitation, agency overhead, etc.) are not included.*

Roca

- **Incident#:** RRU-91948
- **County:** Riverside
- **Agency in Command:** CAL FIRE
- **Start Report Date:** October 21, 2007
- **Containment Date:** October 22, 2007
- **Total Acres:** 270
- **Direct Fire Suppression Cost:***
 - US Forest Service –
 - CAL FIRE \$353,267
- **Firefighters Assigned at Peak:** 303
- **Structures Destroyed:** 1
- **Structures Damaged:** 1
- **Firefighters Injured:** 1
- **Fatalities:** 0
- **Fuels:** Chaparral
- **Cause:** Undetermined



The Roca Fire started at 3:52 p.m. on October 21, 2007, driven by gusty Santa Ana winds blowing from the northeast at 40 miles per hour.

The rapidly spreading and spotting fire was burning on both sides of Highway 371 within 90 minutes of the start. Numerous structures were threatened and evacuations were quickly undertaken in the South Lake Riverside and Iguana areas. By 11:00 p.m. additional structures were threatened in Cottonwood, and evacuations were ordered at the Jojoba RV Resort. The fire threatened the Cleveland National Forest as it headed toward Temecula Creek and the Riverside-San Diego County Line, south of Highway 79.

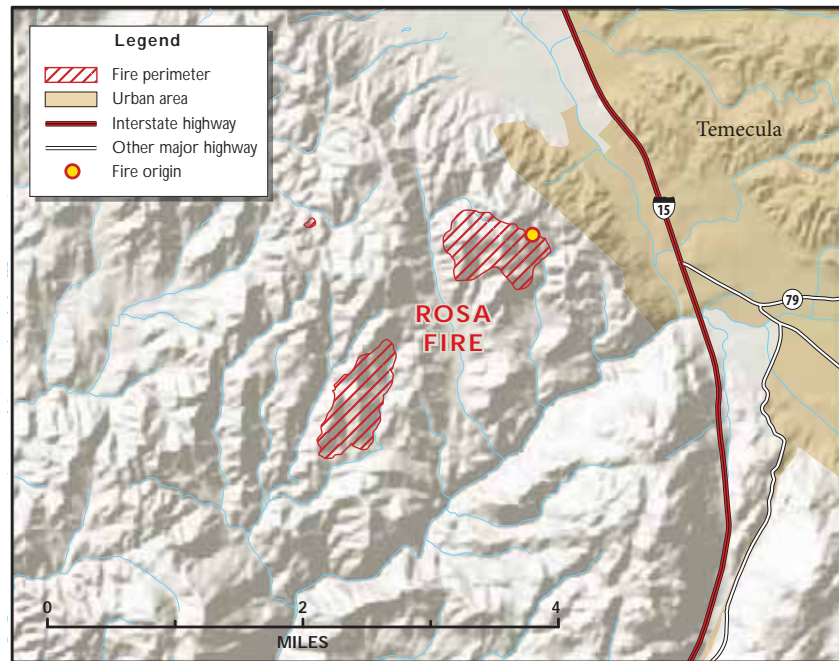
By the next morning, the fire's rate of spread had slowed.

The Roca Fire was contained by 8:00 a.m. on October 22, 2007.

**Figures shown reflect direct suppression cost estimates by stated agency. Other federal, state and local agency costs are not included. Additional expenses not related to direct suppression (rehabilitation, agency overhead, etc.) are not included.*

Rosa

- **Incident#:** RRU-93126, RRU-92560
- **County:** Riverside
- **Agency in Command:** CAL FIRE
- **Start Report Date:** October 22, 2007
- **Containment Date:** October 24, 2007
- **Total Acres:** 411
- **Direct Fire Suppression Cost:***
 - US Forest Service \$59,850
 - CAL FIRE \$670,486
- **Firefighters Assigned at Peak:** 192
- **Structures Destroyed:** 2
- **Structures Damaged:** 0
- **Firefighters Injured:** 0
- **Fatalities:** 0
- **Fuels:** Chaparral
- **Cause:** Arson



The Rosa Fire started as three separate fires at 11:10 p.m. on October 22, 2007, near Temecula.

Initial suppression efforts were hampered by wind gusts over 20 miles per hour, as well as difficult access to the fire, and poor water supply for firefighting. The Santa Rosa Plateau Ecological Reserve and the 33 KV transmission lines supplying power to Orange County were threatened. Evacuations occurred in De Luz, and an evacuation center was established at the Temecula Community Center for the evacuees.

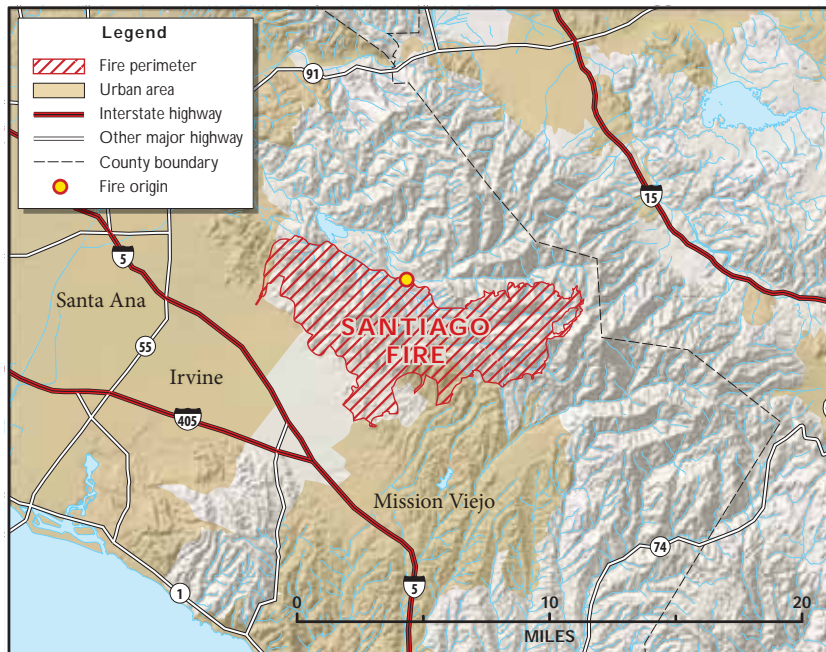
The fire was 70% contained by 6:45 a.m. the following morning, less than eight hours after it started. Evacuation and road closure restrictions were lifted at 5:00 p.m. on October 23.

The Rosa Fire was contained on October 24, 2007.

**Figures shown reflect direct suppression cost estimates by stated agency. Other federal, state and local agency costs are not included. Additional expenses not related to direct suppression (rehabilitation, agency overhead, etc.) are not included.*

Santiago

- **Incident#:** ORC-68555
- **County:** Orange
- **Agencies in Command:** Orange County Fire Authority, Orange County Sheriff, USFS, CAL FIRE
- **Start Report Date:** October 21, 2007
- **Containment Date:** November 8, 2007
- **Total Acres:** 28,400
- **Direct Fire Suppression Cost:***
US Forest Service \$10,325,000
CAL FIRE \$10,509,353
- **Firefighters Assigned at Peak:** 1,982
- **Structures Destroyed:** 26
- **Structures Damaged:** 20
- **Firefighters Injured:** 13
- **Fatalities:** 0
- **Fuels:** Chaparral
- **Cause:** Arson



The Santiago fire started at 5:55 p.m. on October 21, near Irvine in Orange County. The fire was making large runs with major spotting. Numerous structures were threatened to the south and west of the fire, and evacuations were ordered immediately. A Unified Command is established with Orange County Fire Authority, U.S. Forest Service and Orange County Sheriff's Department.

As of 6:35 a.m. October 22, gusty winds continued to spread the fire, which had grown to 8,800 acres, destroying one structure and damaging two others. Residences were threatened in the communities of Portola Hills, Silverado Canyon, and Foothill Ranch. During the day the wind blew 30-to-40 miles per hour, with gusts up to 60 miles per hour. The fire posed a major threat to over 2,000 homes in Foothill Ranch, and 700 structures in Silverado Canyon. The fire crossed into Silverado Canyon, spreading toward Modjeska, covering over 16,000 acres by nightfall. Throughout the first few days of the incident, the lack of available firefighting resources due to the large number of ongoing fires hampered suppression efforts.

On the morning of October 23, the fire threatened numerous communities along the Santa Ana Canyon corridor, and also along the San Onofre power grid. Structure protection was in place for the Portola Hills, Foothill Ranch, Modjeska and Santiago Canyon areas. Newly arriving firefighting resources helped meet some of the containment objectives. By afternoon 18,000 acres had burned, destroying 10 structures and two outbuildings, and threatening several thousand additional structures. Containment remained at 30%. Winds shifting from an offshore to an onshore flow complicated the firefighting effort. Mandatory evacuations were in place for Harris Grade, Live Oak Canyon, Trabuco Canyon, Silverado, Modjeska and Ladd Canyons. There were also threats to the Chino Edison power lines.

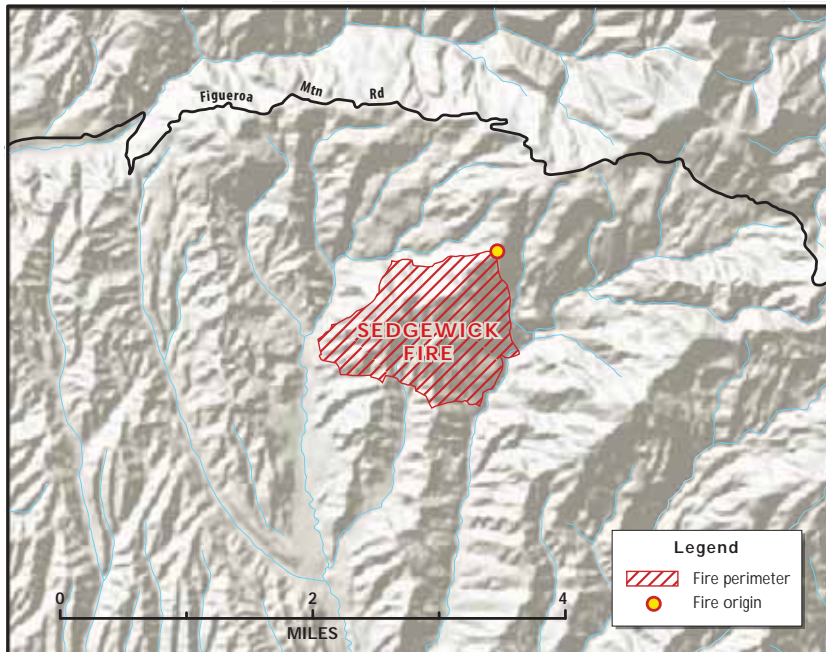
By the afternoon of October 24, the fire had spread to the northeast and the south. Good progress was made overnight in the Modjeska Canyon area. On October 25, the fire progressed to Modjeska Peak, has burned 27,000 acres, and continues to burn north toward Riverside County. For the next several days the fire expands more slowly as weather conditions become more favorable. Containment lines are established and shored up. The focus shifts to mop-up and containing flare-ups that occur in unburned islands within the fire perimeter. All evacuation orders are lifted by November 1.

The Santiago Fire was 100% contained on November 8, 2007.

**Figures shown reflect direct suppression cost estimates by stated agency. Other federal, state and local agency costs are not included. Additional expenses not related to direct suppression (rehabilitation, agency overhead, etc.) are not included.*

Sedgewick

- **Incident#:** LPF-1783
- **County:** Santa Barbara
- **Agencies in Command:** USFS, Santa Barbara County Fire Department
- **Start Report Date:** October 21, 2007
- **Containment Date:** October 23, 2007
- **Total Acres:** 710
- **Direct Fire Suppression Cost:***
 - US Forest Service \$3,465
 - CAL FIRE \$1,053,945
- **Firefighters Assigned at Peak:** 516
- **Structures Destroyed:** 0
- **Structures Damaged:** 0
- **Firefighters Injured:** 0
- **Fatalities:** 0
- **Fuels:** Grass
- **Cause:** Power lines



The Sedgewick fire was reported at 6:00 a.m., October 21, south of Figueroa Mountain in Santa Barbara County.

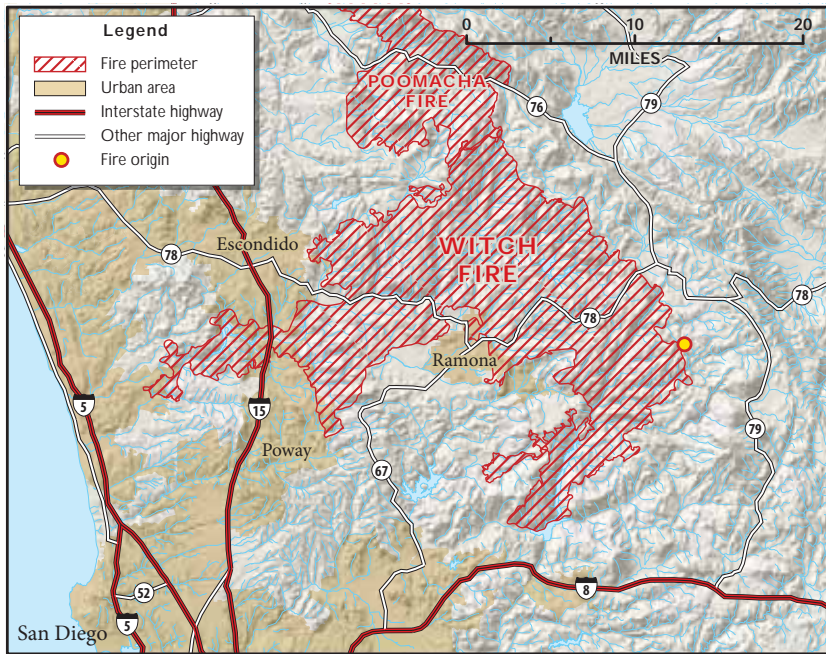
About 450 homes were threatened. Evacuation warnings were posted for the Woodstock area. By the afternoon of October 22, the fire was 75% contained, and resources were released to help the efforts on other ongoing fires. Arcing from electrical power lines is suspected to be the cause of the fire.

The Sedgewick Fire was contained at 6:00 a.m., October 23, 2007.

**Figures shown reflect direct suppression cost estimates by stated agency. Other federal, state and local agency costs are not included. Additional expenses not related to direct suppression (rehabilitation, agency overhead, etc.) are not included.*

Witch

- **Incident#:** MVU-010432
- **County:** San Diego
- **Agencies in Command:** CAL FIRE, USFS, Heartland Fire Zone, Rancho Santa Fe FPD, San Diego County FS, Poway, Escondido
- **Start Report Date:** October 21, 2007
- **Containment Date:** October 31, 2007
- **Total Acres:** 197,990
- **Direct Fire Suppression Cost:***
US Forest Service \$5,393,500
CAL FIRE \$17,792,887
- **Firefighters Assigned at Peak:** 2,883
- **Structures Destroyed:** 1,624
- **Structures Damaged:** 103
- **Firefighters Injured:** 40
- **Fatalities:** 2
- **Fuels:** Chapparal
- **Cause:** Power lines



The Witch Fire was reported at about 12:35 p.m. on October 21, 2007, east of Ramona in San Diego County.

By the end of the first day, the fire was well established in the Witch Creek drainage, had jumped Interstate-15 and burned multiple structures in Ramona, Rancho Bernardo and Poway, and grown to near 10,000 acres in size. Communities threatened included Ramona, San Diego Country Estates, Barona Mesa, Barona Indian Reservation, Poway and San Pasqual. Widespread evacuations were in progress.

At approximately 4:00 a.m., October 22, the Guajito Fire was reported south of the San Diego Wild Animal Park, burning in the San Pasqual River drainage. Within 30 minutes it had burned west to I-15, causing the CHP to close the highway in both directions and disrupting the evacuation of communities threatened by the Witch Fire. The Guajito Fire burned under I-15 toward Rancho Bernardo, and later in the day merged with the Witch Fire.

By the evening of October 22, the fire had blown up to 145,000 acres, with an estimated 500 structures destroyed and another 250 damaged. The fire, pushed by the strong Santa Ana winds, was burning rapidly and produced long range spotting up to 1/4 mile in front of the fire. Thousands of structures were threatened. Much of the fire was burning between the 2003 Paradise and Cedar fire burns in 25-year-old fuel.

On the morning of October 23, at 8:30 a.m., the fire had already burned 165,000 acres but was only 1% contained. The wind pushed the fire to the west-and-southwest at a rapid rate, with long range spotting. Thousands of structures remained threatened. At 1:50 p.m., it is reported that the fire has grown to 200,000 acres and still only 1% contained. In the last three hours, 100 homes have burned in the communities of Rancho Santa Fe, Harmony Grove, Valley Center, Escondido and Valley Center. By 5:50 p.m., the perimeter growth had slowed and the area burned remained the same. Structures were destroyed in the additional communities of Rancho San Diego, Millar Ranch, Indian Springs and Jamul; all had all been evacuated. Evacuation centers were set up.

**Figures shown reflect direct suppression cost estimates by stated agency. Other federal, state and local agency costs are not included. Additional expenses not related to direct suppression (rehabilitation, agency overhead, etc.) are not included.*

By October 24, the Santa Ana winds had ended and the winds shifted onshore. Fire spread was greatly reduced. Damage estimates now tallied 805 structures destroyed, and 375 damaged. Communities threatened now include the additional communities of Julian, Pine Hills, Rincon, and Rancho Bernardo.

The Poomacha Fire merges with the Witch Fire on October 25. The Structure Assessment Team confirms that 69 homes were destroyed in Escondido, 85 in Poway, 480 in San Diego City, and more than 600 in San Diego County. Residents begin to return to some areas of Poway, Escondido, Rancho Santa Fe, San Diego City, Ramona, and Rancho Bernardo. There is increased fire activity in the El Capitan area and south of Lake Henshaw, but this occurs with no significant fire spread.

As fire behavior moderates from October 26 to October 31, suppression efforts shift to completion of the fire line perimeter, rehabilitation, and damage assessment. Evacuations are lifted, people return to their communities and demobilization of firefighting resources occurs.

The Witch Fire was 100% contained at 197,990 acres on October 31, 2007.

Appendix III: Evacuations

“The fires...forced the evacuation of more than 350,000 houses, most of them in San Diego County. With the area’s average household size of 2.6 people, that means the evacuation could encompass nearly 910,000 people.”

MSNBC, October 23, 2007

The 2007 fire siege in Southern California forced hundreds of thousands of residents to evacuate, triggered numerous road closures, and prompted school officials to cancel classes throughout the region.

Evacuees quickly filled all available hotel rooms, poured into shelters, pitched tents in parking lots, or slept in their cars. Many were able to stay with nearby friends or relatives.

Four days into the siege, the number of citizens displaced was estimated at nearly a million. Many major roads were closed, including Interstate-15 on October 22, and Interstate-5 on October 24. In San Diego County alone, the residents of at least 11 nursing homes were evacuated, and in Orange County, a jail housing 900 inmates required evacuation.

Overall, local agencies and residents conducted themselves in a safe, orderly manner, following the instructions of firefighters and law enforcement officials. Operating under “unified command,” most firefighting teams included local law enforcement personnel, giving them a crucial strategic perspective in addition to the tactical perspective of the fire commanders. The broader view gained through unified command, along with improved communication technologies, helped the massive evacuation process to run smoothly.

A vital component in any evacuation or emergency situation is communication. During the October fire siege, the Reverse 911 system was employed on a large scale, and was key to reaching thousands of citizens. Previous evacuation communications, such as those employed in the 2003 fire siege, depended on residents watching the news, listening to radio broadcasts or waiting for a personal visit from law enforcement officials giving evacuation orders. The Reverse 911 system contacted nearly 200,000 citizens with recorded phone messages relevant to their communities.



A volunteer sorts donations made to evacuees. Businesses, individuals and agencies were generous in their support of those who were displaced by the siege.

Appendix IV: After Action Reports

After Action Reports

Major fire sieges fully test the various management systems that are designed for emergency response and coordination. Agency executives take a hard look at all aspects of the operation and make adjustments as necessary. The management team responsible for each of the major fires prepares an incident-specific post-incident activity summary with findings and recommendations. In addition, there are several completed and on-going major after-action reports from various levels of government discussing operations during the California Fire Siege 2007. This list describes some of these reports, and is not intended to be all-inclusive.

Blue Ribbon Commission Task Force

In November 2007, Governor Schwarzenegger asked the Governor's Blue Ribbon Fire Commission formed after the 2003 fire siege, to reconvene and assess what happened during the 2007 fires and recommend improvements in California's fire and emergency response system. On January 18, 2008 the 18-member independent panel of fire service professionals issued an interim report. This report titled "Blue Ribbon Commission Task Force Report" detailed more than a dozen critical recommendations to increase permanent state and local emergency services, build additional surge capacity, improve tactical capabilities, establish better coordination among governmental agencies, and promote fire-safe construction and land-use planning. Some high-priority recommendations, such as staffing, equipment and training, were incorporated into the governor's proposed 2008-2009 budget.

Lessons Learned Center

The Wildland Fire Lessons Learned Center actively promotes a learning culture to enhance and sustain safe and effective work practices in the wildland fire community. The Center provides opportunities and resources to foster collaboration among all fire professionals, facilitates their networks, provides access to state-of-the-art learning tools, and links learning to training.

The Lessons Learned Center conducted a study of actions taken during the October fire siege and issued a report entitled "Initial Impressions Report Southern California Fires 2007: What we learned, how we worked".

Interviewees for this report noted several areas that should receive focused attention until, either through policy, training, or equipment upgrades, these problems areas are resolved. This report does not relate a complete history of the events or decisions made during Southern California's 2007 fires. It codifies the observations of a broad sampling of representatives from as many agencies and organizations as possible, who were working in a variety of roles, in several functions, on different fires. The report then highlights the themes that rose as common concerns among all of these respondents.



Smoky conditions spread throughout Southern California



*Hemet Ryan AAB
on the morning of
November 3, 2007
just minutes prior to
the start of morning
operations.*

Aviation Response

The aviation management teams of CAL FIRE and the U.S. Forest Service, Region 5, conducted a study of the aviation response during the siege. Their findings are documented in the report “Collection of Aviation Related Written Accounts”, compiled from submitted accounts written by Air Tactical Group Supervisors, Lead Plane Pilots, Bravo units, and Air Tanker Bases Southern California Fires October 2007. This report collected information from aviation management officers that will prove valuable for future management reviews of operational procedures.

National Response Plan

The federal Office of Homeland Security and the Federal Emergency Management Agency have made significant changes to the National Response Plan since the terrorist attacks of September 11, 2001, and the Katrina Hurricane disaster. These plans were put into action during this fire siege, and were fully tested. FEMA is preparing numerous after-action studies and reports to evaluate the effectiveness of the updates. These studies will be published and distributed by FEMA.

Appendix V: Proclamations and Declarations

10/26/2007

EXECUTIVE ORDER S-13-07

WHEREAS on October 21, 2007, I proclaimed a State of Emergency to exist in the counties of Los Angeles, Orange, Riverside, San Bernardino, San Diego, Santa Barbara and Ventura as a result of major wildfires fanned by extremely high winds; and

WHEREAS at least 13 out of more than 20 fires continue to burn in Southern California, which have already killed one person and injured dozens of others, including firefighters; and

WHEREAS the fires have displaced hundreds of thousands of persons in the largest evacuation in California history, including those taking refuge in more than 50 shelters, which have housed more than 20,000 people; and

WHEREAS these fires have burned over 450,000 acres of land and more than 1,600 structures, and caused the loss of valuable personal and business records; and

WHEREAS more than 10,000 firefighters are fighting the fires; and

WHEREAS the President of the United States declared that the conditions in the affected counties constitute a major disaster; and

WHEREAS the State Employment Development Department and my Office of Emergency Services estimate that thousands of workers are, or will be, unemployed as a result of the wildfire disaster and are in need of immediate financial assistance; and

WHEREAS the suspension of the statutory one-week waiting period for unemployment insurance applicants who are unemployed due to the wildfire disaster would provide these unemployed workers with immediate financial assistance; and

WHEREAS hospitals, mobile hospitals, temporary hospital annexes, mass care centers, first-aid stations, or other similar temporary facilities established by public entities in the affected areas to care for persons displaced by the fires may be subject to licensing requirements that may prevent, hinder or delay the establishment of those facilities or their ability to provide health care services; and

WHEREAS existing state law does not permit former health care professionals who retired in good standing, or inactive health care professionals in good standing, to practice their professions, even though these persons can play a helpful role in providing emergency health care services where insufficient licensed personnel are available; and

WHEREAS other statutes, regulations, rules or orders governing the delivery of medical care may prevent, hinder or delay the delivery of health care services to persons displaced by the fires; and

WHEREAS those who have lost family members, and those who have lost or sustained damage to their homes, property, businesses or places of employment, may need to obtain or replace important government records such as certificates of birth, death, fetal death, or marriage, as well as marriage dissolution records, driver's licenses, identification cards, vehicle registration certificates, and certificates of title, to obtain assistance from federal, state and local governmental agencies, make claims for and collect insurance, find new employment, and for other purposes related to losses suffered in the fire; and

WHEREAS those who need to obtain or replace important government records to mitigate their losses and rebuild their lives as a consequence of the wildfire disaster require immediate assistance from state and local governmental agencies to replace those records; and

WHEREAS existing law requires the Office of Vital Records of the Department of Public Health, along with local registrars, county recorders and county clerks, to impose fees upon persons requesting copies of certificates of birth, death, fetal death, and marriage, and marriage dissolution records, and existing law requires the State Department of Motor Vehicles to impose fees upon persons requesting replacement driver's licenses, identification cards, vehicle registration certificates, and certificates of title; and

WHEREAS existing law requires the State Department of Motor Vehicles to impose late fees on persons who are late in renewing their vehicle registration or late in transferring ownership of a vehicle; and

WHEREAS existing law requires the State Department of Housing and Community Development to impose fees on persons who are late in renewing their manufactured home registration or late in transferring ownership of a manufactured home; and

WHEREAS the suspension of statutory requirements for imposition of fees would assist fire victims; and

WHEREAS my Office of Emergency Services has successfully used Local Assistance Centers during previous emergencies to coordinate and expedite disaster assistance by providing "one-stop" centers where those affected by an emergency may obtain all services provided by governmental and community organizations; and

WHEREAS the California Military Department, through the California National Guard, has the capability to protect the lives and property of the people of the state during periods of natural disaster and civil disturbances, and to perform other functions required by the California Military Department or as directed by the Governor.

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, including the Emergency Services Act and in particular Government Code sections 8567 and 8571, do hereby issue the following orders to become effective immediately:

IT IS ORDERED THAT:

1. The California National Guard shall mobilize under California Military and Veterans Code section 146 (mobilization in case of catastrophic fires) to support disaster response and relief efforts and coordinate with all relevant state agencies, including my Office of Emergency Services, and all relevant state and local emergency responders and law enforcement within the impacted areas. Sections 147 and 188 of the Military and Veterans Code are applicable during the period of participation in this mission, exempting the California Military Department from applicable procurement rules for specified emergency purchases, and those rules are hereby suspended.
2. The provisions of Unemployment Insurance Code section 1253 imposing a one-week waiting period for unemployment insurance applicants are suspended as to all applicants who are unemployed as a result of the wildfire disaster in the counties of Los Angeles, Orange, Riverside, San Bernardino, San Diego, Santa Barbara and Ventura, who apply for unemployment insurance benefits during the time period beginning October 21, 2007 and ending on the close of business on April 21, 2008, and who are otherwise eligible for unemployment insurance benefits in California.
3. Any hospital, mobile hospital, temporary hospital annex, mass care center, first-aid station, or other similar facility

established in the affected area for disaster response shall be exempt from the requirements set forth in Health and Safety Code sections 1200 through 1799.207 (licensing provisions) and sections 127125 through 130070 (health policy planning, health professions development, health care demonstration projects, health data, facilities loan insurance and financing, facilities design review and construction). Such facilities shall be established and operated in accordance with the State Emergency Plan and local emergency plans. The Licensing and Certification Division of the State Department of Public Health shall, to the extent reasonably possible, advise public entities on reasonable and appropriate measures under the circumstances to protect the health and safety of persons in the facility.

4. Business & Professions Code sections 702 (inactive healing arts license) and 2439 (retired license) are suspended and without effect in the counties subject to the proclamation of emergency, provided that, at the time the practitioner retired or became inactive, his or her license was in good standing.
5. The provisions of Health and Safety Code sections 103525.5 and 103625, and the provisions of Penal Code section 14251, requiring the imposition of fees, are hereby suspended with regard to any request for copies of certificates of birth, death, fetal death, and marriage, or marriage dissolution records by any resident of the counties of Los Angeles, Orange, Riverside, San Bernardino, San Diego, Santa Barbara or Ventura who suffered a loss of a family member, or who suffered loss or damage to property, business, or employment, due to the wildfire disaster. Copies of certificates of birth, death, fetal death, and marriage, and marriage dissolution records, shall be provided to such persons without charge.
6. Health and Safety Code section 18114, requiring the imposition of fees, is hereby suspended with regard to any late renewal of registration certificate or certificate of title for a manufactured home by any registered owner who lost these documents as a result of the wildfire disaster. Those documents shall be replaced without charge.
7. The provisions of Vehicle Code sections 9265(a), 9867, 14901, 14902 and 15255.2, requiring the imposition of fees, are hereby suspended with regard to any request for replacement of a driver's license, identification card, vehicle registration certificate or certificate of title by any resident of the counties of Los Angeles, Orange, Riverside, San Bernardino, San Diego, Santa Barbara and Ventura who suffered a loss of such documents in the wildfire disaster. A replacement driver's license, identification card, vehicle registration certificate, or certificate of title shall be provided to such persons without charge.
8. The provisions of Vehicle Code sections 4602 and 5902, requiring the timely registration or transfer of title, are hereby suspended with regard to any registration or transfer of title by any resident of the counties of Los Angeles, Orange, Riverside, San Bernardino, San Diego, Santa Barbara and Ventura who suffered a loss of such registration or title documents in the wildfire disaster. The time covered by this suspension shall not be included in calculating any late penalty pursuant to Vehicle Code section 9554.
9. My Office of Emergency Services shall immediately establish and support Local Assistance Centers where needed to provide "one-stop" emergency assistance services to those affected by the wildfires in the counties of Los Angeles, Orange, Riverside, San Bernardino, San Diego, Santa Barbara and Ventura.
10. My Office of Emergency Services shall coordinate assistance programs offered by all relevant federal, state and local agencies and departments, including, but not limited to, the Federal Emergency Management Agency, the California Conservation Corps, the Department of Public Health, the Department of Health Care Services, the Department of Mental Health, the Department of Social Services, the Department of Consumer Affairs, the Employment Development Department, the Department of the Highway Patrol, the Department of Forestry and Fire Protection, the Department of Veterans Affairs, the Department of Aging, the Department of

Transportation, the Department of Insurance, and the Franchise Tax Board.

11. All State agencies with responsibility, regulatory authority or expertise related to recovery efforts in connection with these fires shall cooperate fully and act expeditiously in coordination with the California Resources Agency and the California Environmental Protection Agency, to facilitate the mitigation of the effects of the fires and the environmental restoration of the affected areas.
12. State agencies shall expeditiously enter into contracts and arrange for the procurement of materials, goods, and services necessary to quickly remove dangerous debris, repair damaged resources, and restore and protect the impacted watershed. Because strict compliance with the provisions of the Government Code and the Public Contract Code applicable to state contracts would prevent, hinder, or delay these efforts, applicable provisions of those statutes, including, but not limited to, advertising and competitive bidding requirements, are suspended to the extent necessary to address the effects of this emergency.
13. Statutes, rules, regulations and requirements are hereby suspended to the extent they apply to the following activities: (a) removal, storage, transportation and disposal of hazardous and non-hazardous debris resulting from the disaster, (b) necessary restoration, and (c) related activities. Such statutes, rules, regulations and requirements are suspended only to the extent necessary for expediting the removal and cleanup of debris from the disaster, and for implementing any restoration plan. The Secretary for the California Environmental Protection Agency, and the Secretary for the California Resources Agency, shall use sound discretion in applying this suspension to ensure that the suspension serves the purpose of accelerating cleanup and recovery, while at the same time protecting public health and the environment. The Secretaries shall maintain a public list of all statutes, rules, regulations and requirements that are suspended, and shall post the list prominently on their websites. This order shall apply to, but is not necessarily limited to, solid waste facility permits, and waste discharge requirements for storage, disposal, emergency timber harvesting, stream environment zones, emergency construction activities, along with waste discharge requirements and/or Water Quality Certification for discharges of fill material or pollutants. To the extent it is within their administrative authority and discretion, the boards, departments and offices within the California Environmental Protection Agency shall expedite the granting of other authorizations, waivers or permits necessary for the removal, storage, transportation and disposal of hazardous and non-hazardous debris resulting from the fires, and for other actions necessary for the protection of public health and the environment.
14. My Office of Emergency Services and all affected State agencies and departments shall provide assistance to the counties of Los Angeles, Orange, Riverside, San Bernardino, San Diego, Santa Barbara and Ventura. Support provided by the State for implementation of the California Disaster Assistance Act shall include, but shall not necessarily be limited to, the use of state personnel and state contractors to support recovery operations.
15. State agencies and departments shall work with local officials to put into place and implement a comprehensive structural debris removal plan that will treat the removal of structural debris as a single organized project.
16. The Department of Forestry and Fire Protection, the California Department of Corrections and Rehabilitation, and the California Conservation Corps, shall use inmate and ward labor, where appropriate, to protect public health, safety, and water quality on public lands or where otherwise requested by private property owners.
17. Standby order numbers one and three are invoked to allow sufficient state personnel to address disaster response and recovery, clean-up and restoration efforts. Standby order number one provides: "It is hereby ordered that the period of employment for State Personnel Board emergency appointments, as provided in Section 19120 of the Government Code and State Personnel Board Rules 301-303, be waived for positions required

for involvement in emergency and/or recovery operations. The requirements and period of employment for such appointments will be determined by the Director, California Office of Emergency Services, but shall not extend beyond the termination date of said State of Emergency." Standby order number three provides: "It is hereby ordered that during the proclaimed State of Emergency appropriate parts of Sections 18020-18026 of the Government Code and State Personnel Board Rules 130-139 be waived to permit cash compensation to personnel whose work is designated by the Director, California Office of Emergency Services, as essential to expedite emergency and recovery operations for all time worked over the employee's regular workweek, at a rate of 1-1/2 times the regular rate of pay. The Director, Office of Emergency Services, will also designate the beginning and ending dates for such overtime for each individual involved. This waiver shall not extend beyond the termination date of said State of Emergency."

IT IS FURTHER REQUESTED THAT:

1. The Public Utilities Commission direct utility companies with transmission lines in the affected area to ensure that all dead and dying trees and vegetation are completely cleared from their utility right-of-ways to mitigate the potential threat to human health and safety and public property.
2. The Franchise Tax Board and the Board of Equalization consider using their administrative powers where appropriate to provide those individuals and/or businesses impacted by the wildfires extensions for filing, audits, billing, notices, assessments and relief from subsequent penalties.

This Executive 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 25th day of October 2007.

ARNOLD SCHWARZENEGGER
Governor of California



DEPARTMENT OF HOMELAND SECURITY

Federal Emergency Management Agency

[FEMA-1731-DR]

California; Major Disaster and Related Determinations

AGENCY: Federal Emergency Management Agency, DHS.

ACTION: Notice.

SUMMARY: This is a notice of the Presidential declaration of a major disaster for the State of California (FEMA-1731-DR), dated October 24, 2007, and related determinations.

