

## **Message from the Chief**

**Chief's Memo – June 22, 2007**

### ***2007 Fire Season Strategy / The True Costs of Wildfire***

I want to begin by thanking San Bernardino Unit Chief, Tom O'Keefe, for his contribution to this week's message.



Over the past several years the cost of fire protection and utilization of the e-fund has risen dramatically. E-fund expenditures over the last fiscal year are approaching \$200 million, more than 200% of budgeted funds. These rising costs of fire protection are occurring at the federal level, as well. As discussed below, the cost of fire protection will continue to rise until local, state, and federal government get a better handle on land use, planning, and development.

Contrary to discussions taking place at the federal level, giving up on fighting structure fires, solely based on financial reasons, or passing the responsibility on to other jurisdictions will not resolve these issues anytime soon in California. Sound public policy will not allow this to occur. However, taking a “defensive strategy” on those structures which are not defensible or survivable by firefighters due to fire conditions, lack of defensible space or inadequate resources will NOT continue to be an acceptable firefighting strategy for CAL FIRE.

Life safety, property safety, and the environment remain our highest priorities. Our goal continues to be to keep 95% of fires at 10 acres or less. This is a goal we have continually met. However, last year the e-fund cost of all fires over 10 acres (less than 5% of our total) greatly exceeded the e-fund cost of all fires kept to 10 acres or less (over 95% of our total).



This year's fire conditions are as extreme as ever, including 2003, the year of California's worst fires. In some parts of Southern California the conditions are the worst ever recorded due to drought, winter freeze, and infestation.

We cannot continue to do things in the same way and expect a different outcome. To reduce e-fund expenditures, we must keep fires smaller more frequently. This will also save lives, reduce property loss, and reduce green house gas emissions in California.

The best strategy to accomplish this is to:

- 1) Conduct effective fire prevention and defensible space inspections
- 2) Keep the public educated, informed, and involved in their own safety
- 3) Keep the topic in the media frequently, instill public awareness, not fear
- 4) Hit fires fast, hit them hard, hit them with lots of initial attack resources
- 5) Have supertanker aircraft immediately available to back up initial attack aircraft to keep fires small and contained for ground resources to suppress



Rather than spend e-fund dollars, after the fact, to control large fires we will invest budgeted e-funds early, in a manner authorized by the Governor's Executive Order as follows:

- 1) Develop frequent press releases regarding successes and lessons learned for public consumption
- 2) Aggressively conduct inspections and require defensible space around structures in extreme fire hazard areas in the early part of the fire season
- 3) Staff state fire engines at 4.0 staffing where fire hazards are extreme
- 4) Contract for immediate availability of the DC-10 for the peak part of the fire season (120 days, beginning June 15<sup>th</sup>)

While this has not been done in the past, our management team believes, and I concur,



that these measures, effectively applied in combination, will meet our objectives of:

- 1) Saving lives
- 2) Reducing Property loss
- 3) Improving firefighter safety
- 4) Reducing Green House Gas Emissions
- 5) Reducing actual overall E-fund expenditure from previous years

Management staff has begun the implementation of this new strategy. We will measure the effectiveness of these strategies on a monthly basis to see if the additional aviation, prevention and suppression resources are having the expected impact on the magnitude and size of fires, firefighter safety, loss of life, protection of property, environmental quality, and e-fund impact.

### ***The True Costs of Wildfire***

What are the true costs of a wildfire? When we calculate a fire's cost, our focus is limited to what occurs within the fire's perimeter and ends when our finance

