

California Burning: How Big Ag and Big Oil Are Fueling the Flame



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As California keeps drilling for more and more climate-destroying dirty oil, the state's record-breaking wildfires and historic megadrought are worsening. Scientists predict that climate change will exacerbate both wildfires and droughts. Dramatic reductions in greenhouse gas emissions would help curtail the intensifying climatic disasters in California — but to do this, a ban on all drilling and fracking and a transition to 100 percent renewable energy must happen now.

Fossil Fuels Drive Drought and Wildfires in California

The United States is one of the world's biggest contributors of climate-altering greenhouse gas emissions,¹ helping to fuel California's dangerous wildfires and megadrought. California is the country's seventh largest producer of crude oil,² and if the state burned all of its proven crude reserves, this could unleash an estimated 951 million metric tons of carbon dioxide into the atmosphere — equivalent to the annual emissions of 240 coal-fired power plants.³

From leaky wells to dangerous blowouts, California's oil and gas industry is directly contributing to the climatic disasters

that the state so desperately needs to get under control. The 2015 blowout at the Aliso Canyon gas storage facility is perhaps the most infamous example of the dangers of fossil fuel infrastructure. Ultimately, the explosion unleashed around 100,000 metric tons of the greenhouse gas methane directly into the atmosphere.⁴ And as of June 2021, California had more than 60,000 active and newly permitted oil and gas wells, many of which are prone to leaks, spewing more methane and other emissions into the air.⁵

A Historic Megadrought

California is suffering through a historic megadrought compounded by climate change.⁶ In September 2021, 88 percent of the state was experiencing an extreme drought, with 47 percent of the state categorized as "exceptional" — the most severe drought category.⁷ The period from 2000 to 2018 was the second driest 19-year span in the western United States over the past 1,200 years.⁸ But this is likely just the beginning. As our planet warms from climate change, dry periods will become more frequent, ushering in a new, drier normal.

Record-breaking droughts have forced communities to grapple with water scarcity, and climate change will further threaten water resources.⁹ As temperatures continue

to warm, less snowpack, more evaporation and drier soils could reduce the water in California's rivers and deltas.¹⁰ Water rationing in response to the 2021 drought may have consequences for produce prices and supplies across the United States.¹¹ California's five-year drought from 2012 to 2016 cost billions in agricultural economic losses.¹² Low water levels and warm temperatures have wreaked havoc on fisheries in the Klamath River Basin in the state's north. Fish populations that are vital for food and ceremony for Indigenous tribes in the region are collapsing.¹³

The Oil and Gas Industry Is Sucking Up Water and Amplifying Climate Chaos

As California suffers from a major drought and enters a climate change-fueled wildfire season, oil and gas operators continue to use hundreds of millions of gallons of freshwater annually for drilling operations.¹⁴ This is a vicious, symbiotic cycle: Fracking and drilling contribute to climate change and suck up finite water resources, then drought and wildfires worsen from climate change.

Food & Water Watch found that from January 2018 to March 2021, the oil and gas industry used **more than 3 billion gallons of freshwater** for drilling operations that could otherwise have supplied domestic systems.¹⁵ The freshwater sucked up by the oil and gas industry since 2018 could have provided everyone in the city of Ventura with the recommended amount of daily water during drought (55 gallons a day) for 16 months.¹⁶



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The former site of Lake Laguna in San Luis Obispo, California, now a glaring example of the droughts continuing to ravage the state.

At the same time, oil and gas development pollutes California's finite freshwater resources, making them unusable. When oil and gas corporations discard the toxic wastewater produced during drilling, underground injection is their most common disposal method.¹⁷ In California, some corporations have routinely injected oil wastewater directly into aquifers — putting drinking water at risk.¹⁸ This toxic wastewater contains fracking fluids, contaminants, brines and radioactive materials.¹⁹

Likewise, the increase in the frequency, size and severity of wildfires driven by climate change can have huge impacts on water sources in burned areas. These regions have more soil and stormwater runoff, increasing the amounts of sediment, nitrogen, phosphorus and trace metals present in the water, as well as causing more organic material to enter the water.²⁰

