## FIRE WITH A PURPOSE: PRESCRIBED BURNS

While prescribed burning won't stop climate change, these "good fires" are an important way to diminish the risks of wildfires.

Wildfires are growing larger and becoming more destructive than ever before. While much of this is due to climate change, there is another, often-overlooked factor in play: the systemic removal of Native Americans from their land and the suppression of their cultural burning practices.

Cultural burning is a Native American practice that promotes ecological diversity while reducing wildfire fuel and limiting the reach of subsequent fires. As noted by Ron Goode, Tribal Chair of the North Fork Mono, "there were around 350,000 Native Americans historically who lived across California, and they burned 2% of the state annually as a form of protection, food supply, and for the health of the ecosystem." As generations of settlers performed acts of violence against and brought disease to the state's Indigenous population, California's forests grew dense and unmanaged for over a century.

Government suppression of cultural burning began in 1793 when Spanish settlers prohibited the use of fire on their "pastureland." The 1850 Act for the Government and Protection of Indians and the Weeks Act of 1911 further criminalized cultural burning. In 1968,

the National Park Service discovered that no new giant sequoias had grown in California's unburned areas. They soon changed their policy, allowing fire to take on a more natural role in the Parks. The Forest Service followed suit in 1978.

"PRESCRIBED FIRE IS MEDICINE. TRADITIONAL BURNING TODAY HAS BENEFITS TO SOCIETY AS WELL AS SUPPORTS WHAT THE TRIBES NEED."

- Forest Lake (Karuk heritage and Yurok family), US Forest Service research ecologist

Between 1982 and 1998, California's land management agencies burned around 30,000 acres annually with prescribed burns, also called "good fires." The state has also slowly been forming relationships with some California tribes to assist with this practice, though trust between Native tribes and government authorities is taut from years of mistreatment. A 2020 report by Nature Sustainability, however, revealed that the state may need to burn 20 million acres – about 20% of the state – to stabilize the spread of wildfires. In the face of climate change, controlled burns provide us with one way to combat intensifying wildfires.





Views from prescribed burns in Pt. Reyes National Seashore in Northern California. Before a National Park Service burn begins, the agency administrator – typically the park superintendent – and the burn boss – who directs prescribed fire operations – go through a risk management checklist. Some of the questions include: Are weather conditions within prescription? Are appropriate holding resources available? Has there been public notification? Is a smoke management plan being implemented? If the answer to any of these is "no", the burn does not proceed. Both photos courtesy U.S. National Park Service.

**Top:** After a controlled burn, workers perform a *mop-up* to make sure hot spots won't flare up. Mop-up involves looking for smoldering fuel, and extinguishing it with water or dirt.

**Bottom:** Underburning removes surface fuels while leaving the tree canopy intact. Here, surface fuels are removed beneath oak trees next to a road. These fuels could otherwise be accidentally ignited by vehicle-related causes. Native Californians historically burned areas beneath oaks to enhance the acorn harvest.

The repression of cultural burning practices continues to negatively affect Native California tribes. For the Karuk Tribe of Northern California's Klamath region, this has stifled spiritual and cultural practices and limited access to traditional food sources. The lack of good fires and subsequent increase in fuel load contribute to the loss of elk and deer habitat in the Klamath territory, driving away a major traditional food source. Acorns grow in fewer quantities and at a lower quality. Altered fire patterns also stymie the growth of plants like hazel and willow, reducing their ability to be used in important cultural traditions like basket weaving.