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To achieve forest health, we need to change our relationship with fire



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Firefighter uses a drip torch to start a controlled burn at a nature center in Illinois. Photo via iStock

IN SUMMARY

Why can't California utilize prescribed burns that everyone knows are key to restoring biodiversity and resilience?

By Jane Braxton Little, Special to CalMatters

Land managers [agree](#). Policymakers [agree](#). The science is [unequivocal](#). If we don't get more beneficial fire on the ground in California, we're going to lose it all to wildfire.

Yet last year, when wildfires scorched more than 4 million acres and killed 33 people, federal and state agencies treated an only 80,000 acres with prescribed burns — 16% of what scientists believe California forestlands need to maintain biodiversity and resilience.

As summer approaches and worse-than-ever blazes are predicted for the state officially sinking into drought, the urgency to dramatically increase controlled fire has morphed into frustration-fueled dread. Why can't California set the intentional burns everyone knows are key to restoring biodiversity and fire resilience?

A century of fire suppression and industrial logging has distanced us from natural fire, a [keystone ecological process](#) as essential to forests as sunshine and rain. We have severed that critical relationship maintained by Native Americans, who for millennia lit fires to keep forests cleansed of flammable underbrush.

Cal Fire and the U.S. Forest Service, the agencies responsible for managing most of the state's forestland, have institutionalized this disconnect by relying on an ethic that calls for controlling natural resources, including fire.

Fighting fire is Cal Fire's major mission, confirmed by renaming the Department of Forestry and Fire Protection in 1995. The U.S. Forest Service has never rid itself of the century-old mentality that all fires must be suppressed by [10 a.m.](#) the next day.

As recently as the 1970s, agency officials were arresting Native Americans for setting intentional fires. Their academic counterparts [mocked](#) UC Berkeley's School of Forestry Professor Harold Biswell, who promoted prescribed burning as a management tool, calling him "Burn-Em-Up Biswell."

Today both agencies retain unerring allegiance to this control culture despite their public commitment to the benefits of returning natural fire to forest ecosystems. The U.S. Forest Service offers few incentives to district rangers who initiate prescribed burns, instead penalizing them for the [less than 1%](#) that escape beyond control lines. These are agencies that reward caution at the expense of innovation — even when science supports it.

One ramification is a reluctance to commit to developing a workforce of trained year-round "burners." Both the Forest Service and Cal Fire continue to rely on crews trained to fight, not light fires. When a wildfire breaks out, these crews drop their rakes and drip torches for the chainsaws and helicopters that promise overtime pay and macho glory. Even the 2019 [Caples prescribed burn](#), planned for three years as the largest intentional fire in the Sierra Nevada, saw two interagency hotshot crews [leave](#) mid-burn for "higher priority" fire assignments.

Some of these barriers are starting to come down. The Forest Service and Cal Fire have each committed to treat [500,000 acres per year](#) by

2025 with mechanical thinning or controlled burning. Prescribed burns are a fraction of these on-the-ground treatments. Still, Cal Fire's 30,000-acre target for this year is 10 times the actual prescribed fire acreage accomplished in 2015; it has already burned 11,000 acres. The Forest Service applied intentional fire to nearly 60,000 acres last year and has gradually increased its goals.

Attitudes, too, are changing. When the 1,080-acre [Caples Fire](#) escaped the designated area and burned 2,355 additional acres, Eldorado National Forest and regional officials backed the local leadership, calling the escape "a calculated risk" and part of the learning process.

But even the agencies' accelerated goals pale against the acreage scientists say forests need to be resilient. Historically natural fire burned nearly 500,000 acres annually in the Sierra alone, according to a [study](#) published in the Society of American Foresters. The backlog of prescribed burns has grown to nearly 3 million acres. At the current rate two-thirds of California's national forest lands will never be treated with intentional cleansing fire.

Along with entrenched agency reluctance, robust prescribed burn programs face another major hurdle: smoke. No one likes it, and prescribed fires emit it. When their constituents complain, politicians pressure agencies to stop both intentional burns and monitored lightning starts.

These short-term political fixes extend the long-term fire deficit. Air emissions technology is evolving rapidly, allowing agencies to [determine](#) where smoke plumes are heading and manage fires to limit pollution in communities. Using prescribed fires strategically can actually protect public health by reducing out-of-control fires, which

emit far [more toxicity](#) than controlled burns, says Craig Thomas, director of the [Fire Restoration Group](#): “It’s a tradeoff. We either work with fire or it eats our lunch.”

To achieve forest resilience we need to change our relationship with fire. When his Karuk ancestors caught a whiff of smoke in the air it made them feel safe, says Bill Tripp, director of natural resources and environmental policy of the [Karuk Tribe](#). They knew their communities were better protected.

With wildfires incinerating entire towns and torching millions of acres of forestland, management agencies should heed the nurturing power of natural fire. Managed thoughtfully, it is a guardian we can trust to protect us from uncontrolled infernos.

Jane Braxton Little, based in the northern Sierra Nevada, is an independent journalist covering science and natural resource issues for publications that include the Atlantic, Audubon, Discover, National Geographic and Scientific American, jblittle@dyerpress.com. She has also written about the [paradox of the California condor](#), [conserving Tejon Ranch](#), reclaimed [homelands of Northern California tribes](#) and how the pandemic ended the [153-year-old Feather River Bulletin](#).