

# A DECISION MAKER'S POINT OF VIEW ON FIRE IN CHAPARRAL

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## ABSTRACT:

Large costly and damaging wildfires in southern California chaparral watersheds continue despite new technology and highly trained wildfire organizations. Because of effective fire suppression the average age of the chaparral continues to increase, becoming highly flammable after the age of 30 years. Decision makers want to manage the chaparral to maximize the multiple resource outputs. Wildlife managers and other resource specialists must quantify their resource outputs and be willing to financially support them. At this point fire specialists will redeem their responsibility as a service organization responding to meet resource outputs. It is estimated that on the Los Padres National Forest 30,000 acres of chaparral per year must be manipulated to meet resource output needs.

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I appreciate the opportunity to share with you the point of view of a decision maker on fire in chaparral. In this presentation I will depend upon my own experiences, knowledge and philosophy from many years as a district ranger and forest supervisor on a southern California National Forest known for its chaparral wildfires.

First, let's be sure we all understand the term "decision maker" as related to this topic. I intend the definition to be very specific because we are all involved in making decisions constantly. Within the context of this paper decision maker refers to a line officer, such as a Forest Supervisor, making land management decisions. A land management decision can affect several resources rather than a single functional or staff decision.

Personally, I think many people have preconceived ideas of how a forest supervisor manages chaparral. This is because of past practices, policies and actions. Times are changing, however, and I would like to express my views as the current supervisor of the Los Padres National Forest.

I would like to approach the subject by separating it into four parts:

1. Description of the Los Padres National Forest.
2. Fire-chaparral relationship, including fire history on the forest.
3. Current chaparral management practices, and
4. What I see in the future for management of the chaparral.

I want to concentrate most of my comments on the last two areas, present and future management of chaparral. It is here that I want to stress resource management, including wildlife management, rather than fire management or fire control.

The Los Padres National Forest covers approximately 2 million acres and stretches along the coastal mountains from an area just south of Monterey to the Los Angeles County line. Portions of six counties are included within the boundary. There are several vegetation types on the forest with over half covered with chaparral. The majority of the vegetation, however, is affected by wildfire. The remaining acres are in oak woodland, coniferous forest including coast redwoods, pinyon juniper, grassland and some sage. Geographically the forest begins at the ocean near Big Sur and covers some of the most scenic and rugged terrain in California. As we move inland, steep chaparral slopes are found, then into the rain shadow of the east side where we find a desert-type area carved by occasional high intensity storms. Finally we move into the high mountains in the southeast end of the forest with typical mixed conifer stands rising to nearly 9,000 feet. With diversified vegetation, climate and terrain there is a diversity of wildlife. This includes six endangered species, the most famous being the California condor.

In addition to the California condor, one thing usually associated with the Los Padres National Forest is large wildfires. The forest has experienced some of the largest and most damaging wildfires in California's modern history. These include:

1. California's largest fire, the 1932 Matilija fire that burned over 219,000 acres during several weeks and stretched from the Santa Barbara County line through Ventura County to the Los Angeles County line.
2. The 1953 Big Dalton fire that burned 83,500 acres in northern Santa Barbara County. Driven by high winds this fire moved 11 miles in five hours between 1 and 6 p.m.
3. In 1955, 85,000 acres burned behind Santa Barbara in the Refugio fire that burned through live ice plant right to the ocean.
4. Nine years later, in 1964, the devastating Coyote fire burned 67,000 acres behind Santa Barbara but south of the Refugio fire.
5. In 1966, the Wellman fire that covered 94,000 acres in the Santa Barbara back country and much of the present San Rafael Wilderness.
6. Finally, California's second largest fire, the 178,000 acre Marble/Cone fire that started near Big Sur in August 1977 and burned out of control for 21 days,

These are just a few of the largest wildfires since 1930. In addition, there have been many fires over 10,000 acres. Some of the smaller ones have had the most damaging effects on lives and property, including downstream devastation from the fire-flood sequence. Overall in the last 60 years 1,500,000 acres have burned on the Los Padres National Forest, an average of over 22,000 acres per year.

In analyzing fire history several interesting facts are revealed.

1. We continue to have major conflagrations despite our modern technology and highly trained fire fighters, -- air tankers, helicopter infrared imagery, etc.
2. Major fires that are difficult to control usually occur after the age of the brush exceeds 30 years. Age and moisture content of the brush are often as important to fire spread as adverse weather conditions.
3. Since the turn of the century the average age of the brush has been increasing forestwide--it now averages nearly 50 years. At this point there is more dead vegetation than live.

