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U.S.

Facing Deadlier Fires, California Tries Something New: More Logging

Environmentalists and the timber industry, after long butting heads, increasingly agree that cutting trees to thin forests is vital to reducing fire danger

By Jim Carlton

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FRENCH MEADOWS RESERVOIR, Calif.—Obscured amid the chaos of California's latest wildfire outbreak is a striking sign of change that may help curtail future devastating infernos. After decades of butting heads, some environmentalists and logging supporters have largely come to agreement that forests need to be logged to be saved.

The current fires are hitting populated areas along the edges of forests and brush lands, including the 142,000-acre Camp Fire in Northern California's Butte County. That now ranks as the most deadly and destructive in state history, killing at least 63 people, leaving

omes. The Camp Fire and the 98,400-
l by fierce winds in unusually dry weather, which turned much of the state into a tinder box.

Another dangerous factor, land-management experts say, is that forests have become dangerously overgrown with trees and underbrush due to a mix of human influences, including a past federal policy of putting out fires, rather than letting them burn. Washington has also sharply reduced logging under pressure from environmentalists.

Now, the unlikely coalition is pushing new programs to thin out forests and clear underbrush. In 2017, California joined with the U.S. Forest Service and other groups in creating the Tahoe-Central Sierra Initiative, which aims to thin millions of trees from about 2.4 million acres of forest—believed to be the largest such state-federal project in

the country.

Forest surrounds Paradise, Calif., which was destroyed in the Camp Fire last week. **PHOTO:** HECTOR AMEZCUA/SACRAMENTO BEE/ZUMA PRESS

The current fires have trained a spotlight on the strategy: Parts of the forest burned in the Camp Fire in and around Paradise, for example, were overgrown with small, young trees, according to a 2017 forest health plan by the Butte County Fire Safe Council, which had planned to thin a thousand acres of land there over the next decade.

"We need to try new things because what we've done in the past hasn't worked," said David Edelson, Sierra Nevada project director of the Nature Conservancy, a nonprofit that is part of the new thinning partnership.

Says Rich Gordon, president and chief executive officer of the California Forestry Association, an industry group based in Sacramento: "We absolutely have to thin our forests. Through a long period of fire suppression and lack of timber production, we have allowed our forests to become overgrown."

The Tahoe-Central Sierra initiative's work to log and carry out prescribed burns on national forests is expected to pick up next year. Early stages of the project had wound down for the season before the current fires.

The chief aim is to better safeguard the more than 12 million acres of forest in the

Sierra Nevada mountain range, roughly a third of the state's total, and the source of nearly two-thirds of the water Californians depend on. Communities housing nearly a million people would also get better protection, while lessons learned could lead to more aggressive thinning projects in more populated parts of the state, supporters of the initiative say.

"Having the fuel loads in forests and wild lands reduced is definitely helpful in modifying fire behavior, but it needs to occur at a much greater scale than we are currently doing," said Jim Branham, executive officer of the Sierra Nevada Conservancy, a state agency that helped broker the partnership.

Wildfires in forests with widely spaced trees are more likely to stay on the ground and burn themselves out, while the brush and small trees in more overgrown forests act as a "ladder" to carry fire higher and spread, according to a 2015 forest-health plan devised in part by the state of Washington.

Thinning isn't seen as a cure-all. More than anything, climate change is making California more fire prone, according to many scientists and state officials.

"Even if we are successful on that [thinning] front, there will undoubtedly be events that simply overwhelm us," Mr. Branham said. "It is a scary future."

Some environmentalists oppose even the small-scale logging of the California project. The group is removing mainly small-diameter trees as opposed to the big ones favored in the past by commercial timber operations on federal land. Tim Hermach, executive director of the Native Forest Council in Eugene, Ore., blames logging for the buildup of flammable brush and younger trees.

"Every time they take a tree out of a forest, they're making it hotter, drier and more flammable," Mr. Hermach said.

Others say the state isn't doing enough to better protect communities themselves from fire, such as by not allowing development in fire-prone areas and requiring prevention measures such as rooftop vents to capture flying embers.

The thinning coalition represents a new front. The Nature Conservancy's Mr. Edelson used

A California Conservation Corps worker moved a log in September as part of the thinning project near French Meadows Reservoir. PHOTO: ELIJAH NOUVELAGE FOR THE WALL STREET JOURNAL

to sue to block logging plans in national forests as an attorney for another green group. Now he said he sees the need for limited logging because of the dramatic rise in wildfires.

That puts him in agreement not only with timber industry officials, but also U.S. Interior Secretary Ryan Zinke, who has earned the ire of conservationists including on efforts to reduce the size of national monuments and open more areas to drilling.

On Wednesday, Mr. Zinke said priority needs to be given to reducing the density of overgrown woodlands to reduce more catastrophic blazes. "The bottom line is there's just too much dead and dying material," he said after touring the Camp Fire destruction. President Trump, who plans to tour the area Saturday, has blamed mismanagement for the fires.

