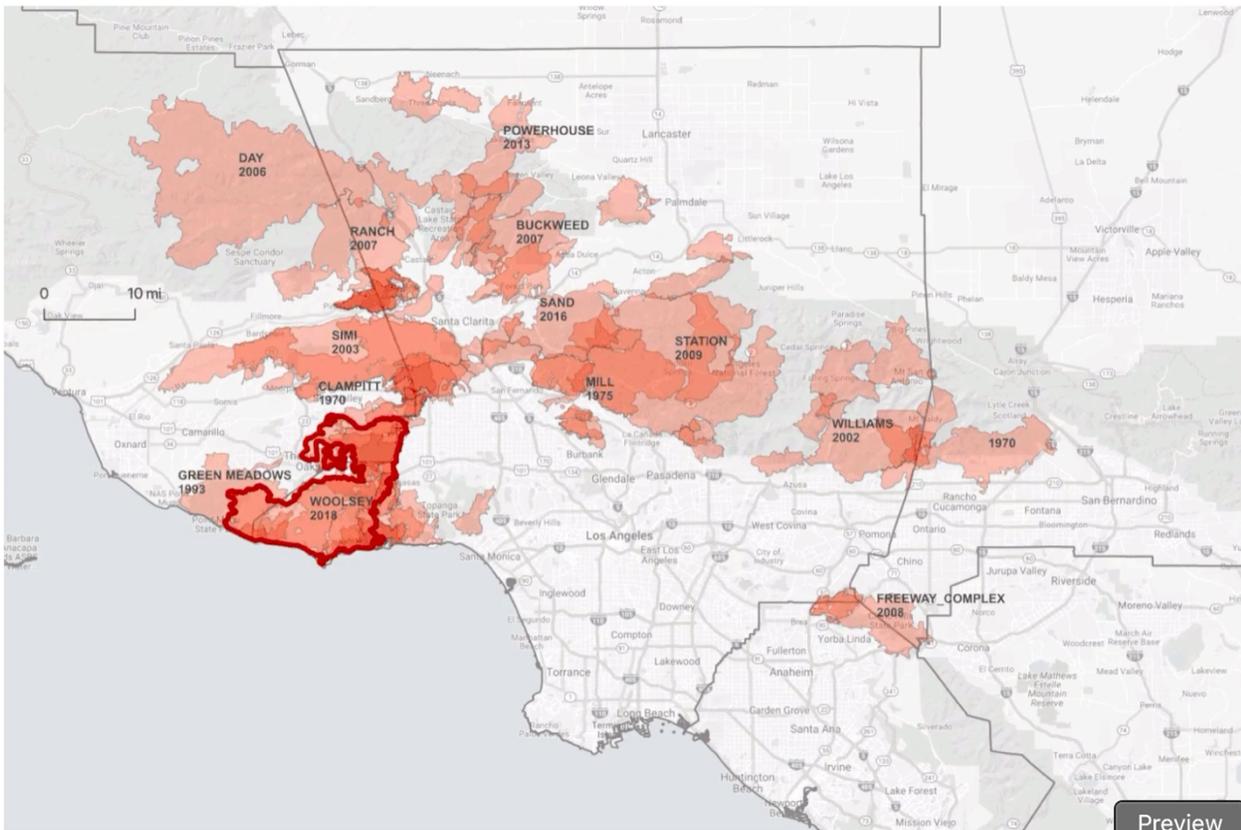


Maps show where wildfires have burned over and over again in LA county

Some locations—including along Malibu Canyon Road—have burned as many as six times since 1970

By [Patrick Sisson](#) Jan 22, 2019, 1:55pm PST



Maps of wildfire activity in Los Angeles County from 1970 to present, show the cumulative amount of fires that have burned more than 5,000 acres, in 1975, 2000, and 2018. The darker the shade of red, the more times an area has burned.

Chris Folkman looks at a map of wildfires that have scorched Los Angeles County over the last few decades and sees a region that needs to wake up to a new era of risk and responsibility.

A senior director of product management at [Risk Management Solutions](#), a catastrophe risk modeling company that works for insurance and financial institutions, Folkman says that deriving a pattern from individual fires, such as the fall's titanic

[Woolsey Fire](#), isn't the best way to predict where fires will burn next.

But looking at a record of Los Angeles wildfires since 1980, part of an exclusive analysis RMS prepared for Curbed, he says home owners, developers, and the insurance industry need to take the threat and risk of wildfires more seriously.

Woolsey—in both [its scale](#) and impact on the public consciousness—may be the Hurricane Andrew of

wildfires, an event that signals a shift in how wildfire risk are factored into how Los Angeles plans and builds, says Folkman. California cities [aren't being proactive enough](#) in changing land-use policy to adapt to an era of climate change-fueled weather and natural disasters.