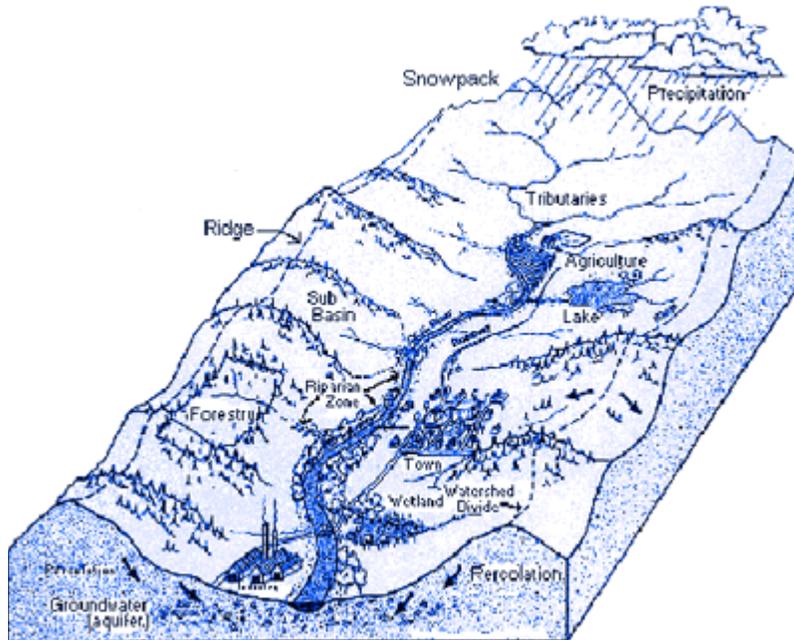
section closes the books shortly after full control. With this traditional approach we capture such things as gallons of retardant dropped, personnel costs, assistance by hire costs, meals served, rental equipment time, rehab work and the number and value of structures



damaged or destroyed. No cost is, or can be, attached to the pain and suffering of family and friends when lives are lost in a wildfire, be they firefighters or civilian. However, in this memo I will concentrate on the environmental and financial impacts of a wildfire.

In our post-fire financial analysis we often fail to consider all of the true costs of a wildfire. Some of the financial impacts are not easily determined. The costs that we don't consider include; economic loss due to business disruptions, loss of tax revenue to local and state government, insurance payouts and premium increases, utility rate increases, restoration costs, as well as the environmental impact on air quality and contribution to Global Warming. More immediately, and

possibly most importantly, the impact on the watershed and its downstream influence greatly affect the environment and the economy of California.



The Old and Grand Prix fires of 2003 cost \$61 million dollars to fight. However, the true cost of these fires is closer to \$1.3 billion. The fire suppression costs account for only 5% of the total. The remainder is divided between insured property loss of \$576 million (45%), damage to Southern California Edison of \$100 million (8%), other government losses of \$28.7 million (2%), and watershed restoration in the amount of \$506 million (40%).

The majority of the costs associated with these two fires were paid for by tax payers, from higher insurance premiums, and from utility customers far removed from the fire's perimeter.

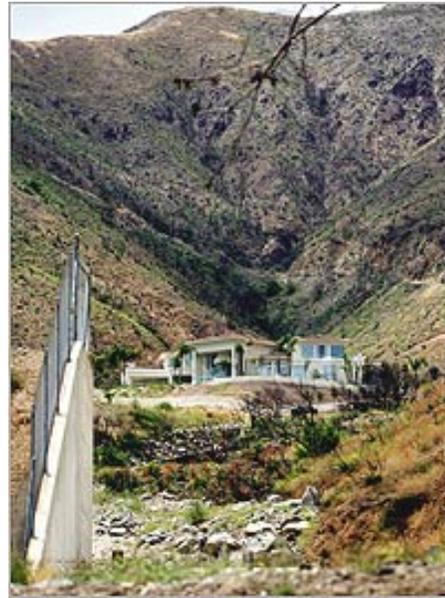


These fires burned in San Bernardino County and a small portion of Los Angeles County. Damage to watershed occurred in San Bernardino, Los Angeles, Riverside and Orange Counties. Residents in those watersheds bore 40% of the costs of the fire, yet, for the most part, had no say in the land use practices that contributed to the fire's intensity and size.

Our first priority in any fire is protecting lives. Four people died as a result of the Old Fire. They suffered heart attacks during the course of the evacuation. Six weeks after the fires were controlled a rainstorm occurred, resulting in mud and debris flows that claimed fourteen lives.

The life loss and fiscal impacts from these two fires clearly show that we must broaden our perspective of a fire's true costs and risks, and develop strategies to prevent or minimize the impacts of wildfire and its after-effects.

