Poor resource management contributed heavily to last summer's devastating forest fires and continues to threaten public lands and human lives.

The Forest Service's Tinderbox

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FOREST FIRES IN THE UNITED STATES DEVASTATED about 7 million acres in 2000, the worst fire season in the past 50 years. One New Mexico blaze destroyed more than 400 homes in the town of Los Alamos and damaged the nearby Los Alamos National Laboratory. Montana fires required the closure of forests covering nearly a quarter of the state. Throughout the West, smoke forced people to stay indoors for fear of aggravating health problems. Even some forest soils were damaged in the fires' intense heat, and flames reached such heights that they destroyed the "crowns" of many older trees that had survived numerous lesser fires over hundreds of years. By the end of 2000, the federal government will have spent more than $1 billion in efforts to fight the blazes.

Government officials blamed a number of natural causes — dry weather, high temperatures, and strong winds — for the severity of the 2000 fires. But forest fires, unlike hurricanes and tornados, are not wholly unavoidable natural disasters. The forest's condition, as shaped by human resource management actions, contributes heavily to the risk of fire and the extent of the damages. Federal officials, over the last decade, changed the underlying philosophy of government land management so that forest health and fire prevention fell behind other priorities. It was more important to the Clinton administration to promote wilderness values by creating roadless areas and taking other actions. This set of priorities aggravated last summer's tinderbox forest conditions and continues to threaten public land.

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THE HEALTH OF FEDERAL FORESTS

THE HEIGHTENED DANGER TO NATIONAL FORESTS IS, IRONically, the result of longstanding federal efforts to suppress fires going back many decades. Those efforts have produced an enormous buildup of small trees, underbrush, and deadwood that provides "excess fuels" to feed flames and increase their intensity. Before the policy of fire suppression, small fires cleared away excess fuels and thinned competing plant life, leaving forests less susceptible to devastating fires like the ones of 2000. Since the advent of the Smokey Bear era in the 1940s, tree density in federal forests has increased from 50 per acre to as much as 300 to 500 per acre. Federal forests are filled with dense stands of small, stressed trees and plants that combine with dry deadwood to provide virtual kindling wood for forest fires.

According to Forest Service statistics, some two-thirds of federally-held forested lands are in deteriorating health or are very unhealthy. That equals 107 million acres of unhealthy forest, a combined fire-prone area larger than California. In some areas of the country, the health of federal forests is especially worrisome. The Forest Service classifies only 14 percent of its forested land as in good health in the agency's administrative Region 6 in the Pacific Northwest, while 47 percent of that region is in deteriorating health and another 39 percent is very unhealthy. Those conditions will probably worsen in the coming years as the spotted owl protection plan increasingly limits management options. In Region 1 where the devastating Montana and Idaho fires burned in 2000, a

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A firefighter battles flames from the American River Canyon blaze near Placerville, Calif.

stunning 80 percent of forested land is considered unhealthy and poses a significant fire risk. Similar levels of fire prone forests characterize most of the lands in other western Forest Service regions.

FEDERAL GRIDLOCK OVER LAND

FEDERAL LAWMAKERS, SEEKING TO OVERHAUL THE FOREST Service's management, passed several pieces of legislation in the mid-1970s that created a new statutory framework for the agency. One result of this legislation has been widespread confusion over land use planning procedures and purposes. It has also transferred much of public land decision-making to non-government groups — environmentalists, developers, timber companies — that have enough legal skill and money to use the courts to override executive decisions. A management regime now exists in which no one is responsible or accountable for land management. Government inattention to foresters' repeated warnings of the growing risk of catastrophic fires illustrates this confusion, lack of responsibility, and gridlock.

Underlying the gridlock is a growing uncertainty about the mission of the national forests. For many decades, government foresters managed the lands according to a "multiple use" philosophy that encouraged a variety of different

natural resource uses. This philosophy gave forestry officials broad discretion in determining the specific details of management, yet it reflected a clear utilitarian goal of maximizing human benefits from public recreation, timber harvesting, water supplies, livestock grazing, and other uses.