EFFECTIVE DATE: October 24, 2007.

FOR FURTHER INFORMATION CONTACT: Peggy Miller, Disaster Assistance Directorate, Federal Emergency Management Agency, Washington, DC 20472, (202) 646-2705.

SUPPLEMENTARY INFORMATION: Notice is hereby given that, in a letter dated October 24, 2007, the President declared a major disaster 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 damage in certain areas of the State of California resulting from wildfires beginning on October 21, 2007, and continuing, is of sufficient severity and magnitude to warrant a major disaster 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 a major disaster exists in the State of California.

In order to provide Federal assistance, you are hereby authorized to allocate from funds available for these purposes such amounts as you find necessary for Federal disaster assistance and administrative expenses.

You are authorized to provide Individual Assistance, assistance for debris removal and emergency protective measures (Categories A and B) under the Public Assistance program in the designated areas, Hazard Mitigation throughout the State, and any other forms of assistance under the Stafford Act that you deem appropriate subject to completion of Preliminary Damage Assessments (PDAs), unless you determine that the incident is of such unusual severity and magnitude that PDAs are not required to determine the need for supplemental Federal assistance pursuant to 44 C.F.R. § 206.33(d).

Consistent with the requirement that Federal assistance be supplemental, any Federal funds provided under the Stafford Act for Public Assistance, Hazard Mitigation, and Other Needs Assistance will be limited to 75 percent of the total eligible costs. Federal funds provided under the Stafford Act for Public Assistance also will be limited to 75 percent of the total eligible costs, except for any particular projects that are eligible for a higher Federal cost-sharing percentage under the FEMA Public Assistance Pilot Program instituted pursuant to 6 U.S.C. § 777.

Further, you are authorized to make changes to this declaration to the extent allowable under the Stafford Act.

The time period prescribed for the implementation of section 310(a), Priority to Certain Applications for Public Facility and Public Housing Assistance, 42 U.S.C. 5153, shall be for a period not to exceed six months after the date of this declaration.

The Federal Emergency Management Agency (FEMA) hereby gives notice that pursuant to the authority vested in the Administrator, Department of Homeland Security, under Executive Order 12148, as amended, Michael J. Hall, of FEMA is appointed to act as the Federal Coordinating Officer for this declared disaster.

I do hereby determine the following areas of the State of California to have been affected adversely by this declared major disaster:

Los Angeles, Orange, Riverside, San Bernardino, San Diego, Santa Barbara, and Ventura Counties for Individual Assistance and debris removal and emergency protective measures (Categories A and B) under the Public Assistance program.

All counties within the State of California are eligible to apply for assistance under the Hazard Mitigation Grant Program.

(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 Program; 97.032, Crisis Counseling; 97.033, Disaster Legal Services Program; 97.034, Disaster Unemployment Assistance (DUA); 97.046, Fire Management Assistance; 97.048, Individual and Household Housing; 97.049, Individual and Household Disaster Housing Operations; 97.050 Individual and Household Program-Other Needs, 97.036, Public Assistance Grants; 97.039, Hazard Mitigation Grant Program.)

R. David Paulison,
Administrator,
Federal Emergency Management Agency.

PROCLAMATION

by the Governor of the State of California

WHEREAS on October 21, 2007, there are more than eleven major wildfires burning in Southern California; and
WHEREAS the wildfires are being driven by dry conditions and high winds, and these conditions are expected to continue for several days; and

WHEREAS more than 20,000 acres have already burned, and more areas are threatened; and

WHEREAS the wildfires have already caused the loss of human life and serious injuries; and

WHEREAS homes, businesses and other structures have burned; and

WHEREAS residents have been evacuated in many communities and several highways and local roads have been closed; and

WHEREAS the wildfires have disrupted a major electrical transmission line and caused power outages; and

WHEREAS on October 21, 2007, my Office of Emergency Services requested federal Fire Management Assistance Grants for many of the fires to ensure that adequate financial resources are available to rapidly attack the fires and reimburse critical emergency response costs; and

WHEREAS some counties have already issued local proclamations of emergency regarding the wildfires, requesting that I issue a state proclamation of emergency, and more local proclamations of emergency are anticipated; and

WHEREAS these wildfires, by reason of their magnitude, are beyond the control of the services, personnel, equipment and facilities of any single county, city and county, or city and require the combined forces of a mutual aid region or regions to combat; and

WHEREAS under the provisions of section 8558(b) of the California Government Code, I find that, because of the wildfires, conditions of extreme peril to the safety of persons and property exist in the counties of Los Angeles, Orange, Riverside, San Bernardino, San Diego, Santa Barbara, and Ventura.

NOW, THEREFORE, I, ARNOLD SCHWARZENEGGER, Governor of the State of California, in accordance with the authority vested in me by the State Constitution and the California Emergency Services Act, and in particular, section 8625 of the California Government Code, HEREBY PROCLAIM A STATE OF EMERGENCY to exist within the counties of Los Angeles, Orange, Riverside, San Bernardino, San Diego, Santa Barbara and Ventura.

IT IS HEREBY ORDERED that all agencies of the state government utilize and employ state personnel, equipment and facilities for the performance of any and all activities consistent with the direction of my Office of Emergency Services (OES) and the State Emergency Plan, and that OES provide local government assistance under the authority of the California Disaster Assistance Act.

I FURTHER DIRECT that as soon as hereafter possible, this proclamation be filed in the Office of the Secretary of State and that widespread publicity and notice be given of this proclamation.

IN WITNESS WHEREOF I have hereunto set my hand and caused the Great Seal of the State of California to be affixed this 21st Day of October 2007.

ARNOLD SCHWARZENEGGER, Governor of California



05/09/2007

EXECUTIVE ORDER S-07-07

WHEREAS the threat of wildfires in California present extreme peril to the people, property and environment; and
WHEREAS this emergency situation of imminent fire danger is caused by the extraordinary number of dead, dying and diseased trees resulting from prolonged drought, overstocked forests and infestation by bark beetles and other decay organisms; and

WHEREAS the number of dead and dying trees continues to increase, providing a readily available fuel load which could result in catastrophic fires; and

WHEREAS an Arctic Cold Front resulting in extreme low temperatures and freezing conditions swept through California, beginning on January 11, 2007, and continuing for a period of time thereafter, contributed to the increased mortality of wildland vegetation therefore fire danger; and

WHEREAS below normal precipitation, higher than season normal temperatures, strong winds and low relative humidity in the majority of the State during this past winter have contributed to early drying of brush and other wildland vegetation; and

WHEREAS reduction in other-agency resources, including aviation assets, limits their initial attack capabilities; and

WHEREAS coordinated fire prevention, aggressive fuels reduction programs and strong initial attack resources remain critical; and

WHEREAS increased risk of catastrophic wildfires throughout California threatens the lives, property and economic well-being of the people of the State; and

WHEREAS the increased risk of catastrophic wildfires throughout California may result in unplanned releases of air pollutants that adversely affect air and water quality, soil stability, populations of sensitive and endangered fish and wildlife species, and their habitat; and

WHEREAS the increased risk of catastrophic wildfires could significantly impact state efforts to reduce greenhouse gases by large uncontrolled emissions of carbon dioxide and other greenhouse gases caused by wildfire; and

WHEREAS the United States Forest Service and Federal Emergency Management Agency have directed funding to assist in fuel removal and forest health improvement.

NOW, THEREFORE, I, ARNOLD SCHWARZENEGGER, Governor of the State of California, by virtue of the power and authority vested in me by the Constitution and statutes of the State of California, do hereby issue this order to become effectively immediately:

IT IS ORDERED that the California Department of Forestry and Fire Protection (CAL FIRE) shall secure and deploy additional resources necessary, as determined by the Director, to protect the safety of persons and property from wildfires during periods of elevated fire risk as follows:

- Staff additional fire crews, fire engines, fire bulldozers, and aviation resources as warranted based on fire threat conditions.
- Assign a crew of four firefighters to selected CAL FIRE fire engines as warranted based on fire threat conditions.
- Assign a Helitack Crew to the San Diego County Sheriff's Department helicopter.
- Provide for immediate availability and utilization of the Supertanker aircraft.
- Assign additional resources in the CAL FIRE contract counties as warranted based on fire threat conditions.

- Coordinate with the military for those resources that may be available for assistance during emergencies in California.
- Assign additional fire safety inspectors where and when beneficial to reduce fire risk.
- Assign fire lookouts during peak fire conditions as part of CAL FIRE staffing patterns.
- 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.

IT IS FURTHER ORDERED that CAL FIRE obtain additional staffing 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 continue to expedite the processing of contracts and grants of federal funds to the communities as quickly as possible and support all local and regional responses to the bark beetle affected tree eradication and community emergency planning efforts.

IT IS FURTHER ORDERED that the Office of Emergency Services (OES), in consultation and coordination with CAL FIRE, as fire threat conditions warrant, deploy OES fire engine strike teams to ensure a substantial response capability to any wildland fire situation in California, and that the costs of the deployment shall be reimbursed consistent with the California Fire Service and Rescue Emergency Mutual Aid Plan and the California Fire Assistance Agreement.

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, place the highest priority for assignment of level-one inmates and wards to staff Conservation Camp Fire Crews.

IT IS FURTHER ORDERED that the California Conservation Corps report to CAL FIRE daily on the status of all its support crews for response to wildfires.

IT IS FURTHER ORDERED that OES review appropriate state departments to assure preparedness 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 government of Mexico to maximize California's fire prevention and fighting capabilities and to provide appropriate reciprocal assistance when requested.

This Order is not intended to, and does not create any right or benefit, substantive or procedural, enforceable in law or equity, against the State of California, its departments, agencies or other entities, its officers or employees, or any other person.

IT IS FURTHER ORDERED 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 2007.

ARNOLD SCHWARZENEGGER, Governor of California



June 22, 2006

EXECUTIVE ORDER S-10-06

WHEREAS the threat of wildfires in California present extreme peril to the people, property and environment, and
 WHEREAS this emergency situation of imminent fire danger is caused by the extraordinary number of dead, dying and diseased trees resulting from prolonged drought, overstocked forests and infestation by bark beetles and other decay organisms; and

WHEREAS an above normal level of precipitation throughout the state during this past winter has led to increased growth of grass and brush, and

WHEREAS the amount of dead and dying trees continues to increase, providing a readily available fuel load which could result in catastrophic fires; and

WHEREAS coordinated fire prevention, aggressive fuels reduction programs and strong initial attack resources remain critical; and

WHEREAS the increased risk of catastrophic wildfires throughout California threatens the lives, property and economic well-being of the people of the state; and

WHEREAS the increased risk of catastrophic wildfires throughout California may result in unplanned releases of air pollutants that adversely affect air and water quality, soil stability, populations of sensitive and endangered fish and wildlife species, and their habitat; and

WHEREAS the increased risk of catastrophic wildfires could significantly impact state efforts to reduce greenhouse gases by large uncontrolled emissions of carbon dioxide and other greenhouse gases caused by wildfire; and

WHEREAS the United States Forest Service and Federal Emergency Management Agency have directed funding to assist in fuel removal and forest health improvement; and

WHEREAS augmentation of fire suppression resources during the previous five years in response to the extraordinary fire conditions has resulted in an overall reduction in the average acres burned (excluding the destructive Southern California Fire Siege in October 2003, which was exacerbated by Santa Ana wind conditions).

NOW, THEREFORE, I, ARNOLD SCHWARZENEGGER, Governor of the State of California, by virtue of the power and authority vested in me by the Constitution and statutes of the State of California, do hereby issue this order to become effectively immediately:

1. The California Department of Forestry and Fire Protection (CDF) shall secure and deploy additional resources necessary, as determined by the Director, to protect the safety of persons and property from wildfires during the 2006 periods of elevated fire risk as follows:
 - Assign a minimum crew of four firefighters to selected CDF engines as warranted based on fire threat conditions.
 - Assign additional resources in the CDF Contract Counties as warranted based on fire threat conditions.
 - Staff two additional CDF Conservation Camp Fire Crews as warranted based on fire threat conditions.
 - Coordinate with the military for those resources that may be available for assistance during emergencies in California.
 - Assign additional fire safe inspectors where and when beneficial to reduce fire risk.
 - Assign fire lookouts during peak fire conditions as part of CDF staffing patterns.

- Increase dispatch and command functions at CDF Northern and Southern Operations centers and the CDF Sacramento Command Center when necessary to respond to significant fire events.
- 2. CDF shall accelerate fire safe clearance inspections by utilizing every second fire engine for inspections when not engaged in firefighting operations.
- 3. CDF shall obtain additional staffing as necessary to support a heightened level of fire prevention public awareness and education utilizing CDF Volunteers in Prevention, FireSafe Councils, and the Office of the State Fire Marshal.
- 4. CDF shall continue to expedite the processing of contracts and grants of federal funds to the communities as quickly as possible and support all local and regional responses to the bark beetle affected tree eradication and community emergency planning efforts.
- 5. The Office of Emergency Services (OES), in consultation and coordination with CDF, as fire threat conditions warrant, shall deploy OES fire engine strike teams to ensure a substantial response capability to any wildland fire situation in California, and that the costs of the deployment shall be reimbursed consistent with the California Fire Service and Rescue Emergency Mutual Aid Plan and the California Fire Assistance Agreement.
- 6. The California National Guard shall prepare its fixed-wing aircraft and helicopters, 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.
- 7. The California Department of Corrections and Rehabilitation, including the Division of Juvenile Justice, shall place the highest priority for assignment of level one inmates and wards to staff Conservation Camp Fire Crews.
- 8. The California Conservation Corps shall report to CDF daily on the status of all its support crews for response to wildfires.
- 9. OES shall review appropriate state departments to assure preparedness for response to wildfires.
- 10. CDF and OES shall work closely with federal, state and local government agencies, bordering states, and the government of Mexico to maximize California's fire prevention and fighting capabilities and to provide appropriate reciprocal assistance when requested.

This Order is not intended to, and does not create any right or benefit, substantive or procedural, enforceable in law or equity, against the State of California, its departments, agencies or other entities, its officers or employees, or any other person.

IT IS FURTHER ORDERED 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 22nd day of June 2006.

ARNOLD SCHWARZENEGGER, Governor of California

BRUCE McPHERSON, Secretary of State



EXECUTIVE ORDER S-6-05

WHEREAS, on March 7, 2003, a State of Emergency was proclaimed to address the extreme peril to the people, property and environment within the Counties of Riverside, San Bernardino and San Diego. This emergency situation of imminent fire danger is caused by the extraordinary number of dead, dying and diseased trees resulting from prolonged drought, overstocked forests and infestation by bark beetles and other decay organisms; and

WHEREAS, the amount of dead and dying trees continues to increase, more than 150,000 additional trees died in 2004, bringing the total acres affected up to 247,000, a 36 percent increase over 2003. This represents a significant increase in the readily available fuel load which could result in catastrophic fires; and

WHEREAS, aggressive fuels reduction programs and strong initial attack resources remain critical; and

WHEREAS, the increased risk of catastrophic wildfires throughout Southern California threatens the lives, property and economic well-being of the people of the state; and

WHEREAS, the United States Forest Service and Federal Emergency Management Agency have directed funding to assist in fuel removal and forest health improvement; and

WHEREAS, the California Department of Forestry and Fire Protection (CDF), the Governor's Office of Emergency Services (OES) and the Counties of Riverside, San Bernardino and San Diego have already taken significant actions to improve routes for the evacuation of people and facilitate emergency response; and

WHEREAS, augmentation of fire suppression resources during the previous four years in response to the extraordinary fire conditions has resulted in an overall reduction in the average acres burned (excluding the destructive Southern California Fire Siege in October 2003, which was exacerbated by Santa Ana wind conditions).

NOW, THEREFORE, I, ARNOLD SCHWARZENEGGER, Governor of the State of California, by virtue of the power and authority vested in me by the Constitution and statutes of the State of California, do hereby issue this order to become effectively immediately:

IT IS ORDERED that CDF shall secure and deploy additional resources as needed to protect the safety of persons and property from wildfires during the 2005 periods of elevated fire risk as follows:

- Assign a minimum crew of four firefighters to 53 CDF engines in the Counties of Riverside, San Bernardino and San Diego.
 - Assign additional resources in the CDF Contract Counties of Los Angeles, Ventura and Orange as warranted based on established criteria of fire threat conditions.
 - Staff four additional CDF Conservation Camp Fire Crews in the Southern portion of the state.
 - Lease, staff and deploy a helicopter to be based in San Diego County.

IT IS FURTHER ORDERED that CDF accelerate Fire Safe Clearance Inspections by utilizing every second fire engine for inspections when not engaged in firefighting operations.

IT IS FURTHER ORDERED that CDF obtain additional staffing as necessary to support a heightened level of fire prevention public awareness and education delivery utilizing CDF Volunteers in Prevention.

IT IS FURTHER ORDERED that CDF continue to expedite the processing of contracts and grants of federal funds to the communities as quickly as possible and support all local and regional responses to the bark beetle affected tree eradication and community emergency planning efforts.

IT IS FURTHER ORDERED that OES, in consultation and coordination with CDF, as fire threat conditions warrant, deploy

OES fire engine strike teams to ensure a substantial response capability to any wildland fire situation in California, and that the costs of the deployment shall be reimbursed consistent with the California Fire Service and Rescue Emergency Mutual Aid Plan and the California Fire Assistance Agreement.

IT IS FURTHER ORDERED that the California National Guard prepare its fixed-wing aircraft and helicopters, 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 the California Youth Authority place the highest priority for assignment of level one inmates and wards to staff Conservation Camp Fire Crews.

IT IS FURTHER ORDERED that the California Conservation Corps report to CDF daily on the status of all its support crews for response to wildfires.

IT IS FURTHER ORDERED that OES review appropriate state departments to assure preparedness for response to wildfires.

IT IS FURTHER ORDERED that CDF and OES work closely with federal, state and local government agencies, bordering states, and the government of Mexico to maximize California's fire prevention and fighting capabilities and to provide appropriate reciprocal assistance when requested.

This Order is not intended to, and does not create any right or benefit, substantive or procedural, enforceable in law or equity, against the State of California, its departments, agencies or other entities, its officers or employees, or any other person.

IT IS FURTHER ORDERED 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 here unto set my hand and caused the Great Seal of the State of California to be affixed this the twentieth day of July 2005.

Arnold Schwarzenegger
Governor of California



May 7, 2004

EXECUTIVE ORDER S-9-04

WHEREAS, on March 7, 2003, a State of Emergency was proclaimed to address the extreme peril to the people, property and environment within the Counties of Riverside, San Bernardino and San Diego. This emergency situation of imminent fire danger is caused by the extraordinary number of dead, dying and diseased trees resulting from prolonged drought, overstocked forests and infestation by bark beetles and other decay organisms; and

WHEREAS, the amount of dead and dying trees continues to increase, more than 100,000 trees in a six-month period in 2003. In some areas 100% of existing conifer species have died including one-third of the trees in the San Bernardino National Forest and 181,128 acres of non-federal forestland; and

WHEREAS, the increased risk of catastrophic wildfires throughout Southern California threatens the lives, property and economic well-being of the people of the state; and

WHEREAS, the United States Forest Service and Federal Emergency Management Agency have directed funding to assist in fuel removal and forest health improvement; and

WHEREAS, the California Department of Forestry and Fire Protection (CDF), the Governor's Office of Emergency Services (OES) and the Counties of Riverside, San Bernardino and San Diego have already taken significant actions to improve routes for the evacuation of people and facilitate emergency response; and

WHEREAS, augmentation of fire suppression resources during the past three years in response to the extraordinary fire conditions has resulted in an overall 70% fewer acres burned in 2001, 2002 and 2003 (excluding the destructive Southern California Fire Siege in October 2003, which was exacerbated by Santa Ana wind conditions).

NOW, THEREFORE, I, ARNOLD SCHWARZENEGGER, Governor of the State of California, by virtue of the power and authority vested in me by the Constitution and statutes of the State of California, do hereby issue this order to become effectively immediately:

IT IS ORDERED that CDF shall secure and deploy additional resources as needed to protect the safety of persons and property from wildfires during the 2004 fire season as follows:

- Assign a minimum crew of four firefighters to 53 CDF engines in the Counties of Riverside, San Bernardino and San Diego;
- Assign additional resources in the CDF Contract Counties of Los Angeles, Ventura and Orange as warranted based on established criteria of fire threat conditions;
- Place back into service ten refurbished fire engines to be staffed with a minimum crew of four firefighters to increase CDF fire engine resources to assist with wildfire suppression in the Counties of Riverside, San Bernardino and San Diego;
- Staff four additional CDF Conservation Camp Fire Crews in the Southern portion of the state;
- Lease, staff and deploy a helicopter to be based in San Diego County.

IT IS FURTHER ORDERED that CDF accelerate Fire Safe Clearance Inspections by utilizing every second fire engine for inspections when not engaged in firefighting operations.

IT IS FURTHER ORDERED that CDF obtain additional staffing as necessary to support a heightened level of fire prevention public awareness and education delivery utilizing CDF Volunteers in Prevention.

IT IS FURTHER ORDERED that CDF continue to expedite the processing of contracts and grants of federal funds to the communities as quickly as possible and support all local and regional responses to the bark beetle affected tree eradication and community emergency planning efforts;

IT IS FURTHER ORDERED that OES, in consultation with CDF, implement a program to predeploy, as fire threat conditions warrant, OES fire engine strike teams to ensure a substantial response capability to any wildland fire situation in Southern California, and that the costs of the deployment shall be reimbursed consistent with the California Fire Service and Rescue Emergency Mutual Aid Plan and the California Fire Assistance Agreement.

IT IS FURTHER ORDERED that the California National Guard prepare its fixed-wing aircraft and helicopters, and preposition 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 the California Youth Authority place the highest priority for assignment of level one inmates and wards to staff Conservation Camp Fire Crews.

IT IS FURTHER ORDERED that the California Conservation Corps report to CDF daily on the status of all its support crews for response to wildfires.

IT IS FURTHER ORDERED that OES review appropriate state departments to assure preparedness for response to wildfires.

IT IS FURTHER ORDERED that CDF and OES work closely with federal, state and local government agencies, bordering states, and the government of Mexico to maximize California's fire prevention and fighting capabilities.

This Order is not intended to, and does not create any right or benefit, substantive or procedural, enforceable in law or equity, against the State of California, its departments, agencies or other entities, its officers or employees, or any other person.

IT IS FURTHER ORDERED 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 here unto set my hand and caused the Great Seal of the State of California to be affixed this the seventh day of May 2004.

Arnold Schwarzenegger
Governor of California



Glossary

- ANCHOR POINT** – An advantageous location, usually a barrier to fire spread, from which to start constructing a fireline.
- AREA COMMAND** – An organization established to: 1) oversee the management of multiple incidents that are each being handled by an incident management team (IMT) organization; or 2) to oversee the management of a very large incident that has multiple IMTs assigned to it. Area command has the responsibility to set overall strategy and priorities, allocate critical resources based on priorities, ensure that incidents are properly managed, and that objectives are met and strategies followed.
- AVERAGE BAD DAY** – Fire conditions experienced during typical mid-fire-season day. Used as a benchmark to gauge fire situations.
- BACKFIRE** – A fire suppression tactic. Any intentionally set fire used to consume the fuel in the path of a free burning wildfire.
- BIA** – Bureau of Indian Affairs
- BLM** – Bureau of Land Management
- BRITISH THERMAL UNIT (BTU)** – Amount of heat required to raise 1 pound of water 1 degree Fahrenheit (from 59.50 to 60.50 F), measured at standard atmospheric pressure.
- CAL FIRE** – California Department of Forestry and Fire Protection
- CALMAC** – California Multi-Agency Command. The information coordination center established in Sacramento. Tasked to gather timely information from regions, cooperating agencies, the media, the director, interested government leaders and the public.
- CDF** – California Department of Forestry and Fire Protection
- CHAINS PER HOUR** – A unit of measure commonly used to indicate the speed of the leading edge of fire as it moves across the landscape. One chain equals 66 feet. One chain per hour equals 66 feet per hour or approximately 1 foot per minute. A “chain” is a unit of distance measurement used in the public land survey system of the United States.
- CHIEF OFFICERS** – Agency Administrators, Fire Chiefs and other strategic level staff overseeing Incident Commanders.
- CONTAINMENT** – A fire is contained when it is surrounded on all sides by some kind of boundary but is still burning and has the potential to jump a boundary line.
- CONTROLLED** – A fire is controlled when there is no further threat of it jumping a containment line. While crews continue to do mop-up work within the fire lines, the firefight is over.
- CONVECTION COLUMN** – The rising column of gasses, smoke, fly ash, particulates and other debris produced by a fire.
- COOPERATING AGENCY** – An agency supplying assistance including but not limited to direct tactical or support functions or resources to the incident control effort.
- CROWN FIRE** – A fire that advances from top to top of trees or shrubs, more or less independently of the surface fire.
- DEFENSIBLE SPACE** – Creating a fire safe landscape for at least 30 feet around homes (and out to 100 feet or more in some areas), to reduce the chance of a wildfire spreading and burning through the structures. This is the basis for creating a “defensible space” - an area that will help protect your home and provide a safety zone for the firefighters who are battling the flames. It is required by California law.
- DIRECT ATTACK** – A method of fire suppression in which suppression activity takes place on or near the fire perimeter.
- DIRECT PROTECTION AREA (DPA)** – That area for which a particular fire protection organization has the primary responsibility for attacking an uncontrolled fire and for directing the suppression action.
- DRAW DOWN LEVEL** – The level where the success of extinguishing a fire with initial attack forces is compromised.
- ENERGY RELEASE COMPONENT (ERC)** – The computed total heat release per unit area (British thermal units per square foot) within the flaming front at the head of a moving fire.
- ESF4** – Emergency Support Function 4. A component of the National Response Framework developed for FEMA.
- ESRI** – Environmental Systems Research Institute. A software company that produces software that is widely used to produce Geographic Information Systems maps on emergencies for analysis and display.

EXTREME FIRE BEHAVIOR – “Extreme” implies a level of fire behavior characteristics that ordinarily precludes methods of direct control action. One or more of the following is usually involved: high rate of spread, prolific crowning and/or spotting, presence of fire whirls, strong convection column. Predictability is difficult because such fires often exercise some degree of influence on their environment and behave erratically, sometime dangerously.

FEDERAL NATIONAL TEAM – A Type 1 National Incident Management Team coordinated by the National Wildfire Coordinating Group (NWCG). Team members may be from various agencies. The California Wildfire Coordinating Group (CWCG) sponsors five of the 16 national teams.

FEDERAL REGIONAL TEAM – A Type 2 Incident Management Team maintained by the U.S. Forest Service in the Pacific Southwest Region (Region 5, California and the Pacific Islands). Team members may be from various agencies.

FEDERAL RESPONSIBILITY AREA (FRA) – the primary financial responsibility for preventing and suppressing fires is that of the Federal Government. These lands are generally protected by the Department of Agriculture, Forest Service, the Department of Interior, Bureau of Land Management, National Parks Service, US Fish and Wildlife Service, and Bureau of Indian Affairs.

FEMA – Federal Emergency Management Agency

FIRE DANGER RATING – A management system that integrates the effects of selected fire danger factors into one or more qualitative or numerical indices of current protection needs.

FIRE LINE – A strip of area where the vegetation has been removed to deny the fire fuel, or a river, a freeway or some other barrier which is expected to stop the fire. Hose lines from fire engines may also contribute to a fire being surrounded and contained.

FIRE PERIMETER – The entire outer edge or boundary of a fire.

FIRE REPORT – An official record of a fire, generally including information on cause, location, action taken, damage, costs, etc., from start of the fire until completion of suppression action. These reports vary in form and detail from agency to agency.

FIRE WEATHER – Weather conditions which influence fire ignition, behavior, and suppression.

FIRESCOPE – Firefighting Resources of California Organized for Potential Emergencies. A multi-agency coordination system designed to improve the capabilities of California’s wildland fire protection agencies. Its purpose is to provide more efficient resource allocation and utilization, particularly in multiple or large fire situations during critical burning conditions.

FLANKS OF A FIRE – The parts of a fire’s perimeter that are roughly parallel to the main direction of spread.

FMAG – Fire Management Assistance Grant. A federal assistance program managed by FEMA through the state Office of Emergency Services (OES). This program is designed to help state and/or local jurisdictions impacted by high cost, high damage wildland fires.

FUELS – Combustible material.

GACC – Geographical Area Coordination Center, see South Ops

GIS – Geographic Information System

HOTSHOT CREW – Intensively trained fire crew used primarily in hand line construction (Type-1).

INCIDENT COMMANDER – This ICS position is responsible for overall management of the incident and reports to the Agency Administrator for the agency having incident jurisdiction.

INCIDENT COMMAND SYSTEM (ICS) – A standardized on-scene emergency management concept specifically designed to allow its user(s) to adopt an integrated organizational structure equal to the complexity and demands of single or multiple incidents, without being hindered by jurisdictional boundaries.

INCIDENT COMMAND TEAM (ICT) – see Incident Management Team

INCIDENT MANAGEMENT TEAM (IMT) – The incident commander and appropriate general and command staff personnel assigned to an incident. Also known as an Incident Command Team.

INDIRECT ATTACK – A method of fire suppression in which suppression activities takes place some distances from the fire perimeter, and often advantage of fire barriers.

INFRARED (IR) – A heat detection system used for fire protection, mapping, and hotspot identification.

INITIAL ATTACK (IA) – An aggressive suppression action taken by first arriving resources consistent with firefighter and public safety and values to be protected.

INTERFACE ZONE – It is the area where the wildlands come together with the urban areas. Also referred to as the I-Zone.

INTERMIX ZONE – It is areas where homes are interspersed among the wildlands. Also referred to as the I-Zone.

JOINT INFORMATION CENTER (JIC) – An interagency information center responsible for researching, coordinating and disseminating information to the public and media. Formed through the MAST.

LIVE FUEL MOISTURE CONTENT -Ratio of the amount of water to the amount of dry plant material in living plants.

LRA – Local Responsibility Area

MACS – (Multi-Agency Coordination System) Is a combination of facilities, equipment, personnel, procedures, and communications integrated into a common system with responsibility for coordination of assisting agency resources and support to agency emergency operations.

MAFFS – Modular Airborne Firefighting System (Refers to the Military aircraft, C-130s, which are used as Air Tankers)

MAST – Mountain Area Safety Taskforce.

MODIS – (Moderate Resolution Imaging Spectroradiometer) – is a key instrument aboard the Terra and Aqua satellites. This instrument provided important intelligence for fire managers regarding fire perimeters and fire growth throughout the fire siege.

MOP-UP – Extinguishing or removing burning material near control lines, felling snags, and trenching logs to prevent rolling after an area has burned, to make a fire safe, or to reduce residual smoke.

MUTUAL THREAT ZONE (MTZ) – A geographical area between two or more jurisdictions into which those agencies would respond on initial attack. Also called mutual response zone or initial action zone.

NATIONAL FIRE DANGER RATING SYSTEM (NFDRS)- A uniform fire danger rating system that focuses on the environmental factors that control the moisture content of fuels.

NIFC – National Interagency Fire Center located in Boise, Idaho.

NPS – National Park Service

OES – The California Governor's Office of the Emergency Services.

OSC – (Operations Section Chief) The ICS position responsible for supervising the Operations Section. Reports to the Incident Commander. The OSC directs the preparation of unit operational plans, requests and releases resources, makes expedient changes to the Incident Action Plan as necessary and reports such to the Incident Commander.

PREDICTIVE SERVICES – Those Geographic Area and National-level fire weather or fire danger services and products produced by wildland fire agency meteorologists and intelligence staffs in support of resource allocation and prioritization.

PREPAREDNESS LEVELS – A national system of preparedness for incidents. The levels are 1 through 5. They are:

Preparedness Level 1 – Few or no active fires under 100 acres. Minimal or no commitment of fire resources. Low to moderate fire danger. Agencies above draw down levels.

Preparedness Level 2 – Numerous fires under 100 acres. Local commitment of resources for initial attack. Moderate fire danger. Agencies above drawdown levels and requests for resources outside local area are minimal.

Preparedness Level 3 – High potential for fires 100 acres & above to occur, with several 0-99 acre fires active. Fire danger moderate to very high. Mobilization of resources within the region and minimal requests outside of region. Agencies above or having difficulty maintaining draw down levels.

Preparedness Level 4 – Fires over 100 acres are common. Fire danger is high to very high. Resource mobilization is coming from outside the region. Agencies at minimum draw down levels.

Preparedness Level 5 – CALMAC is fully activated. Multiple large fires are common in the north and or the south. Fire danger is very high to extreme. Resources are being mobilized through the National Coordination Center. Activation of National Guard or military done or under consideration.

RED FLAG WARNING – Term used by fire weather forecasters to alert users to an ongoing or imminent critical fire weather pattern.

REHABILITATION – The activities necessary to repair damage or disturbance caused by wildfire or the wildfire suppression activity.

REOC - Regional Emergency Operations Center. A geographical coordination center consisting of staff, facilities and systems that administers or coordinates mutual aid. A region is an area made up of two or more counties.

ROSS - Resource Order and Status System: A national computer database system used by wildland fire agency dispatchers to track the current status of committed and available firefighting resources and to exchange mission-critical incident information between dispatch offices.

SANTA ANA WINDS – Is a type of Foehn wind. A Foehn wind is a warm, dry and strong general wind that flows down into the valleys when stable, high pressure air is forced across and then down the lee side slopes of a mountain range. The descending air is warmed and dried due to adiabatic compression producing critical fire weather conditions. Locally called by various names such as Santa Ana winds.

SOUTH OPS – The multi-agency geographic area coordinating center for Southern California. Located in Riverside, it is staffed by CDF, State OES and Federal fire agencies.

STRIKE TEAM - An engine strike team consists of five fire engines of the same type and a lead vehicle. The strike team leader is usually a captain or a battalion chief. Strike Teams can also be made up of bulldozers and handcrews.

SPOT FIRE OR SPOTTING – A small fire that is ahead of the main fire that is caused from hot embers being carried to a receptive fuel bed. Spotting indicates extreme fire conditions.

STATE RESPONSIBILITY AREA (SRA) - The California Board of Forestry and Fire Protection classifies areas in which the primary financial responsibility for preventing and suppressing fires is that of the state. CDF has SRA responsibility for the protection of over 31 million acres of California's privately-owned wildlands.

SLOP-OVER – A fire edge that crosses a control line or natural barrier intended to confine the fire. Also called breakover.

UNIFIED COMMAND – In ICS, unified command is a unified team effort which allows all agencies with jurisdictional responsibility for the incident, either geographical or functional, to manage an incident by establishing a common set of incident objectives and strategies.

WFSA – Wildland Fire Situation Analysis

WILDLAND/URBAN INTERFACE – The line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels.

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APPENDIX 3



AFTER ACTION REPORT - OCTOBER 2007 WILDFIRES

City of San Diego Response



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PREFACE

Wildfire knows no boundaries. Every citizen in the City of San Diego was impacted in some way by the firestorms of 2007. Twice in the past five years the San Diego region has experienced Santa Ana winds blowing from the east, for an extended number of days, and the conditions being just right to produce firestorms of amazing proportions. When the firestorms occur in San Diego, there will always be multiple fires burning throughout the southern California region, if not the entire state, stretching the state's well developed mutual aid system to the limit. The San Diego region needs to begin today to prepare for the next catastrophic wildfire event. Collectively we need to do everything we can to reduce the potential threat, better prepare our homes to be as fire safe as possible and then secure sufficient ground and aerial resources to respond strategically and effectively to combat large wildfires in the absence of mutual aid assistance. We need to be prepared to protect our citizens for the first 48 to 72 hours when once again we find ourselves on our own.

