Polluted Parks

How Air Pollution and Climate Change Continue to Harm America's National Parks

NATIONAL PARKS CONSERVATION ASSOCIATION

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Cover: Father and son look upon hazy mountain views in Olympic National Park, Washington. ©Noblige | Dreamstime **Right:** Forested views along the Blue Ridge Parkway reveal Great Smoky Mountains National Park ©Matt Anderson | Dreamstime

Overview

National parks are home to some of America's most epic wild places and best-preserved cultural and historic sites, and these places need clean air and a healthy climate to flourish. Yet air pollution and climate change are some of the most serious threats to the health of our parks today—and the problems they cause include weakening the health of plants and animals, permanently harming ecosystems, and negatively affecting visitors' health and enjoyment. The National Parks Conservation Association (NPCA) advocates for a range of policies to reduce air and climate pollution and limit the threats they pose and their effects on people and parks. This report offers an update from our 2019 Polluted Parks report with new data that shows modest improvements but our work to reduce air pollution and combat climate change is more essential than ever.

The effects of air pollution and climate change extend beyond just national parks—they also harm people and our communities. Major sources of air and climate pollution include industrial facilities such as coal-fired power plants, chemical manufacturing, pulp and paper facilities, and oil and gas development (drilling, pipelines and related infrastructure), as well as on and off-road vehicle traffic and agricultural operations. These sources emit a variety of air pollutants including greenhouse gases that drive climate change such as carbon dioxide and methane, as well as nitrogen oxides, sulfur dioxide, and particulate matter that are dangerous to breathe, harm nature and shroud scenic views. Too often, the people living closest to air pollution sources, such as Black, Tribal, Hispanic and low-income communities, disproportionately suffer the consequences.

Above: A coal-fired power plant in Central Utah, one of many sources of air pollution, contributes to the challenges outlined in this report. ©Gary Whitton | Dreamstime

To explain the influence and consequences of air pollution and climate change on America's national parks and their more than 310 million annual visitors,[1] NPCA's 2024 Polluted Parks report examines three primary air quality categories affecting parks—unhealthy air, harm to nature and hazy skies—and four primary climate change threats: wildfire, drought, sea level rise and invasive species. While parks have benefited from some improvements in air quality in the last few years, over 90% of parks analyzed still fall short of experiencing ideal air quality conditions.

1. NPS's Annual Visitation Statistics Release https://www.nps.gov/subjects/socialscience/annual-visitation-highlights.htm

Air Quality: Progress and Persistent Challenges

NPCA's assessment of the condition of air quality in national parks are based on data collected by the National Park Service (NPS) in 2021 for 399[2] parks across the country. NPCA developed a summary index for each of the air quality condition categories and the following classifications are used to indicate our level of concern for each of the three categories of Unhealthy Air, Harm to Nature and Hazy Skies in every national park:

- **Significant Concern**
- **Unsatisfactory**[3]
- **Low Concern**

These assigned levels of concern are determined based on specific pollution criteria for each category. For unhealthy air, ground-level ozone pollution is assessed through ozone concentrations. For hazy skies, visibility impairment is measured through particulate samples. For the harm to nature category, nitrogen and sulfur deposition is assessed through wet deposition by annual precipitation and ground-level ozone effects on vegetation (using the W126 metric derived from ozone concentrations). For each of these categories, there are various thresholds in the data that split whether a park falls into the significant, unsatisfactory, or low concern level. Specific details about the criteria and threshold cutoffs for each category can be found in our Resources and Analytical Methods.[4]

97% of national parks are still experiencing air quality conditions with significant or unsatisfactory levels of concern from air pollution

Significant Concern | Unsatisfactory | Low Concern

98%
of parks suffer from haze pollution

96%
of parks face ozone pollution problems that negatively affect human health.

96%
of parks have sensitive species and natural habitats harmed by sulfur and nitrogen deposition and ozone pollution.