4. The number of fire starts is doubling every ten years. However, effective suppression action keeps 95% of all fires at 10 acres or less. Of course this contributes to the increase in age class but at the same time protects the watershed and therefore downstream values from potential disaster.

For many years we have recognized the effect of efficient fire suppression. We have tried to compensate with a series of pre-fire suppression activities. Initially this included construction of fire breaks. Their use being limited to quick access for bulldozers so they could be widened and possibly used for back fires. Little consideration was given to other resource values such as wildlife, water quality, aesthetics, etc.

Helispots were another activity to give us an opportunity to move fire fighters closer to a fire. We still need these but they must be planned in conjunction with other activities.

We then moved into the era of fuelbreaks. These are designed for vegetation reduction or species change along ridge tops or at the bottom of slopes. Fuelbreaks vary in width from 300-500 feet and are constructed in many ways. As we improved our knowledge multiple resource values were and continue to be considered. Wildlife diversity, consideration of cover needs, etc., are part of the design and construction.

We know fuelbreaks are effective and we have many success stories. One example would be last year's 900 acre Cozy Dell fire behind the City of Ojai. The newly completed 14-mile Nordhoff fuelbreak was instrumental in keeping the fire small. With limited manpower and use of air tankers the fire was held at the fuelbreak. This gave us an opportunity to concentrate manpower and equipment on the southeast flank that was adjacent to Ojai. Without the fuelbreak it was projected that the fire would have burned 7400 acres with an estimated suppression and damage cost of \$3.6 million. The net savings to the taxpayers was projected at \$2.6 million dollars. But what about the future? Many resource specialists including wildlife biologists continue to tell us our fire suppression policy has a major adverse effect on wildlife and other resources. William Longhurst reported that only five mammal and bird species out of a total of 79 were favored by chaparral after it reached an age of 10 years. Keeping all chaparral under 10 years of age has other resource consequences that may not be acceptable. However, it is one resource factor that must be considered. It is easy for people to say "Why suppress wildfires, let them burn." I agree that natural fire would keep the age of brush down to probably about 20-30 years of age. But what about in between fires? What effect would this have on human lives, property, soil erosion, water quality and heavily populated downstream areas? The long term effect of successive fires could affect soil fertility and the amount of soil available to support a vegetative cover. As a line officer I must consider all of these to redeem my responsibilities. I agree we need to keep the age of the brush down but it should not be done by not suppressing wildfires. For example, we know on the Los Padres that there are only 20-25 days per year on an average when we can safely control-burn.

To me fire management and fire suppression are services. If we can afford the resource losses by letting wildfires burn then we do not have a need for a wildfire organization. I don't advocate or believe this. However, there is an optimum point of resource values and fire suppression.

To date on the National Forests, fire specialists have taken the lead in vegetation management whether it is fuelbreaks, prescribed fire or mechanical clearing, etc. But what is the fire specialist's role in vegetation management? I feel it is a supportive role not the lead role. The decision makers, or line officers, need to establish what resource outputs are needed from the chaparral watersheds. Water resource specialists should give ranges of water yield and acceptable water quality standards. Range conservationists should calculate different ranges of domestic livestock forage they want to produce or pounds of red meat. Wildlife specialists should indicate species diversification and numbers of each that they want to produce. Fire specialists may have the responsibility for projected downstream damage from various activities within the watershed. In projecting ranges of outputs the resource specialists need to be assured that the outputs are realistic

and the land capable of producing them. Once this has been done the line officer should select the level of the various resource outputs he wants to obtain. If this includes vegetation manipulation which I am sure it will in the chaparral, then each resource area should be willing to pay their share of their resource outputs.

This is a change in culture in that most resource specialists have been actively encouraging vegetation manipulation including the use of prescribed fire but not willing to support the cost. Until dollars to support an output are forthcoming fire managers and not resource specialists will continue to dictate how the watersheds will be protected or managed.

Fire managers have the skills needed to manipulate the chaparral but they must know the various resource outputs required, including how much this is worth, before they can proceed. On the Los Padres we are trying to approach vegetation management this way. In the early analysis it seems that we will need to treat about 30,000 acres per year to reach optimum outputs. This will include a combination of prescribed fire and wildfire or even mechanical manipulation. With time we would expect acres of wildfire to decrease. Our dollars are more efficiently spent if we plan a fire rather than fight it under extreme and emergency conditions. We also know that the hot uncontrolled wildfire causes much greater damage than a fire burning under our prescribed conditions. It is a line officer's responsibility to see that dollars are spent wisely and efficiently. We will not be able to afford elimination of all wildfires but we can reduce overall expenditures and do a better resource management job. We are rapidly gaining the experience to accomplish this. A key, however, is the full participation of the various resource specialists.