

September 28, 2020 | By Ryan Klausch| [Forests](#)

Wildfires and People: What Can We Do Now?

As another wildfire season scorches the western United States, it's natural to be shocked by the startling images of dark red skies full of smoke and ash. But while seemingly unprecedented and insurmountable, the now yearly devastation fits into a clear trend. Ryan Klausch, a forester out of our North Coast California Office, explains the history of forest fires in the region, how climate change is making fires worse, and why proper forest management techniques are so important to alleviating fire's destructive spread.

Here we are again—another devastating fire season bringing increasingly common conditions across the drier, hotter parts of the country. Many people are asking the same questions: What can we do now? How can we learn to coexist with fire? To answer that question, we must look back at history.

Fire Is a Necessary Ecological Process

The West is no stranger to wildfires. In California, they are as natural as wind or rain. In fact, the Golden State's landscape evolved with and needs some level of fire to stay healthy. Fires reduce deep layers of accumulated branches and leaves, cycling those nutrients back into the soil. They clear out the understory and open the forest floor to sunlight, resulting in emerging grasses, forbs, and brush that provide food for wildlife (including those that evolved for these specific conditions). Specialized plants such as closed-cone trees even *require* fire for successful germination and reproduction.



Ryan patrols the perimeter of the Erskine Fire in July 2016 near Lake Isabella, CA. Often, hand crews dig a line of bare dirt along the fire's edge to stop it from progressing, creating what is called a handline.

Forest Fires Have Many Causes, but Most Are Human-Centered

Before humans inhabited California, lightning and volcanic activity were the primary igniters of fire. Eventually, prehistoric indigenous people came onto the scene and purposefully lit fires to open forests, increase habitat for game animals, and to improve growth conditions for certain plants. Scientists have estimated these early inhabitants often burned [more than four million acres per year](#).

Modern day wildfires are primarily caused by human accidents. Forgotten campfires, discarded cigarettes, equipment malfunctions and burning debris piles are all common starts that happen much more frequently than natural (lightning) ignitions. However, the cause of fire is not necessarily the root of our problem.



Ryan (left) and his squad boss after a successful day putting out hotspots on the Walbridge Fire near Cazadero, CA. Photo credit: Sasha Berleman.

Deforestation and Reactionary Approaches Are Putting More People at Risk

A large piece of the West's wildfire problem lies in the sheer number of people living in locations prone to burning, known as wildland-urban interface (WUI). Between 1990 and 2010, an area larger than Washington State was converted from wildland to WUI, [putting 25 million people at risk](#). Previously a fire could often be left to its own devices, but now life and property are directly threatened. Along with that threat comes a very natural reaction: fear. Losing your home, livelihood, pets, or loved ones or simply being evacuated takes a heavy toll and it's no surprise that fire is more often associated with trauma and disaster. That fear generates solutions that solve the short-term problem but leave us in a long-term dilemma. What happens to a fire-adapted ecosystem when we deprive it of fire and add millions more people?

Supported by early conservationists, the U.S. government wrongly interpreted indigenous tribes' intentional burning as destructive and primitive. Frequent fires could harm valuable timber and communities, so the reigning strategy was to put out all fires. Over 100 years later, the results of this practice are clear. Instead of burning on a regular basis and gradually reducing the amount of highly flammable shrubs and young trees, many forests in the West have a backlog of fuels and no simple way to deal with it.



Ryan and

other firefighters opening a meadow to create a safety zone on the Spruce Lake Fire in August 2017 near Crater Lake National Park, OR.

Climate Change Is Exacerbating Everything

Hotter, drier, and more extreme weather is lending itself to larger, faster, and more powerful wildfires. Debilitating droughts lowered the ability of trees in the Sierra Nevada to defend themselves from beetle infestation and resulted in approximately 29 million dead trees, literally adding more fuel to the flames. Larger and more dynamic storm systems are downing power lines and causing unprecedented lightning storms. 2020 brought us five of the largest wildfires in modern California history (and we still have more fire season). While the state has certainly tried to buffer against the impacts of climate change—for example with its pioneering cap-and-trade program—much, much more is needed before we would see a moderation in the climate risk.



Ryan and a handcrew spraying burning redwood trees high above the ground in Armstrong Woods State Natural Reserve in September 2020 near Guerneville, CA. While old-growth redwood trees are fairly fire resilient, State resource specialists opted to put out burning redwoods to protect public safety and due to the scarcity of old-growth remaining in California and Oregon.

Common Sense Strategies Exist

Here in California, compounding changes have made it nearly impossible for nature to self-correct, but community-based forest management practices can help. For starters: we can reduce fuels in dense forests, create fuel breaks to slow fires and allow firefighter access, and maintain defensible space around homes. That's on top of needing to think about the broader policy objectives of reducing the warming that's fueling these fires, and re-thinking how we live, work and play in the wildland interface.

At The Conservation Fund we work on the front lines of climate change—whether that’s battling fires in California or restoring marshland in the Chesapeake Bay. In particular, we know that we need to keep our largest terrestrial carbon sinks (our forests) from being developed and liquidated. We launched our [North Coast Forest Conservation Initiative](#) and our [Working Forest Fund](#) to make sure we maintain our nation’s most important forests. We also know we need to manage our forests in a way that builds ecological resilience, which we do on the North Coast through light-touch forestry, restoring streams and accelerating natural recovery. We still harvest timber—it’s an important part of our commitment to the local community and financing our operations, but we do so in a thoughtful manner guided by long-term science.



Ryan and his supervisor use drip torches during a prescribed burn on U.S. Naval Air Station Pensacola. Several million acres are burned every year in Florida thanks to a robust cohort of fire professionals and relatively flat land. Photo credit: Kylie Stackis.

Prescribed Burning Can Help

One approach is simply returning to our roots—the intentional burning practiced for millennia by Native Americans. Simply reducing fuels through logging and brush removal is not enough. We need to also recreate the ecological conditions that made our landscapes more resilient. And that requires reintroducing fire. Of all the tools for fighting fire, prescribed burning seems to take the most effort and care, and seasons to burn safely are short. If the weather is too hot and dry, many trees will die, and fire could escape containment. Too cool and wet and the burn will be incomplete or fail to carry fire at all. A poorly managed smoke plan can obscure roadways or inundate populated areas with poor air quality. Neighbors, if not included in the planning process, raise complaints and worries regarding burns gone wrong. Most troublesome of all, the average landowner doesn’t have the means to take on the legal and financial liability if a prescribed burn goes awry. Given these constraints, how can we burn successfully and safely?

Enter prescribed burn associations (PBAs). PBAs are collaborative community-based organizations consisting of landowners, land managers, community members, nonprofit organizations, and fire

professionals. Members of PBAs pool their resources and energy to help private landowners burn safely on their land. Utilizing local experts and generating a new generation of fire professionals means we can usher in a future of applied fire on our landscape. Locally, the most established PBA is [Good Fire Alliance](#) (GFA) based in Sonoma County, but many other counties are stepping up to the cause.

In the face of catastrophic wildfires, it's normal to feel helpless, but we have an opportunity to do something about it. The creation of PBAs seems to be one way to transform those feelings of helplessness into action. In the face of climate change, there's no better time to manage our forests and wildlands for fire resiliency.



Big River

Forest, California. Photo by Ivan LaBianca.

Learn more about The Conservation Fund's work in protecting and sustainably managing our nation's forests [here](#).

Read more about the Good Fire Alliance [here](#).

Watch a video on community-based burning [here](#).



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