WILDFIRES & CLIMATE CHANGE

FACTS FOR ANY STORY

TOP LINE: Research shows that human-caused climate change has been a significant contributor to the size and intensity of, and damage from, this year's western U.S. wildfires.

WHAT THE SCIENCE SAYS

- In the western United States, human-caused climate change has been responsible for more than half the increase in fuel aridity (how dry and flammable vegetation is) since the 1970s, and doubled the cumulative area burned in forest fires since 1984. (PNAS)
- Climate-change-related declines in spring snowpack, and increased evaporation from higher temperatures in spring, summer, and fall, have reduced moisture and lengthened the fire season. (Climatic Change)
- Nights have warmed significantly more than days during California's fire season, and that added heat has lowered the night-time humidity that once gave firefighters some of their best opportunities to gain control over wildfires. The average overnight low temperature for California, Utah, and Arizona in July 2018 was the hottest since record-keeping began in 1895. (NOAA)

ACCESSIBLE EXPERTS

- **Dr. A. LeRoy Westerling** (UC Merced): awesterling@ucmerced.edu
- **Dr. Beverly Law** (Oregon State): bev.law@oregonstate.edu
- **Dr. John Abatzoglou** (Univ. of Idaho): jabatzoglou@uidaho.edu
- **Dr. Loretta Mickley** (Harvard University): mickley@fas.harvard.edu

USEFUL RESOURCES

- Climate Central Extreme Weather Toolkit: Wildfires
- SciLine Fact Sheet: Wildfire Trends in the United States

PITFALL WATCH

Avoid perpetuating the misguided question of whether climate change "caused" a wildfire. There is never a single cause as various factors contribute to **every** wildfire. It's better to ask:

- How is climate change influencing the likelihood of wildfires such as these? Or
- To what extent was this wildfire more intense because of climate change? Or
- How has climate change made the U.S. more vulnerable to large fires like this one?

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