## **Burning Money**

The press and politicians called fire season 2000 "a natural disaster." The fires were natural, but the "disaster" was how much the United States spent to fight them.

## **By Ted Williams**

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**The wildfires** that swept across the western United States during this past fire season were predictable and inevitable. In most cases, several years of heavy rainfall had allowed grasses and other fine fuels to grow up. Then, as so often happens in big fire years, it all dried out. As early as July, the moisture content of live green trees throughout much of the West was less than 12 percent--lower than that of kiln-dried lumber. By the end of August the Bighole River at Wisdom, Montana, was flowing at 9 cubic feet per second--51 cfs below normal for that time of year.

Even in the spring the fire hazard had been extreme. In mid-May a fire spread from Bandelier National Monument in northern New Mexico into adjacent suburbia, leaving 405 families homeless and damaging the nuclear weapons research facility at Los Alamos. On August 6 a fierce wind whipped eight fires near Darby, Montana, into the year's biggest conflagration, which burned 155,600 acres. At about this time, in the Black Hills of South Dakota, a running crown fire (in which the tops of trees explode) engulfed 50,000 acres in just hours, eventually scorching 82,000 acres--the largest fire in that region's recorded history. As of mid-November, 7,250,965 acres had burned, and federal agencies, mostly the U.S. Forest Service, had spent more than \$1 billion trying to extinguish the fires. The press called fire season 2000 "a natural disaster."

But for the most part nature emerged just fine. The only real environmental damage was caused by human intervention. Fire had been excluded for so many years that unnaturally high brush buildup frequently carried flames into the crowns of large, thick-barked, otherwise fireproof trees. Burning watersheds were bombed with a thick, red slurry that degrades to cyanide. Although the Forest Service suspended the use of the slurry last March, it waived the ban as the fire season approached. Finally, firefighters hacked up ground cover by bulldozing fire lines through forests. Even as I write, these fire lines are providing access for all-terrain vehicles and invasive weeds (a major wildfire hazard because they replace plant communities whose diversity had provided natural firebreaks). Smokey's shibboleth notwithstanding, forest fires cannot be "prevented," only postponed. And the longer they're postponed, the hotter they burn and the more damage they do to things humans want, such as buildings and old-growth timber.

If humans would cut old-growth timber more selectively, less of it would burn. Few fire hazards are more severe than a large clearcut where slash and second growth have been desiccated by sun and wind. In fact, forest fires frequently jump from one clearcut to the next, racing along the connecting logging roads. Such reality, however, has never deterred advocates of increased logging from using summer fires to advance their cause. For instance, House Speaker J. Dennis Hastert of Illinois blamed fire season 2000 on logging reductions implemented by the Clinton administration. Although fuel buildup takes decades or in some cases centuries, presidential candidate George W. Bush announced that the policies of the Clinton administration had "made the forests more dangerous to fire [sic]." But then Texas--a state presumably well insulated from Clinton and fire, since it has almost no federal land--erupted into flames, and Bush beseeched the president for emergency firefighting funds. Montana governor Marc Racicot, positioning himself for an appointment in the Bush administration (reportedly as Interior Secretary), attempted to tie the fires to Clinton's roadless policy, despite the fact that it had yet to be implemented. He told the Montana Wood Products Association that he wanted to use the fires to "redo the entire legal framework" governing national forests--including the Endangered Species Act, the National Environmental Policy Act, the Multiple Use-Sustained Yield Act, and the National Forest Management Act.

If roads and logging operations prevent forest fires, those that occurred last summer should have avoided private timberlands and burned instead on federal wilderness. But the exact opposite happened. For example, the most destructive fires in the nation got started on private land in Montana that, with Governor Racicot's blessings, had been heavily roaded and logged by the Darby Lumber Company. Moreover, the company had procured the property with a loan from the state. Throughout the West, 70 percent of the burned area wasn't even in the national forest system.

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The fires in Yellowstone National Park 12 years ago taught the federal government and even an element of the public that wildfire isn't just natural and inevitable but essential. Today the park is richer and more diverse than Caucasians have ever seen it--a far cry from the "smoke-blackened ruin" The Wall Street Journal proclaimed it to be 12 years ago. Fire cleanses and renews, and countless organisms that have evolved with fire cannot survive without it. The frequency of fire varies with forest type. Sage grass-ponderosa pine ecosystems need slow ground fire every few decades. Yellowstone's lodgepole-pine ecosystem needs a hot, stand-replacing fire every few centuries. Some, though not all, lodgepole cones need fire to melt their resin and release their seeds, and because the seedlings are sensitive to a damping-off fungus, they have a difficult time surviving in soil that has not had its organic layer burned away.