Water Shortages and Drought in the Central Valley

California is running out of water, but the risks of water shortages are not distributed evenly. In the Central Valley, low-income communities, communities of color and communities already burdened by environmental injustices bear the brunt of drought impacts.²¹ More than 80 percent of California's new and active oil and gas wells are in the Central Valley.²² The Central Valley is also a center for corporate agriculture — 80 percent of water used in California goes to agriculture.²³ Large, water-intensive almond²⁴ and alfalfa farms²⁵ and mega-dairies²⁶ use unsustainable volumes of water.²⁷ Insufficient surface water, lack of groundwater regulations and advancing technology led large agribusinesses to pump groundwater at alarming rates, further exacerbating local water shortages.²⁸

Meanwhile, families are battling water shortages. One in five water wells in the Central Valley drilled after 1975 have gone dry, mainly concentrated in the southeastern region of the Valley.²⁹ More than 2,000 domestic wells in the San Joaquin Valley ran dry during the 2012-2016 drought.³⁰ Another analysis predicts that more than 3,600 domestic wells in the Central Valley could run dry in 2022, with almost half of them located in Fresno, Madera and Tulare counties.³¹ In April 2021, the California Water Board warned that nearly half of the state's public water systems could soon be at risk of failing to meet the human right to water.³² Water shortage risks are concentrated among groundwater-dependent small water systems and rural communities.³³

As climate-fueled water shortages continue, Californians will continue to pay the price. Domestic water wells run dry more often than wells on massive farms because they are shallower and homeowners lack the resources to pay for new, deeper wells.³⁴ Multiple studies predict that California will experience increasingly frequent and intense droughts throughout the twenty-first century — when combined with water shortages, this sets the stage for destructive and deadly wildfires.³⁵

Wildfires Threaten California's Homes and Health

Warmer temperatures are increasing the incidence and size of wildfires, while lengthening the fire season and prolonging the risk to California communities. High temperatures and rates of evaporation, alongside the current megadrought, are drying out soils and vegetation — creating additional fuel for faster, more intense fires.³⁶ A shocking 13 of the 20 most destructive wildfires in California history have occurred since 2016, destroying 39,542 structures and killing 152 people.³⁷

Future wildfire predictions for California remain grim. California's Fourth Climate Change Assessment report warns that the average area burned by wildfires could increase 77 percent by 2100 if emissions continue to rise.³⁸ Without significant action, wildfires will continue to threaten the millions of Californians living in areas with high fire risk.³⁹

The public health threats from wildfires are undeniable. Communities of color and elderly populations are disproportionately vulnerable to the impacts of wildfires.⁴⁰ A 2018 study estimated that majority Black, Latinx or Indigenous census tracts were 50 percent more vulnerable to wildfires.⁴¹ Indigenous peoples were six times more likely to live in areas with high vulnerability to wildfires.⁴²

Wildfires also release harmful particulate matter into the air — a dangerous pollutant associated with heart disease, respiratory illnesses, reduced lung function in children and premature death.⁴³ Smoke from wildfires may compound the devastating impacts of the pandemic; studies have linked exposure to fine particulate matter to higher Covid-19 mortality rates.⁴⁴ A study from the California Air Resources Board found that the 2018 Camp wildfire spewed toxic metals such as lead into the air.⁴⁵ Wildfires are also associated with negative mental health outcomes including anxiety, depression and post-traumatic stress disorder (PTSD).⁴⁶

During the wildfires that ravaged the U.S. west coast in the fall of 2020, 35 California cities ranked among the top 100 cities in the world with the worst air quality due to fine particulate matter.⁴⁷ Already, the San Joaquin Valley is plagued with some of the worst air quality in the nation.⁴⁸ Californians cannot afford more devastation from wildfires and deserve policies that stop climate destruction.

Food & Water Watch Recommends:

With the fossil fuel industry fueling more climate change, severe drought, and increased and worsening wildfires, we must immediately stop all new drilling in California right now, and quickly transition to 100 percent renewable energy — the 24 years that Governor Gavin Newsom has proposed is too long to wait.

To protect Californians from climate change, drought and wildfires, Governor Newsom must:

- Stop issuing fracking and drilling permits immediately and accelerate the timeline to phase out all fossil fuel production in the state.
- Develop a plan for a fair and just transition to 100 percent clean, renewable energy in California by 2030.

Endnotes

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