San Diego is in a unique position to benefit from the increased public awareness created by the 2003 and the 2007 firestorms to initiate significant change within this region. The 2007 firestorms demonstrated that the working relationships and coordination in this region have never been better between the city and the county. The Regional Fire Protection Committee should take a comprehensive look at equipment, personnel, procedures, vegetation management and building codes. This Committee's goal is to build on the many reports and efforts that have already begun.

Following the 2003 firestorms the Cedar Fire After Action Report (AAR) outlined a number of areas that needed to be addressed. Some of those issues were addressed, for example open cab brush engines were replaced, an apparatus replacement program was established to replace frontline engines and increase the number of reserve engines, grant funds were leveraged to purchase mobile data computers for our frontline engines, trucks and ambulances, City/County helicopter programs were established, real time fire progression information was needed to ensure a coordinated and timely response so the 3Cs program was developed, additional radios and batteries were purchased. Lessons learned from the Cedar Fire were applied to pre-planning and engagement efforts and resulted in SDFD being better prepared for this large-scale response than was the case in 2003. Attachment A reflects the recommendation status and impact of the 2007 Firestorm on the Cedar Fire AAR recommendations. Still we did not have enough ground and air resources to successfully combat the firestorm thus reducing the number of structures lost and provide the type of emergency response this community deserves. Although no lives were lost within the City of San Diego the number of structures lost and damaged were very similar to that of the 2003 firestorms. So where do we go from here?

In 2004 the City released a comprehensive Public Safety Needs Assessment and addressed anticipated needs between fiscal years 2005 - 2009. In order to identify funding for this needs assessment, the City Council authorized funding measures for the 2004 primary election and again for the 2004 general election. The first measure, Proposition C on the March primary,

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proposed a 2.5% increase in the existing transit occupancy tax (TOT) with a designated percentage of the new revenue dedicated to the San Diego Fire-Rescue Department. The measure failed to secure the 2/3 vote requirement. Attempting a slightly different approach, the City Council placed Proposition J on the ballot for the November general election. This measure also proposed a 2.5% increase in the existing TOT, but allocated the new revenue to the City's general fund, thereby requiring only simple majority vote to pass. This measure also failed to pass.

Following the Cedar Fire, the San Diego Fire-Rescue Department gathered volumes of information and submitted to the Commission on Fire Accreditation International (CFAI) in February 2005 to be accredited. Unfortunately, the City was not accredited due to the coverage challenges the department faces in trying to deliver day-to-day emergency response services citywide. The City has not kept pace with the growth this region has experienced over the past several decades and as a result has fallen behind with infrastructure needs, capital improvement projects, staffing and other critical resources. The CFAI recommended that the Fire-Rescue Department identify measurable fire service objectives and that the Department strive to achieve National Fire Protection Association Standards.

The Fire-Rescue Department is in the process of developing performance measurements in conjunction with the Business Process Re-engineering effort and developing a Fire Station Master Plan to help prioritize the city-wide needs. Day-to-day coverage issues need to be addressed and a long range plan needs to be developed to begin to incrementally meet that need, but to keep things in perspective...had the twenty-two fire stations been built they would have provided only 4-5 additional strike teams, well short of the 20 strike teams we requested through the Unified Command process set up by following the National Incident Management System (NIMS). No doubt those strike teams would have assisted in saving homes, but much more needs to be done to develop an apparatus surge capacity locally to leverage the off duty workforce that is available, and to reduce the fire potential by developing adequate defensible space and working with our citizens to build fire safe communities.

The following review takes an honest, straight forward look at the City of San Diego's preparedness and response effort, and makes recommendations that we believe is the beginning of our blueprint for the future.

EXECUTIVE SUMMARY

Wildfire knows no boundaries. To many seemingly irrelevant fire suppression activities in remote parts of enormous San Diego County appear to have no bearing on the resources, planning and execution of emergency response and recovery assets belonging this country's eighth largest city nestled in the furthest southwestern reaches of the nation – the City of San Diego, California.

This after action report provides an analysis of the planning, preparedness, response, and recovery efforts of the men and women of the City of San Diego to the Firestorm that began in eastern San Diego County on Sunday, October 21, 2007. It focuses on the municipal responsibility these men and women have; it does not address the additional requirements taken outside of city limits such as mutual aid, unified command, state and federal coordination, defense support to civil authorities, as these are covered under after action reports from other sources.

The people of the City should be commended for the incredible, compassionate, and organized response to the October wildfires. No civilian or emergency personnel lives were lost within the City. While there was significant property damage, amounting to 365 homes destroyed and 79 damaged, and untold trauma and inconvenience, approximately 6,000 homes were saved by the heroic and humble actions of the San Diego Fire-Rescue Department and the San Diego Police Department.

The response itself, however, and the elements of planning and preparedness that are the foundation of response, was not without deficiencies. The complex system of resourcing, planning, training, exercising, outreach and coordination with local governments and nongovernmental organizations, tribal, state and Federal agencies must be constantly nurtured, updated, maintained, adjusted and practiced. The realization must be accepted that because of its location the City of San Diego will be on its own for the first 48 to 72 hours of a catastrophic event and therefore must be self-reliant and self-sufficient. Attachment B provides a map of the burn area.

The San Diego Fire-Rescue Department (SDFD), San Diego Police Department (SDPD), Emergency Operations Center (EOC) and Qualcomm Stadium mega care and shelter facility undertook in-depth analysis of their actions and activities from pre-planning events through post-recovery. By assessing each phase of the disaster and actions taken by first responders and City officials as well as the responses to those actions by emergency managers, other responders, citizens, and the general public, we are able to learn what went well, what worked well, and what corrective actions can and should be taken in order to improve responses in a future disaster.

This same type of self analysis was conducted by the SDFD after the 2003 Cedar Fires. Lessons were learned from that disaster that were implemented into the planning, training, and resourcing element of SDFD. Some of the recommendations were not implemented either because of funding or staffing. The list of the status of the recommendations is provided at Attachment A.

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The 2003 Cedar Fire AAR focused on 15 categories:

- Command Staff/Incident Management
- Safety
- Public Information
- Staffing and Recall
- Department Operations Center
- Operations
- Air Operations
- Logistics/Apparatus and Equipment
- Communications
- Fire Communications Center
- Plans
- Damage Assessment
- EMS
- Finance
- Brush Management

The October 2007 Wildfires AAR followed the guidelines of the 2003 Cedar Fire AAR and added the additional elements of law enforcement, emergency operations and mega care and sheltering to make it a more comprehensive assessment of the overall disaster. This AAR focuses on 17 categories, many which are the same categories as the 2003 Cedar Fire report, and in a manner to highlight what went well, what was learned and recommended changes.

Areas identified in this AAR as lessons learned and recommendations for change include:

- Fire Apparatus/Equipment Inventory and Logistics
- Mass Notification Systems for Evacuation
- Air Operations
- Prevention
- Incident Management
- Operations
- Mega Care and Shelter Facility Planning
- Special Needs Considerations
- Safety
- Public Information and Media Management
- Communications
- Technology
- Operational Area Coordination
- Volunteers
- Citizen Preparedness and Outreach
- Emergency Medical Services (EMS)
- Training and Exercise

Recommendations from this AAR are summarized at Attachment C. A list of acronyms used in this AAR is provided at Attachment D.

INCIDENT OVERVIEW

The October 2007 San Diego Wildfires, consisting of seven separate fires within San Diego County, began on October 21, 2007, during a major Santa Ana wind event that lasted for three days. These winds are characterized by warm temperatures, low relative humidity, and increased wind speeds. As the Santa Ana winds are channeled through the mountain passes they can approach hurricane force. The combination of wind, heat and dryness turns the chaparral into explosive fuel.

The Witch Creek Fire, classified as the fourth largest California wildland fire ever in acreage burned (197,990 acres), began at 12:35 PM on October 21, 2007 in the Witch Creek area of San Diego County, east of Ramona. Due to the significant winds, fire behavior was extreme, with rates of spread on occasion in excess of 5 miles per hour, long range spotting over half a mile, and flame lengths often in excess of 80' to 100' high. Locals in the San Pasqual Valley area reported wind gusts of over 100 mph. Strong Santa Ana winds pushed the fire west towards the coast. Ember production and transport was a significant contributor to fire spread and structure losses. A second fire, dubbed Guejito Fire started at 1:30 AM October 22, 2007 with the point of origin located approximately four miles east of the Wild Animal Park. The Witch Creek Fire merged with the Guejito Fire during the daylight morning hours of October 22, 2007.

The City Public Safety departments anxiously monitored the Witch Creek Fire's progress toward the city limits on Sunday October 21, 2007 while already responding to both the Harris and Witch Creek Fire in a mutual aid capacity. San Diego Fire-Rescue Department, San Diego Police Department and the Office of Homeland Security were engaged in timing estimates of the encroaching flames coming into city limits and the required preparation and response early Sunday afternoon, October 21, 2007. Mayor Jerry Sanders and Chief Operating Officer Jay Goldstone were kept apprised of events through direct contact with Deputy Chief Operating Officer for Public Safety and Homeland Security Jill Olen, Fire Chief Tracy Jarman and Police Chief Bill Lansdowne.

Procedures were implemented and preparations initiated to ready the City of San Diego for the encroachment of flames into the San Pasqual and Rancho Bernardo communities. Tactical firefighting operations, mass notification processes, evacuation plans and emergency operations command and control were readied. Responders were identified, notified and briefed. Based on initial projections that night, the Witch Creek Fire was expected to reach the San Diego City limits at approximately 5:00 AM the following morning (Monday, October 22, 2007).

Decisions to evacuate neighborhoods potentially impacted by the Witch Creek Fire began Sunday evening. Messages were developed and map parameters identified for the mass notification system in order to call residents in the event of an evacuation. Geographical trigger points for citizen/neighborhood evacuations were identified so that residents could be evacuated in a calm and orderly manner. Police officers staged in neighborhoods in order to conduct the evacuation as well as notify residents and ensure compliance with the order.

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Later investigation would reveal that a separate fire, the Guejito Fire, began at 1:30 AM in the San Pasqual Valley several miles to the west of the advancing Witch Creek Fire and was later joined by the Witch Creek Fire in its drive to the west.

The Guejito Fire spread rapidly along the river bottom area of the San Pasqual Valley and southwest toward Highland Valley Road. SDFD strike teams engaged in numerous firefights along the Highland Valley Road and Bandy Canyon Road areas, but in many cases were forced to retreat by the wind-driven flames. It took just over two hours from the start of the Guejito Fire for the first homes in northeastern Rancho Bernardo to be destroyed by fire. The Guejito Fire spread west along Highland Valley Road, eventually spotting across Interstate 15 and ultimately destroying hundreds of structures in West Rancho Bernardo. While 365 homes were destroyed and an additional 79 were damaged within the City of San Diego, it is estimated that approximately 6,000 homes in the path of the fire were saved as a result of the aggressive firefighting action taken by the SDFD firefighters.

The start of the Guejito Fire several miles to the west of the advancing Witch Creek Fire caused the anticipated time line for resident evacuations to be significantly moved forward. As San Diego Fire-Rescue assets battled the oncoming blazes into the city, it became apparent that the raging fires across the rest of Southern California and the county consumed all of the regional and State mutual aid assets that might otherwise have been available to assist the city. This included law enforcement (evacuation) and sheltering assistance as well.

At approximately 2:16 AM an immediate threat to the Rancho Bernardo community by the Guejito Fire was identified. The San Diego Fire Chief requested the activation of the City's EOC. Evacuation planning was underway, Neighborhood and door-to-door notifications and evacuations were made by SDPD and other emergency responders. Because of the rapid spread of the Guejito fire, it was not possible to construct and launch a Reverse 911® session to that area prior to the arrival of the flames. At approximately 3:31 AM, the Guejito Fire had reached the Bandy Canyon/Highland Valley Road area where homes were first impinged by fire and began to burn.

At approximately 4:07 AM, the Guejito Fire began to burn the first homes in the Rancho Bernardo community. The Witch Creek Fire entered the northeastern edge of the City of San Diego limits (San Pasqual Valley) at approximately 4:00 AM. A Reverse 911® emergency notification for a mandatory evacuation was launched to 14,738 phones in the area at 4:05 AM.

As in any disaster, San Diego utilized all methods available to notify the public of the need for action. The range of tools varied from very basic to technology based. The notification tools used in combination by the City of San Diego to alert and evacuate citizens in the path of the Witch Creek/Guejito fire include:

- Door-to-door knocking by first responders and neighbors
- Police and Fire-Rescue vehicle sirens
- Police and Fire-Rescue vehicle and helicopter lights

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- Constant monitoring and information flow to media outlets for dissemination to the public
- Emergency Alert System via television media
- Reverse 911® mass notification system
- AlertSanDiego mass notification system
- Community Access Phone System
- 2-1-1 Information Line
- Individual and community preparedness

The Reverse 911® system distributed 14,738 calls predawn October 22, 2007 to the area notifying residents of mandatory evacuations. For those who received the calls, the process was timely and worked well, but there is room for improvement. The use of web-based technology in the area of mass notification systems has greatly improved the ease and simplicity of these tools for emergency management. The City is now utilizing that technology by adopting AlertSanDiego as its primary mass notification system. This should allow for a new generation, internet accessed, intuitive system to be provided to our citizens in times of crisis.

Two high schools were set up as temporary evacuation sites, Mira Mesa and West View. Police officers were sent to these locations to set them up to receive residents as the American Red Cross was using every resource it had on hand at the dozens of other shelters already set up the day before throughout the county. As the evacuation count became higher, it was evident that a shelter that would be able to hold thousands of city residents was required.

Because of the anticipated number of potential evacuees and the unpredictable path of the fires, the Mayor's Office determined it was in the best interest of city residents to establish a mass evacuation center that was sufficiently out of harm's way that would be operated by City staff and volunteers until the American Red Cross was able to take over. Qualcomm Stadium was selected at approximately 5:40 AM on Monday, October 22, 2007 for a City-run mega care and shelter facility. The City prepared to receive up to 100,000 evacuees from throughout the county as other shelters were being forced to evacuate.

The shelter began taking in evacuees, donations, volunteers and animals of all sizes. The center estimated its population was 7,000-10,000 each day during the first three days of the fires. Various organizations and individuals donated food, blankets, water, children's toys, massages, and live entertainment for those at the Stadium. The site accepted small pets as well as horses and a variety of other animals. A secondary evacuation site at Fiesta Island was initially a spontaneous site for residents with horses and other large animals. The site worked well for this purpose and was allowed to remain as a shelter site. Many schools, civic centers, and churches throughout the area were also stood up as evacuation shelters.

Over the course of the first two days of the fire, over 200,000 residents in the fire's path were successfully evacuated. Many of the evacuees were able to return to their homes by October 24, 2007; some as early as October 23, 2007. Information sources such as Community Access Phone System (CAPS) and 2-1-1 provided the public updated, live information, as well as Emergency Alert System (EAS) messaging, web sites and local media. By noon Friday, October

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26, 2007 all of the evacuees and their animals from Qualcomm had either returned to their homes, found alternate living arrangements, or were transported to the Del Mar Fair Grounds County Sheltering Facility.

To handle the significant outpouring of corporate as well as individual donations, a Logistics Hub/distribution center was established at Qualcomm Stadium. The volume of donations overwhelmed the center's initial ability to process the deliveries. Heavy traffic from evacuees and tractor trailers delivering supplies caused a major backup into the Stadium. The establishment of a logistical supply hub provided countywide shelters and command posts with needed water, food, and supplies until Friday, October 26, 2007 when the shelter was closed and assets were transferred to the Operational Area and local nonprofit organizations.

The City established its Local Assistance Center at the Rancho Bernardo-Glassman Recreation Center on October 24, 2007, to assist City and County residents and business owners to begin their recovery process. This center was operational through December 21, 2007. A Fire Recovery Center was established on December 22, 2007, at the Rancho Bernardo Library to provide community rebuilding assistance.

Significant Events

1. Mayoral Proclamation of a Local Emergency, ratified by City Council, including a request for a Gubernatorial and Presidential Declaration;
2. Public Information via the dissemination of news releases and/or media advisories and City webpage;
3. Public Emergency Notifications for mass evacuations;
4. Establishment of Qualcomm Stadium as a mega shelter and distribution center;
5. Delivery of resources to the field including medical supplies, heavy equipment, food and water, communications equipment and personnel;
6. Site visits by the President of the United States, Department of Homeland Security Secretary Chertoff, Federal Emergency Management Agency Director Paulison, and Governor Schwarzenegger;
7. Establishment of a City-run Local Assistance Center in Rancho Bernardo.

FIRE APPARATUS/EQUIPMENT INVENTORY AND LOGISTICS

Lessons Learned and Recommendations for Change

1. SDFD's combined front line and reserve apparatus fleet is inadequate to provide equipment for the many available firefighters that can be assigned to the incident. Several structures were destroyed or damaged after initially being saved as a result of not having enough fire engines available to return and patrol all of the areas that were impacted to identify and extinguish rekindled fires.

Recommendation: Additional resources should be procured and alternative methods of conducting patrol activities must be explored to ensure a greater capacity for this mission during future incidents. The acquisition of additional engines would allow for better utilization of available firefighters, but it is unclear what the best method to specify those needs and the strategy for integrating them is. For example, the acquisition of at least 34 additional engines would allow for better utilization of available firefighters not on shift. In order to place one reserve engine at each of the City's 47 fire stations, an additional 34 engines would need to augment the existing 16, allowing for three to be rotated through a scheduled maintenance cycle. This would provide a total of 50 reserve engines within the City of San Diego to increase fire protection levels. Reserve engines at each of the City's 47 fire stations would allow the A Division crews to go to the scene, augmented by the B Division crews on the reserve engines. Protection of the City would be maintained by the B Division crews on the reserve engines as well. The C Division crews would rotate in and replace A Division crews at the end of the shift, taking out fresh crews to battle fires while A Division gets rested. Then A Division replaces B Division while B rests, and so on.

The acquisition of 34 additional engines so that each of the City's 47 fire stations had a reserve engine would allow for the deployment of 124 more firefighters (6 strike teams) and have a positive impact on firefighting operations, but is that a better solution than a larger surge capacity that is not used in a daily fire fighting operations? These questions should be assessed and judgments made as the SDFD's Tactical Plan continues to be developed.

The design, procurement, implementation, and operation of Type 6 brush/patrol engines should also be explored. Type 6 engines are significantly less expensive than the more common Type 1 structure or Type 3 brush engines currently in use by SDFD. They lack the pumping capacity of the larger engines, but still have sufficient capabilities to meet the fire patrol requirement after the main body of fire has passed through a neighborhood. These engines would be off road capable and could also be utilized to support normal vegetation fire operations throughout the fire season.

2. The experiences of the 2003 Cedar Fire and this 2007 Firestorm have confirmed that during periods of high fire activity in southern California, the State fire mutual aid system's ability to fulfill all resource requests during the critical first 48-72 hours of a

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major fire will be severely challenged. Apparatus that had been decommissioned and were awaiting retrieval by the auction company were returned to frontline service through Friday October 26, 2007. The demand for additional support vehicles was recognized and an order for additional General Services vans and pick-ups was placed very early in the incident. Actions were taken to locate all available apparatus and staff vehicles and confirm their operational readiness. A local fire equipment vendor brought four Type 1 engines to the repair facility for use by the Department on the incident. Ground Support personnel inspected the apparatus and were able to field three of the four units.

The callback and usage of the Community Emergency Response Team (CERT) volunteers proved to be a substantial benefit to the provision of logistical services. CERT volunteers served as runners, drivers, and in many other support functions. The callout of CERT volunteers for logistical assignments is truly a benefit to our operations.

Use of academy recruit personnel proved to be most beneficial to overall logistics functioning. These personnel performed all sorts of camp crew functions and were especially effective at cleaning fire equipment and apparatus prior to their return to frontline or reserve status.

Recommendation: In addition to carefully managing its firefighting resources to ensure their availability during periods of high fire danger, the SDFD should consider as part of its Tactical Plan developing a “surge” capacity to mitigate a large fire with little or no outside assistance. This surge capacity should be in the form of additional ground and aerial firefighting equipment.

3. A shortage of portable 800MHz radios hampered the rapid deployment of firefighters on reserve apparatus and required the emergency purchase and borrowing of radios to meet needs.

Recommendation: Additional radios should be purchased to meet the needs of a large-scale incident.

4. The lack of current map books was reported in all areas. Detectives and administrative officers do not have access to or know how to use the mapping software in patrol vehicles. Unmarked vehicles do not have Mobile Computer Terminals with mapping capability.

Recommendation: Current Thomas Brothers map books need to be available to responders who don't use the data base or have access to a computer.

5. Cell phone batteries ran low due to constant and long term use during the incident.

Recommendation: Secure adapters and battery and cell phone chargers at each Operations Center and Incident Command Center for all types of equipment to allow for charging various city cell phones and other equipment during extended shifts.

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6. Logistics personnel have no ready cache of equipment to set up a quick incident base. The new concept of operations plan has identified logistics personnel to use at incidents; however, they have no dedicated, readily accessible equipment to utilize.

Recommendation: Provide a logistical trailer with tables and chairs, a generator, lighting, easy-ups, coolers, re-supply of personal protective equipment etc. for rapid deployment at incidents. Assign logistics personnel pickups or vans as their vehicle.

7. At several fires this summer, engines have not been able to switch out hose and leave in hoselays as there is no replacement hose. Additionally, the hose provided with Type 3 engines two years ago breaks frequently, even without contact with fire. Steps should be taken to remove this hose from service. Further, even more confusion is caused by municipal 1" hose couplings using national standard threads, while CAL FIRE and the U.S. Forest Service (USFS) use national pipe threads. As a result, hose lays are pulled when they should be left in place for safety and tactical reasons just so we can get SDFD hose back. Logistics issued six national standard to national pipe adaptors per each Type 3 engine in September per Occupational Health and Safety Committee request during the September meeting.

Recommendation: Maintain a large cache of spare hose, both at Fire Station 20 and in the fire stations. Use the same Niedner spec hose as the wildland agencies, so that hose can be replaced with ease from fire camp. Utilize the same thread 1" hose or provide multiple adaptors to companies.

8. Although shortages of personal protective equipment that occurred during the Cedar Fire have been corrected and were not a significant issue during this incident for SDFD personnel, improvement is needed in the personal protective equipment for police officers responding to fires. Officers had to work without or wait for dust masks, eye goggles, eye wash, nasal spray and heavy work gloves. Some minor injuries were reported during the initial response phase. One officer received a scratched cornea. Several officers reported having dry irritated eyes, dry and bleeding nasal sinuses and some minor breathing issues. In addition, officers reported that when received, some of the eye goggles and dust masks were ineffective.

There was a perception of a lack of replacement safety gear near the incident. Other than the challenges faced with goggles, safety gear was readily provided whenever a request was made to Logistics at Store 42. In fact, 49 Wildland jackets and 37 wildland pants were disbursed. Structure gloves, wildland gloves, and Hot Shields were provided, along with 8 sets of wildland web gear. The storeroom proactively replenished Hot Shields, gloves and goggles from local vendors to prevent possible shortages. As an example purchase: 155 pairs of goggles and 52 headlamps were obtained by utilizing the "P" card system. The primary failing seems to be the availability of these items on apparatus and/or at forward logistical support locations.

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Recommendation: Ensure all personal protective equipment and supplies for all fire responders are available, cached and distributed as necessary. Ensure fire officers conduct regular inspections of personal protective clothing. Equip all reserve battalion chief vehicles with a cache of spare personal protective equipment. Deploy forward re-supply capability.

9. There was no centralized organization for donated supplies. Donations were delivered in excess of what could be consumed by personnel. The incident base became a warehouse. In addition, logistical personnel were distracted from their primary mission in order to accept such donations.

Recommendation: Have a centralized location for donated supplies and distribute what can be consumed. This includes having refrigeration units for perishables. The coordination of this function should be augmented with non-Fire-Rescue resources.

MASS NOTIFICATION SYSTEMS FOR EVACUATION

The City's primary mass notification system to alert residents of impending danger and requisite instructions is AlertSanDiego, a next generation web-based callback system. AlertSanDiego allows for access to the 15,000 line capacity from any web-based system for land line as cell phone calling, as well as email and text messaging. Reverse 911® is a callback system also used by the San Diego Sheriff's Office (SDSO) and will provide redundancy during emergency situations. These systems are designed to augment other mass notification processes used by the City such as:

- Door-to-door knocking by first responders and neighbors
- Police and Fire-Rescue vehicle sirens
- Police and Fire-Rescue vehicle and helicopter lights
- Constant monitoring and information flow to media outlets for dissemination to the public
- Emergency Alert System via television media
- Community Access Phone System
- 2-1-1 Information Line
- Individual and community preparedness

Because AlertSanDiego had just been received by the Operational Area and had yet to be tested, the City relied on Reverse 911® for notifying residents of impending evacuations. The October 2007 Wildfires were the first opportunity for the City to use Reverse 911® on a large scale incident. It had preformed adequately during testing and smaller scale incidents such as the Mt. Soledad landslide on October 3, 2007. The system is launched from the SDPD Communications Dispatch Center after following a checks and balances process to ensure accuracy of the information and areas to be called. AlertSanDiego follows the same launching protocols and is done from any available internet terminal.

Lessons Learned and Recommendations for Change

1. The concept of the AlertSanDiego and Reverse 911® system is an excellent way of notifying residents of emergencies; however, the public needs to be educated that the system is only one of many tools and a call should be not be depended upon as the only notification. Reverse 911® was viewed as the "answer" to mass notification when it should be regarded as a useful tool to compliment other strategies

Recommendation: Continue emergency training to maximize performance of AlertSanDiego and Reverse 911® mass notification systems and public outreach. The Mayor's Office and Council Districts should work together to provide outreach on testing to the public which should be accomplished quarterly to ensure the effectiveness and accuracy of the mass notification system and the information contained in the database. Continue public outreach efforts to notify the residents of the City of San Diego they

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currently need to self-register their cell phones and emails on both the City's and the County's self-registration page if they desire to be contacted via that medium.

2. Geo-coding the database purchased monthly from AT&T is labor intensive because there is no standard for address names. The data is supplied with the address only, inconsistent names of areas, and no zip code. There are multiple Main Streets in San Diego County. Data must be cross referenced in order to assure accuracy.

Recommendation: Explore seeking zip codes added to the database City purchases from telephone companies to use for emergency call back notifications. Zip codes would narrow down the location of the address into the City of San Diego or else where in the county, which would dramatically improve the success rate on calls (phone number matching address).

AIR OPERATIONS

Lessons Learned and Recommendations for Change

1. Having one firefighting helicopter immediately available during the entire incident was instrumental to successful firefighting and medical evacuation operations and was credited with saving many structures. This was accomplished not just by way of its direct aerial fire suppression efforts, but also due to the aircrew's ability to direct ground resources to areas of the Rancho Bernardo community that needed the most attention.

Recommendation: Increase the number of City fire/rescue medium-lift helicopters and perhaps contract or procure large capacity helicopters so that the SDFD's ability to provide aerial fire suppression can be significantly enhanced. Had Copter 1 experienced a mechanical or unscheduled maintenance problem, there would have been no aerial fire suppression assets directly available over the City when most needed. The acquisition of a second fire-rescue helicopter is essential to ensuring the availability of this resource at all times and to provide for greater aerial firefighting capability.

2. Aerial fire suppression efforts by Copter 1 proved to be extremely effective even during the high wind conditions the first three days of the incident. However, during the period of time that the northeast winds were strongest, Copter 1's aircrews made a critical decision to ground fill the helicopter water drop tank as opposed to the increased risk of hover-filling, due to the wind conditions. While this increased the helicopter "turn-around" time slightly, it was an appropriate decision in terms of risk versus gain.

Recommendation: Continue to train all City and neighboring jurisdiction fire companies in helicopter ground fill operations (day and night). The Planning and Operations Sections need to consider the assignment and rotation of engine companies to helicopter ground fill operations sooner. The helicopter crews had to request engine company support from the Branch Directors which in some cases left a strike team short by one engine.

3. Many of Copter 1's water drop targets were areas where fires were just beginning to freely burn; areas such as fences along property boundaries, patio furniture, ornamental vegetation, firewood piles abutting the structures, trash cans that were standing directly next to structures, structures whose roofs and eaves were in the incipient stages of burning, etc. Water drops were largely ineffective on those structures that were moderately and/or heavily involved with fire, but were effective on structures whose roofs and/or eaves were just beginning to burn.

Recommendation: Consider dropping gel products from Air Operations Division helicopters on structures and on those areas surrounding homes (as mentioned above) that are more likely to ignite in advance of the approaching fire front. The operation of a gel product "batch mixer" at the designated helispot would increase the effectiveness of the helicopter gel dropping operation by reducing helicopter "turn-around" times. Assigning a large capacity water tender at the helispot should also be considered.

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Consider requesting and utilizing Type 1 helicopters and/or the Martin Mars large capacity water/foam/gel fixed-wing seaplane to pre-treat areas of those communities that are likely to become impacted by the fire. The pre-treatment of structures by gel products should occur in advance of the fire's encroachment into a community. The combination of aerial pre-treatment (gel) of the structures and ground based resources pre-treatment (gel) would provide for a reduction of structure loss. Having the immediate availability of the Martin Mars fixed-wing water/foam/gel bomber in San Diego, during the Santa Ana wind prone fire season, should be seriously considered.

4. The utilization of the SDPD helicopter with a qualified and experienced Air Operations Division wildland fire officer proved to be an effective tool in guiding fire companies to areas that need attention and to provide aerial reconnaissance of new fires starting within the City. The SDPD helicopter with the SDFD Air Operations Division fire officer on board responded to reports of new fires and to multiple requests for information by the IMT, the Fire Communications Center and field commanders.

Recommendation: The utilization of the SDPD helicopter combined with an SDFD Air Operations Division fire officer on board proved to be very effective. Consideration should be made to equip one of the SDPD helicopters with state-of-the-art information gathering equipment (television quality camera system, military type mapping and heat-sensing equipment, etc.) in order to provide enhanced situational awareness and an improved common operating picture for the County and City Emergency Operations Centers.

This specially equipped information gathering helicopter could be operated by both SDFD and SDPD pilots. SDFD and SDPD information technology staff could be trained and would be considered additional "crew" to the pilot and on board SDFD fire officer. This information gathering helicopter would be assigned to specific incident and would provide for a continuous information flow to the Emergency/Department Operations Center (DOC) without concerns for other mission assignments for the duration of the crisis.

5. Utilizing U.S. Navy, U.S. Marine Corps and Coast Guard helicopters may have been useful in terms of their water dropping and information gathering capabilities. The local military operate large helicopters that are not affected to as great an extent during high wind conditions as local government fire helicopters. The utilization of these aviation assets may have provided the IMT with an improved operational picture during the early stages of the fire. Additionally, and as was proven during the 2003 Cedar Fire, the U.S. Navy helicopters are capable of safely flying water drop missions alongside the City's helicopter(s) without a need for on board helicopter managers (spotters).

Recommendation: The availability of U.S. Navy and Marine helicopters available for use during a local disaster based at North Island Naval Air Station and other locations should be established early into an incident. The establishment of a "local" agreement with the Navy, Marine Corps and Coast Guard should be explored. Emergency and military officials should train together in order to improve the understanding of and procedures for defense support to

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civil authorities' requests for assistance. The City would participate at a minimum in one annual joint training session to ensure that all parties understand each other's capabilities and how to best operate when involved in City of San Diego emergencies.

The existing process for ordering military aircraft requires that all requests be routed through the CAL FIRE Area Fire Coordination Command Center. The City should pursue improvements in processing these requests through the Area Fire Coordination Center and/or enter into separate agreements with local military commands to allow for more timely access to local military resources for deployment within the City of San Diego.

PREVENTION

Lessons Learned and Recommendations for Change

Brush Management

There are a number of wildland/urban interface areas within the City of San Diego. These areas are considered a high hazard fire environment because they possess all the ingredients necessary to support large, intense, and uncontrollable wildfires. Within this hazardous environment, there are individual houses, subdivisions, and entire communities. Many homes, however, would be unable to survive an intense wildfire. Because these wildfires will continue to occur, the likelihood of human life and property loss is great and growing.

The ability to live more safely in this fire environment greatly depends upon the use of “pre-fire activities.” Pre-fire activities are actions taken before a wildfire occurs which improve the survivability of people and homes. They include proper vegetation management around the home, known as defensible space, use of fire resistant building materials and appropriate subdivision design. How a house is designed, where it is built, material used in its construction, landscaping and access all influence survivability during a wildfire.

As a result of the Witch Creek/Guejito Fires, staff researched reports from the 2003 Cedar Fire, reviewed codes, and contacted other agencies in order to provide recommendations that would enhance fire protection. Presented below are recommended regulatory revisions for consideration.

1. Short-term - develop policy in coordination with Development Services and Park and Recreation staff to address immediate issues relative to the City’s Brush Management Regulations. Policy should include:
 - More description/guidance, including diagrams relative to thinning requirements, spacing and language to specifically include trees where appropriate to ensure consistent code interpretations.
 - Identify specific alternate equivalencies where defensible space requirements cannot be met.
 - Address slope as fire intensity and spread are directly related to severity of slope.
2. Long-term - a comprehensive code evaluation needs to occur in collaboration with Development Services and Park and Recreation staff to determine requirements for the wildland/urban interface areas and should include building design and construction, fire protection and brush management. This evaluation should include the City’s Brush Management Regulations, 2006 International Wildland/Urban Interface Code, California Building Code, Chapter 7A, and California Fire Code, Chapter 47.

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Construction Requirements

1. The City of San Diego implemented an extensive list of construction requirements developed in response to the 2003 Cedar Fire. The Building Regulations were approved by the City Council in September of 2005 and have been in effect since October 20, 2005. The approved regulations enhance the fire resistance of construction within proximity of native or naturalized hazardous vegetation.
2. The Building Regulations were developed in collaboration with various stakeholder groups as well as in coordination with other jurisdictions within the County of San Diego. Several recommendations made following the Cedar Fire were not implemented and should be reconsidered. These include adopting the following regulatory requirements:
 - Residential sprinklers in high hazard areas
 - Non-combustible roof coverings
 - Boxing of eaves
 - Non-combustible exterior wall coverings
3. Recent adoption of the 2007 California Building Code, effective for all projects submitted on or after January 1, 2008, will result in more restrictive exterior wall and opening protection requirements for One and Two family dwellings. Additionally, Chapter 7-A of the 2007 California Building Code will be implemented when the State very high fire hazard severity zones maps are published by CAL FIRE and adopted on July 1, 2008.
4. In the short term Development Services should reconvene a working group of stakeholders to evaluate the adequacy of the regulations as well as soon to be implemented State regulations for construction in “very high fire hazard severity zones”. The working group should continue the past focus of balancing protection with the cost and effectiveness of the various regulations under consideration. Items that require further study include:
 - Whether Accessory Buildings and Accessory Structures should continue to be exempted in Section 145.0503 of the Municipal Code.
 - Whether the glazing requirements in subsection c of Section 145.0504 should apply on a City wide basis.
 - Whether requirements soon to be implemented in Chapter 7-A of the 2007 California Building Code adequately address the additional risks or damage caused by the recent wildfires. Clarify exterior glazed opening protection (windows).
 - Identify more fire resistive attic vent assemblies.
 - Review of requirement for the wildland/urban interface areas to include building design and construction, fire protection and brush management.