The enactment of the Endangered Species Act of 1973 and other legislation gradually shifted the focus of management efforts away from human utility to promoting the ecological condition of the forest for its own sake. Top government officials in the 1990s embraced the philosophy of "ecosystem management" that puts a high premium on achieving forest outcomes that are "natural." The Forest Service now endeavors to restore national forests to the ecological condition they had prior to European westward expansion. As part of this effort, agency researchers perform historical and scientific studies to determine the actual status of forests in the mid- to late-nineteenth century.

This philosophy implies a negative moral judgment on much of modern industrial society. It converts national forests into theme parks of the past instead of preserving them as valuable sources of wood, recreation, and other outputs. Despite these criticisms and without a broad consensus from Congress or the American public, the Clinton administration and the Forest Service have forged ahead with the implementation of ecosystem management.

Unlike the federal government, many states manage their lands to generate revenue and fulfill specific practical needs. State forest managers have more freedom to pursue clearly defined land use missions. Several recent studies, including research by Sally Fairfax at the University of California at Berkeley, show that state trust lands often have superior management as compared with federal lands. The state lands not only yield higher economic returns but also typically experience better environmental outcomes and generally have a lower risk of forest fire. These studies show that profitable management of forests can often yield healthier forest conditions.

IMPROVING FEDERAL FORESTS IN THE SHORT TERM

IN ORDER FOR NATIONAL FORESTS TO REACH A MORE PRODUCTIVE condition and have a lower fire risk, federal officials must decrease the high excess fuels loads. There are three ways to remove the buildup of densely packed small trees, brush, and deadwood in western federal forests:

- Set prescribed burns, which are either manmade fires or naturally set blazes that forest managers control and use to get rid of the fuels.
- Mechanically thin and harvest the excess fuels, using chainsaws and other equipment.
- Do nothing now, and let future unplanned conflagrations destroy the fuels as they did in 2000 in some areas.

During the Clinton administration, the Forest Service preferred to use prescribed burning over mechanical thinning to deal with excess fuels. But officials cannot employ this method in many low elevation areas because the current heavy buildup of fuels makes hazardous any setting of fire. Moreover, these areas experience significant recreational use and are close to private homes and structures, creating large risks if forest officials lose control of the burns.

Given these problems, Forest Service officials will have to use mechanical thinning in many areas to improve the health of national forests. But environmentalists who embrace the ecosystem management philosophy strongly oppose this method because it is deemed "unnatural." Forest Service statistics indicate that managers employ mechanical removal of excess fuels on less than 300,000 acres per year of the 35.5 million acres of national forests in the Inland West.

Unable to set enough prescribed burns and unwilling to conduct mechanical thinning, federal officials have adopted the de facto policy of doing little about unhealthy forests and excess fuels. Or, one might say, the officials' real policy has been to hope the weather will be wet, temperatures will stay low, and the winds will be calm. In the summer of 2000, the government's luck ran out.

If the Forest Service and other agencies want to improve the health of federal forests and decrease the danger of massive fires, then they must commit to a policy of reducing fuel loads in these forests. This commitment would require federal officials to implement large-scale mechanical thinning of many dense, unhealthy forests. As part of this effort, officials should promote controlled commercial harvesting of small diameter trees used by such industries as

Table 1

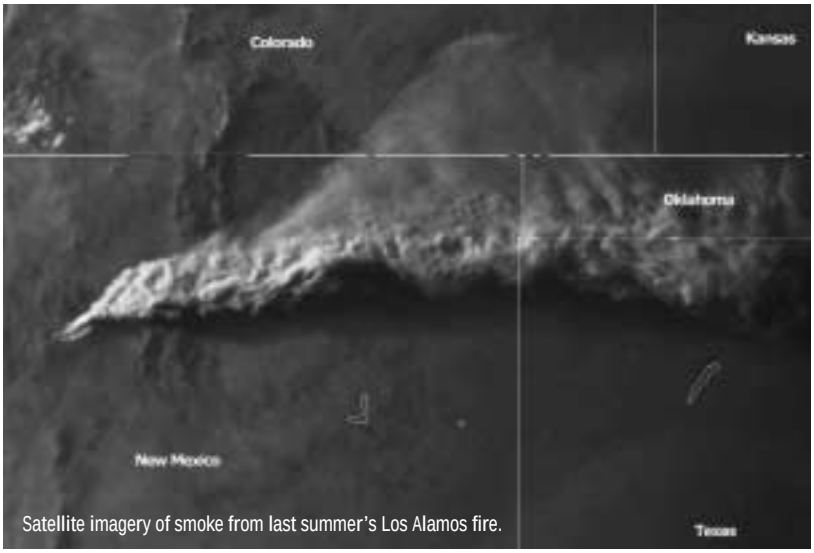
The State of Forest Health

The health classifications of forested lands in the National Forest System, by U.S. Forest Service Region