In comparison to our previous Polluted Parks report[5], NPCA found that the number of parks with significant concern levels in at least one of the air quality conditions analyzed dropped from 96% to 70%, indicating some

Above: An Eastern Bluebird sits on a lilac tree; birds and other wildlife are affected by air pollution. ©Dssimages | Dreamstime

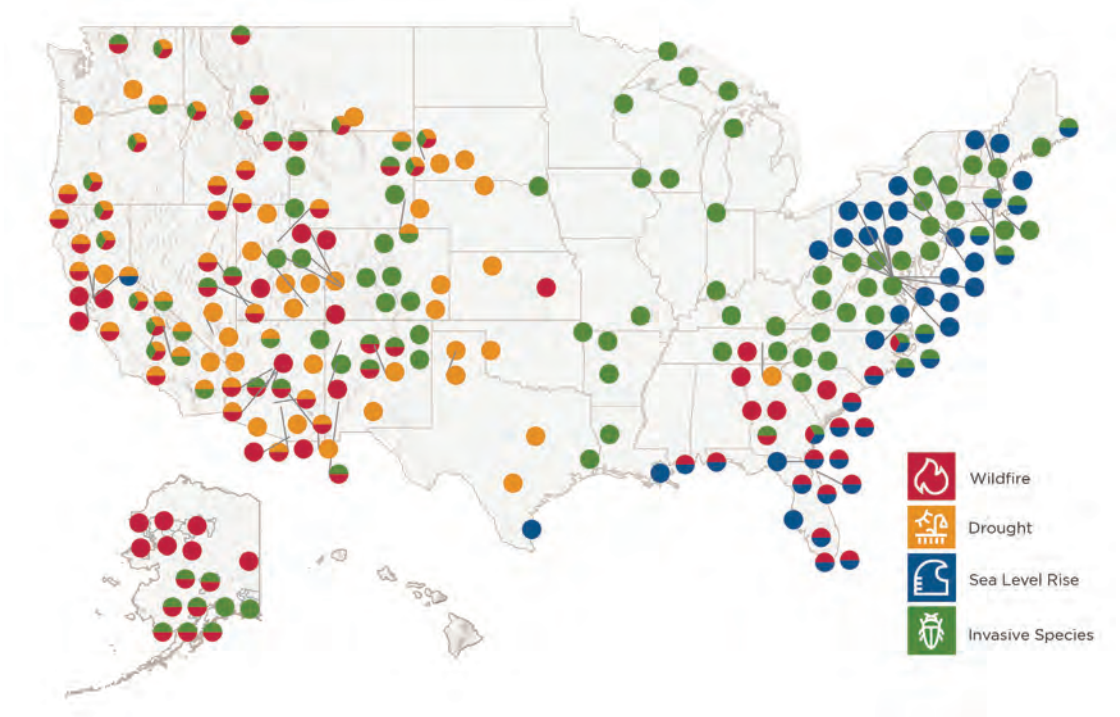
2. NPCA's previous Polluted Parks report from 2019 considered 419 parks. However, several parks had no data available. All 399 parks analyzed in this version had data for at least one of the air quality conditions.
3. In contrast to NPCA's Polluted Parks report from 2019, the mid-point level of concern for air quality conditions was adjusted from "Moderate" to "Unsatisfactory" to better reflect the negative effects of pollution and represent the health of parks as well as the need for further attention and solutions.
4. Resources and Analytical Methods https://www.npca.org/methodology
5. NPCA's 2019 Polluted Parks report https://www.npca.org/2019report (PDF)

improvements in air quality. Specifically, these improvements were identified in the unhealthy air and hazy skies categories where the significant concern levels dropped by 52% and 94%, respectively. The decreases are primarily attributable to successful implementation of clean air regulations that are aimed at reducing emissions from polluting sources. Nevertheless, the number of parks in the low concern levels across all categories continues to be extremely low. Most national parks still exhibit unsatisfactory levels of concern. Unfortunately, no major improvements were observed regarding the harm to nature category, and most parks continue to experience significant levels of concern.

