

Air on Colorado's Front Range was more polluted than usual this summer—and wildfires were not to blame

September 26 2024, by Noelle Phillips, The Denver Post



Credit: Unsplash/CC0 Public Domain

Metro Denver and the northern Front Range just experienced one of the worst ozone pollution seasons in 10 years, with 40 days when air quality

measurements exceeded federal standards.

A summary released by the Regional Air Quality Council, a quasi-governmental agency that makes recommendations for reducing air pollution, said the region recorded more days above federal pollution standards than it did in eight of the last 10 years. The ozone season runs from late May to early September.

The council called for "more immediate action" by the state to bring the region into federal compliance since the Environmental Protection Agency has set a 2027 deadline for the region to show improvement.

"It is clear we are moving in the wrong direction with ozone pollution," said Kate Merlin, a staff attorney with WildEarth Guardians, an advocacy group.

The council's summary blamed the Front Range's continued struggles with ozone pollution on a growing population, increased oil and [gas production](#), heavy vehicle traffic, [urban sprawl](#), climate change and struggling public transit systems.

Colorado is challenged by global ozone pollution and the geography of the Rocky Mountains. The state also had its share of summer wildfires and saw smoke drift in from the Pacific Northwest and Canada.

But Mike Silverstein, the Regional Air Quality Council's director, said global pollution, geography and wildfire smoke cannot be excuses for failure.

"We don't attribute our ozone problem to wildfire smoke," Silverstein said. "Wildfire smoke just exacerbates it."

Colorado is already considered in severe violation of the Environmental

Protection Agency's air quality standards, adding a sense of urgency to the need to reduce its ozone pollution. That designation requires motorists to buy a more expensive blend of gasoline in the summer and leads to stricter pollution controls on industry. Ozone pollution also makes people sick.

The state has until 2027 to lower its average ozone pollution to a 2008 standard of 75 parts per billion, and it also is behind in meeting a more stringent 2015 requirement to lower average ozone pollution to 70 parts per billion.

This summer is the first season when the numbers will count toward the three-year average that is used by the EPA in determining whether or not a region is in violation.

Air monitors across the Front Range this summer recorded 18 days when ozone pollution levels were between 71 and 75 parts per billion. On 22 days, levels exceeded the 75 parts per billion 2008 standard, according to Regional Air Quality Council data.

The state now sits at an average of 81 parts per billion.

Ground-level ozone pollution forms on hot summer days when volatile organic compounds and nitrogen oxides react in the sunlight. Those compounds and gases are released by oil and gas wells and refineries, automobiles on the road, gas-powered lawn and garden equipment, and fumes from paint and other industrial chemicals.

It forms a smog that can cause the skies to become brown or hazy, and it is harmful to people—especially those with lung and heart disease, older people and children. Ground-level ozone is different than the ozone in the atmosphere that protects Earth from the sun's powerful rays.

Even if Colorado were to meet the 2008 standards, it still would be in violation of the 2015 standards and would be unable to escape the EPA's demands for change. Earlier this summer, the EPA reclassified Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, Jefferson and Weld counties, along with a portion of Larimer County, as being in serious violation of that 2015 standard after previously being considered in moderate violation.

For the past four years, Colorado has created strategies for improving the state's air quality.

Among other actions, it has offered incentives to encourage people and businesses to drive [electric cars](#) and trucks. It has offered discounts on electric lawn and garden equipment and restricted their use by state agencies. It has set new emissions standards for the state's largest industrial polluters. And it has adopted new rules to lower emissions from oil and gas production.

Environmentalists want the state to be tougher on the oil and gas industry, which is the largest emitter of pollution.

The millions of cars and trucks driven on Colorado's roads also are a potent source of [volatile organic compounds](#) and nitrogen oxides that form ozone pollution. However, the state's air pollution regulators and politicians can do very little to regulate people's driving habits, said Merlin, from WildEarth Guardians.

"They do have a lot of regulatory control over oil and gas production," she said. "That is whether it's produced, where it's produced, how much is produced, when it's produced and what type of pollution control requirements are to be utilized."

Environmentalists and Democrats in the state legislature have tried to

persuade the state to enact new restrictions on the oil and gas industry, including limiting production to specific times when it is less likely to contribute to higher ozone pollution.

For example, the initial drilling phase at a new well creates some of the highest levels of pollution from that well—so environmentalists want the state to tell oil and gas companies when they can start drilling, based on the season and temperatures. But those efforts have failed.

Meanwhile, Colorado continues to issue more permits for oil and gas drilling in the northern Front Range.

"The big meaningful pollution control technologies, which are easy to do, have all been done already—and it's not enough," Merlin said.

"There are no more miracle fixes that are going to allow us to reduce ozone while increasing gas production."

The oil and gas industry maintains that it is doing its part to reduce pollution emitted from its production sites, and it has reduced pollution by installing new technology.

In recent years, the state has underwritten a Zero Fair for Better Air program that allowed people to ride Regional Transportation District trains and buses for free during part of the summer. But that program was reduced this year amid a tight budget, with RTD receiving money to cover free youth fares but not free summer rides for all.

Still, that program alone would not have made a difference to air quality, Silverstein said. Larger urban areas with better public transit systems still have clogged roads and [ozone pollution](#), he said.

"They're only a piece of the solution puzzle," Silverstein said of transit systems.

The Regional Air Quality Council must produce a plan in 2025 that outlines how the Front Range will meet its air quality standards. Its staff is working with local governments, industry and environmentalists to come up with a strategy, Silverstein said.

2024 MediaNews Group, Inc. Distributed by Tribune Content Agency, LLC.

Citation: Air on Colorado's Front Range was more polluted than usual this summer—and wildfires were not to blame (2024, September 26) retrieved 4 October 2025 from <https://phys.org/news/2024-09-air-colorado-front-range-polluted.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--