Staffing

1. Under ideal circumstances, a total of 14 positions are required for Fire-Rescue to conduct annual brush management inspections of all private parcels in the wildland/urban interface within the City of San Diego. The Department currently has 4 positions dedicated to these inspections. To meet the annual inspection requirement, 10 additional positions would need to be budgeted. If the inspection frequency were increased to a two-year cycle, the staffing level could be cut by 50%.

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Recommendation: Explore additional brush management inspectors in combination with a regional approach to brush management in the SDFD Tactical Plan.

INCIDENT MANAGEMENT

Lessons Learned and Recommendations for Change

1. Following the initial attack period of the fire, it became apparent that activation of the full Incident Management Team (IMT) would have benefited command, control and support of the firefighting effort.

Recommendation: Whenever it can be reasonably anticipated that an incident will likely extend beyond initial attack (one operational period), the full IMT should be activated.

2. Lack of a pre-determined maximum number of fire apparatus that would be assigned to this large fire resulted in too few units being left to handle all other incidents that might occur in the City during the height of the fire. Setting a maximum number of fire apparatus that would be made available for responses outside the City and restricting the types of missions Copter 1 would accept outside the City ensured the Department could appropriately participate in supporting the resource needs of other jurisdictions while concurrently ensuring that as many resources as possible remained in the City of San Diego to address the severe fire threat.

Recommendation: Continue coordination with the Unified Command to ensure that City of San Diego resources working in the San Pasqual Valley and Rancho Bernardo areas remain available for use within the City.

3. Early deployment of multiple teams of trained Field Observers and the Department's fire-rescue helicopter to track the fire provided incident managers with valuable situational awareness about the fire's location and rate of advancement toward the City of San Diego that was not available during the Cedar Fire. Pre-designation of evacuation areas and establishment and monitoring of remote trigger points permitted the rapid and relatively orderly evacuation of approximately 200,000 residents in the fire's path. Consequently, no lives were lost and no serious injuries occurred as a result of this fire.

Recommendation: Continue to incorporate these practices in Emergency Operational Planning by all impacted departments.

4. Geographical Information Systems (GIS) support proved to be invaluable for map production throughout the incident. The ability to create and frequently update incident maps used to track fire spread, evacuations and unit assignments was key to the City's successes. However, because the Department has only one GIS technician available to provide data to the entire City, at times the position was severely over-tasked. In addition, due to the lack of a replacement, this technician was required to work without relief for the duration of the incident on limited rest.

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Recommendation: An additional GIS technician should be added to the Fire-Rescue budget to ensure future availability, increased capacity and provide for appropriate work/rest cycles during major incidents.

5. The lack of a designated Medical Unit Leader during this incident hampered coordination of firefighter medical care and tracking of firefighter injuries.

Recommendation: A Medical Unit Leader position should be added to the IMT.

6. The position of Recovery Liaison is important to staff early in the incident. If the IMT gets activated there is a good chance that there will be a recovery operation.

Recommendation: A Recovery Liaison position should be added to the IMT.

7. The position of Volunteer Manager is critical to oversee functions of volunteer and disaster service worker management that emerged as a result of the mega care and sheltering facility requirement taken on by the City.

Recommendation: A Volunteer Management position should be added to the EOC.

8. The position of Donations Manager is critical to oversee functions of individual and corporate donations and regional distribution management that emerged as a result of the mega care and sheltering facility and regional distribution facility requirement taken on by the City.

Recommendation: A Donations Management position should be added to the EOC.

9. While the SDFD, SDPD, EOC and Qualcomm Incident Command Post (ICP) effectively managed this challenging incident, the overall incident management can be improved. A lack of trained Command and General staff personnel led to a delay in getting organized, prioritizing objectives and assigning officers. The ICS chain of command was not followed by some Incident Commanders.

Recommendation: Additional Incident Command System training for sworn and non-sworn personnel is needed and should be provided. This training should consist of more practical application. Tabletop exercises are very useful. To become more familiar and use ICS effectively officers need to practice using it on a regular basis. Low cost opportunities for additional training, participation in exercises, and deployments to maintain and improve upon individual and team skills and capabilities should be explored.

Develop a policy that assigns EOC positions as a collateral assignment to designated City positions, requires response to the EOC when called, and requires attendance at scheduled training and exercises.

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10. Accounting for firefighters, officers, employees and volunteers at a disaster site is a safety issue. A manual check in/check out process is utilized and could be greatly improved through existing technology. This would also give the resource tracking officer the ability to quickly identify officers available to respond to a request.

Recommendation: An electronic check in/check out system for the Incident Command Posts and Staging locations should be implemented. This system would utilize officers' and EOC/DOC personnel's City/Department identification cards, a card swipe or bar code reader connected to a laptop. Specific information on the cards would populate a database when swiped or scanned. This process would allow for officers and emergency personnel to check in and check out quickly.

11. While suppression units had been pre-staged in the San Pasqual Valley in anticipation of the Witch Fire's advance from the east, the starting of the Guejito Fire to the west of the staged units complicated the situation, caused the redeployment of resources, and significantly accelerated the pre-planned evacuations.

Recommendation: Contingency plans for unanticipated events must be considered for every incident. In this case, the assignment of units to patrol for spot fires and/or provide a secondary line of defense was compromised by a lack of resources.

12. Fire control objectives were not met due to high wind velocities and a lack of sufficient ground and aerial firefighting resources. The State of California fire mutual aid system's inability to fill resource orders placed by the City during the critical first two days of the fire due to resource exhaustion and competing needs in the region resulted in an inability to address all fire control objectives with the limited number of SDFD engines available for deployment.

Recommendation: The experiences of the 2003 Cedar Fire and this 2007 Firestorm have confirmed that during periods of high fire activity in southern California, the State fire mutual aid system's ability to fulfill all resource requests during the critical first 48-72 hours will be severely challenged. Consequently, the SDFD should consider as part of its Tactical Plan developing a "surge" capacity to mitigate a large fire with little or no outside assistance. This surge capacity should be in the form of additional ground and aerial firefighting equipment.

13. The Department has the ability to seat up to six personnel on some apparatus. The perception is that the opportunity to be more effective by fully staffing the apparatus was not considered by the Incident Management Team.

Recommendation: Whenever an apparatus can safely accommodate more than the normal assignment of four personnel and their required personal protective equipment during a large-scale incident, it should be fully staffed to provide for enhanced capability of the crew. However, accountability procedures must be maintained to ensure safety of all personnel.

OPERATIONS

Lessons Learned and Recommendations for Change

Once the main fire burned through the involved areas of the City, control objectives were to:

- Keep the fire within the existing perimeter already involved
 - Patrol and attack fires developing within the existing perimeter
 - Monitor the progression of the fire as it advanced west through the adjacent jurisdictions of Rancho Santa Fe, Poway, Escondido and unincorporated areas to ensure units were in place and evacuation trigger points established in the event the fire re-entered the City of San Diego further to the west
 - Employ direct attack tactics to the fire perimeter along the south flank, including areas outside the City of San Diego, to reduce lateral spread
 - Redeploy resources as necessary based on identified trigger points
 - Identify and mitigate, to extent possible, other hazards consequential to the fire (natural gas leaks, water leaks, tree snags, etc.).
1. Field Observers (FOBS) deployed as two-person teams and operated within the scope that is expected for this position. They provided ongoing and accurate intelligence to the Planning and Operations Sections.

Recommendation: Continue to utilize FOBS on incidents in the future and have the trained and certified FOBS train others firefighters for this position.

2. The SDPD DOC, Eastern Command, Traffic Command, Southern Command, Northeastern Command, and Headquarters Staging were involved in extensive management and resource allocation for scene security, crowd control, traffic control and evacuations in several communities. One of the major strengths of these City department was the commitment of its officers to getting the job done. Exposed to flames driven by high winds, toxic ash, smoke and working long hours they managed to evacuate and save the lives and property of thousands including special needs citizens.

Recommendation: Continue to train and exercise emergency procedures with SDFD, SDPD, EOC and others.

3. The use of Rapid Intervention Crew (RIC)-like elements (“Rescue Group”) was effective during the structure protection phase of the initial operation. Many citizens were rescued and removed from areas of danger by the RICs. The integration and use of SDFD Lifeguard Service members assigned to shut down the utilities to affected areas and monitoring the reestablishment of power was positive, as was the organized coordination and collaboration between SDFD and the utility companies, which was unseen during the 2003 Cedar Fire.

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Recommendation: Continue to utilize RIC on incidents in the future and foster the integration and coordination achieved between the City and outside organizations.

4. Engines with redlines and a foam pro system were quicker and more efficient in overhaul operations.

Recommendation: Consider including this equipment in future fire engine specifications.

5. Both “bump and run” and “anchor and hold” tactics were effective when executed appropriately and when applied during the correct environmental conditions.

Recommendation: Continue to train all firefighters in both “bump and run” and “anchor and hold” tactics. Consider assigning water tenders to each strike team and task force.

6. Problems were noted with hydrant visibility in Rancho Bernardo. Hydrants not painted yellow were difficult to identify at night. In many cases, the blue reflective street markers dots were not visible as a result of age and the repaving of streets.

Recommendation: Coordinate the implementation of a fire hydrant inspection program with the Water Department so that fire hydrants needing to be repainted are identified and then painted. The missing and/or damaged reflective blue street markers would also be identified and replaced through the inspection process.

MEGA CARE AND SHELTER FACILITY PLANNING

The American Red Cross (ARC) plays a primary role in the establishment, support and management of care and shelter operations both at the local level and regionally. There is no intention to intercede with the responsibility of the ARC, rather only to learn how best to augment and support them as early as possible in a manner that is as professional. Government agencies must be aware of the limitations on resources and capabilities at the local level in the initial response phase. Strong coordination and communication with the ARC is vital to facilitate early movement of national resources that are remotely located.

The local ARC was severely taxed during the initial days of the fires. They did not have sufficient staff for the large number of shelters required in the region. Once that information was relayed to the EOC, as well as that the anticipated number of evacuees was expected to exceed the capacity of Mira Mesa and West View High Schools in Rancho Bernardo, it was determined that Qualcomm Stadium would serve as a mega shelter site and that the City would need to provide Disaster Service Workers (DSWs) to support the operations.

The City of San Diego utilized Qualcomm Stadium as a centralized mega care and shelter facility. Close coordination and communication between on scene management and the City's EOC provided collaborative decision making at all levels of operations. Activation of the mega care and shelter facility required both EOC and field staff to manage significant numbers of volunteers, donations and citizens requiring immediate care.

The City's EOC Care and Shelter Branch Director utilized on site city staff to facilitate the necessary communication and coordination required by the EOC to support on scene operations. Care and Shelter personnel from the field communicated jointly to the EOC for required resources and support. Newly established positions of a Volunteer Coordinator and Donations Manager were established which significantly assisted EOC support to coordinate City DSWs, ensure spontaneous volunteer management, and solicit/coordinate both monetary and non-monetary donations. An American Red Cross Liaison in the EOC is an absolute requirement for multiple operational periods.

Assigning Special Events staff to the temporary evacuation shelter at Qualcomm Stadium was instrumental. Staff knowledgeable on Stadium operations assisted in the timely planning and operations that occurred between city departments.

From the start, large donations of food, tents, cots, bedding, and personal hygiene items starting arriving at the Stadium. The donations came from a variety of sources including the American Red Cross, Boy Scouts of America, local military commands, dozens of national and local retailers, as well as private donations from citizens – to name a few. City employees and volunteers helped build the mini city that would host thousands of evacuees from all walks of San Diego life. There were nine primary operational areas at Qualcomm:

- Food Management
- Donations Management

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- Comfort Services
- Health and Special Needs
- Volunteer Management
- Animal Services
- Distribution Management
- Facilities Management
- Security

Because of the positive association of Qualcomm with successful evacuations and sheltering during the 2007 wildfires, Qualcomm Stadium is a natural meeting area for those displaced by the next firestorm, if mega care and shelter facilities once again become necessary. To that end, planning should begin to establish Qualcomm Stadium as a mega care and shelter facility for future firestorms within the City of San Diego. This should include continued partnering with American Red Cross, VOAD (Voluntary Organizations Active in Disasters) and other appropriate organizations to develop programs addressing spontaneous volunteer management and training, credentialing, donations management, crisis counseling, alternative communications, care and shelter, hygiene and sanitation, medical response teams, disaster supplies storage, victim support and family assistance centers, and special needs.

Lessons Learned and Recommendations for Change

1. The Wildfires of 2007 affected nearly everyone in San Diego County in some way. Qualcomm stadium was opened by the City of San Diego and took in thousands of people affected by the firestorm, either directly or indirectly. No person was denied access or services and few questions were asked of the people coming to seek shelter.

The safety and security of the people who seek the City's protection is our Number One priority. This is for all people seeking protection from the firestorm, irrespective of unknown or questionable residential, immigration or other status. Everyone had the opportunity to be safe.

In order to provide for the safety and security owed to all of the people, it is imperative for the shelter managers to have situational awareness of who is in the shelter. It is essential for the management of a shelter to know how many people are there, what needs they have, how they can best be served, what dangers they may potentially be facing, and what opportunities they can take advantage of.

None of this is possible without a minimum of data gathering. Data gathering is an essential element of any care and shelter operation. Accountability for victims of disaster is absolutely necessary for notification, reunification of families, assistance qualification and so on. Data gathering also dissuades those who would do the citizens harm from entering the last bit of sanctuary during a crisis. People who prey on the vulnerable, who wish to harm a child, take the few precious items that were evacuated from a now lost home, or offer unlicensed advice where that last bit of trust has been placed.

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The ARC has a comprehensive system of registering and credentialing guests and volunteers coming on to shelter property. This is imperative for the aforementioned reasons, but was unavailable at Qualcomm at the time. The ARC process should be explored to determine potential viability for use at a mega care and shelter facility that may be initially stood up by the City. There was no formal registration process at the Qualcomm mega care and shelter facility; the entire entry was very ad hoc. This resulted in not knowing who was in the Stadium (evacuees, volunteers, vendors, entertainers, etc.), any contact information or any way to count or manage in any methodical way for logistical or statistical reporting purposes. Volunteers were there, but with no guidance or management. It was chaotic, and only grew worse as more people flooded in without the City having a reliable and tested set up system of registration, process flow, etc. A meeting was held with ARC for assistance on Tuesday, October 22, 2007. ARC had a comprehensive system they use for shelter registration, but didn't feel it would be useful to the City at this point. By Wednesday, October 23, 2007, City staff developed an independent registration form in order to gain control of who was inside the Stadium and who legitimately required City-provided evacuation services.

Recommendation: Registration of evacuees and volunteers, as well as the logistics plan should be established by City personnel immediately upon determining an evacuation or shelter site. Evacuee and volunteer registration system are necessary in order to provide accountability and ensure safety is essential and must be established prior to admitting any persons into the evacuation site. The City needs to develop a non-threatening checkin and wrist banding procedure for evacuees, volunteers and others who enter the evacuation and shelter site. Identification isn't required for evacuee registration. However, volunteers entering the mega care and shelter facility must provide sufficient identification and information sufficient for credentialing. Qualified staff must deploy to the Stadium for implementation in a timely manner.

2. During the five days at Qualcomm, there were approximately 500-1,000 Skilled Nursing Facility/Assisted Living patients relocated to the shelter and countless other walk-in evacuee/patients from the parking lots. The Club Level became the medical floor complete with a Triage/Acute Care area, a Pharmacy, and various units such as Diabetes, Respiratory Therapy, and Pediatrics. A Medical Supply Area was established. Qualcomm was a stabilization and transfer point. Approximately 500 patients were treated on-site and there were 62 transports to the emergency room. Using the Club Level as the Medical/Hospital level proved to be an efficient decision. The four lounges worked well because they could be kept private and they afforded the largest square footage for beds. In addition, the Clubs are climate controlled and the Club Concourse had plenty of restrooms.

Recommendation: Diaper/undergarment bins should be put into all restrooms to make sure that sewer lines aren't clogged by the flushing of these items.

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3. A layout of service locations was essential for health, safety, security and traffic flow. This is essential prior to the admission of volunteers and evacuees into the care and shelter facility. It was difficult to relocate services after establishment of food, donations, commissary, children's area, sleeping quarters, personal hygiene area. Most everything crowded around the one access point which added unnecessary congestion and confusion to the area.

Recommendation: Dedicated entry points for evacuees, volunteers and donations would have benefited the logistics, management, security and business flow of the operation. A separate area for City employees reporting to duty and separate sign-in sheets for each City department and division would have also assisted in the time management of City employees working at the evacuation site. A separate receiving area for medical and special needs supplies is also essential for efficient management of potentially controlled items.

4. Once the mega shelter site was publicized, a massive influx of donations began to arrive spontaneously at the facility. This initially overwhelmed EOC's ability to receive and inventory the sheer volume of equipment and supplies. Traffic backups from the large volume of freight trucks compounded by the massive influx of evacuee and volunteer vehicles resulted in considerable backups of main arterials leading into the facility. The California National Guard was deployed to assist the SDPD with site security. To facilitate the deliveries as quickly as possible, the EOC established a Logistics Hub in a designated area of the site parking lot. The hub area was fenced off to establish a security zone. Three site managers on rotating shifts were assigned to oversee the logistics field operations and to maintain communications and coordination of needs with Qualcomm Incident Command Post and the EOC.

Wal-Mart provided two staff members to cover 24 hour operations and manage the inventory. The City's Community Services staff was sent to assist in the initial inventorying of all supplies so that a baseline could be established. The inventory was provided to the OA.

The Logistics Hub provided needed supplies to other regional shelters as requests came in. To ensure that those requesting supplies were legitimate shelter operations, only those sites that were ARC approved or could prove their status as a nonprofit agency with a health permit were provided supplies. When the Qualcomm site was closed as a shelter, the EOC coordinated with the OA, ARC and other nonprofit social service organizations to distribute the remaining donated assets.

Recommendation: Pre-positioning of assets and setting up an inventory and distribution management system would have been helpful in order to inventory and organize items as they came in. Inventory management should be established prior to accepting donations. A distribution management system that ties in with the regional resource management system is important as well if the City is expected to take on the role of a regional distribution center.

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5. From the aftermath of Hurricane Katrina it became evident that evacuees include animals. Because Qualcomm Stadium served as a mega care and shelter facility large animals were accepted and many owners did not want to be separated from their pets even inside the stadium. Not all evacuees welcomed the animals in such close proximity.

Recommendation: Animal owners staying inside Qualcomm should have a separate area with animal provisions nearby. This would also keep animals away from evacuees who do not wish to be around the animals.

6. Unfortunately there will always be a small number of people who take advantage of crisis victims and situations.

Recommendation: Any person suspected of stealing donations or otherwise breaking the law will be processed in a uniform way in accordance with existing law and Department policy.

SPECIAL NEEDS CONSIDERATIONS

Lessons Learned and Recommendations for Change

1. During this incident there was a chronic lack of translators, which hindered the ability to evacuate and/or provide other emergency services. Translation services help many people stay informed and in turn remain calm, seek additional assistance, and feel cared for.

Recommendation: A ready reserve of pre-identified and vetted translators and bilingual professionals (medical, legal, social services) would enhance all other relief efforts.

2. Segments of the local population are under represented in emergency planning and preparedness. The communities need to be included into the planning and preparedness process. Leaders need to be identified and trained on preparing for and responding to disasters.

Recommendation: These programs should be developed and disseminated for the under represented communities within the City. Use of volunteer organizations and customized citizen emergency response team (CERT) training would enhance the culture of preparedness. Plans are necessary to reach those residents with special needs or living with special circumstances, such as non-English speaking, multi-family units, itinerants, and homeless.

3. Follow-on aid and assistance for overlooked populations is important as the effects of a disaster can linger for months after the responders return home.

Recommendation: Coordinating and leveraging volunteer resources pre-existing within the community not only results in the creation of reserve resources during a crisis but in improved community relations in non-crisis times as well.

4. Special needs were identified at Qualcomm outside of the established medical facility, such as evacuees with dietary or mobilization restrictions in the parking lot and other areas of the stadium.

Recommendation: Volunteers should constantly monitor the care and shelter facility in an effort to maintain situational awareness of persons with special needs.

PUBLIC INFORMATION AND MEDIA MANAGEMENT

Public information and warning was critical to maintaining public safety during this incident. The media was utilized for the delivery of timely information and critical public warning messages. Regularly scheduled briefings were conducted from the Operational Area (OA) EOC and included elected officials from the City and County, emergency managers, and law enforcement and fire officials. Both the City and the County web pages were updated with critical information on evacuations, shelters, road closures, repopulation, and health issues. Regular briefings and joint press conferences being conducted at the OA ensured a clear and unified message was given out to the public.

Lessons Learned and Recommendations for Change

1. The coordination of City/County/CAL FIRE news briefs at the County EOC was good and provided for improved information accuracy, flow and timeliness over that of the Cedar Fire. This ensured a clear and unified message was provided routinely to the public from City and other involved officials. Activation of the “modified” OA Joint Information Center (JIC) was not formally communicated to the City’s EOC. Through discussions with the OA, we’ve determined that the OA EOC establishes a JIC automatically every time it activates, and a City PIO should automatically go to the JIC.

Recommendation: A trained City PIO should report to the JIC and coordinate with the City EOC whenever a large incident occurs. Training and exercising the use of the JIC with City PIOs and Emergency Operations Center leaders should obviate this shortfall in the future. The OA and the City should coordinate so information on the establishment of a Joint Information Center is shared and representation is provided.

2. It was difficult at times to meet the intense demand for information generated by this incident with the limited PIO staff available. The magnitude, duration and newsworthiness of the incident justified the assignment of additional PIOs to handle the volume and frequency of requests. PIOs were needed at the Joint Information Center, CAL FIRE, the Rancho Bernardo staging area, County EOC, Fire Communications Center and in the field. These needs could have been partially filled by assigning the three PIOs assigned to the Department’s Incident Management Team; however, not all members were requested to assist. The use of firefighters with public information training to augment the two-person Public Information Office’s efforts resulted in greater access for the media and improved responsiveness to media, public and political inquiries.

Recommendation: The City’s Director of Communications should serve as the lead PIO and coordinate all PIO needs, assignments and activities with the PIOs assigned to the IMT (including JIC liaison) to ensure adequate coverage and a consistent message are

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provided. Additional personnel should also be trained as PIOs assigned for use during large-scale incidents where a greater PIO force is needed.

3. Some first responders were unsure of the City's/Department's expectations for their role in providing interviews and information requested by the media. While a majority performed admirably, others provided inaccurate information or comments that were in conflict with positions taken by the City or Department.

Recommendation: City/Department personnel should be provided additional media relations training to improve performance and clearly communicate departmental expectations. This training should reinforce that questions related to City/Department policy should be referred to incident command personnel or the PIOs. In addition, distribution of an incident fact sheet can assist personnel in providing accurate and consistent information to requestors.

4. Availability of information needs to be constant, current, and easily obtained by the citizens, evacuees and volunteers. Information must be simple and reliable, preferably coming in from the original source. The availability of the multi-communications vehicle from Department of Homeland Security was instrumental in providing this information at Qualcomm.

Recommendation: Additional information that could be provided that would improve service level at shelter and evacuation sites include:

- A general map of the site including information is provided
- List of repatriations as they occur
- Information on bus and trolley times
- A list of Frequently Asked Questions
- Announcements and Updates
- Maps

COMMUNICATIONS

Communications equipment employed in this incident include telephones (landline and cellular), 800MHz radios (mobile and portable), VHF radios (mobile and portable), Mobile Data Computers (MDCs), Pagers, Personal Digital Assistants (PDAs), and the region's 3Cs video conferencing equipment.

Lessons Learned and Recommendations for Change

1. A shortage of portable 800MHz radios hampered the rapid deployment of firefighters on reserve apparatus and required the emergency purchase and borrowing of radios to meet needs. The region maintains a cache of deployable radios programmed to operate on the 800MHz public safety radio systems. However, issues arose regarding the quantity and availability of portable radios and the deployment procedure. The City of San Diego met the demand for additional public safety portable radios by requisitioning 100 radios from Motorola and borrowing 80 radios from the County of San Diego. These portable radios were mainly deployed by SDFD and were critical for establishing and maintaining communications amongst various incident support teams. Additional radio batteries that had been purchased since the Cedar Fire were useful in ensuring sustained portable radio operability.

Recommendation: Additional portable radios should be purchased to ensure their availability during large-scale incidents. This can be accomplished by providing each firefighter with a personal radio or acquiring a sufficient number of radios and caching them at the mobilization point. Consideration should be given to additional radio caches located at strategic points throughout the City and the establishment of a procedure for deploying the radios.

2. Despite the use of multiple tactical channels for unit-to-unit communications, because of the size of this incident up to ten units were assigned to a single channel. This over-crowding led to communications delays as units had to compete for air time.

Recommendation: Consider assigning the individual structure protection groups their own tactical channel as opposed to managing all of the assigned units on the assigned Branch tactical channel. Field commanders should monitor radio channel assignments and usage to ensure effective radio communications. Additional tactical channels must be requested when assigned channels become over-used. Company officers must communicate difficulties in radio use to Strike Team Leaders to trigger their consideration of a request for the assignment of additional channels.

3. Overall SDPD communications were identified as an area needing improvement. The Department Operations Center, Incident Command Posts, Headquarters Staging, Communications Division and the Watch Commander lacked adequate overall situational awareness. Some officers reported poor 800 MHz portable radio reception and

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transmissions. Additionally, it was reported that too many officers were using the same talk group causing communication delays.

Recommendation: Train first responders on the use of mutual aid radio channels and radio interoperability. From an infrastructure standpoint, the level of radio interoperability between the City of San Diego and the Regional Communications System (RCS) is high. Training on the features and functionality of the radio systems is needed throughout the region.

4. The concurrent use of both VHF and 800MHz radios by some Strike Team Leaders for communications with assigned units was found by some personnel to be distracting, especially in firestorm conditions. This practice can lead to missed communications and serious safety issues, as has been found in some firefighter fatality investigations. However, during this incident, since units were operating under the direction of the City of San Diego commanders during the first two days of the fire, the use of 800MHz radios was appropriate as it provided a greater margin of safety since all firefighters are equipped with 800MHz radios, but not VHF radios.

Recommendation: On incidents where units are operating under the direction of CAL FIRE or USFS, mandate that Strike Team Leaders use only the assigned incident VHF frequency when on the fire line. 800MHz talk groups may be used when in travel or camp status only. Provide additional and recurring training to all personnel on the use of the VHF radios to ensure familiarity. Provide VHF radios to all firefighters on an incident.

5. An obstacle during this disaster was the lack of mapping layers that identify the location of critical radio communications infrastructure. Radio sites integral to maintaining radio communication continuity were threatened by the fires.

Recommendation: Mapping these critical resources and making this information readily available to incident commanders would help to plan and mitigate potential impacts based on the fire threat. In addition, this information could be used to prioritize the restoration of primary power to critical infrastructure in the event of an outage.

6. The Mobile Communications Unit (COM-1) was not assigned to the Rancho Bernardo staging area until later in the incident. Although this vehicle is viewed as obsolete, it proved to be a very valuable resource for command activities at this location. Additionally, the assignment of personnel to receive incoming dispatches and serve as field dispatchers for the Group Supervisor was very valuable.

Recommendation: Clarify Department policy for when and how the Communications Unit should be deployed, staffed and utilized. The existing COM-1 has served as a combined Communications and Command vehicle. Consideration should be given to how these two functions should be managed with the advent of the new communications trailer being developed.

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7. As a large-scale fire approaches the City, the Fire Communications Center is inundated with calls. The Mobile Data Computers (MDCs) for field units become call-saturated, and individual incidents become masked within the volume of data on the screen. In addition, a large volume of information is rapidly transmitted via radio or cell phone. With all the verbal communication traffic, there is a risk that critical information (e.g., call regarding trapped persons) will be lost.

Recommendation: Develop the ability on the MDC to clearly separate out and display critical dispatches such as those involving rescue situations from all other non-critical information. Consideration should also be given to providing the ability to quickly distribute critical information in printed format.

8. While the Department has a large inventory of spare radio batteries and radio harnesses issued to all supervisors, spot shortages of radio batteries and a desire by some non-supervisory personnel to be provided with radio harnesses were reported.

Recommendation: Logistics must ensure that a cache of portable radio batteries are provided at all staging and camp locations. Strike Team Leaders must also ensure they maintain a cache of spare batteries in their vehicle for field replacement, as needed. The Occupational Safety and Health Committee should be tasked with evaluating the need for providing radio harnesses to non-supervisory personnel.

9. Public safety radio systems are generally built with emergency backup power sufficient to maintain operations for four to five days after loss of primary power. Of the seven 800MHz voice radio system locations, two locations lost primary power during the firestorm. In both cases the emergency generator provided backup power for continued operation. The generators required refueling at about four day intervals until primary power was restored.

Recommendation: Since many of the City of San Diego locations are shared with other regional entities with emergency generators, an opportunity exists to explore joint refueling, particularly during an emergency event such as the firestorm. Consider installing remote generator monitoring equipment which provides readings for both initial start time and remaining fuel levels and increasing size of fuel tanks to allow for extended operations. Identify critical infrastructure and key resources within the City that utilize backup generator systems and assure fuel storage capacities allow for extended operations.

10. Telecommunications vendor resources could be better utilized by documenting the type and availability of services offered. During an emergency event, contact could be made with the vendors to mobilize the resources in a more coordinated fashion.

Recommendation: Work with telecommunications vendors to document the type and availability of services that could be offered during an emergency.

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Community Access Phone System (CAPS)

The San Diego Police Department operates a Community Access Phone System to provide a direct information line to the public during a major incident or event. This system is staffed with police volunteers. CAPS was activated as the “Fire Information Line” at 7:15 PM on Sunday, October 21, 2007. The public was informed of the availability of the CAPS number via a Media Advisory from the San Diego Police Department PIO.

A total of 20 incoming lines was available during this incident, which is an increase from the 12 lines used during the Cedar Fire in 2003. The line was in continuous operation for 90.75 operational hours within a 96 hour period. During this operational period, 164 different volunteers that included SDPD Crisis Interventionists, SDPD Retired Senior Volunteer Patrol (RSVP) members, SDPD Volunteers in Policing (VIP), and other individuals answered over 12,322 calls. This does not reflect the number of calls that were attempted into CAPS, but not answered due to the caller receiving either a line-busy or circuit-busy signal.

1. The major challenge during CAPS operation was receiving information that needed validating prior to dissemination to the public. Calls came in from not only the City of San Diego and the San Diego region, but also from throughout California, other states and foreign countries. Often, the majority of information was in conflict and the level of conflicting information did not diminish once the event reached a less critical stage over the passing days. CAPS Supervisors generally gave priority to providing information to the public that was relayed first-hand by a reliable source (such as on scene personnel). Often CAPS Supervisors had to make their best estimation to the validity of the information regardless of the source.

This information overload was not nearly as much of an issue during the Cedar Fire. With this most recent incident, a much larger number of individuals in the field and at command centers had access to multiple information sources (e.g., internet) that were taken at face value. This actually hindered CAPS operations.

Recommendation: A procedure should be added to the EOC PIO checklist to ensure information flows to the CAPS supervisor in order to assure the most accurate information is provided to the public. As a result of this incident, SDPD Crisis Intervention will begin a CAPS certification process to identify and pre-train those police volunteers who have a desire and aptitude to work CAPS. With over 800 volunteers within the Police Department, a range of operational experience exists that can be easily used to augment CAPS staff.

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2-1-1

2-1-1 is a free national dialing code for 24-hour community, health and disaster information. Like 9-1-1 for emergency service, 2-1-1 has been set aside by the Federal Communications Commission for the public to easily access community information. Callers receive personalized information from a live phone specialist who can answer questions about a variety of nonprofit services and agencies.

According to information provided by 2-1-1 San Diego, they answered over 110,000 fire-related calls by utilizing more than 1,400 volunteers.

1. During the initial stages of the fire on Sunday, October 21, 2007, an attempt was made between CAPS and 2-1-1 to share information regarding this event. As the magnitude of the event increased, 2-1-1 and CAPS focused on their respective missions which clearly overlapped.

Recommendation: A procedure should be added to the EOC PIO checklist to ensure information flows to 2-1-1. Information needs to be consistently shared with the Police Department's CAPS line, Fire Dispatch, and 2-1-1 to ensure accurate and timely information is provided to the public.

TECHNOLOGY

Lessons Learned and Recommendations for Change

Geographical Information Systems (GIS)

1. A key to the success of SDFD's response to this large-scale incident was the ability to create and frequently update incident maps used to track fire spread, evacuations and unit assignments. As there is only one GIS mapping technician in the Department, it was fortunate that this highly skilled employee was available to respond. However, because of lack of depth at this position, this employee was required to work the entire incident without relief. Lack of depth in the GIS technician position is a significant vulnerability during a large-scale emergency.

Recommendation: An additional GIS technician should be added to the Fire-Rescue budget to address an increasing routine workload and ensure availability during emergency incidents. The addition of a second GIS technician would also serve to lessen the impacts of being required to be on constant callback status and to work without relief during large incidents. Both technicians should be rostered to the IMT along with additional personnel to assist with Display Processing (DSPRO).

2. During the height of the incident, the GIS technician was temporarily unable to access the ArcGIS application due to a SanGIS power outage and a slowdown of the City network caused by too many users accessing live data streams of new updates. ArcCatalog was looking at all mapped drives and ArcMap would not start due to this. These problems resulted in a delay in providing maps.

Recommendation: Develop a Standard Operating Procedure (SOP) to train and instruct GIS technicians regarding potential computer network conditions to ensure continual mapping support.

3. During the evacuation and repopulation processes, it was necessary to be very specific as to the boundaries of areas being impacted. Clearly communicating these boundaries can be improved by using GIS technology.

Recommendation: Evacuation areas should be generated as mapped data files (GIS layer) and delivered for importing into the AlertSanDiego and Reverse 911® systems for evacuation calls. The GIS layer would include information regarding the time of an evacuation request, subsequent time calls implemented and repopulation. This data can also be provided to the County EOC to analyze the full extent of evacuations at the time they are occurring.

4. The GIS Tech Support Unit Leader in the EOC was responsible for generating maps of the incident that would assist with situational awareness. Mapping information originated from a variety of sources in the field and was routed to the OA then to the City

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EOC in PDF format along with the shape files. The GIS Tech Support Unit Leader would recreate the maps on the City system focusing on the areas of interest to the City. This protocol placed the City in a dependent position for mapping information. The delay in mapping information and content lowered its value in the development of situational awareness. It was noted that the fire perimeter layer was not a source upon which to base decisions.

The GIS Tech Support Leader did not have access to shape files (layers) that contained critical infrastructure. It was also determined that accurate perimeters of the evacuation areas as defined by the AlertSanDiego and Reverse 911® calls would have been useful in that it could provide a correlation between the evacuation calls and the progress of the fire.

Recommendation: Coordinate with the regional GIS group to establish regional mapping protocols that utilize and coordinate the GIS resources of the region in a manner that generates unified, timely and accurate situational awareness, to include update of current mapping data to ensure accuracy of high hazard/risk areas. Obtain shape files depicting critical infrastructures within the City. Establish protocols to capture the perimeters of an evacuation as defined by Reverse 911® and furnish those boundaries to the EOC GIS position. Coordinate with the OA to develop a regional GIS info sharing plan.