FS Region	Healthy	Deteriorating Health	Very Unhealthy
Region 1 (Northern)	20%	41%	39%
Region 2 (Rockies)	41%	43%	15%
Region 3 (Southwest)	15%	42%	43%
Region 4 (Intermountain)	59%	34%	7%
Region 5 (Pacific SW)	24%	28%	48%
Region 6 (Pacific NW)	14%	47%	39%
Region 8 (Southern)	70%	22%	8%
Region 9 (Eastern)	43%	26%	31%

Note: The Forest Service currently does not have a region classified as Region 7.

Source: USDA Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory, Historical Fire Regimes by Current Condition Classes (Missoula, Montana: February 15, 2000).



NOAA / AP

Satellite imagery of smoke from last summer's Los Alamos fire.

oriented strand board manufacturing, paper production, and biomass electricity generation. These industries could make efficient use of the wood and might also provide significant revenue to the federal treasury from the tree sales.

THE LONG TERM

MECHANICAL THINNING WOULD DECREASE SOME OF THE short-term threat of fire in national forests, but fire danger can only be managed over the long term if people who are at risk from these fires have a role in forest management decisions. I therefore propose that Congress adopt legislation directing state and local governments to prepare plans for excess fuels removal and ecological restoration of nearby federal lands. Federal overseers, acting independent of federal land management agencies, would then review the plans and consider them for approval. Once approval is given, the states could override the decisions of federal land managers that do not coincide with the excess fuels removal plans.

This policy may, in the long run, lead to the federal government handing the management responsibility for the national forests over to the states. The current federal ownership of almost 50 percent of the West's total land area is an historical anomaly preserved by large outlays of federal funds to maintain these lands. The people of the West may be willing to turn off this money spigot and discontinue federal control over western lands in return for an end to gross land use mismanagement as illustrated by the catastrophic fires of this past summer.

Whether by this approach or some other, Congress must rethink the current federal land management system that ignored dire warnings about the national forests' poor health. Unless Congress acts decisively to adopt new, effective approaches to land management, the people of the American West will continue to face an unacceptably large risk of catastrophic forest fires. Perhaps they must accept some risk for the sake of other forest values, but these citizens — not federal administrators or Washington politicians — should be the ones to set policy and make life-and-death decisions about public land management.

The fires of 2000 are likely to prove a landmark in federal land history. Environmentalists can no longer escape the fact that their policies of inaction have ended up denuding many forests by increasing the risk and severity of forest fires. The Forest Service can no longer overlook the tension between its philosophy of ecosystem management and the fact that healthy forests require intensive human management. Congress can no longer deny its responsibility in legislatively creating a gridlocked land management system frozen by the bickering and legal maneuvering of environmental groups, timber industry representatives, and others outside the Forest Service. Most importantly, the people of the West can no longer ignore the need for them to take financial and political control of their national forests in order to promote a higher quality of land management, healthier forests, and greater protection from future forest fires. It is unclear where all these pressures will lead. But it does appear that the West's brightest future would include a radically changed management system for federal lands. R

Editor's Note: *Last fall, following the testimony of Prof. Nelson and other experts before a congressional committee investigating the fires, the Clinton administration unveiled a National Fire Plan for public lands. The plan calls for $1.6 billion in new funding in 2001 for fire prevention and suppression measures and other resource management efforts. Some 3,500 jobs will be created within the Forest Service to carry out this plan.*

One of the fire plan's key components is the implementation of locally led, coordinated efforts to reduce excess fuels. Included in the proposed 2001 funding is $136 million for excess fuels management and an additional $12 million for other efforts to improve the health of federal forests.

readings

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