Climate Change Threats to National Parks

In our examination of the National Park Service climate change data, we observed deeply concerning trends from the climate threats that our parks are facing. We found that out of 397 parks analyzed, roughly half are at high risk from at least one high-impact vulnerability factor. These factors, referred to as climate threats throughout this report, are wildfire, drought, sea level rise and invasive species. These threats were prioritized by NPS as primary concerns for parks because they have the potential to rapidly disrupt and transform park ecosystems and resources.[6] These changes can alter parks in ways that may be irreversible, making these parks a top priority for further study and underscoring the urgency needed to cut greenhouse gas emissions dramatically and swiftly, especially from carbon dioxide and methane gases. The map below indicates which parks are facing each unique threat. Multiple parks are facing more than one climate threat simultaneously.

Parks Facing Climate Threats



Right: Wildfire damage in Yosemite National Park ©Leonid Andronov | Dreamstime

6. Michalak JL and Others. 2021. A strategic analysis of climate vulnerability of national park resources and values. Natural Resource Report. NPS/NRSS/CCRP/NRR—2021/2293. National Park Service. Fort Collins, Colorado. https://doi.org/10.36967/nrr-2287214

Polluted Parks Analysis

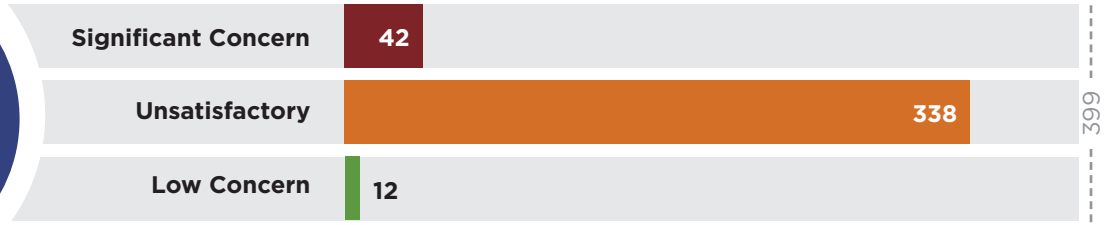
Unhealthy Air

Ozone is a harmful gas that forms when air pollutants—primarily nitrogen oxides (NOx) and volatile organic compounds (VOCs)—are released into the atmosphere and react together in the presence of sunlight. High up in Earth's atmosphere, ozone is beneficial, but at ground level, ozone pollution is dangerous to breathe. For people and wildlife, ozone can inflame lungs, causing asthma attacks, irritating throats and airways and resulting in tightness in the chest. It is particularly dangerous when people are breathing heavily through outdoor exercise or exertion. For sensitive populations such as children, the elderly and those with preexisting health conditions, exposure is especially dangerous. Ozone is also a potent greenhouse gas that contributes to climate change. Although ozone is not the only pollutant that threatens human health in the parks, it is one of the most widespread.

According to the air quality data analyzed for this report, 42 of the 399 national parks, or 11%, reach the significant concern level because they consistently exhibit unhealthy levels of ozone a decrease from 87 in the 2019 report.[7] The decrease suggests that about half of these parks have experienced some improvement in air quality from ozone. Nevertheless, most national parks—338 (85%)—fall within the unsatisfactory category. While these parks do not consistently reach unhealthy ozone levels, their conditions are far from

Above: People hiking in Rocky Mountain National Park. ©Margaret619 | Dreamstime

Unhealthy Air (Number of Parks)



Air Pollution & Human Health

While air pollution affects everyone, those exercising outdoors, children, the elderly and anyone with asthma or other respiratory illnesses are especially at risk.