Command Control and Communications (3Cs)

The San Diego regional Command Control and Communications (3Cs) project provides video conferencing and video streaming capabilities to a few regional Emergency Operations Centers. The system is still in the pilot phase of build out with limited connectivity within the region. The system was used as a briefing tool throughout the incident. The video teleconferencing, video downlink, and wide screen TV displays for monitoring media feeds are extremely beneficial in providing real time situational awareness.

The SDPD Operations Center used the 3Cs video conference briefings to coordinate with the San Diego Sheriff's Office regarding evacuation and repopulation. CAL FIRE Operations Center staff and SDPD DOC staff who were unable to participate in a set briefing provided the conference moderator with an advance copy of their brief to be shared with the group. At various times during the week, there were information gaps among the agencies. The frequent briefings allowed agencies to compare notes and confirm information directly from the source, which saved time and ensured that resources were tasked appropriately.

1. 3Cs is maturing at a pace that exceeds the capacity of a contracted project manager.

Recommendation: Formalize the program manager position for 3Cs under the City's Deputy Chief Operating Officer for Public Safety and Homeland Security in order to maintain maximum oversight and management over funding and contractual issues.

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2. Incident commanders and area command teams are interested in aerial video feeds, but often do not have ready access to a 3Cs monitor. When video streams are available from the helicopters, incident command staff should be provided advance warning so they can be positioned near a monitor. A means to save footage for future viewing should also be implemented. The briefing schedule and protocols lacked organization which interfered with conferences starting on time and best utilizing the reserved time. Lengthy delays in standby mode resulted in loss of interest and shifting to resolving higher priority issues

Recommendation: All 3Cs participating agencies should agree on a Communications Plan for incidents. The EOC Strategic Communications Plan should be drafted by the 3Cs User Group and then submitted to the 3Cs Steering Committee for approval. Each EOC should be encouraged to establish a standard for using 3Cs as part of their activation.

3. Regionally, a conference bridge was assigned for the incident and participants were contacted via email daily with briefing information. EMS Medical Operations Center, County Environmental Health, and the Office of the Governor called into 3Cs using ISDN. ISDN is currently the only means to access 3Cs video conferences from outside the network, and is not a viable solution for conferences with staff in the field.

Recommendation: Video conferencing with sites outside of 3Cs using IP should be implemented. This solution was offered to all 3Cs participants, but only SDPD requested to use the equipment. It was utilized at the SDPD Northern Command Post one day during the event to allow their participation in the interagency conferences.

4. The location of the fires seriously hampered the ability of the existing 3Cs regional antennas to receive transmissions from City of San Diego helicopters. Because video from the helicopters was considered critical, 3Cs staff worked with City Communications and used 3Cs equipment not yet in service to develop a downlink receiver site at SDFD Fire Communications Center.

This downlink site differed from existing 3Cs regional receiver sites because it used a directional rather than an omni-directional antenna. City Communications manufactured an antenna mount in their shop, and SDPD Video Productions provided a tripod. The benefit of this solution was that the City was able to receive clear pictures from the City helicopters at distances up to 20 miles (existing 3Cs antennas average 8 miles). The downside was it required a person to constantly realign the antenna whenever helicopters were transmitting. Staff from 3Cs and City Communications manually operated this receiver site from 8:00 AM to 4:00 PM Monday through Friday during the event.

Recommendation: The stop gap equipment assembled and used on this incident should be a model for the development of two kits that 3Cs should have available for future incident support.

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5. Video streams from helicopters were available only on a limited basis. There were many contributing factors including weather, wind, distance from receiver sites and helicopter tasking for other assignments (both fire and law enforcement). Video quality was limited by air quality and quality of the camera systems installed on all four ABLE helicopters and Fire Copter 1. A camera system with stronger zoom would have allowed for the helicopters to get a sharper picture even at higher altitudes. 3Cs staff investigated purchasing Cineflex HD cameras, but found it cost prohibitive in the past. During the heavy winds the first three days of the event, Technical Flight Officers did not feel comfortable deploying the antenna arms for fear they would break off.

Recommendation: 3Cs should improve receiver sites on the network, either by installing more sites in diverse geographical areas of the county or by utilizing directional antennas more. Transmitting antennas on the helicopters need to be evaluated. The 3Cs subcommittee should continue to work with project vendors to research existing video downlink solutions and engineer new products to meet the unique needs of 3Cs.

OPERATIONAL AREA COORDINATION

Lessons Learned and Recommendations for Change

1. There were several areas where communication and coordination difficulties between the City and the Operational Area impacted the City's response to this incident. Information posted to the regional WebEOC application was often not acted upon and required follow up via telephone for status checks. At many levels in the EOC, staff found it difficult to contact the OA EOC. We identified that during a major disaster communications between the two EOCs will be challenging, and so a liaison from the City to the OA EOC and a liaison from the OA to the City EOC is essential.

The City of San Diego faced many operational challenges surrounding Care and Shelter, Spontaneous Volunteer Management, and Donations Management. Establishment of a mega care and shelter facility within the city limits of San Diego and assignment of a Volunteer Coordinator and a Donations Manager to handle the overwhelming level of volunteers and donations were successful by utilizing city resources and local cooperation.

Recommendation: Provide mutual liaisons between the City and OA EOCs during a major incident. Foster continued communications coordination and between the City EOC positions and the OA EOC positions to enhance City EOC Operations. The City and OA need to further train and exercise communications and coordination to improve operations. Include EOC/OA communications coordination and as a component for all exercises and related training. An EOC communications plan should be developed and shared between both the OA and the City's EOC as early as possible in the response phase of the incident.

2. The Resource Manager board was not detailed enough to be used for the donations inventory. WebEOC does not provide any confirmation if items such as requests for resources or mutual aid have been accepted, read or assigned. EOC staff often had to follow up with the OA's EOC Liaison and/or place a phone call to the OA to check on the status of requests.

Recommendation: Coordinate with the OA to develop and utilize a resource tracking database which can be made available to all area EOCs. Coordinate with the OA to develop procedures for the dissemination of the OA's incident action plan for each operational period to local area EOCs to keep everyone abreast of pertinent regional issues. Conduct joint EOC training with the OA.

Non-Monetary Donations and Operational Area Coordination

1. The City was faced with the potential of having to provide food, care and sheltering for an estimated 100,000 evacuees. Resources to support this operation relied heavily on non-monetary donations. To effectively manage the volume of donations enroute and arriving at Qualcomm, a Donations Manager was activated within the City EOC. The successful management of supply needs and the management of donations could not have been done effectively without the establishment of this critical position. Working closely with major retailers, corporations, volunteers, CERT and the VOAD (Volunteers Organized to Assist in Disasters) community provided the expertise to effectively take delivery of, inventory, store and disperse donated goods to support logistical needs and requests within Qualcomm and area shelters. The outpouring of generosity from the community, corporate sponsors, nonprofit organizations and volunteers was extraordinary.

Recommendation: Expand the City's capability to conduct Donations Management, including further development of roles and responsibilities of the Donations Management Leader position within the City's EOC. Donated goods policy needs to be clearly articulated at the beginning of a disaster so that potential donors, and recipients, know what to expect.

2. Donations Management should be better coordinated to benefit the region.

Recommendation: Develop a City Donations Management Plan to build on the OA Annex. Develop checklists, job aids, and a description of roles and responsibilities for the Donations Management Leader position. Incorporate Donations Management into local and regional training exercises and drills. There should be a single phone number and email for donation information to provide and track donor information.

VOLUNTEERS

Lessons Learned and Recommendations for Change

The City of San Diego complies with Section 3100-3109 of the California State Law which designates public employees as Disaster Service Workers (DSWs). Once it was determined that ARC resources were depleted and they could not support shelter operations at Qualcomm Stadium, the EOC quickly reacted and developed a plan using DSWs. As a workable solution, the City requested that ARC provide leaders for conducting shelter efforts and the City would provide DSWs to work under their leadership. This was approved by ARC.

City Disaster Service Workers

1. It is important to note that in a major disaster which displaces a large segment of the City's population, the local chapter of the American Red Cross (ARC) initially may not have adequate resources to operate all the shelter sites that may be required. Until such time as the national resources of ARC arrive on the local scene, City of San Diego personnel may have to fill the gap by staffing and running the necessary care and shelter services with both local and mutual aid resources, if necessary. After a number of days, once ARC's national disaster response program is fully mobilized, ARC can begin to take over the staffing and lead role for many of these functions. The City of San Diego can then transition to supporting the sheltering and mass care efforts of ARC and other support agencies.

City staff needs to be maximized in their capacity as DSWs through a comprehensive training and scheduling program which includes volunteer management and the unique requirements of managing masses of volunteers. Communication and training on roles and responsibilities of City employees as DSWs are needed to facilitate a better response and increase the level of participation. This should include a policy on work hours, expectations, scheduling, compensation, call out and uniform/identification.

Recommendation: Clear policies and training are needed to identify, establish and practice requirements of City employees during disasters in their role as Disaster Service Workers. A skills matrix database should be developed and maintained, including ARC and other certifications. Emergency positions need to be pre-identified, including those in the Emergency Operations Center, and regular training and exercises should support those positions. Analyze and update Annex G of the Emergency Operations Plan to address gaps revealed by this incident.

Establishing a City CERT (Community Emergency Response Team) would provide an augmented cache of trained volunteers as back-up to Police and Fire first responders. These individuals would be trained through the normal CERT process and have pre-identified responsibilities, if practical, during an emergency. Qualcomm provides this training to their employees through San Diego Fire-Rescue Department's Business Emergency Response Team program.

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Volunteer Management

1. The outpouring of support and kindness from area volunteers was overwhelming. The number of volunteers already inside the Stadium before the ICP was in place was extremely high however, and this contributed to initial confusion and disorder.

Recommendation: The Volunteer Coordinator established for this incident should be a permanent position on the EOC roster in order to coordinate all volunteer interface with City personnel such as:

- o Multiple sign-in rosters kiosks
- o Volunteer assignments with a City staff group leader
- o Better use of small teams
- o Improved scheduling
- o More coverage during the nights
- o Limiting the number of volunteers from each organization per shift
- o Better coordination between organizations on roles
- o Credentialing and badging
- o Outlining expectations of volunteers

Spontaneous Volunteers

The use of volunteers was integral to the effective establishment of care and shelter operations within the City. Management of Qualcomm as a mega care and shelter facility required the use of nonprofit organizations and their staff as well as the utilization of City Disaster Service Workers and spontaneous volunteers. City employees were utilized to help in managing the many volunteers required to sustain shelter operations, and were placed in teams to manage volunteers on site.

The City attempted to obtain volunteers and the management of volunteers through the contractual agreement between the OA and “Volunteer San Diego.” There was some confusion as to how to integrate and obtain volunteer resources through the established OA plan and agreement with “Volunteer San Diego.”

Recommendation: Refine and strengthen the process for requesting volunteer management resources during a crisis. This would include exercising, training, reviewing and updating this function regularly. Utilize the expertise of VOAD leaders to work jointly with the City to develop a solid volunteer management program. Utilize nonprofit group resources as well as grants to obtain needed funding for disaster volunteer training programs. Develop a regional approach to the issue of volunteer utilization during times of disaster and crisis.

CITIZEN PREPAREDNESS AND OUTREACH

Lessons Learned and Recommendations for Change

1. Preparedness of the community allowed first responders to assist those in the most dire need of services or resources first. Brush management practices, building material selection familiarity, fire awareness, the ability to stay informed and be prepared to quickly evacuate with essential items are all elements of individual preparedness.

Recommendation: Comprehensive community outreach and education programs should be developed to raise public awareness of the importance of personal and family preparedness, thereby affording first responders the opportunity to focus on assisting those in dire need first. Comprehensive community outreach and education programs should be developed to raise public awareness of wildfire and promote fire safety and prevention to create survivable communities. Under represented communities must also be integrated into these outreach efforts.

2. CERT teams were a substantial benefit to the provision of logistical services. CERT volunteers served as runners, drivers and in many other support functions.

Recommendation: More CERT teams should be trained within the City, especially in under represented communities.

3. Many people relied solely on “getting a call” before preparing or evacuating their homes. The AlertSanDiego and Reverse 911® systems are part of the overall public notification process and should not be solely depended upon for situational awareness.

Recommendation: Perform better outreach and council supported district training for mass notification system in order to manage public expectations of capabilities.

EMERGENCY MEDICAL SERVICES

Lessons Learned and Recommendations for Change

1. Access to a large nursing staff (within the division as well as call-back Critical Care Transport Nurses) was a major benefit to the effort. Nursing staff played a role in the smooth evacuation of Pomerado Hospital (first ever in San Diego County), the setup and maintenance of an extended care shelter at Qualcomm and the staffing of rehabilitation facilities for firefighters on the line.

Recommendation: Continue to train and exercise this role.

2. The experience of the Cedar Fire again provided valuable experience concerning the initiation of a dispatch emergency rule altering the response configuration to free engine companies for firefighting efforts. The early implantation of the “emergency dispatch protocol” that relieved fire engines from responding to emergency medical incidents freed firefighters for immediate assignment to suppression activities.

Recommendation: Continue to plan for early implementation of the “emergency dispatch protocol” during a large event.

3. There was a need for personal care and hygiene supplies (feminine hygiene, moleskin, eyewash, aspirin, etc.) within the first 24 hours of the incident. Based on experience from the Cedar Fire, these materials will always be required on any incident lasting more than one operational period.

Recommendation: Develop a list of these items. Stock sufficient non-perishable items and ensure that perishables can be ordered and delivered in a more rapid fashion.

4. The evacuation to Qualcomm Stadium of approximately 400 nursing home patients created medical and logistical needs not previously experienced. The overall management was successful, however planned coordination for large resource needs (medical overhead, pharmaceuticals, additional nursing staff, etc.) through the County was lacking.

Recommendation: Continue efforts to improve medical coordination between the County and City EMS.

5. EMS Division staff was tasked with non-EMS roles (dispatcher, communications related roles, liaisons) during the fire. While it is evident that rotation of experience of overhead personnel is valuable, there was no anticipation of overhead needs for these roles and it resulted in the utilization of staff willing to assume these roles.

Recommendation: Single resource communications roles (Communications Unit Leader/Technician, Dispatcher) should be ordered when ordering a communications van rather than recruiting other staff. Dispatch should consider availability of internal and

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external overhead resources, pre-plan and train appropriately to staff the next communications unit.

TRAINING AND EXERCISE

Lessons Learned and Recommendations for Change

1. The SDFD's ability to concurrently staff the Incident Management Team, Department Operations Center, Emergency Operations Center and critical command positions in the field, as well as the City's difficulty in staffing the EOC, is hampered by a lack of trained and qualified (certified) personnel to fill all positions.

Recommendation: Additional personnel should be trained to fill these positions to a minimum three-deep roster to enhance command and control during large-scale incidents.

2. The SDFD's investments in Leadership and Wildland Firefighting training played an important role in improving its overall performance during this fire as compared to the 2003 Cedar Fire.

Recommendation: Continued investment in this training is critical for the growth and constancy of high level performance in areas of leadership and operational readiness.

3. With the advent of the California Incident Command Certification System (CICCS), there is a growing expectation and requirement that qualified Strike Team Leaders and Division/Group Supervisors be provided to incidents – whether inside or outside the City of San Diego. A lack of qualified Strike Team Leaders and Division/Group Supervisors resulted in a delay in deploying certain strike teams and an inability to provide relief for personnel staffing these key positions.

Recommendation: Additional uniformed personnel at the ranks of battalion chief and captain must be trained as Strike Team Leaders and Division/Group Supervisors. Completion of required coursework should be set as a minimum qualification for promotion. The Department should periodically provide for this training.

4. Adequate code training should be provided to all City staff responsible for interpreting/enforcing the City's Brush Management Regulations.

SAFETY

Lessons Learned and Recommendations for Change

1. A fire of this size and complexity requires the assignment of multiple, fully trained and qualified safety officers to effectively monitor activities, identify safety issues and correct deficiencies.

Recommendation: Fully trained California Incident Command Certification System (CICCS) or National Wildfire Coordinating Group (NWCG) qualified Safety Officers must be rostered to the SDFD Incident Management Team. These positions will be responsible to determine and recommend to the Incident Commander the number of safety officers required to manage the safety issues of the incident. This position would be responsible for coordinating the activities of all Department safety officers assigned to the incident and coordinating with the Unified Command Safety Officer, if one has been assigned.

2. The Department lacks a sufficient number of fully trained and qualified safety officers to handle anything more than routine day-to-day operations. This deficiency compromises the safety of personnel engaged in large-scale incidents by resulting in the need to assign lesser qualified, or in some cases unqualified personnel, to the safety officer function.

Recommendation: The Department should develop a plan and provide funding to increase the number of fully trained and qualified safety officers to ensure adequate numbers are available to provide this critical focus on safety concerns at large-scale incidents.

3. During mobilization, it was found that some firefighters anxious to join those on the front lines self-dispatched to the incident in their personal vehicles or attempted to join existing fully-staffed crews that had already been assembled. This latter tactic resulted in some apparatus carrying more personnel than they were designed to accommodate. These “independent actions” severely compromised long-standing personnel accountability procedures and negatively impacted both safety and resource management.

Recommendation: The Department must reinforce its expectation that all personnel accountability and mobilization procedures will be followed. Deliberate attempts to circumvent these procedures through “independent action” in an effort to expedite one’s personal assignment to the incident must be immediately addressed by supervisors and management personnel.

4. Some personnel were engaged in firefighting and incident command operations for more than 36 hours without relief. Often, these personnel resisted attempts to be relieved so that they could remain engaged in their assignments. As fatigue is a known contributor to decreased performance and increased risk of injury, this situation poses a threat to personal/crew safety and attainment of incident objectives.

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Recommendation: A comprehensive crew/position rotation plan must be developed in advance for incidents that extend beyond initial attack operations. This plan must provide adequate work/rest cycles for all involved personnel. An expectation must be set that all personnel will abide by the plan with exception requests requiring approval by the Section Chief level of the incident command team.

5. Due to a lack of aides/trainees or the desire to use a specific aide/trainee, some Strike Team Leaders selected the company officer of a unit assigned to their strike team to serve in this role. This resulted in the creation of “short crew” under the command of an engineer assuming the OCA (Out-of-Class Assignment) role of captain. An under-staffed crew under the direction of an inexperienced OCA officer is not a desirable situation. To further illustrate this issue, the SDFD Safety Officer was pressed into to service as a Strike Team Leader early into the fire.

Recommendation: Aides/trainees must be provided to all Strike Team Leaders at the time of assignment to assist them and provide training opportunities for personnel. To facilitate these assignments, the names of available aides/trainees should be added to and maintained in the Emergency Resource Directory. In no case shall a crew be shorted or allowed to operate under an OCA officer unless no other options exist. In cases where this occurs, the situation must be corrected as soon as possible.

6. The lack of a Medical Unit dedicated to treating and tracking firefighting injuries weakened this aspect of incident operations. While highly experienced Department nursing staff were deployed to the Rancho Bernardo staging area to provide treatment services to firefighters, and provided exceptional care, failure to formalize operations by designation of a Medical Unit Leader resulted in a loss of accountability.

Recommendation: All components of the Medical Unit should be activated as part of the Incident Management Team’s response to any emergency. A Medical Unit Leader must be assigned to ensure accountability for all required functions and operations.

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ATTACHMENT A

CEDAR FIRE RECOMMENDATIONS

		Division Assignment	Completed	If not completed, Why?	If not completed, was it an issue in 2007	If completed, did it have a positive impact in 2007?	Additional Comments
A.	Command Staff and Incident Management						
	1. Fund, develop and train to National Wildfire Coordinating Group (NWCG) standards for command positions	Training	No	Funding	Yes		
	2. Fund the staffing and resource needs for extended duration incidents	Operations	No	Funding	Yes		Though there was no dedicated funding, overtime was used to staff needed positions. Procurement cards and emergency purchase orders were used to acquire needed supplies and services.
	3. Develop a Community Emergency Response Team (CERT) program	Operations	Yes			Yes	CERT was used in many capacities during the 2007 wildfires including security, logistics, shelters, etc. Use of CERT personnel freed firefighters to engage in emergency operations.

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		Division Assignment	Completed	If not completed, Why?	If not completed, was it an issue in 2007	If completed, did it have a positive impact in 2007?	Additional Comments
	4. Fund, develop, and equip the Department Operations Center (DOC)	Special Operations	Yes				Due to lack of trained personnel to concurrently staff the IMT, DOC and field command positions, DOC functions were integrated into command operations at the Fire Communications Center.
B.	Safety						
	1. Fund, develop and train to National Wildfire Coordinating Group (NWCG) standards qualified personnel to perform the role of Incident Safety Officer	Operations	No	Funding	Yes		
	2. Review safety procedures to address fighting fires in the wildland/urban interface	Training	Yes			Yes	Annually through In-Service Training
	3. Fund and develop staffing to ensure the timely implementation of an Incident Safety Officer	Training	No	Funding	Yes		
	4. All Personnel must be trained in the following areas:	Training	No	Funding	Yes		
	• Risk/benefit analyses						
	• Fatigue						
	• Personal Protective Equipment						
	• Span of Control						

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		Division Assignment	Completed	If not completed, Why?	If not completed, was it an issue in 2007	If completed, did it have a positive impact in 2007?	Additional Comments
	5. Open cab apparatus should be removed from service	Logistics	Partial		Yes		No open cab Type 1 engines will be in service by April 2008 (exceptions include: fire training and potential reserving of apparatus for surge demands).
C. Public Information							
	1. Fund additional staffing and training for the Public Information Officer (PIO). The staffing would include: support staff, uniformed personnel	Operations	No	Funding	Yes		
	2. Recall PIOs early in incidents	Operations	Yes			Yes	PIOs were called in early which had a positive impact in getting infor to media and coordinating the acceptance of donations and contributions.
	3. Train Department Operations Center (DOC) participants in the media plan	PIO	No	Funding, time and staffing	No		
	4. Assist in developing a countywide media workshop/drill during Summer/2004 to ensure readiness	PIO	No	Funding, time and staffing	No		

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		Division Assignment	Completed	If not completed, Why?	If not completed, was it an issue in 2007	If completed, did it have a positive impact in 2007?	Additional Comments
	5. Develop a policy to utilize recently retired command staff officers to act as PIO/fire department subject matter experts	PIO	No	Funding, time and staffing	No		Feasibility of concept under review
D. Staffing and Recall							
	1. Review recall procedures and revise as necessary.	Operations	Partial	Staffing	Yes		The Cedar fire used a personnel "all call" via the media, bypassing the staffing desk and complicating the tracking of personnel assignments. The 2007 fires used selective personnel "all calls" over the Department paging system directed by command staff. This was an improvement, but personnel tracking still proved challenging. Further refinement of recall procedures is needed to ensure accountability.
	2. Fund, develop and train National Wildfire Coordinating Group (NWCG) qualified Status/Check-in Recorders	Training	Partial	Funding	Yes		Staff turnover has negatively impacted trained cadre.

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		Division Assignment	Completed	If not completed, Why?	If not completed, was it an issue in 2007	If completed, did it have a positive impact in 2007?	Additional Comments
	3. Create process to allow recalled personnel access to facilities	Logistics	Yes			Yes	Key boxes are in place at all facilities and a process by which to quickly obtain access codes is in place.
	4. Change policy on emergency staffing during "Red Flag" alerts, and when to backfill for out of city strike team deployments	Operations	In Process		No		Additional emergency response units were staffed in 2007 based on fire weather predictions and fire starts in adjacent jurisdictions.
E. Department Operations Center							
	1. Funding must be provided and maintained for a dedicated and well equipped Department Operations Center (DOC)	Special Operations	Yes				Due to lack of trained personnel to concurrently staff the IMT, DOC and field command positions, DOC functions were integrated into command operations at the Fire Communications Center
	2. Fund, develop and train personnel to fill the roles of a functional Department Operations Center (DOC)	Spec Ops	In Process		Yes		Due to lack of trained personnel to concurrently staff the IMT, DOC and field command positions, DOC functions were integrated into command operations at the Fire Communications Center
F. Operations							

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	Division Assignment	Completed	If not completed, Why?	If not completed, was it an issue in 2007	If completed, did it have a positive impact in 2007?	Additional Comments
1. All personnel should be trained in the following National Wildfire Coordinating Group (NWCG) courses: Wildland Fire Behavior, Incident Command, Fire Operations in Urban Interface	Training	Partial	Funding	Yes		
2. Captains should be trained in the following National Wildfire Coordinating Group (NWCG) courses: Intermediate Incident Command System, Strike Team Leader Engine, Basic Air Operations, Division/Group Supervisor	Training	Partial	Funding	Yes		
3. Captains should be National Wildfire Coordinating Group (NWCG) qualified in the following positions: Staging Area Manager, Strike Team Leader Engine (trainee)	Training	No	Funding	Yes		

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	Division Assignment	Completed	If not completed, Why?	If not completed, was it an issue in 2007	If completed, did it have a positive impact in 2007?	Additional Comments
4. Battalion Chiefs should be trained to the following National Wildfire Coordinating Group (NWCG) courses: Advanced ICS, Command & General Staff, Operations Section Chief	Training	No	Funding	Yes		
5. Battalion Chiefs should be National Wildfire Coordinating Group (NWCG) qualified in the following positions: Strike Team Leader/Engine, Division Group Supervisor, Agency Representative	Training	In process	Funding	Yes		All BC's are required to be Strike Team Leader certified. The Operations Division is developing a task book for Agency Rep.
6. Apparatus inventories should be reviewed and updated as needed for fighting wildland/urban interface fires	Logistics	In Process	Funding	Yes		Inventories have been reviewed. Added I-Zone packs to all Type 1 engines. Upgraded wildland PPE: issued web gear with fire shelter, wildland helmet, wildland goggles, and Hotshield facemasks to all firefighters.

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		Division Assignment	Completed	If not completed, Why?	If not completed, was it an issue in 2007	If completed, did it have a positive impact in 2007?	Additional Comments
	7. Fund and develop complete Strike Team Leader kits for all Battalion Chiefs; spare kits should also be maintained at each battalion headquarters	Operations	Yes			Yes	
	8. Fund and develop Strike Team Engine kits for all apparatus.	Operations	Yes			Yes	
	G. Logistics						
	1. Fund, develop and train adequate personnel to function at all Logistics Section Unit Leader levels	Training	No	Funding	Yes		
	2. Fund the development of Logistics Section Chief Kits to be stored at the Department Operations Center (DOC)	Special Operations	Yes			Yes	

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	Division Assignment	Completed	If not completed, Why?	If not completed, was it an issue in 2007	If completed, did it have a positive impact in 2007?	Additional Comments
3. Develop logistical plans and organization charts for storage at the Department Operations Center (DOC). The Logistics Section Chief should be located in the DOC to coordinate incident needs with the Planning, Operations and Finance Section Chiefs. The functional units of the Logistics Section could be located in the vicinity of the Repair Facility.	Special Operations	No	Funding	Yes		
4. All Firefighters should prepare themselves for minimal logistical support for the first 24 hours of an incident (Initial Attack). Strike Team bags and required support items should be provided for all personnel. This includes:	Operations	Yes			Yes	
● Personal Protective Equipment (PPE)						
● Water						
● Food						
● Uniforms						

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		Division Assignment	Completed	If not completed, Why?	If not completed, was it an issue in 2007	If completed, did it have a positive impact in 2007?	Additional Comments
	5. All Battalion and Deputy Chiefs should be issued a credit card for necessary first responder support	Administrative Services	Partial	Lack of staff for policy development	Yes		
H. Apparatus and Equipment							
	1. A thorough review of the SDFDs engine fleet should be performed to address the following issues:	Logisitcs					
	<ul style="list-style-type: none"> • Amount of reserve engines to support the SDFD 		Yes			Yes	Conducted survey of 50 fire departments for reserve engine ratios. Went from 14 Type 1 engines to 18 in current pool. Fleet recommends this number increase until we have at least one reserve engine for every frontline engine.
	<ul style="list-style-type: none"> • Location of reserve engines 		Yes			Yes	Has been reviewed and updated. Currently estimate space for 12 additional reserve engines.
	<ul style="list-style-type: none"> • Equipment inventory on reserve and frontline engines for safe firefighting operations 		Yes			Yes	Inventory procedures have been reviewed, updated and compliance is now actively tracked with feedback to Operations on performance. Loss data is now tracked.

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	Division Assignment	Completed	If not completed, Why?	If not completed, was it an issue in 2007	If completed, did it have a positive impact in 2007?	Additional Comments
<ul style="list-style-type: none"> Inventory to equip stripped reserve engines 		Partial	Funding	Yes		All 18 Type 1 reserve engines and 5 of the 6 reserve aerials now have all equipment. (Exceptions: EMS, Portable Radios, MDC and Thermal imagers.
<ul style="list-style-type: none"> Equipment inventory on reserve and frontline engines for safe firefighting operations 		In Process	Funding	Yes		
<ul style="list-style-type: none"> Safe operating features 		Yes			Yes	Post Business Process Reengineering General Services Fleet Division efforts are to be commended. However, the allocation of mechanics, infrastructure, and replacement fleet remains a priority.
2. A review of storeroom inventory should be performed to ensure proper levels to emergency equip firefighters at an incident	Logistics	No	Funding	Yes		Supply review has been completed. Budget allocation does not allow adequate store stock of most PPE items and other costly inventory items.

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	Division Assignment	Completed	If not completed, Why?	If not completed, was it an issue in 2007	If completed, did it have a positive impact in 2007?	Additional Comments
3. Through attrition, all staff sedans should be replaced with command Sport Utility Vehicles (SUVs)	Logistics	Partial	Funding	Yes		Not completed. Significant progress is anticipated in FY08 and FY09
4. A review of the SDFD's water application capabilities should be performed to determine the need for additional apparatus	Logistics	No	Funding	Yes		Recommendations for additional large diameter pumping, drafting, and hoselay capability requested and not funded. However, two replacement water tenders are on the FY08 replacement plan and 3 ultra XT Type 3 engines have enhanced water tender service.
5. Funding should be identified to :	Logistics					
<ul style="list-style-type: none"> Meet the ongoing apparatus/equipment replacement program 		Yes			Yes	Completed. Plans in place to attain 15 year lifecycle for heavy fire apparatus and 7 year for light and support functions.

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		Division Assignment	Completed	If not completed, Why?	If not completed, was it an issue in 2007	If completed, did it have a positive impact in 2007?	Additional Comments
	<ul style="list-style-type: none"> • Appropriate staffing levels of the Repair Facility 		No	Funding	Yes		Both staffing levels and facility size must be reviewed to ensure adequate capacity for emergency vehicle repair.
I. Communications							
	1. Fund, develop and train personnel to function as National Wildfire Coordinating Group (NWCG) qualified Communication Unit Leaders	Training	No	Funding	Yes		
	2. Incorporate radio usage drills into the regular In-Service Training objectives	Training	Yes			Yes	Ongoing
	3. Fund the purchase of portable radio accessories, which includes: Clamshells, Spare batteries, Radio chest harnesses capable of carrying (2) portable radios	FCC	Yes			Yes	
J. Fire Communications Center							

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	Division Assignment	Completed	If not completed, Why?	If not completed, was it an issue in 2007	If completed, did it have a positive impact in 2007?	Additional Comments
1. Inform field personnel of the capabilities and functions of the newly organized Fire Communications Center (FCC)	FCC	Yes			Yes	
2. Establish a telephone plan in the Department Operations Center (DOC) manual to ensure full usage of telephone resources at the Fire Communications Center (FCC)	Special Operations	No	Funding	No		City issued cell phones used for effective communications.

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	Division Assignment	Completed	If not completed, Why?	If not completed, was it an issue in 2007	If completed, did it have a positive impact in 2007?	Additional Comments
3. Fund and develop training for Fire Communications Center (FCC) and Department Operations Center (DOC) personnel to ensure the smooth transition and coordination of a large scale incident. National Wildfire Coordinating Group (NWCG) training should be obtained for personnel working in the Expanded Dispatch of the DOC. This training includes:	Special Operations	No	Funding	Yes		
<ul style="list-style-type: none"> ● Basic Incident Command System 		Yes			Yes	
<ul style="list-style-type: none"> ● Expanded Dispatch Recorder 		No		Yes		
<ul style="list-style-type: none"> ● Expanded Dispatch Support Dispatcher 		No		Yes		
<ul style="list-style-type: none"> ● Expanded Dispatch Supervisor 		No		Yes		

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	Division Assignment	Completed	If not completed, Why?	If not completed, was it an issue in 2007	If completed, did it have a positive impact in 2007?	Additional Comments
4. Develop Fire Communications Center (FCC) security plans; include these plans in the Department Operations Center (DOC) Operations manual	Special Operations	No	Funding			
5. Develop plans for the rapid assignment of unit identifiers to improve resource/personnel tracking at the FCC	FCC	No	Staffing	Yes		
6. Fund the development of a Fire Communications Center to meet the needs of the City of San Diego	Administrative Services	Yes			Yes	Uniformed Emergency Resource Officers added to Fire Communications Center.