California Gov. Jerry Brown, while citing climate change and other factors for the current problems, has spoken glowingly of the Tahoe initiative. The governor on Sept. 21 signed bills authorizing a $1 billion, five-year plan to thin forests, including by easing rules on logging. A month earlier, the Trump administration announced a plan to increase the amount of thinning and controlled burns on federal lands. Forestry experts say the number of acres thinned annually needs to be more than quadrupled from the approximate one million that are done now.

Edward Smith, a forest ecologist for The Nature Conservancy, left, and Marie Davis, a geologist and consultant for the Placer County Water Agency, worked at the French Meadows site. PHOTO: ELIJAH NOUVELAGE FOR THE WALL STREET JOURNAL

Eli Ilano, supervisor for the Tahoe National Forest, said the federal government has wanted to do thinning work in the past, but that the growing cost of fighting wildfires have siphoned off much of the agency's funds. The Forest Service's firefighting costs soared to a record $2.4 billion in 2017 from an average of $1.1 billion a year over the prior decade. A measure contained in a spending bill signed by Mr. Trump in March will provide a dedicated fund for thinning and other forest restoration work beginning in 2020.

U.S. wildfires, mostly in the West, have scorched more than 8.5 million acres so far this year as of Friday, and an average of 6.3 million acres during each of the past five years, far above a 10-year average of 3.7 million a year in the 1990s, according to the National Interagency Fire Center.

The threat is considered by many experts to be gravest in California, because it recently went through a five-year drought and has so many people living in wild areas.

One of California's most serious fire threats is in the national forests that blanket the Sierra Nevada, the location of the state-federal thinning project, where the U.S. Forest Service estimates 129 million trees have died due to drought and bark beetle infestations. The initiative's project covers seven counties of state, private and federal lands around Lake Tahoe—one of the mountain West's biggest tourism draws.

On an afternoon in September, before the latest round of fires, the sound of logging equipment pierced the mountain air near the mile-high French Meadows Reservoir as crews cut trees in a forest owned by the American River Conservancy, another environmental group whose work is being coordinated under the partnership. Operator Brian Chamberlain wiped his brow as he took a break from a machine called a "masticator," which chopped and ground small fir and cypress trees into tiny pieces.

"They work me like a rented mule," the 58-year-old joked as fellow lumberjacks nearby sawed and cut other larger trees and stacked the trunks in neat piles.

Individual trees are marked for removal at the French Meadows site. PHOTO: ELIJAH NOUVELAGE FOR THE WALL STREET JOURNAL

In thinning projects, old, diseased or too small trees are individually marked for removal. Loggers move in—often operating in pairs—with chain saws or heavy machinery to take down the trees, which are then stripped of limbs by another machine and stacked up. Broad stands of dead trees killed by bark beetle are often clear-cut.

The finished logs are then usually hauled by truck to a commercial timber mill or shipped to a biomass plant to be converted into energy, said Mr. Edelson of the Nature Conservancy. Since there is otherwise little profit for cutters, the work usually needs to be subsidized by governments.

The past acrimony over forest management is partly rooted in the timber wars of the late

1980s and 1990s, when emotions ran so high activists chained themselves to logging equipment to protect endangered species including the northern spotted owl. Amid ensuing court battles, the federal government in effect closed much of its western forests to logging.

Overgrown forests have played a role in dangerous fires in recent years, including 2013's Rim Fire, the largest recorded fire in the Sierra Nevada, which tore through 257,000 acres.

Of particular concern is the growing severity of the infernos, which get so hot they can actually create their own weather systems, causing winds to shift and spread flames in many directions. More than a third of the terrain in some of the recent big fires in the Sierra Nevada has burned so intensely that biologists say the soil may be too damaged to regrow a forest for many years.

That threatens the water supply. After the King Fire blackened nearly 100,000 acres of forest east of Sacramento in 2014, the Placer County Water Agency had to spend $5 million dredging hundreds of thousands of tons of topsoil that washed into its Hell Hole Reservoir as a result, said Marie Davis, a geologist with the agency. "We want a reliable watershed," Ms. Davis said. "We can't keep filling it with sediment."

Lack of available labor and infrastructure are hurdles to expanding the thinning work. Many of the mills in the area have closed due to the slowdown in logging, a manager said. Many of the workers, meanwhile, including Mr. Chamberlain, the masticator operator, were at or near retirement age.

Despite the challenges, proponents of the thinning said all the work was worth it. "We can spend millions cleaning up the forest," said Autumn Gronborg, supervisor of a crew near French Meadows, "or billions fighting the fires."

—Alejandro Lazo and Erin Ailworth contributed to this article.

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A section of the French Meadows site after thinning, which removes smaller trees and underbrush. **PHOTO:** ELIJAH NOUVELAGE FOR THE WALL STREET JOURNAL