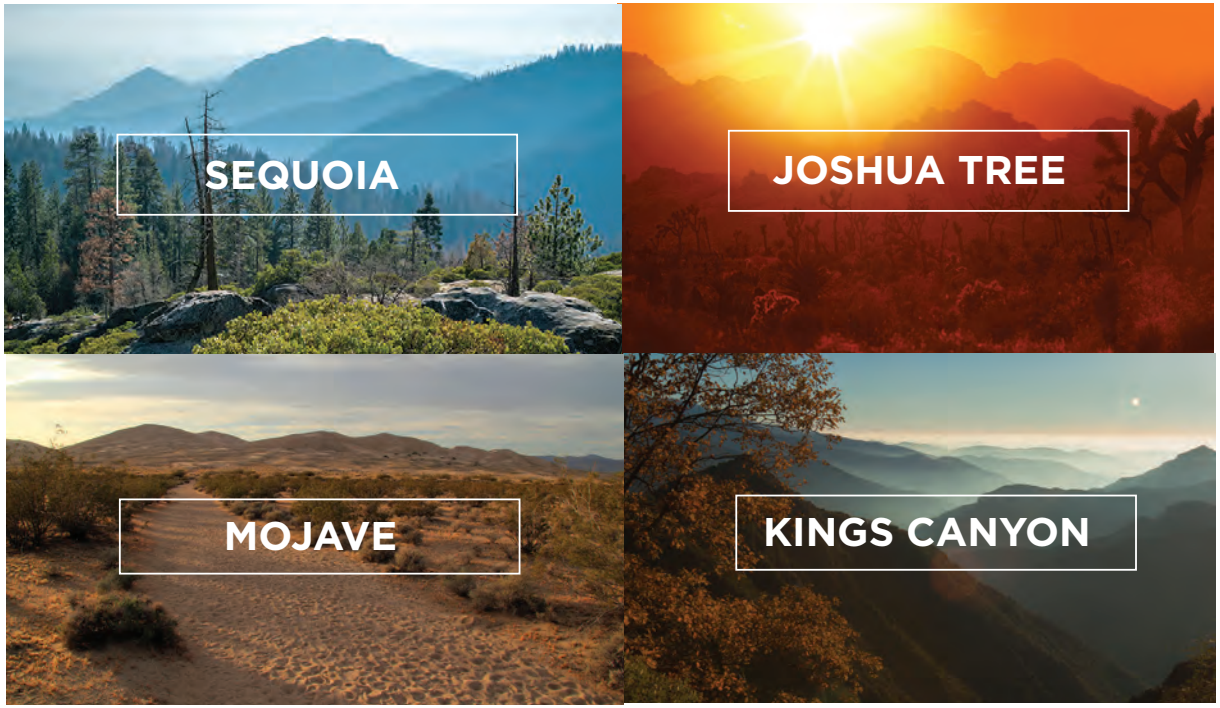

7. The primary national ambient air quality standard for ozone set by the Environment Protection Agency (EPA) is at 70 ppb. In this report, ozone values exceeding this standard are considered a significant concern, as they indicate unhealthy ozone levels according to a robust body of science.

optimal and can still adversely affect both park visitors and staff, as well as the surrounding communities and residents. In contrast, only 12 parks (3%) exhibit low concern levels. This stark disparity between the unsatisfactory and low levels of concern underscores that most national parks remain far from experiencing healthy air and emphasizes the substantial remaining work required to reduce emissions that cause ozone and harm people and our parks.

Sequoia, Kings Canyon, and Joshua Tree National Parks and Mojave National Preserve remain the most ozone-polluted national parks in the United States. The adverse air quality conditions in these parks are generated by vehicle emissions, industrial operations and agricultural activities in regions like the San Joaquin Valley of California—one of the most polluted areas in the nation where residents are frequently exposed to unhealthy air. In addition to the top four most polluted parks, the table to the right shows other national parks where ozone levels are of significant concern for human health.

The Four Most Polluted National Parks

These parks in California regularly struggle with unhealthy air that is dangerous for park visitors and rangers to breathe.



Top 10 National Parks with Unhealthy Air

	PARK NAME	STATE
1	**Sequoia & Kings Canyon** National Parks	CA
2	**Joshua Tree** National Park	CA
3	**Mojave** National Preserve	CA
4	**Yosemite** National Park	CA
5	**Carlsbad Caverns** National Park	NM
6	**Death Valley** National Park	CA
7	**Indiana Dunes** National Park	IN
8	**Guadalupe Mountains** National Park	TX
9	**Rocky Mountain** National Park	CO
10	**White Sands** National Park	NM

SIGNIFICANT CONCERN — AIR CONDITION FOR OZONE

Hazy Skies

Visible pollution, or haze, reduces how far we can see across landscapes and can obscure scenic views and landmarks. Reduced visibility can detract from a person's overall experience in parks or wilderness areas, muddying color and clarity and hindering the enjoyment of a place's natural beauty. Our sense of awe and wonder when we see vast and impressive landscapes—or even just the hill or skyline nearby— are part of our human experience of understanding our place in the world.