“We’re 30 years behind, compared to how we look at, say, hurricane risk, because wildfire wasn’t considered a big deal until now,” Folkman says. “This has to be treated like a big boy peril, that’s why we’re starting to take this very seriously.”



Woolsey Fire aftermath: Scorched hillsides and damaged power lines are seen along Pacific Coast Highway, near Leo Carrillo State Beach, on November 10. AFP/Getty Images

As Los Angeles, and even the country at large take stock of the aftermath of this year’s [record-setting wildfire season](#), Folkman says that fires such as Woolsey underscore just how much public policy and development have not kept up with the evolving nature of these natural disasters.

But he’s convinced that the Woolsey and [Camp fires](#), firmly lodged in the public consciousness, will change that.

The RMS maps provided to Curbed show select wildfire activity in Los Angeles County from 1970 to present. In that time, there have been 57 wildfires larger than 5,000 acres, with some locations—including along the Malibu Canyon Road corridor—burning as many as six times.

In Los Angeles and Ventura Counties, historical fire footprints illustrate the regular occurrence of these events, RMS analysts said.

As developments grow beyond urban centers into the wildland-urban interface (vegetated and forested areas of high fire hazard), the threat of damage to life and property increases.

In many recent fires, including the Woolsey Fire, wildfires have crossed into settled areas through pathways known from previous events—as well as from current forestry data—to be at elevated risk.

The maps of LA wildfires over time may appear to show the number of fires increasing since 1975, but it’s actually the size, not the frequency, that’s increasing. Most are relatively small—[Calfire data](#) shows 95 percent of fires are kept under 10 acres—



but recently, those which have spread have become bigger, due to changing ecological conditions.

The average number of acres burned in the West has nearly [doubled since the 1990s](#), according to Kimiko Barrett, a research and policy analyst at Headwaters Economics.

“They’re fueled by high winds, dry conditions, earlier snowmelt, and [more fuel loading](#),” he says. “Increasing home development in wildfire-prone areas exacerbates wildfire risks to homes and people.”

“The whole landscape on the coast is being degraded, and it’s degraded in a way that probably makes fire bigger, and spread faster and wider. We all want solitude, we all want a view. But the number one factor making fires worse in more development in the wildlife urban interface.”

Historically, LA county fires have been concentrated in two areas, the national and state forests and parks in the north (1975’s Mill Fire and the 2009 Station Fire) and the area within and adjacent to the Woolsey Fire footprint, the coastal hills and canyons near Malibu.

According to Matt Bussmann, Folkman’s colleague at RMS, historic firefighting policies have long favored fire suppression (putting out any and all fires) over fire management (trimming back trees and allowing some burns as part of the natural life cycle of forests).

That strategy has led to widespread overgrowth; combine that with a warmer climate and longer drought seasons due to climate change, and the risk of fire in heavily forested parks goes up.

Development patterns come into play in areas around Malibu, where homes have steadily encroached upon the wildland-urban interface. More than [13,500 homes in Los Angeles and Ventura counties](#) are considered at high or extremely high wildfire risk,

according to data from real estate information firm CoreLogic.

Fires in the region are far from uncommon, according to Stephen Davis, a plant ecologist at Pepperdine who has studied [the impact of wildfires in and around Malibu](#).

