

**INSIDE THE CURRENT MEDIA LANDSCAPE:  
SELLING HIGHLY-TECHNICAL SCIENCE STORIES TO EDITORS**

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# JOURNALISM IS UNDER STRAIN

- Newspapers are folding or getting smaller
- Tight budgets (little to no travel money)
- Widespread layoffs
- Trust in news is low
- Audience engagement is moving to social media/Tik Tok
- AI looms large

# NEWS VS. FEATURES

- Embargoed journal articles are typically a news story
  - Scientists will likely have a 30-60 minute phone or Zoom interview.
- Features are longer tales that typically have a “in the field” with the researcher or detail a winding backstory
  - Journalists often need funding to go to a field site (requiring grants or fellowships).
  - Scientists are signing on for multiple interviews and in-person time on a trip + follow-up queries.

# WHAT TO KNOW ABOUT WORKING WITH A JOURNALIST

- For a long feature, we need a narrative. Not a topic.
- You (the scientist) are the main character.
- Characters take actions in a story.
  - Invite a journalist to the field when you are doing cool stuff.
  - Even if it will be months before the paper is out. Negotiate the timeline with journalist.
- Journalists will fact check with you. But they won't share the whole story for you to edit.

# HOW TO CONVINC AN EDITOR

- Why will readers care?
- What's at stake?
- Is there an interesting backstory or recent discovery?
- Are cool maps involved?
- Any striking data that tells the story dramatically?

# AIR QUALITY CAN BE A TOUGH SELL

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February 8, 2024 | 5 min read | Add Us On Google

## Air Pollution Threatens Millions of Lives. Now the Sources Are Shifting

As EPA tightens air pollution standards for particulate matter, new research suggests some components of that pollution could worsen with climate change

BY VIRGINIA GEWIN | EDITED BY TANYA LEWIS



Sergii Kolesnikov/Getty Images

Public Health

Particle-based ambient air pollution causes more than [4 million premature deaths](#) each year globally, according to the World Health Organization. The tiniest particles—2.5 microns or smaller, known as PM<sub>2.5</sub>—pose the greatest

[nature](#) > [news feature](#) > article

NEWS FEATURE | 06 December 2022

# How a dangerous stew of air pollution is choking the United States

Fires and droughts in the western states are getting worse – and they're combining with industrial sources to threaten air quality and people's health.

By [Virginia Gewin](#)

## Feature

Great Salt Lake and California's Salton Sea to evaporate, exposing sediments to wind erosion. Between the 1990s and 2000s, the number of large dust storms increased by 240% in the United States<sup>4</sup>.

And the climate trends have fuelled explosive fire behaviour. "Wildfires are the front line of climate-change impact on air quality," says Paul Billings, national senior vice-president for public policy at the American Lung Association in Washington DC. "We are seeing more hazardous, very unhealthy air days than we've seen in 20-plus years of doing the State of the Air report," he says.

The impacts are clear in measurements of PM<sub>2.5</sub> – the smallest particulate matter. After declining for many years in the Northwest, PM<sub>2.5</sub> readings have been climbing since 2016 (see 'Up in smoke'). The 2020 average of 11.9 µg m<sup>-3</sup> is just below the US standard of 12 µg m<sup>-3</sup>, which the EPA is considering tightening. The average is also well above current guidelines from the World Health Organization (WHO), which lowered its PM<sub>2.5</sub> guidelines in September 2021, advocating that levels should not exceed 5 µg m<sup>-3</sup>. That change, the organization says, is designed to save millions of lives.