Aspen seedlings and giant sequoias also depend heavily on burned soil to get started. The seeds of the Peter's mountain mallow won't germinate unless cracked by fire, and the species is now endangered because of fire suppression. The shrub ceanothus produces seeds that can lie dormant for centuries awaiting scarification by fire. Fire stimulates some plants to flower--Great Basin wild rye, for instance. Jack pines cannot reproduce unless their cones have been opened by fire, and now the Kirtland's warbler, which nests in their branches, is endangered. In the Great Lakes states, a species of purple lupine that grows only in fire openings has been nearly eliminated by fire suppression, as has the endangered butterfly that feeds on it--the Karner blue. In the Southeast, red-cockaded woodpeckers are endangered because decades of fire suppression has allowed oaks and other hardwoods to grow to the level of the birds' nest holes in longleaf pines, thereby providing access to snakes and other predators. Depriving a forest of fire is like depriving a coastal salt marsh of tide.

Despite the noise from politicians and the press, there was nothing unusual about the fires of 2000, which burned 7.2 million acres. In fact, they weren't much more severe than the fires of 1999 and 1996, when 5.7 million and 6.7 million acres burned, respectively, and they were less severe than the fires of 1988, when 7.4 million acres burned. In the context of the 20th century, they were mild. In the 1930s--before Congress started writing federal agencies blank checks for firefighting--an average of almost 40 million acres burned per year. From 1920 to 1950, when forest fires were still more or less doing their thing, the average area burned each year was eight times what it was from 1970 to 1999. In the past 30 years the federal firefighting budget has increased by a factor of 10, to roughly \$1 billion a year.

What America got for the \$1 billion it spent to fight the fires of 2000 was essentially nothing. Andy Stahl, executive director of Forest Service Employees for Environmental Ethics, put it this way: "It may make financial sense to put out small fires that have just started in places we don't want burned--say, the grasslands around suburban Los Angeles or the backyards of Santa Fe. But the notion that we should continue to fight fires when they're 10,000 acres or 100,000 acres is ludicrous. We never put out fires of that size. Nature does. But we always fight them. We might as well drop dollar bills on them." The General Accounting Office agrees, observing in a 1999 report that "large, intense wildfires are generally impossible for firefighters to stop and are only extinguished by rainfall or when there is no more material to burn."

During the Yellowstone fires, Guru Ma, spiritual leader of the Church Universal and Triumphant (who once told me she used to be Marie Antoinette), fought a blaze bearing down on the church's sacred meeting ground at Mol Heron Creek by deploying her flock in rotating, mantra-chanting brigades of 300 that instructed the flames to "roll back." The flames complied. A month later, when the fire circled the church's 30,000 acres and came in from the opposite side, Guru Ma again suppressed it, this time by ordering up a cold front from the archangel who handles weather. Using this technique, the National Park Service and the Forest Service would have saved taxpayers \$130 million and achieved results no worse than the ones they got. They knew it even then; when the

park was still smoldering, both agencies were admitting that their fire suppression efforts had accomplished virtually nothing.

Not only is it impossible to extinguish large forest fires, it's safer for people and property not to try. Contrary to press reports, the 47,000-acre forest fire that destroyed \$1 billion worth of property around Los Alamos last May-the largest fire in New Mexico's recorded history--was not started by the National Park Service's "prescribed burn" in Bandelier National Monument. A Forest Service investigation has determined that the prescribed burn-necessary and prudent management in a forest that needs fire and where fire had been unnaturally excluded by humans--would have gone out on its own. Instead, it was the backfire, started by firefighters, that got away.

On July 6, 1994, 14 firefighters died trying to stop a blaze from ascending Storm King Mountain, in western Colorado. No one has adequately explained why they were there. No houses or even valuable timber were on top of the mountain--just a fire-created, fire-dependent plant community of pinyon, gambel oak, and juniper.

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We fight large forest fires we know we can't put out for two reasons. The first is to appease that element of the public that is still convinced that fire--the ether of hell--is evil incarnate and that it "destroys" forests. This notion got a boost in the late 19th century when Prussian-trained forester Bernhard Fernow pronounced that fires were the "bane of American forests" and symptomatic of "bad morals." According to John Muir, fires did 10 times more damage than loggers. Gifford Pinchot, the first director of the U.S. Forest Service, likened the acceptance of fire to the acceptance of slavery.