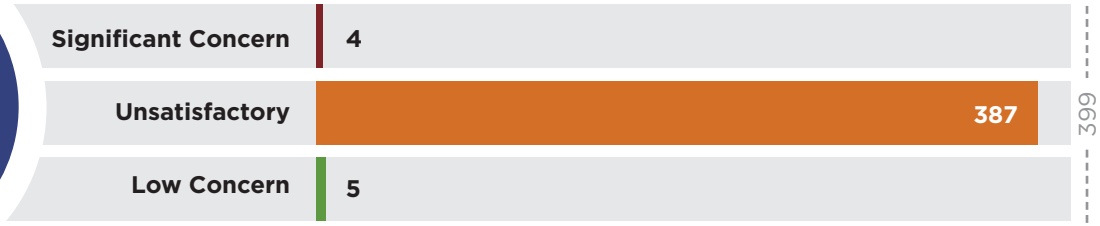
Sources of pollution that contribute to visibility impairment in parks are the same that cause harm to human health and nature. Additionally, smoke generated from wildfires is an increasingly problematic source of hazy skies as climate change hastens their frequency and intensity. But controllable air pollution from manmade sources remains our largest cause of haze and we have rules and regulations in place to help tackle these emissions.

On average, visitors to national parks miss out on 50 miles of scenery because of air pollution—a distance equivalent to the length of Rhode Island. Haze pollution also threatens local economies that depend on parks, which provide $50.3 billion in economic output each year and support thousands of jobs across the country.[8] Studies show that park visitation drops when air pollution is high, indicating the direct effect air quality has on the visitor experience.[9]

Our analysis found that 387—97%—of parks have unsatisfactory levels of visibility impairment, indicating they are far from achieving clear skies. Only four parks had significant levels of concern for visibility, suggesting a considerable improvement in visibility for parks when compared to the 66 parks that were in the significant concern category in NPCA's previous report. Yet only five parks have low concern levels. These results indicate that requirements to reduce emissions of visibility-impairing pollutants through successful implementation of clean air programs work to deliver clean air, but further reductions are essential to make continued progress toward clear skies in our national parks.

The Regional Haze Rule, a program of the Clean Air Act administered by the Environment Protection

Hazy Skies (Number of Parks)



Above: Hazy skies over Yosemite National Park ©Anna Dudko | Dreamstime

8. National Park Visitation Sets New Record as Economic Engines https://www.nps.gov/orgs/1207/national-park-visitation-sets-new-record-as-economic-engines.htm
9. David Keiser et al., Air Pollution and Visitation at U.S. National Parks. Sci. Adv.4,eaat1613(2018). DOI:10.1126/sciadv.aat1613 https://www.science.org/doi/10.1126/sciadv.aat1613

Agency (EPA) has played a significant role in reducing visibility-impairing pollutants in parks over the past 15 years. Yet states today are falling short of their duties to cut emissions from park-polluting facilities. The ball is now in EPA's court to hold states and polluters accountable. NPCA continues to advocate, as we have for decades, that parks must benefit from the bipartisan directive of the Clean Air Act to deliver clean air and clear skies to our treasured national parks and wilderness areas.[10]

Top 10 Worst National Parks for Hazy Skies

PARK NAME	STATE
Sequoia & Kings Canyon	CA
Gateway Arch	MO
Mammoth Cave	KY
Carlsbad Caverns	NM
Indiana Dunes	IN
Hot Springs	AR
Death Valley	CA
Channel Islands	CA
Dry Tortugas	FL
Pinnacles	CA

10. Through NPCA's advocacy over the years, we have helped secure over 1.4 million tons of visibility impairing pollution and 171 million metric tons of climate pollution reductions through the clean up or closure of over 150 park-polluting coal-fired units.