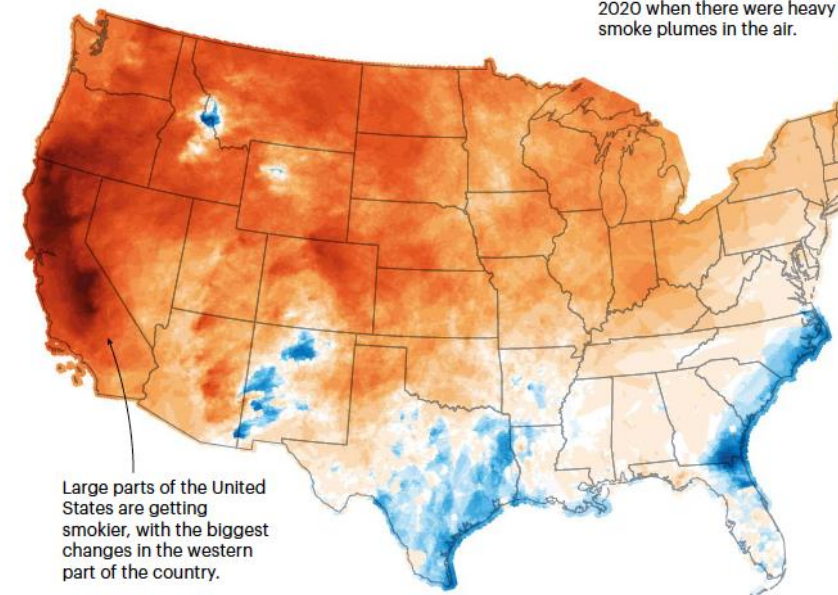
### Source of the problem

Researchers say that laws intended to combat air pollution don't address increasingly important sources, such as wildfires and dust. In fact, the EPA created an exemption for the increased air pollution that occurs during wildfires, dust storms and similar events considered to be 'natural'. The agency's 'exceptional events rule', adopted in 2007, excludes days when such events happen from consideration by regulators.

Since that rule came into force, Arizona's Maricopa County – home to the city of Phoenix – has used the exceptional events rule to

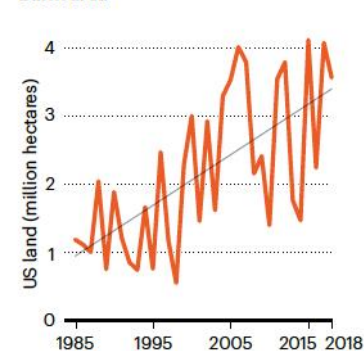
## UP IN SMOKE

Wildfires are getting worse in the western United States and are contributing significantly to air pollution in that region, reversing some of the gains in air quality achieved over the past few decades.

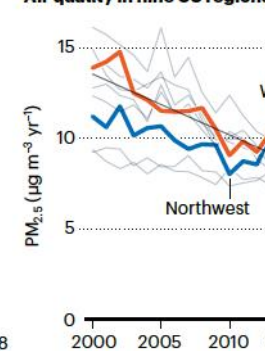


The total area burnt each year in the United States is rising rapidly because of climate change. And in the past several years, the concentration of small pollution particles, collectively called PM<sub>2.5</sub>, has increased in the western and northwestern regions.

### Burnt area



### Air quality in nine US regions



# ENVIRONMENTAL JUSTICE FRAMING

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## Articles by Virginia Gewin

Virginia Gewin is an independent science journalist and a Nova Institute of Health fellow reporting on air quality and public health. Based in Portland, Oregon, she has spent the last two decades writing about climate change, food security, and environmental justice for publications including Nature, Popular Science, and Civil Eats. She is a 2024 James Beard Media Award nominee.