In 1910 fires in Idaho and Montana killed 85 people, eventually inspiring the Forest Service to implement its "10:00 a.m. fire policy," according to which (until as recently as 1971) all forest fires were to be extinguished by 10 on the morning of the day after they were reported. In 1942 the Empire of Japan advanced fire's evil reputation by launching balloon-borne incendiary devices in a vain attempt to incinerate our Northwest timber resources. That same year, a truly horrendous forest fire, started by careless humans, shocked the nation and the world. Panicked wildlife--strange varieties of birds, rodents, lagomorphs, reptiles, and ungulates, many with primatelike eyes positioned in the front of their skulls--were seen running, flapping, crawling, and wriggling from walls of flames and blizzards of firebrands. The survivors, including a mother quail and her brood, a mother raccoon and her litter, and a whitetail buck and his pregnant mate, found shelter in a lake while the ravenous flames consumed their happy homes. This fire, which occurred in Walt Disney's animated motion picture Bambi, has been cited by Roderick Nash, professor emeritus of history and environmental studies at the University of California, Santa Barbara, as "the most important document in American cultural history bearing on the subject [of fire-management policy]."

The other reason we fight large forest fires is that attempted fire suppression has become an industry with such mass and momentum that it flattens everything in its path--except the flames. The current federal fire policy, inspired by the expenditure of \$1 billion and 35 lives during the fires of 1994, is downright enlightened. It acknowledges that ecosystems deprived of fire do not function correctly and that fire

suppression has caused dangerous fuel buildups. It recognizes fire as a critical natural process that needs reintroduction to the wild, and it calls on agencies to support that reintroduction. In firefighting it assigns priority to the protection of human life first, then the protection of natural and cultural resources. It stipulates that all federal land have some kind of fire-management plan. It calls for fuel reduction in fire-prone forests where people have built houses. And it assigns the ultimate responsibility for fuel reduction, education, and fire

management in developed fire zones to state and local governments. The National Audubon Society itself could not have hatched a more environmentally friendly fire policy.

But every summer the good ideas get tossed out the window like antiques from a burning attic. The Forest Service knows how dangerous and pointless it is to fight large fires, but it can't help itself, because the more hopeless the wildfire intervention it undertakes, the more money it hauls in. The agency has a firefighting slush fund that carries it through part of the fire season, and when this gets depleted it hits up Congress for more money. Basically, Congress has given it a self-filling cookie jar. At the same time there are entire companies that exist for no other purpose than to supply the federal government with firefighting paraphernalia. There are companies that sell the slurry, which can cost \$2 per gallon to deliver to a fire. There are companies that lease the Boeing 234 Chinook helicopters, which can cost \$109,396 a day with crew, and the Lockheed P3-A Orion tankers, which can cost \$40,000 a day. Following the firefighting force as if they were trailing Patton's Third Army are supply lines dispatched by companies that provide all manner of support services, including food, clothing, tools, fire shelters, toilets, showers, and tents. And there are freelancers--often laid-off loggers. One of them with a water truck can earn \$2,000 a day. The industry even has its own lobbying group, the National Wildfire Suppression Association, to make sure that Congress keeps the pork flowing.

There is no accountability and no prioritizing. In the 1999 fire season, for example, the Forest Service blew \$178 million--or 30 percent of its entire annual firefighting budget--on two fires (or "fire complexes," as it calls them) in California. In fire season 2000, the agency deployed 240 helicopters, 50 air tankers, 35 million gallons of slurry, 1,200 fire engines, and about 30,000 firefighters--including 2,500 troops from the U.S. Army and Marine Corps, and fire managers from Canada, Australia, Mexico, and New Zealand.

During Montana's 15,000-acre Bucksnort fire last summer, Helena National Forest supervisor Tom Clifford attained a personal record, dropping 135,000 gallons of slurry in a single day. "I had my hands on every air tanker in the western United States," he told me. "We flew a million gallons of slurry out of the Helena airport." Not that Clifford thinks it was a good investment. "I hate the situation we're in," he said. "We're spending about \$1,000 an acre on firefighting--somewhere in the neighborhood of a million bucks a day once we call a team in. With an investment of a hundred bucks an acre for thinning [that is, fuel reduction], we could really reduce fires over time and in the process control noxious weeds and enhance wildlife habitat."