Top: A clear view from Dante's Point in Death Valley National Park, showcasing the natural beauty unaffected by haze pollution. ©Federico Franzone | Dreamstime **Bottom:** The same viewpoint obscured by haze pollution. ©Demerzel 21 | Dreamstime

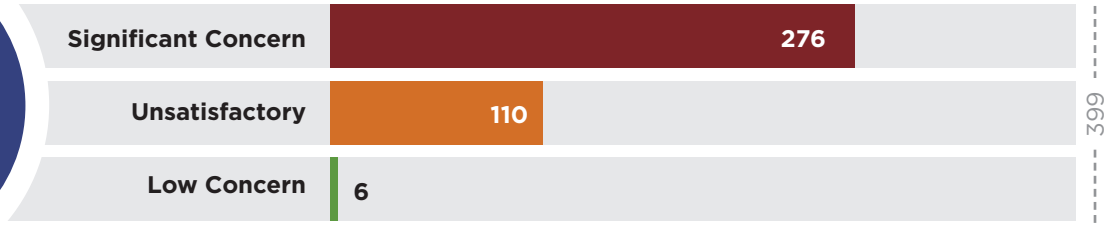
Harm to Nature

Air pollution has widespread effects on plants, animals and entire ecosystems. The harm to nature category in this analysis includes sulfur and nitrogen deposition in the soil and water and ozone effects on plants and trees. The overall concern levels in this category are a compilation of three specific data sets (nitrogen deposition, sulfur deposition and ground-level ozone effects on vegetation) and reflect the worst rating of each park in any of these three categories.[11]

In the harm to nature category, 276 parks (69%) alarmingly reached the significant level of concern, followed by 110 (28%) with unsatisfactory levels of concern. Only six parks were found to have low levels of concern. No improvements were identified in the harm to nature category with the recent data, when compared to the 2019 report, underscoring the great sensitivity of nature to pollution deposition and ozone exposure.

While nitrogen and sulfur deposition can originate from natural sources, just as with the other air pollutants discussed in this report, human activities, largely from the combustion of fossil fuels, industrial operations and agricultural practices, are the main contributors. Nitrogen and sulfur deposition changes water chemistry to be more acidic, harming plants and animals ranging from tiny but vital organisms called diatoms and to larger animals such as insects, amphibians and fish. Excess nitrogen can also cause toxic algal blooms, fish deaths and loss of plant and animal diversity in rivers, lakes and coastal and estuarine areas.

Harm to Nature (Number of Parks)



Ozone pollution harms vegetation by stunting tree and crop growth in common tree species such as Ponderosa pine, Black cherry, American sycamore and Tulip poplar. Long-term exposures to ground-level ozone can cause damage to ozone-sensitive plants such as milkweeds whose flowers are essential to the survival of certain pollinators like Monarch butterflies. Throughout a growing season, ozone can damage plant leaf tissues, which decreases their ability to photosynthesize, weakens plants and makes

Above: A Monarch butterfly finds nourishment on a milkweed flower, highlighting the delicate balance between pollinators and plants threatened by air pollution. ©Gerald D. Tang | Dreamstime

11. In this report, the Harm to Nature rating is a compilation of the three data sets and reflects the worst rating of the park in any of these three categories. For example, if a park is listed as significant concern for nitrogen deposition, but unsatisfactory concern for sulfur deposition and ozone, it is listed as significant concern for the Harm to Nature category. Multiple parks had significant concern levels for more than one dataset.