### Featured Article

## The EPA funded citizen science to address gaps in air monitoring. Will it result in cleaner air?



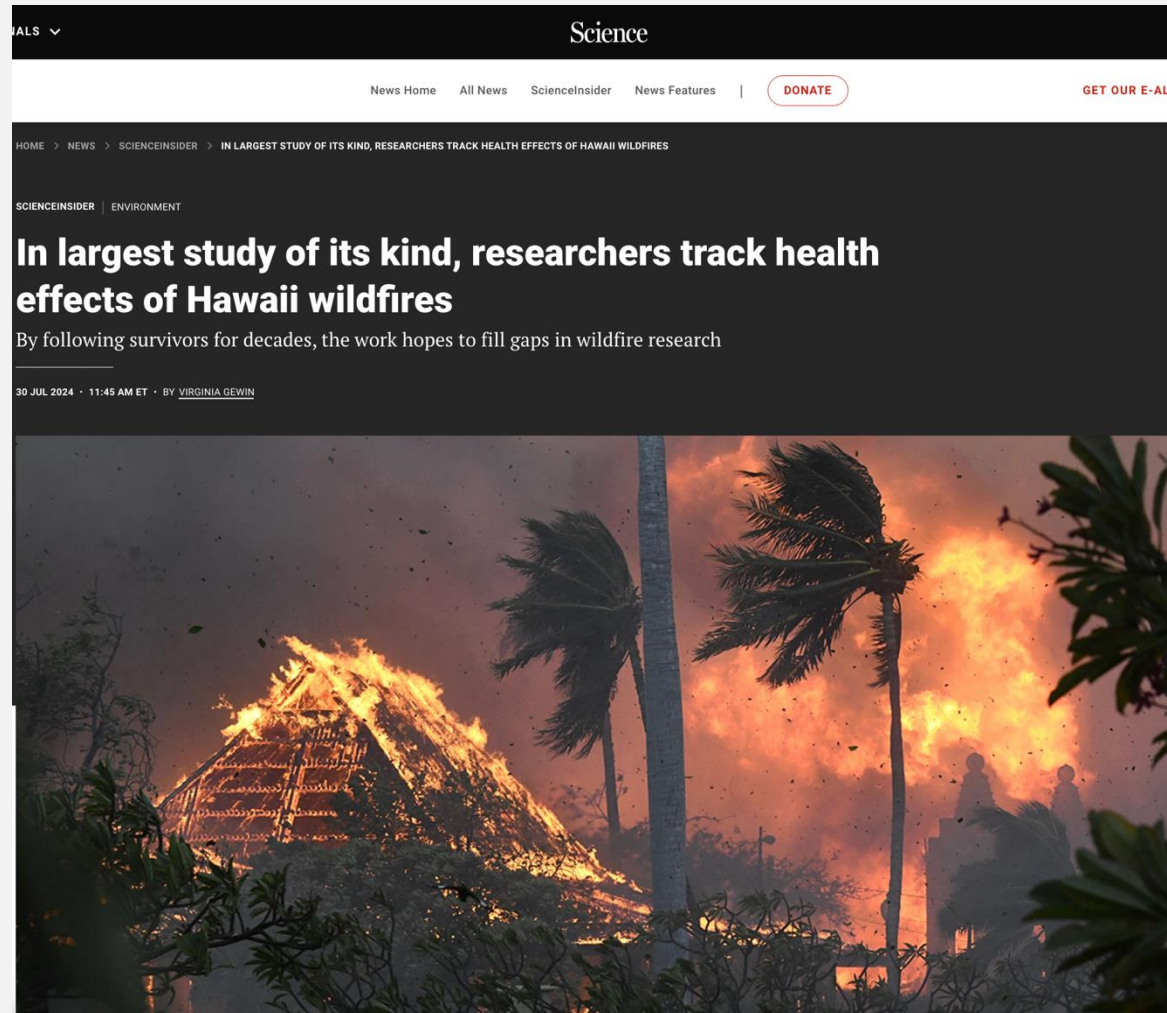
Reporting for this story was supported by the Nova Institute for Health.

In the decades since Congress passed the Clean Air Act in the early 1960s, air quality monitoring has become one of the EPA's central tools to ensure the agency delivers on the promise to protect people from polluted air. The EPA, in partnership with state regulators, oversees a network of roughly 4,000 monitors across the country that measure the levels of six pollutants detrimental to human health, including ozone, sulfur dioxide, and particulate matter.

But the network was primarily set up to track pollution from automobiles and industrial facilities such as coal-fired power plants near large population centers; as a result, the monitors are not evenly distributed across the United States. Of consequence, a 2020 analysis by the environmental group Natural Resources Defense Council found that more than 100 counties modeled to have unhealthy levels of particulate matter did not have an air quality monitor to track Clean Air Act compliance. And, research indicates that communities of color ar...  
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 Virginia Gewin · Regulation

# FIRES, UNFORTUNATELY, HAVE BEEN A GOOD WAY INTO AIR QUALITY STORIES



# SCIENCE I KEEP TRYING TO HIGHLIGHT

- We treat PM<sub>2.5</sub> as a monolith, but we need to start digging into the regional components.

Especially when it comes to wildfires/urban fires.

- How will TEMPO alter the air quality conversation?
  - For example, what does the national picture of volatile organic compounds look like?