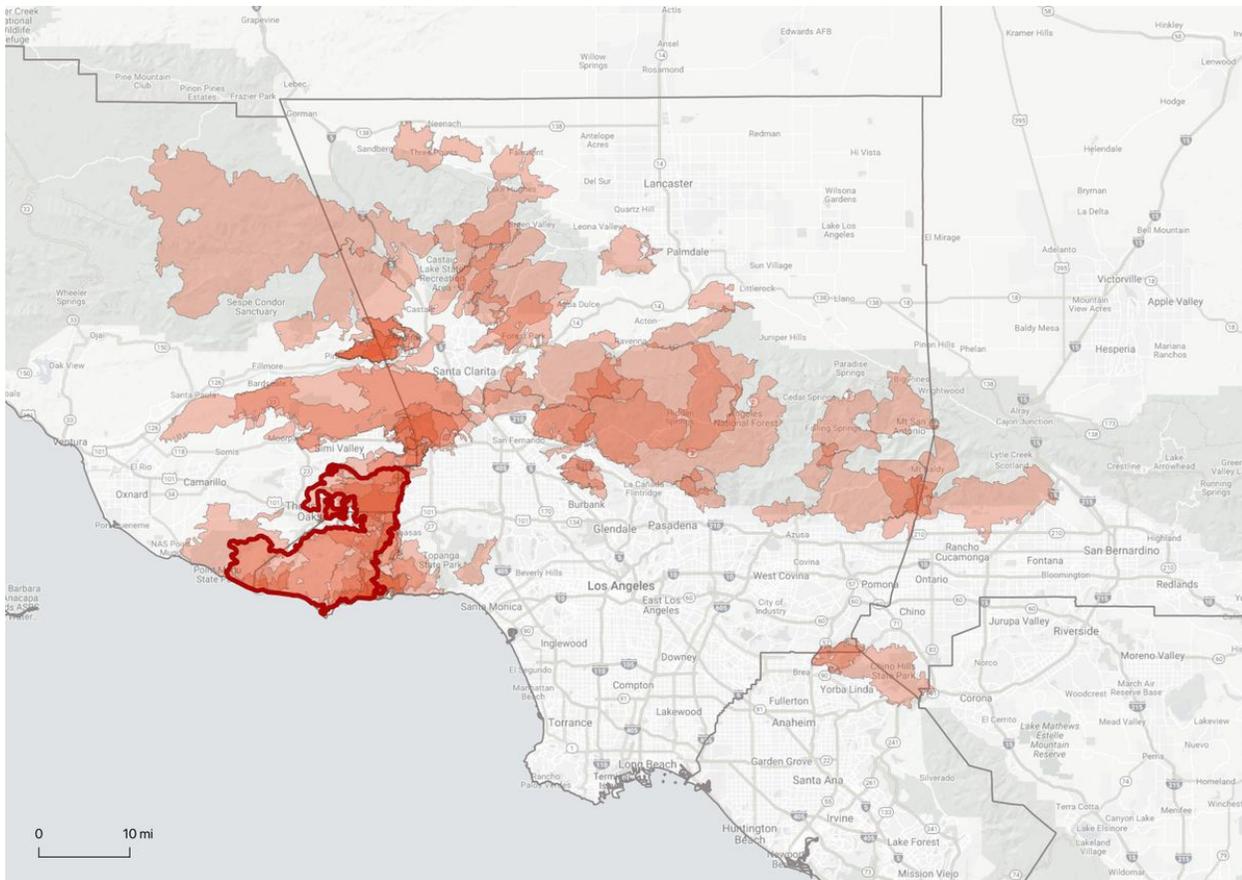
He’s seen a half-dozen serious ones since arriving at the school in 1974. But the factors that made Woolsey unique—evacuations on the [Pacific Coast Highway](#), a simultaneous large fire in Northern California, and an [extremely large perimeter](#)—can, in part, be attributed to development’s toll on the region.

“We like to blame fires on a whole lot of things, and unfortunately, it’s pretty personal,” he says. “It’s humans. We set the fires, on purpose (arson) or by accident, so as the population grows, the probability of a fire will increase. We’ve got an unprecedented drought brought on by climate change. We’ve brought in weeds, which have replaced native plants attuned to fires. I hate thinking it’s us, but humans need to do a better job.”

Increased development in that area has increased the potential severity of wildfires in the region, he says. The most important factor is the decrease in [defensible space](#) (the barriers between homes and buildings and the grass, trees, and shrubs that fuel fires).

Increased building in that area has led to more structures to protect, [spreading fire prevention and suppression efforts too thin](#). More than 60 percent of new development in California since 1990 has occurred in wildfire-prone areas, says Barrett.

“The whole landscape on the coast is being degraded, and it’s degraded in a way that probably makes fire bigger, and spread faster and wider,” Davis says. “We all want solitude, we all want a view. But the number one factor making fires worse in more development in the wildlife urban interface.”



Since 1970, there have been 57 wildfires larger than 5,000 acres in Los Angeles County. The dark red outline is the perimeter of the Woolsey Fire, which burned 96,949 acres in November. Courtesy of RMS/Risk Management Solutions

The last 15 months have seen the three largest fires in state history: Woolsey, Camp, and the Wine County fires in 2017. Last year, wildfire in California consumed 1.9 million acres, an area [roughly as large as Delaware and Rhode Island combined](#).

Wildfire costs have been a “drop in the bucket” compared to the toll of flooding, or even hail damage. [CoreLogic data](#) estimates that 32 percent of California properties have some degree of flood risk, versus 8.3 percent in wildlife risk areas. Insurance company claims just aren’t in the same league. But—with the impact of the last year and a half—that is beginning to change.

Folkman sees the insurance industry adapting policies by using a carrot and stick approach. Insurers will likely increase rates in areas of high risk (he doesn’t

see them taking the extreme step of exiting the market entirely). The carrot might be mitigation measures, like the ones used to protect against hurricanes, where homeowners and property owners would be given credits for using safe building materials or adding protective measures to their homes.

The Woolsey Fire was rare. But tracking the evolution of regional wildfires suggest it should be respected, as blazes of its size and scope will likely be repeated.

There has long been this experience of going through wildfires and having a short memory,” says Barrett. “After a few years, we’ll go back. It’s always been a lightning won’t strike twice belief. That’ll change.”