K. Plans

1. Fund, develop and train personnel to functional National Wildfire Coordinating Group (NWCG) qualified levels. These positions should include:

- Unit Leaders

Training

No Funding Yes

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	Division Assignment	Completed	If not completed, Why?	If not completed, was it an issue in 2007	If completed, did it have a positive impact in 2007?	Additional Comments
<ul style="list-style-type: none"> Field Observers 		Partial	Funding	Yes		Inadequate number have been trained to meet the needs of a large incident.
<ul style="list-style-type: none"> Display Processors 		No	Funding	Yes		Staff turnover has negatively impacted trained cadre.
<ul style="list-style-type: none"> Check-in/Status Recorders 		Partial	Funding	Yes		
2. Train all personnel to the I-200, Basic Incident Command System level	Training	Yes			Yes	All personnel have a greater than basic knowledge of the ICS system which helps overall coordination and operations.
3. Fund the development of a Planning Section Chief kit to be stored at the Department Operations Center (DOC)	Special Operations	Yes			Yes	
4. Fund the procurement of necessary Planning Section equipment to be stored at the DOC. This equipment includes:	Special Operations	On-going	Funding			Due to lack of trained personnel to concurrently staff the IMT, DOC and field command positions, DOC functions were integrated into command operations at the Fire Communications Center
<ul style="list-style-type: none"> Additional telephones 		No	Funding			

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		Division Assignment	Completed	If not completed, Why?	If not completed, was it an issue in 2007	If completed, did it have a positive impact in 2007?	Additional Comments
	• High speed copiers		Yes			No	
	• High speed plotter printers		No	Funding			
	• Computers with network access		Yes				
	5. Incorporate and utilize a Demobilization Plan for all state or federal reimbursement incidents	Operations Administrative Services	No	Funding/Staffing	Yes		
L. Damage Assessment							
	1. Fund, develop and train a formalized Damage Assessment Team.	FPB	Partial	Funding/Staffing		Yes	While initial training was provided, due to staff turnover, ongoing training must be developed.
M. EMS							

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	Division Assignment	Completed	If not completed, Why?	If not completed, was it an issue in 2007	If completed, did it have a positive impact in 2007?	Additional Comments
1. Fund and develop a Department Operations Center (DOC) which does not disrupt the daily function of EMS dispatching. Specifically, BLS dispatching should not be displaced or impacted by the function of the DOC.	Special Operations	Yes				Due to lack of trained personnel to concurrently staff the IMT, DOC and field command positions, DOC functions were integrated into command operations at the Fire Communications Center
2. Develop Logistics Section's plan to include a functional Supply Unit that does not disrupt the daily function of the storerooms	EMS/Logistics	Yes			Yes	Policies have been implemented and the impact to Medical Supply was well-coordinated and did not disrupt the daily operations. However, additional staffing is needed to meet the day-to-day and large incident needs of Storeroom 42.
3. Design and develop a central operations center for the coordination of ambulance resources	EMS	Yes			Yes	

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		Division Assignment	Completed	If not completed, Why?	If not completed, was it an issue in 2007	If completed, did it have a positive impact in 2007?	Additional Comments
	4. Participate in the working group to develop a County Medical Operations Center	EMS	Yes			Yes	SDMSE has supported the County in their development of their Medical Operations Center. The MOC was operational in 2007 and was in place in 2003
N. Finance							
	1. Fund, develop and train an National Wildfire Coordinating Group (NWCG) qualified Finance/Administration Section Chief	Training	No	Funding	Yes		
	2. Fund and develop a Finance/Administration section Chief's Kit to be stored at the Department Operations Center (DOC)	Special Operations	Yes			Yes	

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		Division Assignment	Completed	If not completed, Why?	If not completed, was it an issue in 2007	If completed, did it have a positive impact in 2007?	Additional Comments
	3. The Department Operations Center (DOC) plan should identify Finance and Logistics Section Chiefs	Special Operations	Yes				Due to lack of trained personnel to concurrently staff the IMT, DOC and field command positions, DOC functions were integrated into command operations at the Fire Communications Center
	4. An Emergency Operations Center (EOC) activation always should identify Finance and Logistics Section Chief positions	Special Operations	Yes			Yes	
O. Air Operations							
	1. Fund Copter One and develop standard response criteria for City of San Diego portion of the Regional Fire-Rescue helicopter program.	Special Operations	Yes			Yes	
	2. Continue participation in the various helicopter working groups and committees.	Special Operations	Yes			Yes	Ongoing

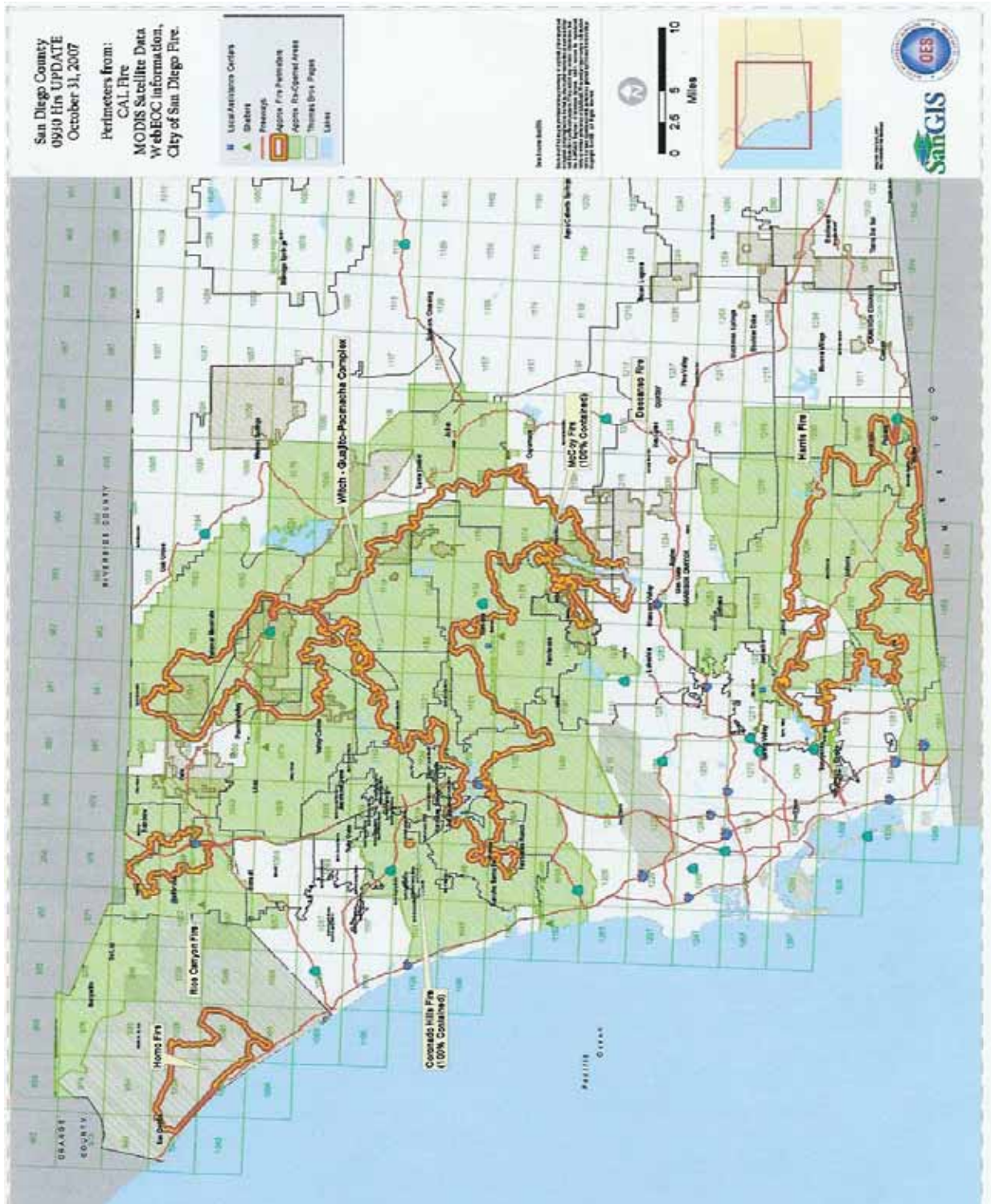
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	Division Assignment	Completed	If not completed, Why?	If not completed, was it an issue in 2007	If completed, did it have a positive impact in 2007?	Additional Comments
3. Develop and review the capabilities of local military air resources. Incorporate appropriately into local response plans (thru Firescope).	Special Operations	No		Yes		Review completed. Incorporation into local response plans has proved challenging due to need to coordinate through state and federal government.
4. Develop and implement a plan to establish a fleet of three fire-rescue helicopters under a regional program (ongoing).	Special Operations	Partial		Yes		2nd Helicopter to be delivered Aug. 2008

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ATTACHMENT B

BURN AREA



ATTACHMENT C

SUMMARY OF RECOMMENDATIONS

SUMMARY OF RECOMMENDATIONS	
FIRE APPARATUS/EQUIPMENT INVENTORY AND LOGISTICS	
1.	Additional apparatus should be procured and alternative methods of conducting patrol activities must be explored to ensure a greater capacity for this mission during future incidents.
2.	In addition to carefully managing its firefighting resources to ensure their availability during periods of high fire danger, the SDFD should consider as part of its Tactical Plan developing a “surge” capacity to mitigate a large fire with little or no outside assistance. This surge capacity should be in the form of additional ground and aerial firefighting equipment.
3.	Additional radios should be purchased to meet the needs of a large-scale incident.
4.	Current Thomas Brothers map books need to be available to responders who don’t use the data base or have access to a computer.
5.	Secure adapters and battery and cell phone chargers at each Operations Center and Incident Command Center for all types of equipment to allow for charging various city cell phones and other equipment during extended shifts.
6.	Provide a logistical trailer with tables and chairs, a generator, lighting, easy-ups, coolers, re-supply of personal protective equipment etc. for rapid deployment at incidents.
7.	Maintain a large cache of spare hose, both at Fire Station 20 and in the fire stations.
8.	Ensure all personal protective equipment and supplies for all fire responders are available, cached and distributed as necessary.
9.	Have a centralized location for donated supplies and distribute what can be consumed.
MASS NOTIFICATION SYSTEMS FOR EVACUATIONS	
10.	Continue emergency training to maximize performance of AlertSanDiego and Reverse 911® mass notification systems and public outreach.
11.	Explore seeking zip codes added to the database City purchases from telephone companies to use for emergency call back notifications.
AIR OPERATIONS	
12.	Increase the number of City fire/rescue medium-lift helicopters and perhaps contract or procure large capacity helicopters so that the SDFD’s ability to provide aerial fire suppression can be significantly enhanced.
13.	Continue to train all City and neighboring jurisdiction fire companies in helicopter ground fill operations (day and night).
14.	Consider dropping gel products from Air Operations Division helicopters on structures and on those areas surrounding homes that are more likely to ignite in advance of the approaching fire front.
15.	Consideration should be made to equip one of the SDPD helicopters with state-of-the-art

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SUMMARY OF RECOMMENDATIONS
information gathering equipment (television quality camera system, military type mapping and heat-sensing equipment, etc.) in order to provide enhanced situational awareness and an improved common operating picture for the County and City Emergency Operations Centers.
16. The availability of U.S. Navy and Marine helicopters available for use during a local disaster based at North Island Naval Air Station and other locations should be established early into an incident.
17. The existing process for ordering military aircraft that requires all requests be routed through the CAL FIRE Area Fire Coordination Command Center needs improvement.
PREVENTION
18. Explore additional brush management inspectors in combination with a regional approach to brush management in the SDFD Tactical Plan.
INCIDENT MANAGEMENT
19. Whenever it can be reasonably anticipated that an incident will likely extend beyond initial attack (one operational period), the full IMT should be activated.
20. Continue coordination with the Unified Command to ensure that City of San Diego resources working in the San Pasqual Valley and Rancho Bernardo areas remain available for use within the City.
21. Continue to incorporate deployment of multiple teams of train Field Observers and the fire-rescue helicopter to provide situational awareness in Emergency Operational Planning by all impacted departments.
22. An additional GIS technician should be added to the Fire-Rescue budget to ensure future availability, increased capacity and provide for appropriate work/rest cycles during major incidents.
23. A Medical Unit Leader position should be added to the IMT.
24. A Recovery Liaison position should be added to the IMT.
25. A Volunteer Management position should be added to the EOC.
26. A Donations Management position should be added to the EOC.
27. Additional Incident Command System training for sworn and non-sworn personnel is needed and should be provided.
28. An electronic check in/check out system for the Incident Command Posts and Staging locations should be implemented.
29. Contingency plans for unanticipated events must be considered for every incident.
30. The SDFD should consider as part of its Tactical Plan developing a “surge” capacity to mitigate a large fire with little or no outside assistance. This surge capacity should be in the form of additional ground and aerial firefighting equipment.
31. Whenever an apparatus can safely accommodate more than the normal assignment of four personnel and their required personal protective equipment during a large-scale Incident, it should be fully staffed to provide for enhanced capability of the crew.
OPERATIONS
32. Continue to utilize FOBS on incidents in the future and have the trained and certified

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SUMMARY OF RECOMMENDATIONS
FOBS train others firefighters for this position.
33. Continue to train and exercise emergency procedures with SDFD, SDPD, EOC and others.
34. Continue to utilize RIC on incidents in the future and foster the integration and coordination achieved between the City and outside organizations.
35. Consider including redlines and foam pro systems in future fire engine specifications.
36. Continue to train all firefighters in both “bump and run” and “anchor and hold” tactics.
37. Coordinate the implementation of a fire hydrant inspection program with the Water Department so that fire hydrants needing to be repainted are identified and then painted, and missing and/or damaged reflective blue street markers are identified and replaced through the inspection process.
MEGA CARE AND SHELTER FACILITY PLANNING
38. Registration of evacuees and volunteers, as well as the logistics plan should be established by City personnel immediately upon determining an evacuation or shelter site.
39. Diaper/undergarment bins should be put into all restrooms to make sure that sewer lines aren’t clogged by the flushing of these items.
40. Dedicated entry points for evacuees, volunteers and donations would benefit the logistics, management, security and business flow of the operation.
41. Pre-positioning of assets and setting up an inventory and distribution management system in order to inventory and organize items as they come in.
42. Animal owners staying inside Qualcomm should have a separate area with animal provisions nearby
43. Any person suspected of stealing donations or otherwise breaking the law will be processed in a uniform way in accordance with existing law.
SPECIAL NEEDS CONSIDERATIONS
44. A ready reserve of pre-identified and vetted translators and bilingual professionals (medical, legal, social services) would enhance all other relief efforts.
45. Emergency planning and preparedness programs should be developed and disseminated for the under represented communities within the City.
46. Coordinating and leveraging volunteer resources pre-existing within the community not only results in the creation of reserve resources during a crisis but in improved community relations in non-crisis times as well.
47. Volunteers should constantly monitor the care and shelter facility in an effort to maintain situational awareness of persons with special needs.
PUBLIC INFORMATION AND MEDIA MANAGEMENT
48. A trained City PIO should report to the JIC and coordinate with the City EOC whenever a large incident occurs.
49. The City’s Director of Communications should serve as the lead PIO and coordinate all PIO needs, assignments and activities with the PIOs assigned to the IMT (including JIC liaison) to ensure adequate coverage and a consistent message are provided. Additional

SUMMARY OF RECOMMENDATIONS
<p>personnel should also be trained as PIOs assigned for use during large-scale incidents where a greater PIO force is needed.</p>
<p>50. City/Department personnel should be provided additional media relations training to improve performance and clearly communicate departmental expectations.</p>
<p>51. Additional information could be provided that would improve the service levels at shelter and evacuation sites include:</p> <ul style="list-style-type: none"> ○ A general map of the site including what information is provided ○ List of repatriations as they occur ○ Information on bus and trolley times ○ A list of Frequently Asked Questions ○ Announcements and Updates ○ Maps
COMMUNICATIONS
<p>52. Additional portable radios should be purchased to ensure their availability during large-scale incidents.</p>
<p>53. Consider assigning the individual structure protection groups their own tactical channel as opposed to managing all of the assigned units on the assigned Branch tactical channel.</p>
<p>54. Train first responders on the use of mutual aid radio channels and radio interoperability.</p>
<p>55. On incidents where units are operating under the direction of CAL FIRE or USFS, mandate that Strike Team Leaders use only the assigned incident VHF frequency when on the fire line.</p>
<p>56. Mapping the location of critical radio communications infrastructure and making this information readily available to incident commanders would help to plan and mitigate potential impacts based on the fire threat.</p>
<p>57. Clarify Department policy for when and how the Communications Unit should be deployed, staffed and utilized.</p>
<p>58. Develop the ability on the MDC to clearly separate out and display critical dispatches such as those involving rescue situations from all other non-critical information.</p>
<p>59. Logistics must ensure that a cache of portable radio batteries are provided at all staging and camp locations.</p>
<p>60. Since many of the City of San Diego locations are shared with other regional entities with emergency generators, an opportunity exists to explore joint refueling, particularly during an emergency event such as the firestorm.</p>
<p>61. Work with telecommunications vendors to document the type and availability of services that could be offered during an emergency.</p>
<p>62. A procedure should be added to the EOC PIO checklist to ensure information flows to the CAPS supervisor in order to assure the most accurate information is provided to the public.</p>
<p>63. A procedure should be added to the EOC PIO checklist to ensure information flows to 2-1-1. Information needs to be consistently shared with the Police Department's CAPS line, Fire Dispatch, and 2-1-1 to ensure accurate and timely information is provided to the</p>

SUMMARY OF RECOMMENDATIONS
public.
TECHNOLOGY
64. An additional GIS technician should be added to the Fire-Rescue budget to address an increasing routine workload and ensure availability during emergency incidents.
65. Develop a Standard Operating Procedure (SOP) to train and instruct GIS technicians regarding potential computer network conditions to ensure continual mapping support.
66. Evacuation areas must be generated as mapped data files (GIS layer) and delivered for importing into the AlertSanDiego and Reverse 911® systems for evacuation calls.
67. Coordinate with the regional GIS group to establish regional mapping protocols that utilize and coordinate the GIS resources of the region in a manner that generates unified, timely and accurate situational awareness, to include update of current mapping data to ensure accuracy of high hazard/risk areas.
68. Formalize the program manager position for 3Cs under the City's Deputy Chief Operating Officer for Public Safety and Homeland Security in order to maintain maximum oversight and management over funding and contractual issues.
69. All 3Cs participating agencies should agree on a Communications Plan for incidents.
70. Video conferencing with sites outside of 3Cs using IP should be implemented.
71. The stop gap equipment assembled and used on this incident should be a model for the development of two kits that 3Cs should have available for future incident support.
72. 3Cs should improve receiver sites on the network, either by installing more sites in diverse geographical areas of the county or by utilizing directional antennas more.
OPERATIONAL AREA COORDINATION
73. Provide mutual liaisons between the City and OA EOCs during a major incident.
74. Coordinate with the OA to develop and utilize a resource tracking database which can be made available to all area EOCs.
75. Expand the City's capability to conduct Donations Management, including further development of roles and responsibilities of the Donations Management Leader position within the City's EOC.
76. Develop a City Donations Management Plan to build on the OA Annex.
77. Clear policies and training are needed to identify, establish and practice requirements of City employees during disasters in their role as Disaster Service Workers.
78. The Volunteer Coordinator established for this incident should be a permanent position on the EOC roster in order to coordinate all volunteer interface with City personnel such as: <ul style="list-style-type: none"> ○ Multiple sign-in rosters kiosks ○ Volunteer assignments with a City staff group leader ○ Better use of small teams ○ Improved scheduling ○ More coverage during the nights ○ Limiting the number of volunteers from each organization per shift ○ Better coordination between organizations on roles

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SUMMARY OF RECOMMENDATIONS
<ul style="list-style-type: none"> ○ Credentialing and badging ○ Outlining expectations of volunteers
79. Refine and strengthen the process for requesting volunteer management resources during a crisis.
CITIZEN PREPAREDNESS AND OUTREACH
80. Comprehensive community outreach and education programs should be developed to raise public awareness of the importance of personal and family preparedness, thereby affording first responders the opportunity to focus on assisting those in dire need first.
81. More CERT teams should be trained within the City, especially in under represented communities.
82. Perform better outreach and council supported district training for mass notification system in order to manage public expectations of capabilities.
EMERGENCY MEDICAL SERVICES
83. Continue to train and exercise access to a large nursing staff.
84. Continue to plan for early implementation of the “emergency dispatch protocol” during a large event.
85. Develop a list of personal care and hygiene items needed within the first 24 hours of the incident.
86. Continue efforts to improve medical coordination between the County and City EMS.
87. Single resource communications roles (Communications Unit Leader/Technician, Dispatcher) should be ordered when ordering a communications van rather than recruiting other staff.
TRAINING AND EXERCISE
88. Additional personnel should be trained to fill these positions to a minimum three-deep roster to enhance command and control during large-scale incidents.
89. Continued investment in this training is critical for the growth and constancy of high level performance in areas of leadership and operational readiness.
90. Additional uniformed personnel at the ranks of battalion chief and captain must be trained as Strike Team Leaders and Division/Group Supervisors. Completion of required coursework should be set as a minimum qualification for promotion. The Department should periodically provide for this training.
91. Adequate code training should be provided to all City staff responsible for interpreting/enforcing the City’s Brush Management Regulations.
SAFETY
92. Fully trained California Incident Command Certification System (CICCS) or National Wildfire Coordinating Group (NWCG) qualified Safety Officers must be rostered to the SDFD Incident Management Team.
93. The Department should develop a plan and provide funding to increase the number of fully trained and qualified safety officers to ensure adequate numbers are available to provide this critical focus on safety concerns at large-scale incidents.

SUMMARY OF RECOMMENDATIONS
94. The Department must reinforce its expectation that all personnel accountability and mobilization procedures will be followed.
95. A comprehensive crew/position rotation plan must be developed in advance for incidents that extend beyond initial attack operations.
96. Aides/trainees must be provided to all Strike Team Leaders at the time of assignment to assist them and provide training opportunities for personnel.
97. All components of the Medical Unit should be activated as part of the Incident Management Team's response to any emergency.

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ATTACHMENT D

LIST OF ACRONYMS USED

ARC – American Red Cross

AAR – After Action Report

CAL FIRE (formerly CDF) – California Department of Forestry and Fire Protection

CAPS – Community Access Phone System

CFAI – Commission on Fire Accreditation International

CERT – Community Emergency Response Team

CICCS – California Incident Command Certification System

DOC – Department Operations Center

DSPRO – Display Processing

DSW – Disaster Service Worker

EAS – Emergency Alert System

EMS – Emergency Medical Service

EOC – Emergency Operations Center

FCC – Fire Communications Center

FOBS – Field Observers

GIS – Geographical Information Systems

HQ - Headquarters

JIC – Joint Information Center

ICP – Incident Command Post

ICS – Incident Command System

IMT – Incident Management Team

MDC – Mobile Data Computer

MRE – Meals Ready to Eat

NIMS – National Incident Management System

NWCG – National Wildfire Coordinating Group

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OA – Operational Area

OCA – Out-of-Class Assignment

“P” Card – Procurement Card

PIO – Public Information Officer

RCS – Regional Communications System

RIC – Rapid Intervention Crew

RSVP – Retired Senior Volunteer Patrol

SDFD – San Diego Fire-Rescue Department

SDPD – San Diego Police Department

SDSO – San Diego Sheriff’s Office

SOP – Standard Operating Procedure

USFS – US Forest Service

VIP – Volunteers in Policing

VOAD – Voluntary Organizations Active in Disasters

APPENDIX 4

2007 Southern California Fire Siege

*Welcome to
California*



The most disaster prone state in the nation

**Governor's Office of Emergency Services
Kim Zagaris – State Fire and Rescue Chief**



California's Geography Challenge

Area: 158,000 sq. Miles (770 miles in length and 250 miles wide)

Population: 37,900,000 people (+10 million since 1980)

Elevation range: -282 ft. to 14,495 ft.

Temperature range: -45 degrees to 134 degrees

Biggest county 400 times larger than smallest county.

LA County 8000 times the population of Alpine County.

California is the (world's) fifth largest economy just by itself and

is the third largest state in the US in size, after Alaska and Texas.

California OES has Multi-Agency Coordination Experience

2003 Southern California Fire Siege

- 739,597 acres burned
- 3631 homes destroyed
- 24 Lives Lost including 1 Firefighter
- 1160 Local Govt. Engines Mobilized



1994 Northridge Earthquake

- 57 killed; 9,158 injured
- \$20 billion damage



1992 LA Civil Unrest

- 53 killed; 2,383 injured
- \$469 million damage

1991 East Bay Hills Fire

- 25 Killed
- Destroyed 3,000 dwellings





“FULFILLING OUR MISSION”

**THE CALIFORNIA FIRE & RESCUE
MUTUAL AID SYSTEM**

**BELONGS TO YOU THE
CALIFORNIA FIRE SERVICE**



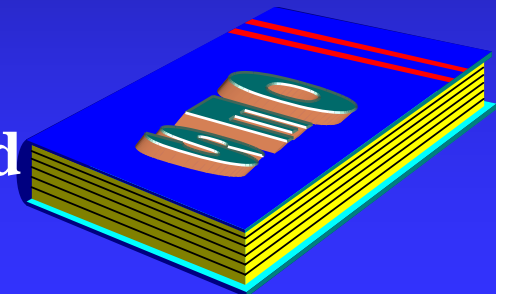
California Emergency Plan & California Fire Service and Rescue Emergency Mutual Aid Plan

Serves as the basis for conduct of emergency operations by all jurisdictions throughout California.

The California Fire and Rescue Emergency Mutual Aid Plan is an extension of, and supportive document to, the California Emergency Plan.

Basic concepts and principles have remained unchanged since it's origin in the early 1950's.

Basic Tenets of the Plan: **Self-Help & Mutual Aid**
“Neighbor Helping Neighbor”



Incident Response Coordination

- **Tasking State Agencies – California National Guard – MAFFS Program & Helicopter Support**

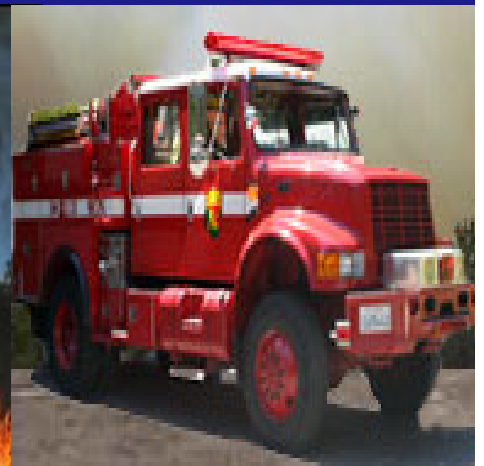


MAFFS tanker over a California fire in 1993



Incident Response Coordination

- **Tasking State Agencies – *Cal Fire***
- **Seven Points of Lights**



Incident Response Coordination

■ Local Government Aviation Support

Corona City FD/PD

Los Angeles City FD

Los Angeles County FD

Orange County Fire Authority

Ventura County FD/SO

San Diego City FD

San Diego SO/CAL FIRE

Kern County FD

San Bernardino County FD/SO/CAL FIRE

Santa Barbara County FD/SO



Incident Response Coordination

■ Local Government Aviation Support



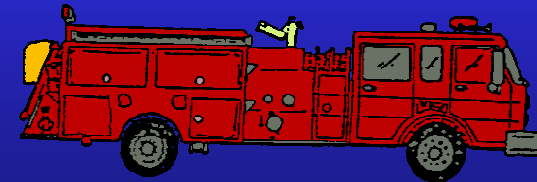
Incident Response Coordination

- Contract Aviation Support through the Federal Wildland Fire Agencies USFS & DOI and NASA

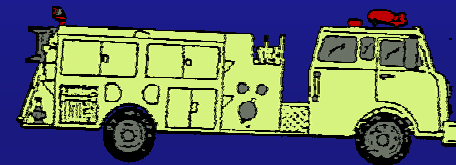


California Fire & Rescue Mutual Aid System Resources

3556 Type I Engines



882 Type II Engines



1243 Type III Engines



306 Type IV Engines



5987 Total Engines

200 – 250 Strike Teams/Task Forces

OES Role

OES Chief Officer Staff

Mutual Aid Coordinator

Monitoring the System

Generally no jurisdiction turf

Agency Representative

- Governor's Office of
Emergency Services
- Local Government



Regions and Operational Areas

65 Operational Areas- Generally same as counties (exception: Los Angeles County & the Lake Tahoe Basin); Op Area Fire & Rescue Coordinator is elected by County Fire Chiefs Association for three-year term

6 Regions - Made up of 6 to 16 op areas; Region Fire & Rescue Coordinator is elected by the Op Area Coordinators for three-year term

They are responsible for maintaining, updating, and activating the Region and Op Area Plan.



4-Tiered System of Planning & Response

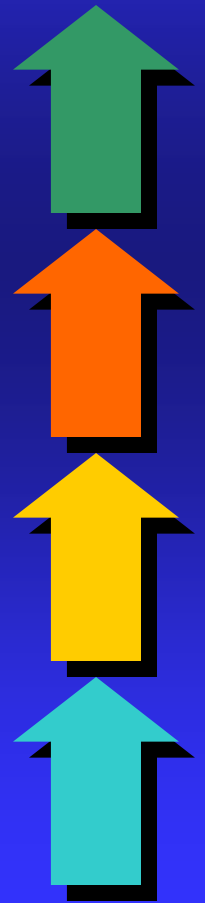
State Fire & Rescue Coordinator

Region Fire & Rescue Coordinator

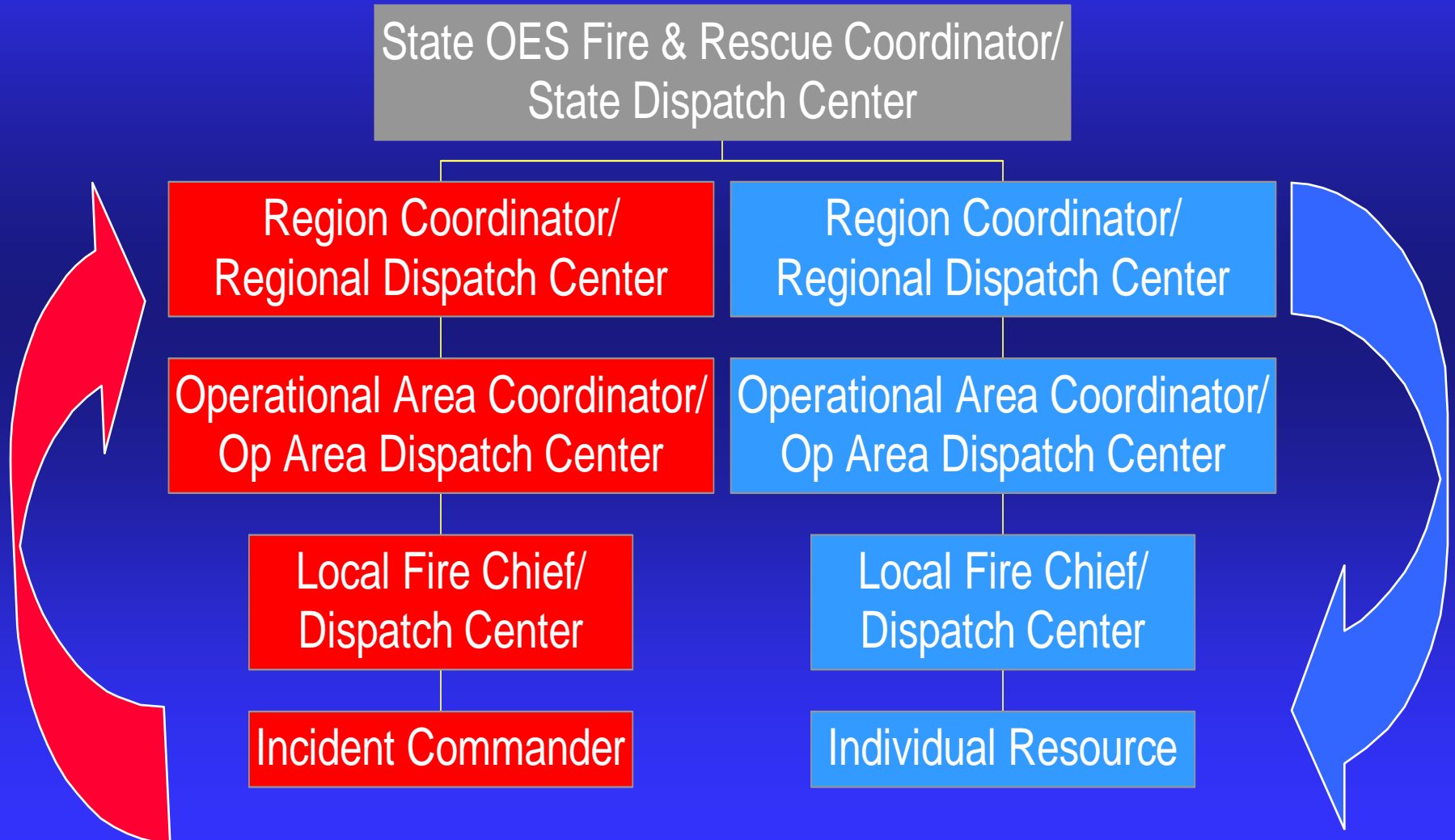
Operational Area Fire & Rescue Coordinator

Local Fire Official

- Sometimes referred to as a bottoms up system



Fire & Rescue Mutual Aid System



Interstate Civil Defense and Disaster Compact

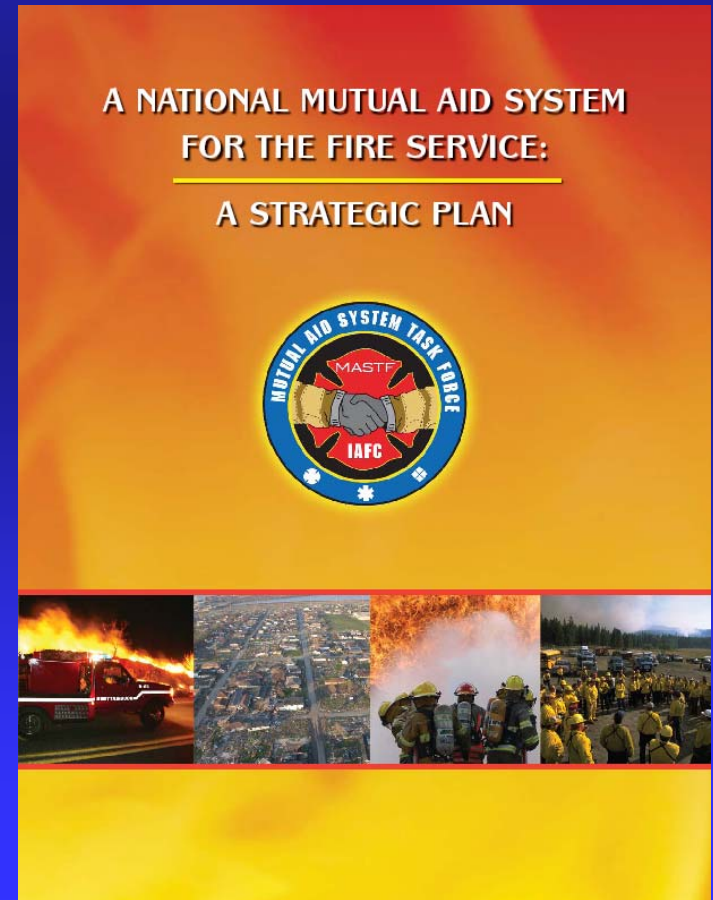
Sub-Agreement to provide interstate assistance
between the five southwestern states:

- Arizona
- California
- Idaho
- Nevada
- Oregon
- Washington



Emergency Management Assistance Compact & IAFC National Mutual Aid System

EMAC is administered by the National Emergency Management Association (NEMA)



Response to Disasters

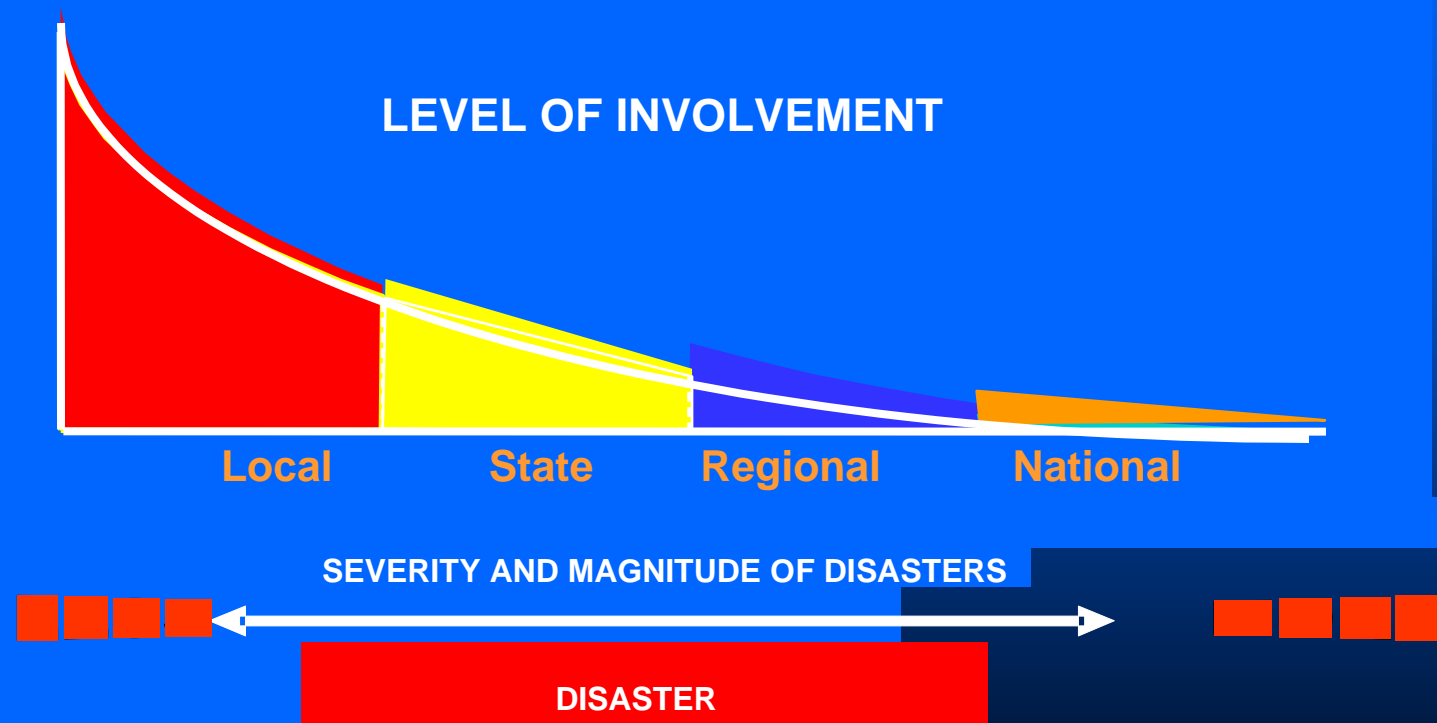
Local Ownership

“First, a disaster - whether natural or man-made - must be managed at the local level and "owned" by local government. State and federal officials should be ready to provide support and resources, offering one-stop-shopping essential to avoid bureaucratic overlap, conflicting priorities, and delay. Disasters impact communities, not political subdivisions”

