

# Fire seasons are becoming hotter, drier and longer

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The fast-moving brush fire tearing through the Santa Clarita Valley this weekend is part of a larger trend: Wildfire seasons in the western United States are lasting longer and burning more land, according to a recent report by the U.S. Department of the Interior.

Over 29,000 wildfires have scorched more than 2.6 million acres of land already this year, and the peak of the [fire](#) season hasn't hit yet, according to the report published last week.

Last year's fire season was the most severe on record, burning more than 10 million acres - roughly twice the size of Massachusetts.

Rising global temperatures and unrelenting drought contribute to the longer fire seasons. Average annual temperatures rose by 1.9 degrees Fahrenheit in the last decade, and snowpacks are now melting up to four weeks earlier in the year, leaving landscapes drier and causing fire seasons to start sooner.

While Alaska's wildfire season usually begins in April or May, this year the state saw its first flames in late February, according to the report. Warmer conditions in the fall mean that the fires burn longer too.

"It used to be you could expect the fire season to begin in April and wrap up before Thanksgiving," said Mike Ferris, a public information officer who has worked with the U.S. Forest Service for 39 years. "Now it seems like the fire season is year-round."

If [global temperatures](#) continue to increase, the National Wildlife Federation predicts, the area of forests burned is projected to double in size by the end of the century.

Lack of rainfall is another contributing factor. The last decade's drought in the western U.S. has created the driest conditions in 800 years, according to the most recent National Climate Assessment study. The study also predicts that droughts in the Southwest as well as heat waves everywhere will continue to become more intense, leaving dead plants and dry debris prone to flames.

Warmer weather conditions accelerate the growth of invasive weeds that act as fire fuel and lead to insect infestations that kill trees, adding to the stockpile of flammable material.

Erratic weather patterns and more severe thunderstorms make lightning strikes a more frequent source of wildfire ignition.

"Don't get me wrong, fire is a natural and beneficial part of many forest ecosystems," said Amanda Staudt, director of the Board on Atmospheric Sciences and Climate, in a video for the National Wildlife Foundation. "We need to allow some fires to burn and thus return our forests to more natural conditions with trees of different ages, lower fuel loads and more space between the trees."

Because people have tried for decades to suppress all wildfires, even harmless ones, Staudt said, unsafe levels of combustible materials have built up in forests. Drought and rising temperatures have increased the risk that this natural fuel will catch fire, creating blazes that are bigger and burn longer.

There was an annual average of 140 large (more than 1,000 acres) wildfires in the 1980s, but that increased to 250 per year in the 2000s,

according to a study published in *Nature Communications* last year.

Others caution that we don't have enough data to know for sure whether these bigger fires are the result of man-made climate change. Natural long-term atmospheric changes also affect drought and fire size, said Eric Kasischke, a professor of Geographical Sciences at the University of Maryland.

"These atmospheric patterns occur at cycles of seven to 20 years. It takes a long time to figure out what is impacting these things," he said.

But the high cost is certain. The U.S. Department of the Interior has exceeded its wildfire budget six times in 15 years, and last year's fire season cost the country \$2.1 billion.

"We urgently need to address the runaway growth of fire suppression costs," the Interior report said.

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