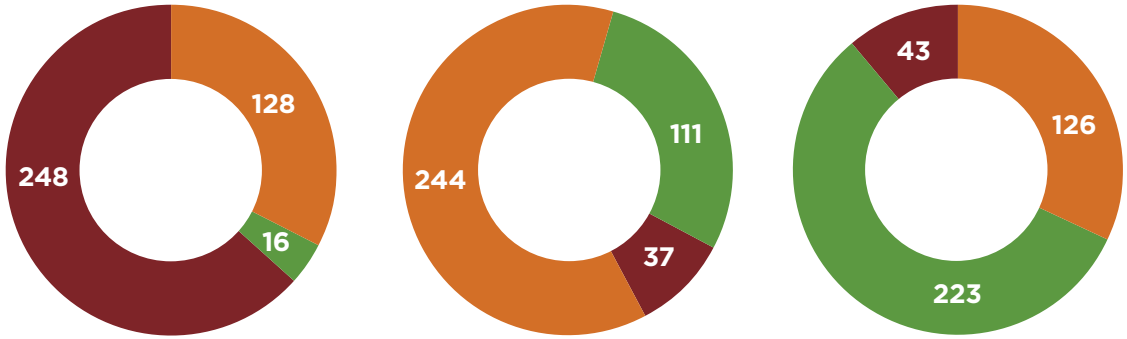
them less resistant to disease and insect infestations. Studies have also shown that birds are sensitive to the effects of ozone pollution, which causes physical stress and weakening of their immune systems, while pollinators like bees and butterflies have trouble smelling flowers and finding enough food when ozone levels are high.[12] People care about the health of wildlife and want to see them protected. A poll conducted by NPCA in 2023 found that nearly 9 in 10 Americans (88%) feel more needs to be done to protect birds and pollinators from harmful air pollution.[13]

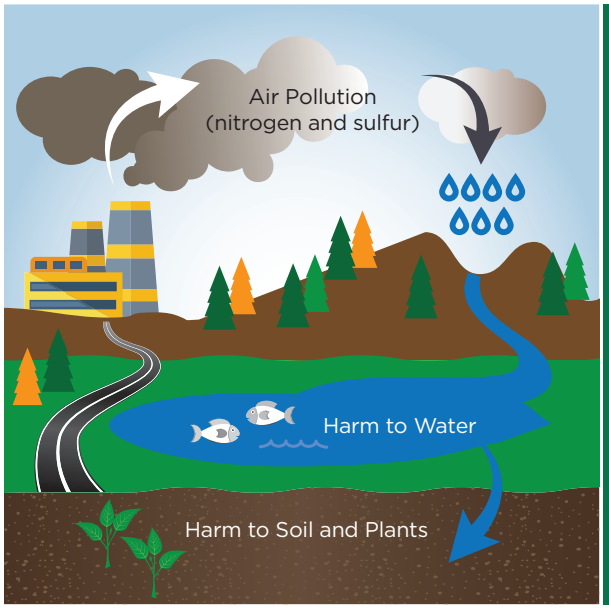
As shown in the image on the right, nitrogen and sulfur deposition affect many parks at significant and unsatisfactory levels of concern. Despite decreases in nitrogen oxides and sulfur dioxide emissions in the country, the continued problem of deposition in national parks can be attributed to other sources of this pollution and slow rate at which deposited pollution exits soil and water. For example, agricultural operations play a significant role in nitrogen and sulfur deposition by emitting ammonia pollution through activities such as livestock operations and fertilizer use; ammonia emissions from the agriculture sector are not strongly regulated and are increasing around the nation.

In terms of ozone effects on the health of vegetation, 169 parks had significant or unsatisfactory concern levels for this indicator. Nature is particularly susceptible to the harms of ozone pollution, so even as we see some pollution decline, even small amounts of ozone can threaten the health of trees, crops and forests, while causing great stress to ecosystem resilience and affecting scenic beauty.

12. NPCA's Ozone and Nature Fact Sheet: https://www.npca.org/ozonefacts
13. NPCA's National Park Wildlife Poll www.npca.org/resources/3462-national-park-wildlife-poll