Governor Jeb Bush

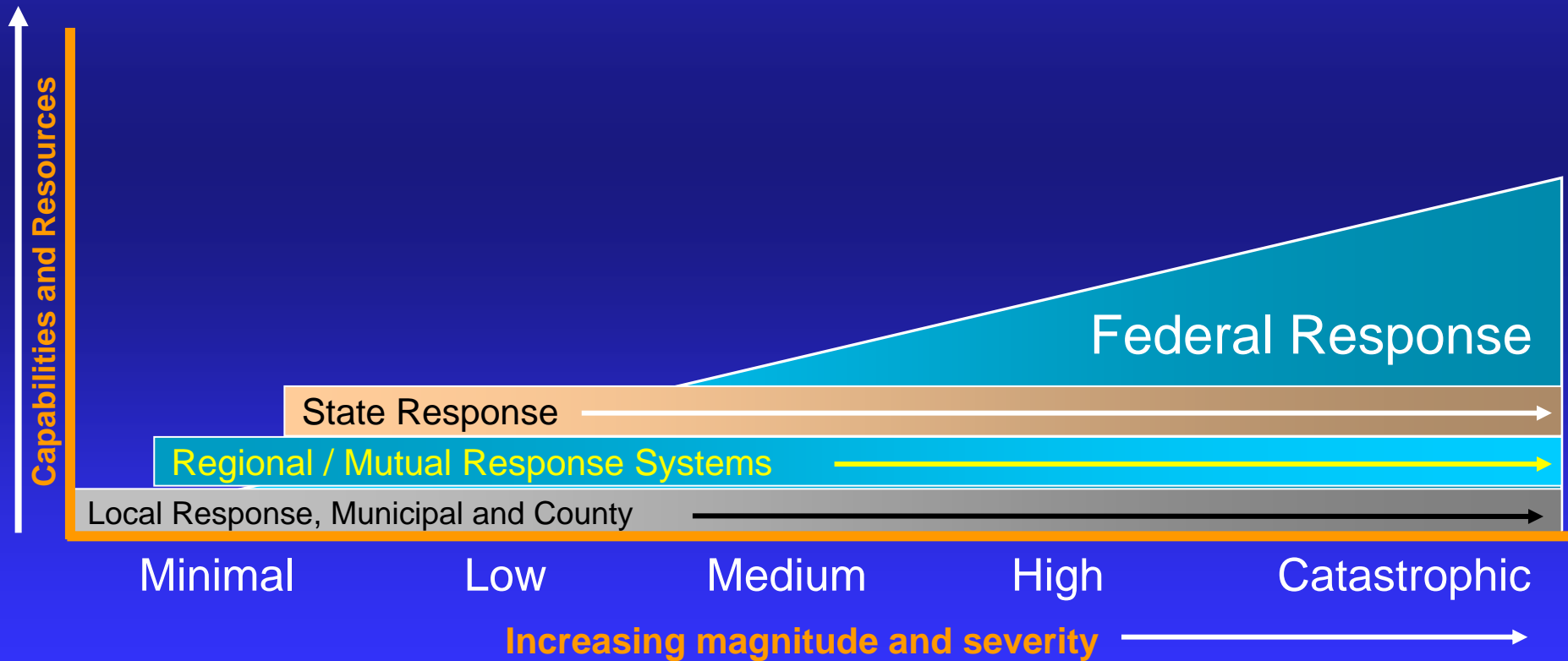
Testimony Before the Subcommittee on Terrorism and Homeland Security
October 29, 2001

Response to Disasters



Most disasters are managed by Local and State governments

Layered Response Strategy



Relationships: Local, State, NIMS and NRF

NIMS

- Aligns command, control, organization structure, terminology, communication protocols and resources/resource-typing
- Used for all events



National Response Framework



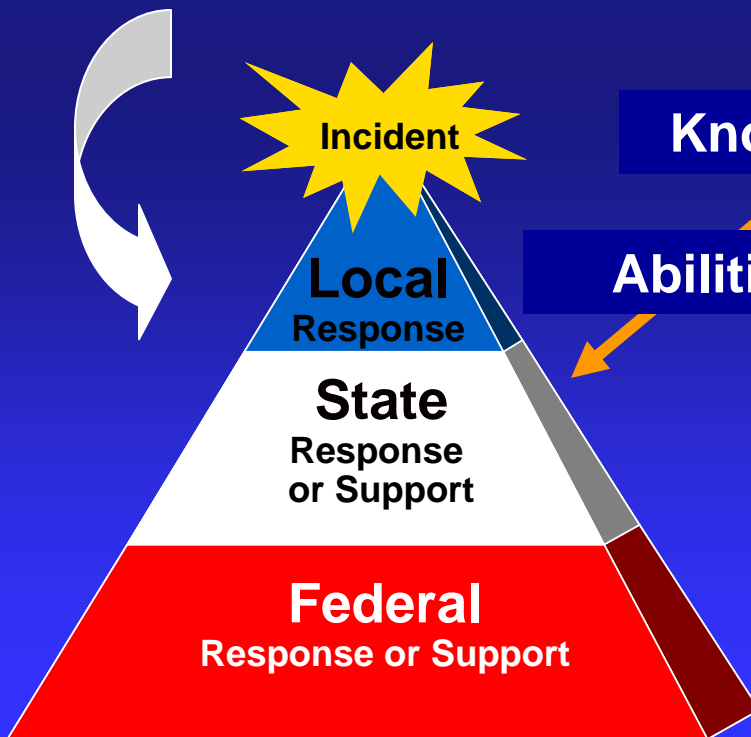
Resources

Knowledge

Abilities

NRF

- Integrates and applies federal resources, knowledge, and abilities before, during and after incidents
- Activated for Incidents of National Significance



Tiered Response

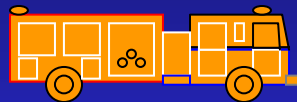
First Responders

Mutual Aid/Automatic Aid

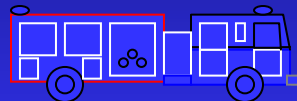
Intra-State Request

Inter- State Requests

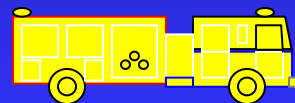
Inter-State



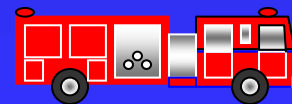
Intra-State



Mutual/Automatic Aid



First Responders



Fire Management Assistance Grants (FMAG)

- OES is the State's Principles Advisor for the FMAG Program
- Replaces FEMA's Fire Suppression program.
- Requested through OES by Local or State fire agency while fire is burning or uncontrolled and threatens such destruction as would constitute a major disaster and forward to FEMA.
- 75% - 25% Federal/State-Local cost share

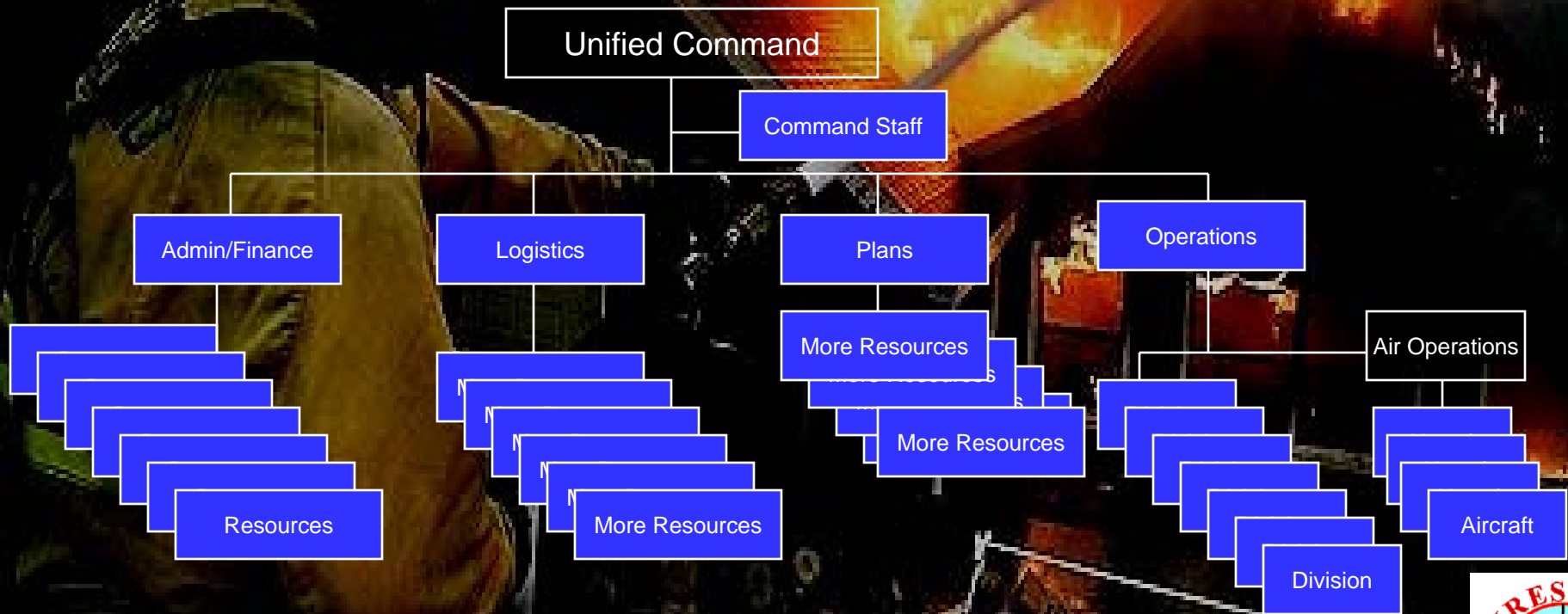
2007 Southern California Fire Siege

Fire Organization Beginning of Incident



2007 Southern California Fire Siege

Fire Organization Expands as Fire Becomes Larger and More Complex



2007 Southern California Fire Siege

Coordination

This fire siege mobilized a massive amount of personnel in a condensed period of time.

It mobilized more than the 6 day 2003 fire siege in about a 2 day timeframe.

It also mobilized and utilized more and different types of equipment than in 2003.

Relatively low serious injury rate among the firefighters, coupled with the intensity of the fire siege, can only be credited to a strong emphasis on safety and situational awareness among the personnel assigned.

2007 Southern California Fire Siege

Conditions

10/20/2007 – 10/22/2007

1. CA has various micro climates throughout So Cal
2. Santa Ana Wind Event
3. Sustained wind speeds – 40 to 60 MPH
4. Wind gusts – up to 100 MPH
5. Fuel moistures dropped to single digits – 9%-12%
6. Conditions following years of low precipitation
7. Dead and dying trees and brush from freeze, disease, and infestation

2007 Southern California Fire Siege

Fire Conditions

10/20/2007 – 10/25/2007

- 1. Wind driven**
- 2. Fuel driven**
- 3. Topography driven**
- 4. Structure to structure driven**
- 5. Direct flame, radiant heat, ember driven**



2007 Southern California Fire Siege

Fire Chronology

10/20/2007

1. Ranch Fire – LA County – 2142 Hrs



2007 Southern California Fire Siege

Fire Chronology

10/21/2007

- 2. Canyon Fire – LA County – 0455 Hrs**
- 3. Sedgewick Fire – Los Padres National Forest – 0600 Hrs**
- 4. Harris Fire – San Diego County – 0930 Hrs**
- 5. October Fire – LA County – 0947 Hrs**
- 6. Witch Fire – San Diego County – 1235 Hrs**
- 7. Buckweed Fire – LA County – 1255 Hrs**
- 8. Nightsky Fire – Ventura County – 1430 Hrs**
- 9. Roca Fire – Riverside County – 1552 Hrs**
- 10. Santiago Fire – Orange County – 1755 Hrs**
- 11. McCoy Fire – Cleveland National Forest – 2337 Hrs**

2007 Southern California Fire Siege

Fire Chronology

10/22/2007

- 12. Cajon Fire – San Bernardino County – 0000 Hrs**
- 13. Grass Valley – San Bernardino National Forest – 0000 Hrs**
- 14. Coronado Hills Fire – SMC – 0146 Hrs**
- 15. Slide Fire – San Bernardino National Forest – 0802 Hrs**
- 16. Rice Fire – San Diego County – 0416 Hrs**
- 17. Walker Fire – ONT – 1000 Hrs**
- 18. Magic Fire – LA County – 1417 Hrs**
- 19. Rosa Fire – Riverside County – 2310 Hrs**

2007 Southern California Fire Siege

Fire Chronology

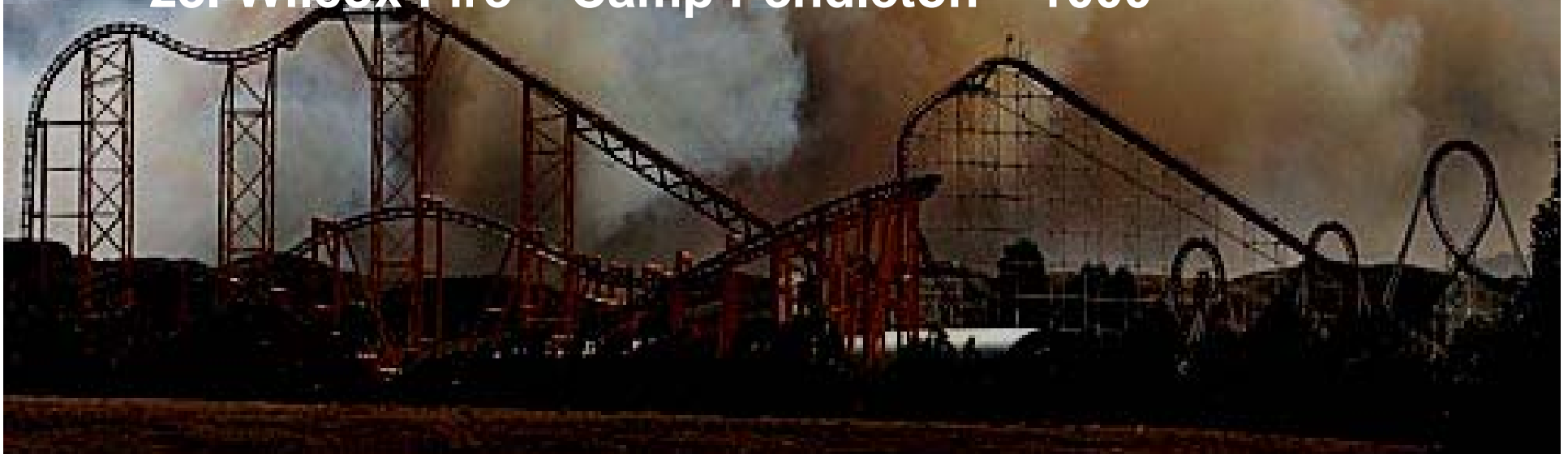
10/23/2007

20. Martin Ranch Fire – San Bernardino County –
0103 Hrs

21. Poomacha Fire – San Diego County – 0313 Hrs

22. Ammo Fire – Camp Pendleton – 0920

23. Wilcox Fire – Camp Pendleton – 1000



Miscellaneous Facts:

Between October 20-25th 251 vegetation fire starts were caught on initial attack:

Riverside Co: 51

San Bernardino Co: 30

Orange Co: 49

Los Angeles: 9

San Diego Co: 45

Southern four National Forests: 67

Federal and California Medical Assistance Teams provide clinical medical care for evacuated and sheltered residents

Multi-Agency Coordination System (MACS) Modes of Operation

Mode 1: No special actions, Monitor activity.

Mode 2: Reflects normal fire season operations. While isolated major incidents may occur, there is no significant impact on regional or statewide resources.

Mode 3: Make required notifications within agency and adjacent agencies that are a part of an operational area. Provide resource status (assigned/available) within one hour via MACS 405 form. Prepare for conference call.

Mode 4: Above actions (as appropriate) and send agency representatives to the MACS Operations Coordination Center.



Multi-Agency Coordination System (MACS)

MACS Agencies during 2007 Southern California Fires

- Cal Fire
- CA-OES Fire & Rescue
- Kern County FD
- Los Angeles City FD
- Los Angeles County FD
- Orange County Fire Authority
- San Diego County Fire & Rescue Operational Area
- Santa Barbara County FD
- Ventura County FD
- Bureau of Land Management
- National Park Service
- U.S. Fish and Wildlife Service
- U.S. Forest Service
- California National Guard
- DoD Northern Command



Multi-Agency Coordination System (MACS) Functions

MACS process initiated on Sunday 10/21/07 with multi-agency coordination among OCC senior staff setting priorities (Cal Fire, OES, USFS and DOI Agencies).

Daily phone conversations and conference with Incident Commanders and their agencies administrators.

Intelligence/ICS-209 reports received.

Resources coordination and adjustment as required.

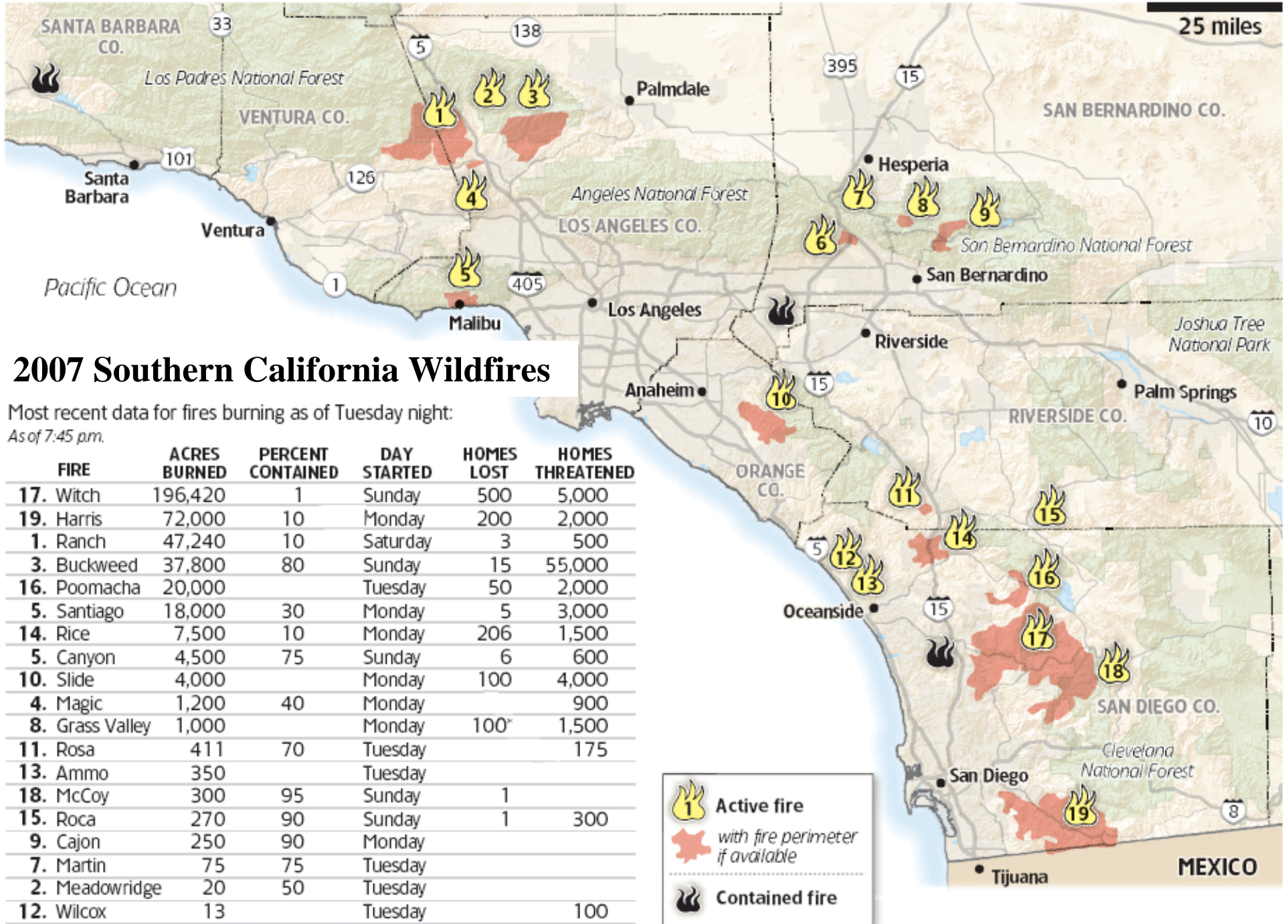
Continued monitoring throughout the event.



Multi-Agency Coordination System (MACS) Functions

- Maintain current Situation and Resource Status.
- Disseminate information to cooperating and affected agencies.
- Evaluate new incidents.
- Establish priorities based upon identified values at risk.
 - *Life Threatening Situation*
 - *Threat to Real Property*
 - *High Damage Potential*
 - *Complexity of Incident*
- Determine resource requirements & availability.
- Allocate critical resources to incidents based on priorities.
- Anticipate future resource needs/availability





2007 Southern California Wildfires

Most recent data for fires burning as of Tuesday night:
As of 7:45 pm.

FIRE	ACRES BURNED	PERCENT CONTAINED	DAY STARTED	HOMES LOST	HOMES THREATENED
17. Witch	196,420	1	Sunday	500	5,000
19. Harris	72,000	10	Monday	200	2,000
1. Ranch	47,240	10	Saturday	3	500
3. Buckweed	37,800	80	Sunday	15	55,000
16. Poomacha	20,000		Tuesday	50	2,000
5. Santiago	18,000	30	Monday	5	3,000
14. Rice	7,500	10	Monday	206	1,500
5. Canyon	4,500	75	Sunday	6	600
10. Slide	4,000		Monday	100	4,000
4. Magic	1,200	40	Monday		900
8. Grass Valley	1,000		Monday	100*	1,500
11. Rosa	411	70	Tuesday		175
13. Ammo	350		Tuesday		
18. McCoy	300	95	Sunday	1	
15. Roca	270	90	Sunday	1	300
9. Cajon	250	90	Monday		
7. Martin	75	75	Tuesday		
2. Meadowridge	20	50	Tuesday		
12. Wilcox	13		Tuesday		100

- Active fire
- with fire perimeter if available
- Contained fire

2007 Southern California Fire Siege

Emergency Management Assistance Compact, IAFC National Mutual Aid System and the National Response Plan

On Monday morning October 22, 2007 CA-OES initiated request for assistance using the Interstate Civil Defense Compact.

On Monday afternoon October 22, 2007 CA-OES initiated request for assistance using the Emergency Management Assistance Compact and IAFC National Mutual Aid System.

On Tuesday afternoon October 23, 2007 CA-OES initiated request for assistance using the National Response Plan through FEMA Region IX and Emergency Support Function #4 (ESF-4) staffed by the USFS and DOI.

2007 Southern California Fire Siege

On October 20, 2007, a series of fires began in Southern California that over the next two weeks would create the largest mobilization of firefighting resources in state history. At the culmination of the siege, 24 fires were burning, and over 518,023 acres burned over 7 counties and 10 lives were lost.

2007 Southern California Fire Siege

Quick Facts: (Peak incident totals 10/27-28/07)

Total Firefighters: 15,616

Acres: 518,023

Structures Threatened: 30,925

Structures Destroyed: 3,107

Structures Damaged: 246

Civilian Fatalities: 10

Firefighter Injuries: 130



2007 Southern California Fire Siege



Equipment: (Peak incident totals 10/27-28/07)	
Engines:	2,585
Strike Teams/Task Force:	263
Dozers:	225
Hand crews:	298
Water Tenders:	284
Airtankers:	54
Helicopters:	86
Overhead personnel:	1,707

2007 Southern California Fire Siege

Local Government ICT	2
Cal Fire ICT's	5
Federal IMT's	5
Area Command Teams	2
NIMO Team	1



2007 Southern California Fire Siege

Miscellaneous Facts:

Between October 20-25th 251 vegetation fire starts were caught on initial attack:

Riverside Co: 51

San Bernardino Co: 30

Orange Co: 49

Los Angeles: 9

San Diego Co: 45

Southern four National Forests: 67

Federal and California Medical Assistance Teams provide clinical medical care for evacuated and sheltered residents

2007 Southern California Fire Siege

Military Support

TOTAL PERSONNEL: 4,518

CA National Guard – 2,838
– *State Active Duty* – 2,482
– *Title 32* – 356

Federal Military – 1,546

DoD Civilian – 84

U.S. Army Corps of Engineers – 50

Ground Firefighting Support
– *Fire Engines* – 18
– *DoD Installations/Forward Operating Staging Areas* – 2

Navy Vessels - 4

Helicopters – 38
– 1,793 buckets of water dropped

Airplanes – 23
– 6 MAFFS equipped
C-130s flew 74 sorties & dropped 205,452 gallons of fire retardant

Incident Assessment Aircraft – 11

– Imagery: U-2, Global Hawk UAV, Civil Air Patrol GA-8
– Full Motion Video - P-3, Texas National Guard RC-26

Other Supporting Capabilities

- *Logistics*
- *Transportation (Air & Ground)*
- *Medial Evacuation (Air & Ground)*
- *Planning*
- *Communications*

Specific Items

- 8,500 – cots & blankets
- 1,100 - tents
- 102, 000 – Meals Ready to Eat



2007 Southern California Fire Siege

31 Assisting States and 2 Counties

Alaska

Arizona

Arkansas

Colorado

Florida

Hawaii

Idaho

Illinois

Indiana

Maine

Massachusetts

Minnesota

Mississippi

Missouri

Nebraska

New Mexico

North Carolina

Montana

Nevada

New Jersey

Ohio

Oklahoma

Oregon

South Carolina

South Dakota

Texas

Utah

Virginia

Washington

West Virginia

Wyoming

Assisting Counties: Mexico, Canada



2007 Southern California Fire Siege

Evacuations and Sheltering

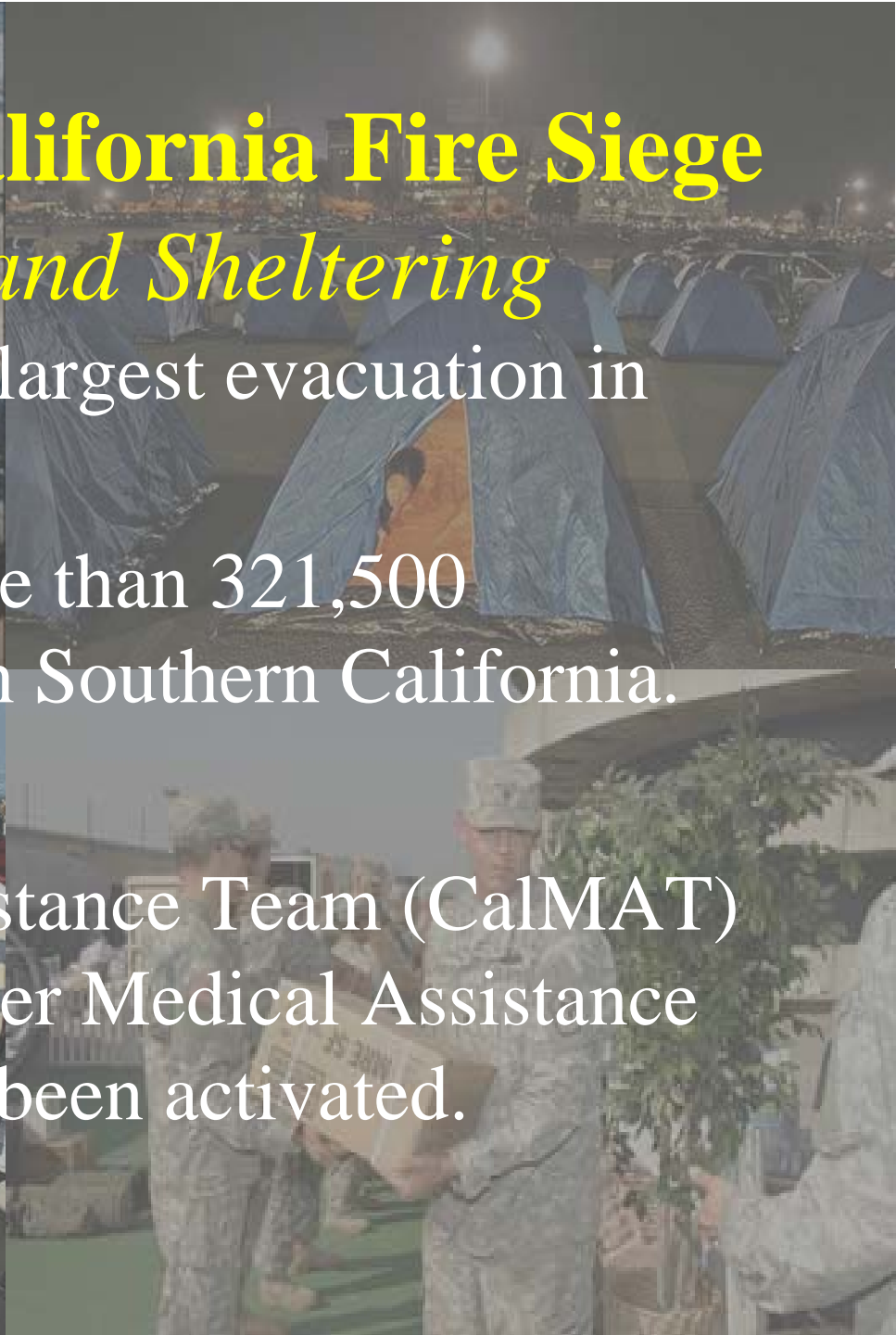
The fires resulted in the largest evacuation in California's history.

There was a high of more than 321,500 mandatory evacuees in Southern California.



Medical Services

California Medical Assistance Team (CalMAT) and two federal Disaster Medical Assistance Teams (DMAT) have been activated.



2007 Southern California Fire Siege

The Future

- After fifty eight years, the California Fire and Rescue Mutual System has continued to remain relevant and effective, a lasting tribute to the vision of its founders.
- Cooperation between local, state and federal agencies is a must...its local fire agencies that make the system work with the management of full time staff at CA-OES, support from Cal Fire and the California Fire Service.
- Continued Support for the California Incident Command Certification System (Certification & Qualification System) and the FIRESCOPE Program.
- Continued Support for the International Association of Fire Chiefs National Fire Service Mutual Aid System, Interstate Compacts and EMAC.

THANK YOU

Firefighters

FOR A JOB

WELL DONE!

APPENDIX 5

THE FIRE NEXT TIME – WILL WE BE READY?

SUMMARY

The San Diego region has suffered two devastating wildfires within the last five years. This necessitated a response far beyond the capabilities of local agencies in terms of fire fighting resources, mass evacuations, care and sheltering. According to the San Diego County After Action Report “Firestorms 2003,” the Cedar Fire of October 25-27, 2003 burned 376,237 acres, destroyed 3,241 structures and claimed the lives of 15 citizens and one firefighter. The 2007 San Diego County Firestorms After Action report states the Witch Creek/Guejito fire of October 21-25, 2007 burned 368,340 acres, destroyed 2,653 structures, claimed the lives of 10 citizens, caused 23 citizen injuries and 89 firefighter injuries. According to researchers, fire season has grown two months longer and destroys 6.5 times more land than in the 1970s. Given the existing high-risk conditions that are projected to continue into the future, destructive firestorms will certainly occur again. Yet, even armed with this knowledge and after the Cedar Fire wake-up call, the San Diego region is woefully unprepared, prompting a local academic to refer to San Diego as “...serial non-learners when it comes to fire preparation.”

Fire fighting and crime are two topics that everyone has a comment or opinion on, whether it’s to solve deficiencies or to criticize the budget. Whatever opinions or comments have been offered, problems continue unresolved and emergency requirements of residents throughout the county are not being served. Budget issues on crime have been addressed and funding identified. Firefighting issues need to be raised to at least the same level of appropriate funding interest. This cannot be treated as a political issue. A budget with sustainable funding needs to be put in place as soon as possible.

A citizen solution to the problem is similar to the “Old West,” when people banded together and formed groups to protect themselves. That’s exactly what has happened with firefighting; volunteer fire protection districts have been formed to respond and protect citizens in emergencies. Because of the existence of volunteer districts, public officials have not yet addressed funding responsibilities for fire protection in unincorporated areas. The Local Agency Formation Commission (LAFCO) stated in their report that many problems need to be resolved before a total fix of the system, that currently exists, can be redefined to better serve the public.

When firefighters raise the issue of additional stations, equipment or personnel, the politicians’ response is: how much is it going to cost and who is going to pay for it? If the needs require funding, it is part of their job to find the means and establish continued funding. Public safety in an emergency is a defined need that deserves funding and support.

Organized firefighting in the unincorporated areas of San Diego County is fractured. Coverage and response time is not uniform for all residents, dispatching is not consolidated, not all Fire Protection Districts are manned around the clock, and Volunteer Districts are not under the Office of Public Safety.

PURPOSE

The purpose of this investigation is:

- To examine and review the efforts, cooperation, and results of actions taken by authorities and personnel in charge of management and response to emergency disasters;
- To assess what lessons were learned;
- To make recommendations for improving the ability of the community to respond to the threat of wildfire;
- To recommend suggestions for improving response efforts in emergencies;
- To commend the exemplary actions of front line responders who serviced the needs of 500,000 people affected by the wildfires.

PROCEDURES

Members of the 2007/2008 San Diego County Grand Jury:

- Interviewed Fire Chiefs representing different regions throughout the County.
- Visited the County's Office of Emergency Services, met with its senior staff and toured the County Emergency Operations Center.
- Interviewed management staff at two mega-shelters; the City's at Qualcomm Stadium, and the County's at the Del Mar Fairgrounds.
- Interviewed a Cedar Fire Survivor.
- Toured the City operated Local Assistance Center in Rancho Bernardo, which also included support provided by County staff.
- Visited two fire and medical emergency dispatch centers.
- Reviewed both the County of San Diego and the City of San Diego After Action Reports for the 2007 wildfires.
- Interviewed senior staff of the County Department of Animal Services.
- Interviewed management staff of Volunteer San Diego.
- Interviewed Fire Prevention Staff in the County Dept. of Planning and Land Use.
- Interviewed members and staff of the Local Agency Formation Commission (LAFCO) on plans to consolidate Fire Districts in the County.
- Reviewed LAFCO May 2007 Micro Report: Reorganization of Structural Fire Protection and Emergency Medical Services in Unincorporated San Diego County.
- Reviewed the transcript of LAFCO's December 3, 2007 Meeting-Agenda, titled End of Year Update Reorganization of Fire Agencies - Phase I.
- Reviewed the County's Operational Area Emergency Plan and selected annexes.
- Reviewed emergency standard operating procedures for 13 of the County's 18 cities.
- Reviewed the Governor's September 2004 Blue Ribbon Fire Commission Report.
- Reviewed the 2008 reports of the City of San Diego's Independent Budget Analyst.

