

# Forum

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## COMMENTARY & OPINION

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### Close to Home:

## Reducing smoke and wildfire risks through strategic burns

Fire helps steward Northern California's forests, shrublands and grasslands, and all the life and livelihoods they support.

By TOM GARDALI

Historically, fire was intentionally and naturally set, widespread and common. Fire was and is necessary for stewarding Northern California's forests, shrublands and grasslands, and all the life and livelihoods they support. Unfortunately, more than a century of fire suppression has created conditions where wildfires can be extreme and result in the loss of life and property.

Smoke is a byproduct of fuels (e.g., grasses, trees, homes) that are consumed by fire. It consists of particulate matter and gases known to be harmful, even deadly, to humans. Smoke impacts some types of agriculture, and in our region, it can harm wine grapes if exposure is great enough.

Smoke also impacts us in other ways — it can cancel a baseball game, ruin a wedding, halt home construction, and smoke may be emotionally triggering for those of us who have lived through catastrophic wildfires.

Smoke is not going away — over a century of fuel accumulation and a changing climate makes wildfires inevitable. But not all fires are wild, and not all smoke is equal.

Wildfires are unplanned and uncontrolled fires in the natural environment that are increasingly impacting the built environment. Prescribed fire is the planned ignition of a defined area in accordance with applicable laws and regulations — it is a permitted activity. Prescribed burns are a successful tool that improves the health of natural ecosystems and can make communities safer by reducing overabundant trees and shrubs, fallen leaves and other natural matter that provide fuel for extreme and often destructive wildfires.

Prescribed fires are planned fires, and as such prescribed fire professionals wait until conditions are favorable to minimize potential impacts of smoke. Wildfires, by contrast, happen regardless of the conditions relevant to smoke dispersion and hence there is nothing that can be done to minimize smoke impacts until the fire is out.



Preparing for a prescribed fire takes months — sometimes years — of skills training, planning and coordination with government agencies to ensure the safety and success of the burn. Depending on the size and complexity of the targeted burn area, a prescribed burn plan and a smoke management plan must be prepared for review by a certified burn boss and approved by Cal Fire and the local air district.

Prescribed burns are designed to minimize adverse smoke effects on people, communities and airsheds. They are also meant to ensure the results of burning yield desired effects, including reducing fuels, improving wildlife habitat, controlling weeds and addressing other societal objectives.

Generally, wildfires produce more smoke than prescribed fires. In our region, we know firsthand that smoke from wildfires can last for days, even weeks and is linked to unhealthy air quality levels that impact all of us. By contrast, smoke from a prescribed burn is typically carried upward and disperses at a higher elevation without impact on air quality and, on occasion, may only be present for a few hours before dispersing into the atmosphere.

While research is still in the early stages, on average, pollutants are greater from wildfires than prescribed fires. In fact, one study concluded that smoke from wildfires was worse for children's health than smoke from prescribed burns. For these reasons, and based on a commissioned report, the American Lung Association concluded that "Prescribed fire can be used to mitigate the negative air quality, health, and safety impacts of large-scale wildfires."

We know what wildfires can do in our region and beyond — damage wine grapes, destroy entire neighborhoods, strain economies, create health problems, disrupt lives and take lives. To reduce uncertainty around wildfires and all the impacts wildfire smoke brings, we must support prescribed fire.

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*Tom Gardali is the CEO of Audubon Canyon Ranch, a North Bay nonprofit that connects nature, people, and science for a more resilient world.*

<https://www.pressdemocrat.com/article/opinion/sonoma-county-audubon-canyon-ranch-smoke-fire/>