Always there is arson, often by people seeking employment as firefighters. In 1996, the most recent year for which the statistic is available, 21 percent of all forest fires were ignited by arsonists. In 1994 a man pleaded guilty to igniting three forest fires in Washington State and admitted that he'd been paid to do so by companies that lease firefighting equipment. This past season, although anyone with a shovel could find work as a firefighter, there was still plenty of arson. In September two unemployed miners were charged with setting five fires in western Montana--evidently in an effort to get work as firefighters, according to the county investigator. A fire on the Flathead Indian reservation in Montana also appeared to be the work of an arsonist, as did the Jasper fire--the record-shattering, 82,000-acre blaze in the Black Hills. Plenty of work generated there.

Some important lessons are available from fire season 2000. One is the value of prescribed burns, such as the one that would have gone out on its own in Bandelier National Monument had it not been messed with by firefighters. When South Dakota's Jasper fire raced into Jewel Cave National Park, it hit an area where the Park Service had reduced fuels with prescribed burns.

Abruptly, the running crown fire came down out of the trees and ambled along the ground. With suppression now possible, fire crews were able to save all of the park's major structures.

Another lesson is the importance of keeping development out of fire-dependent forests. People who want to build their houses beside the Mississippi or on dirt cliffs overlooking the North Atlantic can expect to be denied building permits, pay more for insurance, or at the very least have difficulty obtaining federal relief when their houses float away or fall into the sea. America is beginning to understand that tidal zones and floodplains cannot be made safe for human development with jetties, dikes, dams, and levees. But in most cases no one makes a peep when people build houses in fire zones. We still believe that we can protect them with SAC-like air strikes against annual forest fires.

Montana's Bucksnort fire, which cost taxpayers about \$8 million to fight, was started by a rural subdivision resident dumping charcoal briquettes into a ditch near his house. Principal property damage from the Los Alamos fire has been attributed by Jack Cohen, the Forest Service fire scientist who investigated it, "to the abundance and ubiquity of pine needles, dead leaves, cured vegetation, flammable shrubs, wood piles, etc., adjacent to, touching, and/or covering the homes."

Every summer taxpayers pay firefighters to clear brush around houses, move stacks of firewood away from houses, and spray houses with fire retardant. The National Fire Protection Association estimates that in 1994 federally contracted firefighters spent from \$250 million to \$300 million trying to protect houses built in and beside fire-prone forests. The number of houses damaged by wildfires in the 1990s was six times that of the previous decade. The Plum Creek Timber Company--whose logging operations were reported by the Forest Service to have started last summer's Crooked Creek fire in Idaho--converted to a "real estate investment trust" a year ago, the better to avoid federal taxes and sell off its scalped, flammable land to developers.

It's not as if the enactment of zoning laws for fire-prone forests were a radical new idea. Frederick Law Olmstead Jr. suggested it 70 years ago as a means of protecting lives, property, and resources from the fires that are forever sweeping down from the fire-dependent, fire-created chaparral in the area around Malibu, California. Yet in 1993, when these fires destroyed houses in Malibu, their owners rebuilt the houses with insurance money. Then, in 1996, when the fires again destroyed Malibu houses, their owners again rebuilt them with insurance money. If there's one thing that's clear, it's that available lessons are not the same as education.

Still, the Clinton administration learned something from the eight fire seasons it presided over. On September 9, 2000, President Clinton announced a \$1.6 billion proposal for increased forest restoration, fuel reduction, and firefighting that was based on a 35-page report by Interior Secretary Bruce Babbitt and Agriculture Secretary Dan Glickman--two bureaucrats who understand the danger of postponing forest fires and the folly of trying to extinguish large ones. Because the program won't depend on commercial logging, as did Clinton's past "forest health" initiative, mainstream environmentalists support it.

At this writing the administration is promising to redraft the federal fire policy that it redrafted five years ago. All indications are that the new policy, due out about the time you receive this issue of Audubon, will be every bit as enlightened as the old policy. But there is no indication that with the onset of fire season 2001 the new good ideas--like the old good ideas--won't be flung out the attic window.

Ted Williams was in Yellowstone's backcountry on "Black Saturday," August 20, 1988, the day 70-mile-per-hour winds spread the fires by 165,000 acres.

## What You Can Do

Don't build or buy a house in or near fire-prone woods. If you already own one, sweep dead leaves and pine needles from your roof. Replace cedar shingles with metal or tile. Trim overhanging branches. Cut brush. Keep firewood and other flammable material at least 30 feet away from buildings. Finally, for \$125 you can buy a system that attaches to a garden hose and with which--well in advance of an approaching wildfire--you can coat your house with a nontoxic gel that offers superb, albeit temporary, protection from heat, flames, and burning embers. For details, call 800-201-3927 or log on to www.barricadegel.com/bar home.htm.