- Reviewed the 2003 San Diego County Fire Siege Fire Safety Review.
- Attended the February 2008 San Diego Regional Fire Safety Forum.
- Compared 2003 Cedar Fire with 2007 Witch Creek/Guejito /Harris Fire After-Action Reports.
- Consulted newspaper articles from the San Diego Union Tribune, Los Angeles Times, Voice of San Diego, North County Times and USA Today.
- Reviewed the statement from the office of the Under Secretary for Natural Resources and Environment, US Department of Agriculture.
- Reviewed Independent Budget Analyst (IBA) Report #:08-15 -- Fire-Rescue Helicopter Acquisition.
- Reviewed IBA Report #:08-12 -- Preliminary Report on Fire-Rescue Needs and Funding Plan.

DISCUSSION #1 – Lessons Learned from the Cedar Fire?

During “A Working Emergency Planning and Preparedness Forum: Including People with Disabilities” attended by Grand Jury members, it was stated: “Planners cannot foresee every outcome and Incident Managers cannot anticipate every scenario. While disasters have a language of their own and no plan guarantees success; inadequate plans are proven contributors to failure.”

Recommendations from the City of San Diego’s 2003 Cedar Fire After-Action Report that were not fully implemented and remained issues during the 2007 Wildfires include:

- 1) Fund, develop and train to National Wildfire Coordinating Group (NWCG) standards eleven different staff functions such as Command positions, dispatchers, field observers, Incident Commanders, etc. Not completed due to funding issues.
- 2) Fund staffing and resources needed for extended duration incidents. Not completed due to funding. Partially mitigated by Federal Emergency Management Agency reimbursement.
- 3) Fund and develop staffing to ensure the timely implementation of an Incident Safety Officer. Not completed due to funding.
- 4) Train all personnel for risk/benefit analyses, fatigue, personal protective equipment and span of control. Not completed due to funding.
- 5) Remove open cab apparatus from service. Partially completed for the 2007 Wildfires.
- 6) Fund additional staffing and training for:
 - The Public Information Officer (PIO) to include support staff and uniformed personnel. Not completed due to funding.

- The roles of a functional Department Operations Center (DOC). In the process of being completed.
- 7) Review and revise recall procedures. Not completed due to staffing.
- 8) Fund, develop and train adequate personnel to function at all Logistics Section Unit Leader levels. Not completed due to funding.
- 9) Develop logistical plans and organization charts for storage at the Department Operations Center (DOC). Not completed due to funding.
- 10) Locate the Logistics Section Chief in the DOC to coordinate incident needs with the Planning, Operations and Finance Section Chief. Not completed due to funding.
- 11) Locate the functional units of the Logistics Section in the vicinity of the Repair Facility. Not completed due to funding.
- 12) Issue credit cards to all Battalion and Deputy chiefs for necessary first responder support. Partially completed due to lack of staff for policy development.
- 13) Address the inventory to equip stripped engines through a thorough review of SDFD's engine fleet. Only partially completed due to funding.
- 14) Review the storeroom inventory to ensure proper levels to emergency equip firefighters at an incident. Not completed due to funding.
- 15) Replace all staff sedans with command Sport Utility Vehicles (SUVs). Only partially completed due to funding.
- 16) Perform a review of SDFD's water application capabilities to determine the need for additional apparatus. Not completed due to funding.
- 17) Fund appropriate staffing levels of the Repair Facility. Not completed due to funding.
- 18) Develop plans for the rapid assignment of unit identifiers to improve resource/personnel tracking at the FCC. Not completed due to staffing.
- 19) Incorporate and utilize a Demobilization Plan for all state or federal reimbursement incidents. Not completed due to funding and staffing.
- 20) Develop and review the capabilities of local military air resources to be incorporated appropriately into local response plans through Firefighting Resources of California Organized for Potential Emergencies (FIREScope). Discussions held State and Federal Government coordination required.

- 21) Develop and implement a plan to establish a fleet of three fire-rescue helicopters under a regional program. Permanent funding sources not secured.

The County of San Diego's 2003 After-Action Report also contained several high priority recommendations that had not been fully implemented by 2007. These were primarily concerned with the equipping of personnel and apparatus and the development of comprehensive plans for wildlife management.

DISCUSSION #2 – Needs v. Wishes

Our investigation revealed that County Supervisors refer to fire fighting/emergency response as a separate service, as if it is not directly related to the public safety services provided by the county sheriff and judicial systems. Public safety is, and must continue to be the responsibility of the county supervisors. They need to publicly clarify that it includes safety, security and know that emergency needs will be met by police or fire/paramedic professionals whenever and wherever they occur in the county. The 500,000 residents evacuated and those who remained in-place, but also were affected by the wildfires in San Diego County, pay taxes to receive full service public safety. Since early in 2004, firefighting professionals have been asked the same questions multiple times. The responses have always been the same. They express their needs for equipment and personnel and to have emergency stations located in the areas they serve in order to provide acceptable response times. The wildfires in 2007 have exposed additional fire safety deficiencies that must be addressed. The after-action reports for 2007 continue to list deficiencies in staffing and funding fire protection districts. Budgetary short falls or restrictions should not override safety.

In reports since 1998, San Diego Local Agency Formation Commission (LAFCO) has been publicly assessing the issue of public safety and firefighting. The December 2007 report, available on-line, suggests different ways to improve and fund fire protection in San Diego County; it offers at least a minimal start to correct old problems. In 2008 this report was open to public opinion and scrutiny by the electorate.

DISCUSSION #3 –Brush Management

There are code enforcement inspections of privately owned property. City and county owned properties, also subject to code enforcement, are rarely inspected for brush clearance.

On March 28, 2008, San Diego Mayor Jerry Sanders announced an aggressive cleanup program for city canyons and open space. These areas are fire hazards that threaten surrounding homes and private property. For years, this program has been insufficiently funded. However, the Mayor intends to use \$3.9 million from the city's general fund, over a 2-year period, to clear 1,180 acres of open space. The \$3.9 million is in addition to a \$2.3 million federal grant earmarked for brush clearance. Six additional code-compliance officers for the city Fire-Rescue Department will be added to the two-officer staff to monitor brush and weed abatement on private property. Thirteen employees will

be added to the city Park and Recreation Department's staff of seven, focusing specifically on brush management. Additionally, contract companies will continue to work with these employees. The brush management problem has been known to city officials for decades as a serious fire hazard. In fact, in 2005 a former Fire Chief advised officials that 590 acres should be cleared annually, in contrast to the 70 that was the practice.

In the past the County of San Diego, through its probation department, operated inmate work camps whose tasks included brush management. Some individuals have expressed concern that closure of inmate work camps had a direct correlation on the severity of wildfires. Our investigation revealed that probation officers who supervised work camp crews have been warning officials of the danger of closing these camps for the last decade.

In an effort to save money, county officials began closures of work camps in the 1980s. The last closure was in 2001. Fire experts advised that brush along with high winds and low humidity was the major factor in the 2003 and 2007 fires.

After last year's wildfires, County Board of Supervisors members discussed using "inmate labor crews," to clear brush, but abandoned the plan because of logistical problems.

DISCUSSION #4 – Funding Fire Protection

Since 2003, fire professionals in San Diego County have been asked what they need to do their job, not just for a simple wish list. Obtaining the resources needed by our firefighters has to be our primary concern. This section deals with some of those needs in both the City and the County of San Diego and suggests possible ways to fund them.

The City of San Diego

Even though the City of San Diego lies within an area prone to wildfires, it is not accredited by the Commission on Fire Accreditation International (CFAI) because the City's Fire Rescue Department does not meet national standards. Twelve of the City's 45 engine districts exceed the standard nine square mile service area. Forty-six percent of the time the department cannot meet the national five-minute response time. Rancho Bernardo, the San Diego community that lost 365 homes in the last fire, has one fire station that was built in 1969. It serves 28 squares miles, the largest response area in the City. It was designed to house one engine and three fire fighters. It now houses three engines and six fire fighters per shift. According to national standards, three fire stations are required for an area of this size.

In assessing the City's ability to meet the fire service needs of the community, the CFAI concluded that there exists:

- Serious reduction of service levels.

- Serious gaps in coverage: inadequate number of fire stations, engines, trucks and staffing.
- Few measurable objectives regarding response to coverage.
- No comprehensive plan to improve coverage.
- No objectives in place to capture qualitative data relative to measuring performance effectiveness.
- Insufficient staff to analyze data such as response times, compliance with goals and objectives, incident reporting and trends.
- The Fire Department is not involved in the City planning process.

Following the November 27, 2007 meeting of the U.S. Senate Interior Appropriations Subcommittee, chaired by a California Senator, a council member requested a study from the Independent Budget Analyst (IBA). This study addresses a “list of alternative measures and relevant costs to implement the Fire-Rescue Department Station Master Plan to eliminate the City’s fire station deficits within the next ten years.”

Preliminary Report #08-12 on Fire-Rescue Needs and Funding Plan from the IBA provides an overview of past studies that have addressed the Fire-Rescue Department needs and considered potential sources of funding. A report released by the City Manager in the spring of 2004 led to the City Council approving two ballot measures: Proposition C in the March 2004 election and Proposition J in the November 2004 election. Both of these measures proposed a 2.5% increase in the Transient Occupancy Tax (TOT) which would have increased the tax on hotel and motel rooms from 10.5% to 13%. The TOT is one of the largest sources of revenue for the City’s General Fund.

Proposition C on the March 2, 2004 ballot said “Shall the City increase the transient occupancy tax (TOT) paid by hotel and motel visitors by 2.5% and shall these funds, along with current TOT funds, be earmarked to fund Fire-Rescue and Police emergency services, equipment and facilities, road improvements, park and coastal improvements; tourist promotion; and library and arts programs; and shall public audits be conducted of the uses of these funds?” Because funds were earmarked for specific purposes, this measure required a 66.7% majority vote, which it failed to receive. If the measure had passed, it is estimated that it would have provided approximately \$26 million in additional revenue with approximately \$8 million for the Fire-Rescue Department.

Proposition J on the November 2, 2004 ballot said “Shall the City Charter and the San Diego Municipal Code be amended to increase the transient occupancy tax (TOT) paid solely by hotel and motel visitors from 10.5% to 13% to be used for general governmental purposes?” While Proposition J required only a simple majority, it also failed to pass.

On December 4, 2007, just weeks after the wildfires, the hotel industry persuaded the City Council to establish a “Tourism Marketing District.” This action permitted a two percent increase in the room tax at larger hotels. This will allow certain hotel owners to increase the room tax without taxpayer approval and use the revenue generated, approximately \$20 – 30 million annually, to promote tourism. Some of these dollars may

have been a potential source for serving public safety needs. This measure was adopted by the City Council.

A California legislator is seeking an amendment to the State Constitution, which would allow local jurisdictions to raise taxes for firefighting with 55% of the vote instead of 66.7%.

The County of San Diego

At a recent congressional hearing, a local fire chief criticized County officials for historically and currently failing to provide the resources necessary to protect residents and visitors during significant firestorms. It was noted that the County has made some progress since the Cedar fires in implementing a reverse 911 calling system and adopting stricter building codes. However, San Diego County, as stated at the hearing, spends only \$8.5 million annually on fire protection as opposed to Orange County which spends \$260 million and Los Angeles County that spends \$860 million. According to 2007 State of California estimates, San Diego County has over 3 million people and covers 4,200 square miles. For comparison purposes, Orange County has an estimated 3 million people and covers 790 square miles, while Los Angeles County has approximately 10 million people and covers 4,060 square miles. However, historically San Diego County has had a lower tax base than the other two counties.

In spite of Santa Ana conditions, insufficient rainfall, longer fire seasons and urban sprawl, the County remains without a unified fire protection agency and no central command. Assessments following the Cedar Fire and the Witch Creek/Guejito fire have consistently called for a better-organized and more responsive system in the unincorporated area where wildfire tends to originate. Many believe that a unified county fire protection agency would result in a more stable system and more efficient and effective use of resources. It would also enable the County to respond with mutual aid when other jurisdictions are overwhelmed.

Potential funding sources under discussion for consolidation of the 65 fire departments under a County department and the additional fire fighting resources needed might be partially provided by the County reserve fund or perhaps interest from the fund, a reallocation of Proposition 172 funds, or a ballot measure proposing a ½ cent sales tax increase. Additionally, LAFCO suggested using county Supervisor's discretionary funds for this purpose.

San Diego County has a reserve fund of approximately \$725 million. The Board of Supervisors is unlikely to tap into this fund because they consider it essential to maintaining the County's strong financial position. However, the interest on this fund may be a possible source of funding.

Proposition 172, the Local Public Safety Protection and Improvement Act was passed by 58% of California voters in 1993. It replaced local property tax revenues with a ½ cent sales tax to be expended on public safety services, which included sheriffs, police, fire, county district attorneys, corrections and lifeguards. Although police and fire fighting

services were used extensively in the marketing campaign for the tax initiative, Board of Supervisors Policy #A-126 Proposition 172 and New Program Revenues in the Sheriff's Department, Office of the District Attorney and the Probation Department fails to mention fire services. The program allocation for Proposition 172 funds established by the Board on December 14, 1993, allocated 72.4 % of the revenue to the Sheriff, 20.4% to the District Attorney, and 7.2% to the Probation Department.

The purpose of Proposition 172 was to create a permanent source of funds for public safety purposes. In the aftermath of two massive wildfires, it would be difficult to argue that fire safety should not be included in the distribution of these funds. If Proposition 172 funds were reallocated to shift 20% of the funds from the Sheriff to fire services, this could potentially provide more than \$40 million to a serious public safety threat. The Board of Supervisors has the authority to allocate these funds at its discretion. This policy was to be reviewed for continuance by December 31, 2001, but this has not occurred.

Funding for consolidation of the 65 fire departments and the additional fire fighting resources needed might be provided by County reserve fund or perhaps interest from the fund, a reallocation of Proposition 172 funds, and/or a ½ cent sales tax increase. Prop 172 generates approximately \$230 million annually. At least \$110 million is needed to maintain a fully consolidated county fire department, based on previous statements by a member of the formation commission studying consolidation.

At the State level, the Governor has proposed a Wildland Firefighting Initiative which would be financed through an annual 1.25 % surcharge on all property owners statewide, a cost of approximately \$10 - \$12 per property owner each year. This would raise nearly \$100 million for CAL FIRE, the Office of Emergency Services and the California National Guard to strengthen the state's wildland firefighting capability.

FACTS/FINDINGS

Fact: The City of San Diego Fire-Rescue Department is not accredited because it is unable to meet national standards in delivering day-to-day emergency response and fire protection services citywide.

Finding #01: The City of San Diego needs to address the gaps in emergency and fire protection services.

Fact: Proposition 172 was passed in 1993 to offset partially the loss of local property tax revenue shifted to the State to augment educational funding. The revenue generated by the additional ½ cent sales tax was intended to fund local public safety agencies.

Fact Firefighting agencies are considered public safety agencies.

Fact: At the time Prop 172 was passed the County of San Diego had no fire agency to which sales tax revenue could be allocated.

Finding #02: The 2003 and 2007 wildfires have demonstrated a need for the creation of a consolidated County fire agency.

Finding #03: The use of Proposition 172 money to fund a County fire agency is appropriate.

Finding #04: Due to the size and composition of a county that includes 18 cities, solutions need to be proposed and implemented as soon as possible.

RECOMMENDATIONS

The 2007/2008 San Diego County Grand Jury recommends that the Mayor and City Council of the City of San Diego:

08-105: Prepare a ballot measure to propose an increase in the Transient Occupancy Tax to be used solely for the purpose of improving fire protection levels including additional stations, engines, firefighters, training, equipment, etc. as outlined in the After Action Reports. We believe a 2.5% should be considered.

08-106: Reallocate existing funds and develop new revenue streams.

The 2007/2008 San Diego County Grand Jury recommends that the County Board of Supervisors:

08-107: Review the County Board of Supervisors Policy A-176 on the allocation of Proposition 172 funds with the objective of earmarking a portion of these funds for firefighting purposes.

DISCUSSION #5 – Consolidation of County Fire Agencies

Within the last five years, San Diego County has experienced two of the most devastating wildfires in California history. Significant firefighting assistance cannot be expected from areas to the East, South or West. During the fire season, immediate assistance from the North is often unavailable since resources are being used to fight wildfires there. Assistance from State and Federal agencies is often not available in the first 48 hours after the outbreak of a major wildfire. San Diego is the largest County in the State of California without a consolidated County firefighting agency.

Firefighting in San Diego County is a patchwork quilt of City fire departments, local fire protection special districts, volunteer fire departments and County Service Areas. The majority of wildfires originate in rural areas of the county where Fire agencies are chronically under-funded. These agencies have to depend on available grants for acquiring equipment and on local fund-raisers to finance ongoing expenses. Response

time to fires and medical emergencies in many of the rural communities is significantly slower than the national standard of five to seven minutes from the receipt of a call for assistance. This potentially jeopardizes the ability of the responding agency to prevent loss of life and property. Not all of the volunteer departments have the personnel to staff fire stations around the clock seven days a week, thus further increasing response times in the areas they cover.

While the previous discussion is primarily concerned with funding options for a region-wide County fire agency, this section deals with efforts currently under way to consolidate 13 rural fire districts under a centralized command and control. In the words of one fire professional interviewed by the Grand Jury, “Incremental improvement is preferable to the paralysis of perfection.”

In November 2004, a year after the 2003 wildfires, residents of the unincorporated areas were asked through a ballot measure (Proposition C) whether they would support consolidation of the 35 fire protection agencies that serve those areas. This advisory measure passed soundly with 81% of the vote. In the words of one official, the residents “recognized that this region can no longer afford to have a fractured and inequitable fire protection system.” Shortly thereafter the County Board of Supervisors requested that the Local Agency Formation Commission (LAFCO) initiate the process to consolidate the fire protection agencies in the unincorporated area of the County. Per section 56001 of the California Government Code, LAFCO is the governmental body responsible for reviewing jurisdictional lines and services and which has the power to initiate and implement a reorganization of public services. Approval of the County Board of Supervisors is required.

In the aftermath of the Cedar Fires, federal grants of approximately \$40 million were received by the County, to which they added \$5 million, to remove over a half-million dead, dying and diseased trees on back country land. A Fire Prevention Unit in the County Department of Planning and Land Use (DPLU) was the coordinating agency for this important fire safety and fuels reduction program. On July 1, 2007, the Fire Prevention Unit of The Department of Public Works and Land Use (DPLU) took over the management of seven County Service Areas having fire responsibilities. Six of these County Service Areas have volunteer fire departments. The Fire Prevention Unit in DPLU, with a staff of eight, is the closest thing we have to a County fire agency. It administers the \$8.5 million Fire Enhancement Program, under which contracted fire protection agencies can be reimbursed for certain expenses, such as utility payments and workers’ compensation insurance. It also has entered into agreements with the California Dept. of Forestry and Fire Protection (CAL FIRE) to staff ten of its stations. These stations are to be staffed on a year-round basis, not just during fire season. Such agreements are called “Amador Agreements.” Funding for these agreements is included in the \$8.5 million Fire Enhancement Program.

County Service Areas (CSAs) are geographic districts established in unincorporated areas, with the approval of LAFCO. The County provides an extended service funded by a tax levy paid by residents of the area, usually in the form of a special assessment added

to real property taxes. Examples of services provided are extended police protection, structural fire protection, water and sewer services, etc. County Service Areas are formed under the provisions of Government Code Sections 25210.1 through 25210.9c. The County Board of Supervisors has ultimate legal and fiscal control of each CSA. Structural fire protection is defined in the code to include fire prevention, hazard abatement and enforcement of fire codes.

In addition to the seven CSAs for fire protection, there is CSA 135 established to govern the San Diego County-Imperial County Regional Communications System. LAFCO is capable of expanding the services covered under CSA 135 to include fire protection by a consolidated County fire agency. This is one of three governance models that have been proposed for such an agency.

After several years of work, on December 3, 2007, LAFCO approved what it calls Phase I of the reorganization plan for county fire departments. The County Board of Supervisors received the Phase I proposal on January 29, 2008, and directed the Chief Administrative Officer to evaluate it and return in 120 days with recommendations. The Grand Jury recommends adoption of Phase I, or any like plan, which incorporates the following:

- Utilization of existing volunteer fire departments with no reduction in funding.
- Uniting of the 13 Phase I fire agencies under one command structure.
- Ability to man no fewer than 28 rural fire stations around the clock with a combination of volunteers and professional fire fighting and paramedic staff.
- Reciprocal working agreements between CAL FIRE and the County fire agency.
- Centralized command and control for acquiring and deploying resources.
- Central authority for brush management and inspection activities.
- Governance model based on the County Service Area concept with a possible expansion of the scope of County Service Area 135.
- Creation of one new property Tax Rate Area for parcels within the area covered by the 13 participating fire districts.
- Coordination of evacuation notifications.
- Coordination and control of dispatch activities.
- Coordination of training for all participating departments.
- Incorporation of the existing funding, staff and functions of the Fire Prevention Unit in DPLU, including the Fire Enhancement Program.
- Establishment of the Office of the San Diego County Fire Commander as an independent office, not as a component of the Department of Planning and Land Use.
- Creation of the position of San Diego County Fire Commander, either on the level of a Deputy Chief Administrative Officer or reporting directly to the Deputy Chief Administrative Officer for Public Safety.

FACTS/FINDINGS

Fact: The National Fire Protection Association (NFPA) suggests appropriate response time to emergencies be within 5 to 7 minutes. To meet that standard, Fire Stations/Emergency Response Centers need to serve areas within a radius of five miles of the station.

Finding #05: The County of San Diego does not comply with NFPA standards for emergency response time or emergency response locations.

Fact: Fire Fighters are expected to respond to medical and life safety emergencies in addition to fire emergencies.

Finding #06: Emergency medical or life safety calls outnumber fire calls by three to one or at least 75% of calls for emergency assistance to Fire Fighters.

Finding #07: Higher than average response times reduce the ability of responding agencies to prevent loss of life and property.

Fact: Six volunteer fire departments are in County Service Areas under the San Diego County Department of Planning and Land Use.

Fact: The Fire Prevention Unit in the Department of Planning and Land Use has experience in managing fuels reduction programs and in administering the Fire Enhancement Program.

Finding #08: The staff of the Fire Prevention Unit in the Department of Planning and Land Use have sufficient expertise to serve as staff for a newly created fire agency.

RECOMMENDATIONS

The 2007/2008 San Diego County Grand Jury recommends that the San Diego County Board of Supervisors:

08-108: Approve and fund the consolidation of fire agencies according to the Phase I plan of the Local Agency Formation Commission or a substantially similar plan.

08-109: Create the position of San Diego County Fire Commander, either as a Deputy Chief Administrative Officer or to report directly to the Deputy Chief Administrative Officer for Public Safety.

DISCUSSION # 6 – Sheltering

The October 2007 Wildfires not only ravaged San Diego County, it set records for the number of residents evacuated. The American Red Cross was overwhelmed by the massive need for assistance. If not for local governmental agencies and community volunteers setting up additional shelters, the fires could have been worse for the residents who had to evacuate their homes.

The care and shelter component of the County’s Operational Area Emergency Plan is contained in Annex G to that plan, entitled “Care and Shelter Operations.” This annex sets forth the operational procedures for the provision of food, clothing and shelter, on a mass care basis, to victims of natural disasters or other emergencies who are unable to provide for themselves. Disaster planning professionals estimate that approximately 10% of victims require mass care. The vast majority are either able to find shelter with friends or relatives or have sufficient resources to finance their own temporary housing. In the 2007 wildfires, approximately 500,000 people were under mandatory evacuation orders. This translates into an estimated 50,000 people requiring emergency mass shelter in this incident.

Annex G designates the San Diego/Imperial Counties Chapter of the American Red Cross as the manager of disaster response for mass care and sheltering. The authority for this designation is the Federal Disaster Relief Act of 1974, reinforced locally by a memorandum of understanding dated April 10, 1979, between the local Red Cross chapter and San Diego County Board of Supervisors. The director of the County Health and Human Services Agency (HHS) is designated as County Care and Shelter Coordinator, while each of the 18 cities is expected to have a City Care and Shelter Coordinator. Annex G does not define the terms “manager” and “coordinator” but makes it clear that the Red Cross is the lead agency. HHS is charged in the plan with providing care and shelter if the catastrophic nature of the event prevents the Red Cross from meeting the immediate needs of all disaster victims. Also, HHS is charged with providing trained personnel at shelters upon request of the Red Cross. County officials are satisfied with the recent performance of the local Red Cross, but acknowledge there have been problems of coordination and service delivery in the past.

During the 2007 fires, 46 shelters opened in the County, and at least 21 were opened by entities other than the Red Cross. These include two mega-shelters, shelters for evacuees with special needs, and animal shelters. The ability of evacuees to bring their animals to shelters was vastly improved over 2003. County of San Diego personnel staffed the mega-shelter at the Del Mar Fairgrounds, while the City of San Diego managed and staffed the mega-shelter at Qualcomm Stadium. Neither the County nor the City has specific procedures for the operation of mega-shelters. Many smaller shelters were opened by faith-based organizations.

The local Red Cross was able to shelter about 6,500 persons during the 2003 wildfires and improved its capacity to over 16,000 in 2007. However, it did not have the ability –

either in staffing or resources- to meet the immediate needs of over 50,000 evacuees requiring shelter in the first 48 hours.

The National Red Cross management team did not arrive in San Diego County with additional supplies and staff until the third day of the fire. By the fourth day, the national Red Cross volunteers were able to supplement staff at almost all of the 46 shelters, many of which were starting to wind down operations as evacuation orders began to be lifted. Also, the local Red Cross was able to train about 2,400 volunteers, most of whom were referred through Volunteer San Diego, in a short time. Only 800 of these volunteers were actually used.

Volunteer management was cited as an area of concern by both City and County staff who had experience in 2007 shelter operations. Volunteer San Diego has expertise in registering and assigning volunteer staff, as well as the capacity to expand its own operations during a disaster. Hence, the Grand Jury is recommending that San Diego County complete a memorandum of understanding with Volunteer San Diego and incorporate that agency as part of the Area Emergency Operations Center and include Volunteer San Diego staff in the training exercises conducted by the Office of Emergency Services.

After action reports cited the inability of staff at most of the shelters to communicate with evacuees who speak a language other than English or who are hearing impaired. It is imperative that agencies charged with operating shelters identify those trained shelter staff who can communicate in more than one language or in American Sign Language. The rosters of trained shelter workers should list their ability in other languages and be sorted by the home zip code of those workers to facilitate their rapid assignment to the shelter nearest their homes.

FACTS/FINDINGS

Fact: All eighteen cities in the County of San Diego were asked by the Grand Jury for copies of their Standard Operating Procedure Manual for Emergencies (SOP).

Finding #09: Sixteen cities responded to the Grand Jury's request for copies of their Standard Operating Procedures Manual for Emergencies (SOP). Two cities in the county, La Mesa and Imperial Beach did not.

Fact: The Cedar Fires presented unforeseen difficulties for emergency personnel. As a result, many of the existing disaster procedures were changed to accommodate weather, terrain and evacuation of inhabitants.

Fact: Many of the "Emergency Disaster Procedure Plans" were developed after the Cedar Fires and finalized in September 2006 by the county and most of the cities in the county. However, a few are still incomplete.

Fact: The Red Cross has limited ability to meet the sheltering needs of all evacuees within the first 48 hours of a major disaster.

Fact: The County of San Diego is responsible for meeting the sheltering needs not provided by the Red Cross.

Finding #10: The County of San Diego needs an understanding of the sheltering capacity of the local Red Cross during the first 48 hours of a major disaster.

Finding #11: Neither the County of San Diego nor any of the cities, including the City of San Diego, had a standard operating procedure for the operation of a mega-shelter.

RECOMMENDATIONS

The 2007/2008 San Diego County Grand Jury recommends that the San Diego County Office of Emergency Services:

08-110: Include the Executive Director of Volunteer San Diego, or designee, as a participant in Office of Emergency Services training exercises and as a representative at the Operational Area Emergency Operations Center in actual incidents.

08-111: Revise the County's Memorandum of Understanding with the San Diego/Imperial Counties Chapter of the American Red Cross to include a quantification of its ability to staff and equip emergency shelters, especially in the first 48 hours of a major disaster.

08-112: Maintain at the Office of Emergency Services a complete roster, broken down by zip code, of County staff that has been trained in shelter operations. Roster should also indicate languages spoken other than English.

08-113: Request that the Red Cross roster of trained shelter staff be coded to identify language skills.

08-114: Revise Annex G of the Operational Area Emergency Plan to include a plan for the establishment and operation of a mega-shelter.

The 2007/2008 San Diego County Grand Jury recommends that the Office of Homeland Security of the City of San Diego:

08-115: Adopt an Emergency Care and Sheltering Plan for the City of San Diego which includes a plan for the establishment and operation of a mega-shelter, with particular application to the Qualcomm Stadium facility.

COMMENDATIONS

The 2007/2008 San Diego County Grand Jury wishes to commend:

All of the firefighters, professional and volunteer, who put their lives on the line in the assault against the 2007 wildfires. This includes both our local firefighters and those from outside jurisdictions who answered the call for aid.

All of the thousands of volunteers who staffed emergency shelters, telephone information lines and other disaster aid operations; also the citizens of San Diego who donated time, money, goods, services, etc.

The management and staff of the City Office of Homeland Security for its establishment and management of the mega-shelter at Qualcomm Stadium on short notice and with no standard operating procedures in place.

The management and staff of the County Office of Emergency Services for its establishment of the mega-shelter at the Del Mar Fairgrounds on short notice and with no specific operating procedures for a mega-shelter in place.

The Office of Administration of the City of San Diego Mayor for its prompt activation and efficient management of the Rancho Bernardo Local Assistance Center. This commendation also applies to the City and County staff that worked long hours at all four Local Assistance Centers and other assigned facilities. Also the County Health and Human Services Agency for its management of those centers operated by the County.

The Food Services Division of the San Diego County Sheriff's Department for expanding and re-deploying its feeding capacity to include field meals of emergency responders, the National Guard and fire victims at evacuation facilities. In addition to their regular workload, these include almost 15,000 meals supplied to the Red Cross for the feeding of evacuees.

The Court Services Division of the San Diego County Sheriff's Department for its ability to re-assign deputies promptly to security and traffic control functions in the evacuated areas.

COMPLETE RECOMMENDATIONS

The 2007/2008 San Diego County Grand Jury recommends that the Mayor and City Council of the City of San Diego:

08-105: Prepare a ballot measure for the proposing a 2.5% increase in the Transient Occupancy Tax to be used solely for the purpose of improving fire protection levels including additional stations, engines, firefighters, training, equipment, etc. as outlined in the After Action Reports.

08-106: Reallocate existing funds and develop new revenue streams.

The 2007/2008 San Diego County Grand Jury recommends that the San Diego County Board of Supervisors:

08-107: Review the County Board of Supervisors Policy A-176 on the allocation of Proposition 172 funds with the objective of earmarking a portion of these funds for firefighting purposes.

08-108: Approve and fund the consolidation of fire agencies according to the Phase I plan of the Local Agency Formation Commission or a substantially similar plan.

08-109: Create the position of San Diego County Fire Commander, either as a Deputy Chief Administrative Officer or to report directly to the Deputy Chief Administrative Officer for Public Safety.

The 2007/2008 San Diego County Grand Jury recommends that the San Diego County Office of Emergency Services:

08-110: Include the Executive Director of Volunteer San Diego, or designee, as a participant in Office of Emergency Services training exercises and as a representative at the Operational Area Emergency Operations Center in actual incidents.

08-111: Revise the County's Memorandum of Understanding with the San Diego/Imperial Counties Chapter of the American Red Cross to include a quantification of its ability to staff and equip emergency shelters, especially in the first 48 hours of a major disaster.

08-112: Maintain at the Office of Emergency Services a complete roster, broken down by zip code, of County staff that has been trained in shelter operations. Roster should also indicate languages spoken other than English.

08-113: Request that the Red Cross roster of trained shelter staff be coded to identify language skills.

08-114: Revise Annex G of the Operational Area Emergency Plan to include a plan for the establishment and operation of a mega-shelter.

The 2007/2008 San Diego County Grand Jury recommends that the Office of Homeland Security of the City of San Diego:

08-115: Adopt an Emergency Care and Sheltering Plan for the City of San Diego which includes a plan for the establishment and operation of a mega-shelter, with particular application to the Qualcomm Stadium facility.

REQUIREMENTS AND INSTRUCTIONS

The California Penal Code §933(c) requires any public agency which the Grand Jury has reviewed, and about which it has issued a final report, to comment to the Presiding Judge of the Superior Court on the findings and recommendations pertaining to matters under the control of the agency. Such comment shall be made *no later than 90 days* after the Grand Jury publishes its report (filed with the Clerk of the Court); except that in the case of a report containing findings and recommendations pertaining to a department or agency headed by an elected County official (e.g. District Attorney, Sheriff, etc.), such comment shall be made *within 60 days* to the Presiding Judge with an information copy sent to the Board of Supervisors.

Furthermore, California Penal Code §933.05(a), (b), (c), details, as follows, the manner in which such comment(s) are to be made:

- (a) As to each grand jury finding, the responding person or entity shall indicate one of the following:
 - (1) The respondent agrees with the finding
 - (2) The respondent disagrees wholly or partially with the finding, in which case the response shall specify the portion of the finding that is disputed and shall include an explanation of the reasons therefore.
- (b) As to each grand jury recommendation, the responding person or entity shall report one of the following actions:
 - (1) The recommendation has been implemented, with a summary regarding the implemented action.
 - (2) The recommendation has not yet been implemented, but will be implemented in the future, with a time frame for implementation.
 - (3) The recommendation requires further analysis, with an explanation and the scope and parameters of an analysis or study, and a time frame for the matter to be prepared for discussion by the officer or head of the agency or department being investigated or reviewed, including the governing body of the public agency when applicable. This time frame shall not exceed six months from the date of publication of the grand jury report.
 - (4) The recommendation will not be implemented because it is not warranted or is not reasonable, with an explanation therefore.
- (c) If a finding or recommendation of the grand jury addresses budgetary or personnel matters of a county agency or department headed by an elected officer, both the agency or department head and the Board of Supervisors shall respond if requested by the grand jury, but the response of the Board of Supervisors shall address only those budgetary or personnel matters over which it has some decision making authority. The response of the

elected agency or department head shall address all aspects of the findings or recommendations affecting his or her agency or department.

Comments to the Presiding Judge of the Superior Court in compliance with the Penal Code §933.05 are required from the:

<u>Responding Agency</u>	<u>Recommendations</u>	<u>Date</u>
Mayor, City of San Diego	08-105, 08-106	8/31/08
City Council, City of San Diego	08-105, 08-106	8/31/08
San Diego County Board of Supervisors	08-107, 08-108, 08-109	8/31/08
San Diego County Office of Emergency Services	08-110, 08-111, 08-112, 08-113, 08-114	8/31/08
Office of Homeland Security, City of San Diego	08-115	8/31/08