

CLEAN AIR 4 PARKS

What is Ozone?

Ozone is a highly damaging air pollutant. For people and wildlife, ozone makes it harder to breathe by inflaming and irritating our lungs. It can cause asthma attacks, and it is particularly dangerous when we breathe heavily—like when hiking in a park.

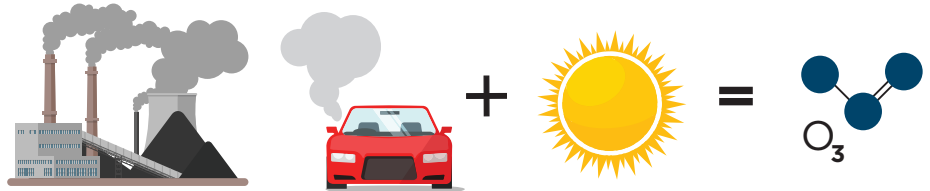
Ozone pollution hurts plants, trees, birds, mammals and insects by stressing them physically and weakening their immune systems. It reduces growth rates and increases vulnerability to diseases and insect damage. Ozone reduces the overall number of healthy plants and insects and inhibits their ability to intake sunlight, nutrients and food.



Ozone Pollution in Our Parks

Plants, trees, birds, bees are all harmed by chronic exposure to ozone pollution. Nature is supposed to be protected with distinct air quality standards—EPA must step up to protect our parks, public resources and the climate.

POLLUTION + HEAT AND SUNLIGHT = OZONE



Ozone is a gas produced when pollutants from cars and industries combine in sunlight. Above the earth, ozone is beneficial, but at the surface, ozone is harmful to living things. It is also a greenhouse gas contributing to climate change.

National parks are often ecologically unique areas – home to sensitive plants, animals, trees and birds that are susceptible to the harms of ozone. Pollution from coal plants, cars and trucks, oil and gas operations and many other industrial facilities can travel hundreds of miles away, dirtying the air even in remote national parks and wildernesses; we need strong ozone standards to protect both people and nature across the nation.

The Clean Air Act has helped improve the air over the years, but science tells us people, ecosystems and the climate are still at risk from dirty air. More than half the United States’ population lives in areas where health is threatened by ozone pollution—with people of color and lower incomes most at risk.

Over time, the U.S. Environmental Protection Agency (EPA) has gradually improved ozone “primary” pollution standards that protect people’s health. Yet they have repeatedly failed to set “secondary” standards intended to protect parks, ecosystems, and other

public welfare resources such as soil, water, crops, buildings, weather, visibility, climate, and general quality of life. NPCA sued EPA for these failures and most recently in 2019, courts said they must reconsider setting secondary standards to protect nature from chronic and cumulative ozone exposure.

Science shows that plants, animals, and ecosystems cannot escape the dangers of ozone: they have nowhere to hide. Primary air standards set for people assume a limited overall exposure, but nature is exposed to the air day in and day out, year-round; when ozone levels are high, they remain exposed until clean air returns.

NPCA is working to ensure that EPA sets unique and distinct secondary ozone standards to protect the sensitive and special ecosystems in our national parks, nature and communities for generations to come.

Top: Shenandoah National Park, Virginia
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WHAT'S AT STAKE

Nature is Suffering from Dirty Air

The impact of ozone exposure on trees, plants and ecosystems is often assessed using a seasonal index designed to reflect the cumulative exposures and damage over the the long growing season summer months when daytime ozone concentrations are the highest and plant growth is most likely to be affected.

In 2020, 53 national parks reached ozone levels above the thresholds being advocated for in a new ecosystem pollution standard. If we had a standard set to protect nature and ecosystems from pollution, plants, animals and insects could be better protected from chronic and cumulative exposure.

The EPA could easily establish a secondary standard; all the necessary measuring systems are already in place.



Ozone pollution harms plants at a cellular level. Researchers have found that ozone's detrimental effects can ripple through entire ecosystems, affecting everything within them - even the soil.

Bees and other pollinators struggle to find flowers due to high ozone, since it can diminish the scent trail they use to find their destination for pollination.



High ozone levels reduce the yields of essential crops such as corn and wheat. Ozone causes burn-like marks on plants and makes photosynthesis harder.

Sensitive plants like milkweed show harm and die from ozone pollution before other plants, which are important food for butterflies.



Ozone pollution makes birds sick and decreases how many insects are available for them to eat.

Our Most Polluted Parks

In 2020, 26 national parks recorded ozone exceedances (or experienced ozone levels that were higher than the current standards set to protect human health). Moreover, these 10 national parks have experienced repeated ozone exceedances consistently throughout 2016 to 2020:

ACADIA NATIONAL PARK



CHAMIZAL NATIONAL MEMORIAL



DEATH VALLEY NATIONAL PARK



DINOSAUR NATIONAL MONUMENT



INDIANA DUNES NATIONAL LAKESHORE



OTHER TOP POLLUTED PARKS INCLUDE:

Joshua Tree National Park
Mojave National Preserve
Saguaro National Park
Sequoia & Kings Canyon National Parks
Yosemite National Park

HOW TO GET INVOLVED

EPA must set a strong, independent ozone standard to protect parks and nature and strengthen standards to protect people. Join us in acting now!

Visit npsa.org/issues/clearing-the-air to learn more about what you can do.

CONTACT

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