



Are the ways fires are fought and prevented firewise?

We spend billions attacking almost every wildfire, but scientists say that's bad for the forest, can put firefighters in unnecessary danger and doesn't protect communities as well- or as cheaply - as we now know how to do.

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A wall of fire barreled through the forest with a jet-engine roar near Secesh Meadows last August, and local fire chief Cris Bent knew his work was about to be tested.

Flames danced atop lodgepole pines, smoke darkened the sky, and residents of the tiny mountain hamlet north of McCall prepared for the worst. Just a month earlier, a forest fire had burned 254 homes near Lake Tahoe and the 2007 fire season appeared ready to claim its next community.

But as the raging East Zone Complex fire reached the cluster of loosely-spaced homes, the flames dropped to the ground, crackling and smoldering. The fire crept right up to doorsteps. But without the intense flames that spurred the fire just moments before, no homes burned - a feat fire managers attributed largely to Bent's push to clear flammable brush from around houses in the community.

"It just blew through the area," Bent said. "We were well prepared."

The town's ability to withstand a frontal assault by a major wildfire demonstrates what fire behavior experts have been saying for more than a decade. Clearing brush and other flammables and requiring fireproof roofs will protect houses even in an intense wildfire - without risking firefighters' lives.

More provocatively, the research suggests that fighting fires on public lands to protect homes is ineffective and, in the long run, counter-productive.

It is also far more expensive.

Federal agencies still put out nearly every fire that starts - of the around 80,000 blazes each year, just 327 are generally allowed to burn. Out of the 9.8 million acres that burned across the country last year, only about 430,000 acres burned without suppression, in what managers call "wildland fire use" blazes.

Fire suppression costs have risen 6.5 times in a decade to \$1.86 billion last year. At the same time, funding to make private homes and communities safer has dropped by more than 30 percent since 2001 - to less than \$80 million in 2008 - and more cuts are proposed for 2009.

This is the paradox of wildland fire management in America: Most scientists and fire managers agree that fire is a healthy and necessary part of the forest, and that fighting these blazes serves only to build up fuels and boost the size and frequency of catastrophic fires.

But federal agencies keep attacking almost every wildfire, many deep in the woods, and the rising cost of suppression diverts money from protecting homes and communities - which can be saved with the right, and often inexpensive, measures.

The result: Billions of taxpayer dollars are spent on what most experts agree is the wrong approach. The lives of firefighters are put in danger on fires that don't need to be fought. And homes are left vulnerable, their fate often decided by wind direction and the availability of federal firefighters to protect private property.

A TALE OF TWO TOWNS

Down the road from Secesh Meadows in Warren, thick black smoke had blotted out the intense midsummer sun, leaving the historic mining town in a premature dusk.

The choking clouds seemed to burst, but instead of rain, blackened pine needles and glowing embers fell from the sky, hurled by the raging wildfire's 300-foot flames. Unlike Secesh, Warren had no program to clear brush from around the log cabins that dot the town.

And last August, embers ignited three homes and sparked fires that destroyed them.

Like many Warren residents, Butch Cooper, who owns the Winter Inn, blames the Forest Service and what he sees as the agency's unwillingness to put out fires. Cooper, who has lived in Warren on and off for more than 20 years, would like to see more logging in the forest and faster fire suppression.

"There is no management of the forest - it's just: destroy it," he said.

He reflects the long-held conventional wisdom in much of the West: The federal government turned its back on good forest management when it started to phase out public lands logging, and that's what is creating more large fires.

Michael Dubrasich, a Lebanon, Ore., consulting forester, is critical of forest policy, too. The federal government is wasting timber and backing away from its historic role of protecting private property.

"The fires that start on unkempt federal land and spread to private property are irresponsible spillovers perpetrated upon American citizens by their own government," Dubrasich said.

But Bent didn't leave the responsibility to protect his community to others.

In 2006, he used a \$60,000 federal grant to remove brush and trees from around Secesh Meadows houses - a tactic known in the wildfire management community as firewise.

He was able to convince only 37 percent of the residents to participate in the program, though some who declined already had cleared their property. His effort, along with federal firefighters and volunteers, was enough to save the town.

But firefighters had to devote extra effort - meaning increased danger and taxpayer cost - to protecting homes that had not been prepared, Bent said.

"That really personally annoyed me a great deal," Bent said. "We're risking the lives of young men and women to protect a home the homeowner could have treated at their leisure."

THE SCIENCE OF FIRE BEHAVIOR

The fires in Secesh Meadows and Warren didn't surprise Jack Cohen, the U.S. Forest Service's top expert on how fires burn homes.

Most of the public and even many firefighters and fire managers think of the fire racing through the canopy of the forest -the intense "crown fire" - as the main threat to homes.

But the reality is that most crown fires lose their intensity when they reach the edge of a community. Trees are spread more thinly in residential areas, intersected by roads and driveways and lawns, so the fires tend to drop to the ground, where they burn with less intensity and are easier to manage than the blazing crown fires.

Cohen has studied dozens of fires across the nation since the 1990s, and he sees the same behavior every time.

Most homes are ignited by flying embers, thrown as far as a mile and a half ahead of the crown fire. Or they catch fire when the ground fire reaches brush and trees within 100 feet of the buildings.

The homes themselves burn especially hot - and can send off their own embers to start new fires - but often the trees around the burned homes are left with their green canopies intact.

That tells Cohen that there is no "wall of fire" blazing through a community and consuming everything in its path.

Instead, he says, it shows the fires can be fought within the communities - and that raging fires on public lands don't need to be stopped in the wilderness to protect private property.

Cohen's research demonstrates that requiring forest homeowners to have a fireproof roof, to clear their gutters of pine needles and to remove bushes and trees within 100 feet of a home is far less expensive and more effective for protecting homes than fighting fires on public lands.

Cutting trees to thin the forest around communities - the preferred method of treating federal lands to protect homes - reduces airborne embers that ignite many house fires. But that tactic is still more expensive and less effective than clearing directly around homes.

"We have the ability to be compatible with fire," Cohen said. "But we mostly choose not to be. ... Our expectations, desires, and perceptions are inconsistent with the natural reality."

LITTLE INCENTIVE TO CHANGE

Cohen's conclusions are sound, said David Olson, a Boise National Forest official who has more than 30 years of experience fighting and managing wildfires. But to rely solely on firewise preparation assumes that every homeowner in a fire-prone community will follow all of Cohen's instructions and not cut corners.

It is human nature, Olson said, to not prepare ahead of time.

"We will do nothing until a crisis occurs," he said.

The responsibility for taking preventive steps lies with local fire departments like Bent's and the homeowners themselves.

But federal firefighters have made protecting homes on private property one of their their highest priorities, below only keeping firefighters and residents safe.

In 2004, \$535 million of the federal agencies' \$1 billion firefighting budget went to protecting homes and property, according to a 2006 audit by the U.S. Department of Agriculture's office of inspector general.

The federal program, the inspector general said, "removes incentives for landowners to take responsibility for their own protection and ensure their homes are constructed and landscaped in ways that reduce wildfire risks."

Bent said that goes against Americans' traditional view of personal responsibility.

"As homeowners I think we have an obligation to take care of our places and ourselves," Bent said.

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