We all have seen the fire/flood sequence in California and recognize that we will be sandbagging around homes that were saved from fire months earlier. What we are not adequately addressing are the consequences to the state when we permit damage of this magnitude to occur in our watersheds.



Encroachments into California's watersheds have reduced both the effective size and quality of the land functioning as watershed. Water is a prime economic engine for our state. It is required for agricultural, industrial, and urban development. In the past, there was little encroachment into watershed lands, partly out of recognition of their role in a primarily agricultural economy. Also, their remoteness from existing developed communities protected their existence. Times have changed and our watersheds have been impacted by the following trends:



**Trend #1:** As housing costs in many areas have skyrocketed into unaffordable ranges people look further out to find affordable housing. They are moving to communities being built on the closest available open land, which happens to also be, in large part, the State's watersheds. Significant development in these areas can result in large cumulative acreages being covered up by man-made structures and paved surfaces.

This in turn increases the amount of surface water runoff during storms, which

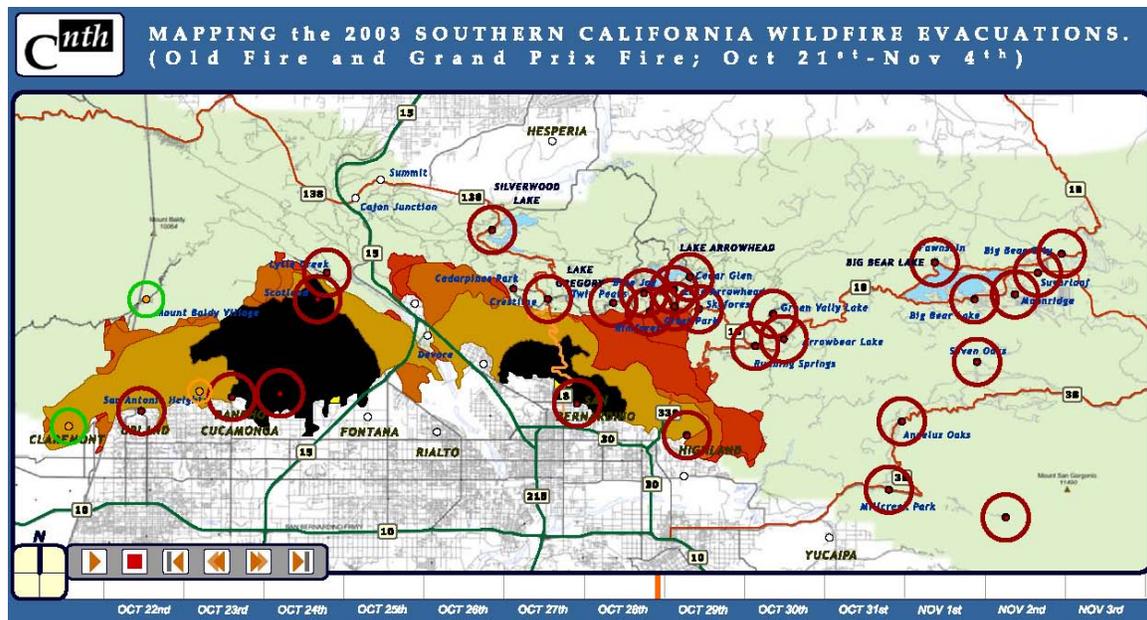
leads to more soil erosion, water impoundment degradation and less water available for trees, vegetation, irrigation, and recreation during the critical summer months.

**Trend #2:** Multi-generational, large extended families are purchasing and living in what traditionally were viewed as single family homes. As housing prices increase, this concept of extended family home ownership is becoming more widespread throughout California. This demographic change puts more demand for all services and increases the draw on existing water supplies at the same time that watersheds are being reduced by development.

**Trend #3:** Baby-boomers are retiring in large numbers. Many are choosing retirement outside of the urban areas. They are taking equity derived from their urban lifestyle and building large homes in the Wildland Urban Interface (WUI).

**Trend #4:** By far, the largest percentages of wildfires are human-caused. Increased human presence in the Wildland Urban Interface equates to an increase in fire starts, whether intentional or accidental.

**Trend #5:** As more people move into and live in the WUI, more people are at risk during a wildfire, and more people are in need of evacuation. Fire ground commanders must use initial resources on evacuation, rather than controlling the fire perimeter. Fires grow while we evacuate more and more people.



**Trend #6:** Regulatory uncertainty, an increasingly cumbersome and overlapping regulatory environment, economic competition, and return on investment are driving landowners toward timberland conversions to housing developments in the WUI and private forests.

**Trend #7:** The growing concern for the environment will not end with a change in land use. The responsibility and cost of environmental review will most likely shift to the local land use planning agencies and be reflected in increase costs to permit applicants. Litigation will follow the growing competing interest for use of more traditional rural acreages with new, more restrictive environmental laws and regulations as a result.

**Trend #8:** Recent studies show a causal link between Global Warming and the increase in fire frequency. All fires spontaneously release stored carbon. This released carbon contributes to greenhouse gasses and Global Warming.

**Trend #9:** Increased fire frequency and intensity accelerates fuel type conversion in watersheds. This conversion generally results in light flashy fuels and shortened fire return interval. Light flashy fuels such as grasses and small brush species have much less value in sequestering and storing carbon than the tree dominated landscapes.

**Trend #10:** Homes are regularly built or re-built in harm's way despite historic evidence of the dangers. In San Bernardino, 280 homes were destroyed in the Panorama Fire in 1980. 230 of those same homes were again lost in the Old Fire of 2003.

### PANORAMA FIRE vs. OLD FIRE



Source: California Department of Forestry

These trends create a self-sustaining “Wildfire Frequency and Intensity Loop”. We cannot alter this “Wildfire Loop” through traditional means. Due to public and political expectations, the fire service typically addresses an increased fire threat with an increased fire suppression capability. While beneficial as a short-term strategy to save lives and property, it will do nothing to break the “Wildfire Loop” or affect the long-term environmental impacts.

The real solution will require us to go back to one of our primary responsibilities of watershed protection. We must recognize that development is going to continue in California. There is far too much demand. Housing starts have not kept pace with projected needs for several decades. While responsibility for the political solutions surrounding these complex issues lie elsewhere, it remains our responsibility to provide leadership and technical support, responsible resource management, and outstanding emergency response capabilities for the policies chosen.

Development can occur in a sustainable manner that recognizes the resource demands of new or proposed developments. Limiting factors have to be acknowledged in development, especially those factors that have impacts beyond the development itself. First and foremost among those limiting factors is water. Mark Twain once said, “Whiskey is for drinking and water is for fighting over.” This will be truer in our near future than it ever was in our past. Second, environmental impacts on the land and air may be limiting to development in many areas. And finally, the ability for state or local government to provide emergency response services must be considered.

As firefighters, we need to better understand the role that watersheds play in the economic sustainability of California. In order to do so, we must draw on the knowledge and expertise of our CAL FIRE Resource Management staff, as well as our counterparts in the other Resource Agency Departments. Furthermore, CAL FIRE and the Resource Agency must be engaged in the development and land use practices throughout the state to ensure that our watersheds remain a vital resource for the economic and social well-being of California. We have a responsibility to help ensure the future health and vitality of our watersheds, not just from fire, but from all actions that degrade their size and function.



I believe we can do a better job in reaching out to our state and federal partners, local government, city and county planners, environmental stakeholders, and fire officials. The complexity of operating today results partially from a myriad of jurisdictional boundaries, agency regulatory responsibilities, and a reluctance to move away from a “this is my turf” mentality. If we look for mutually beneficial

solutions, rather than just for what others can do for us, the benefits of a coalition can be realized.

The true costs and impacts of wildfire will continue to dramatically increase if we do not act. They will negatively impact firefighter and public safety, sustainable development, and watershed vigor. Somewhere in our future there is a tipping point beyond which our state will not recover easily. A significant part of California's future lies in CAL FIRE's beginnings in watershed protection. Our department must protect California's watersheds not just from fire, but from our own future decisions.

Regards,

A handwritten signature in black ink, appearing to read "R. Grijalva". The signature is fluid and cursive, with a large initial "R" and a long, sweeping underline.

Ruben Grijalva, Chief  
Director