Harm to Nature



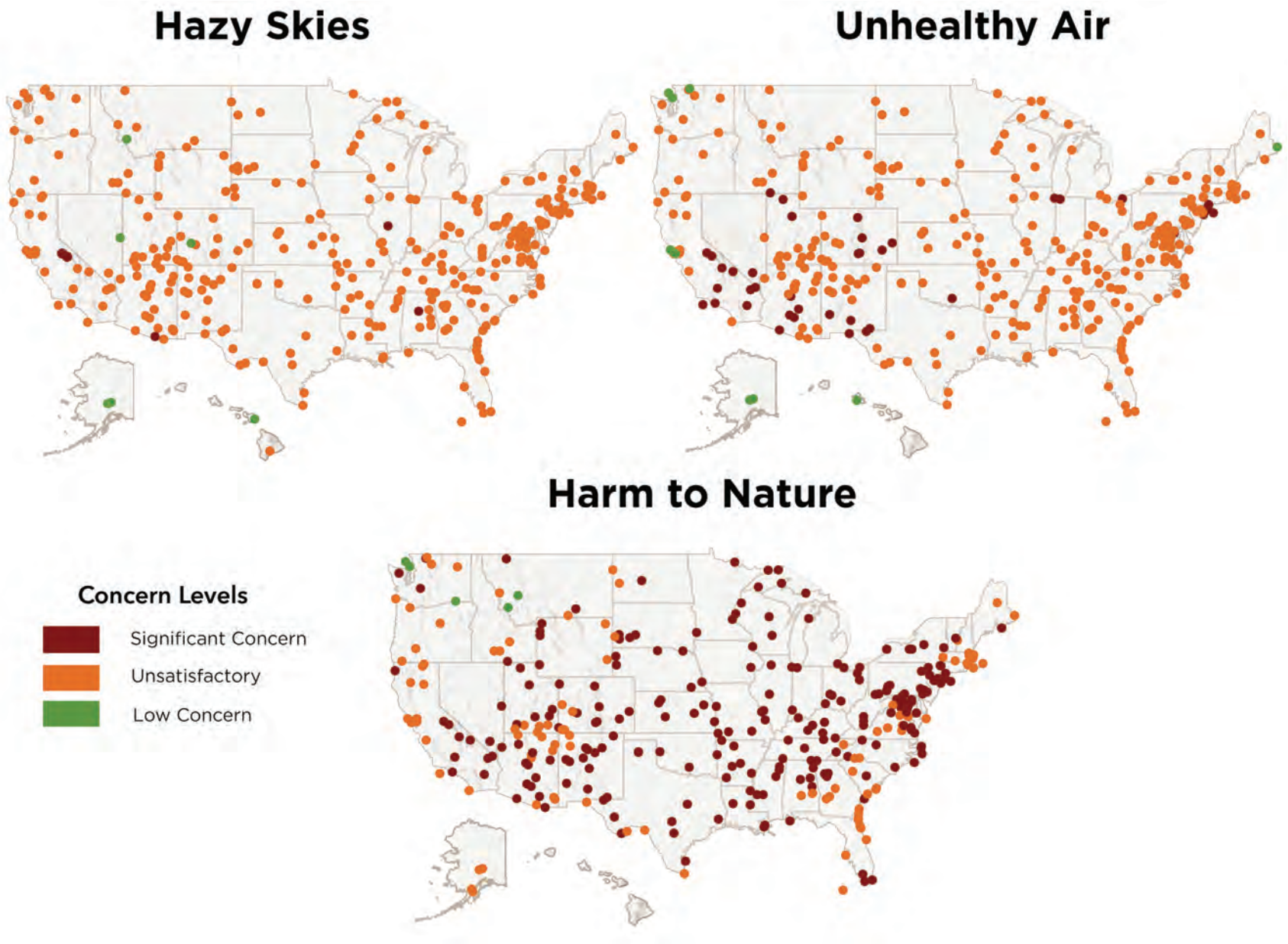


How Pollution is Deposited in Water and Soil

A total of 94% of parks experience nitrogen deposition levels that are of significant concern or unsatisfactory, and 70% of parks falling into the same levels for sulfur deposition.

Emissions of nitrogen and sulfur settle to the ground when they are washed out of the air by rain, snow and other precipitation. High concentrations of these pollutants can cause acidification and over-fertilization. These changes throw natural systems out of balance, harming the soil, water and health of the plants and animals living nearby.

Maps of Air Quality Conditions in National Parks



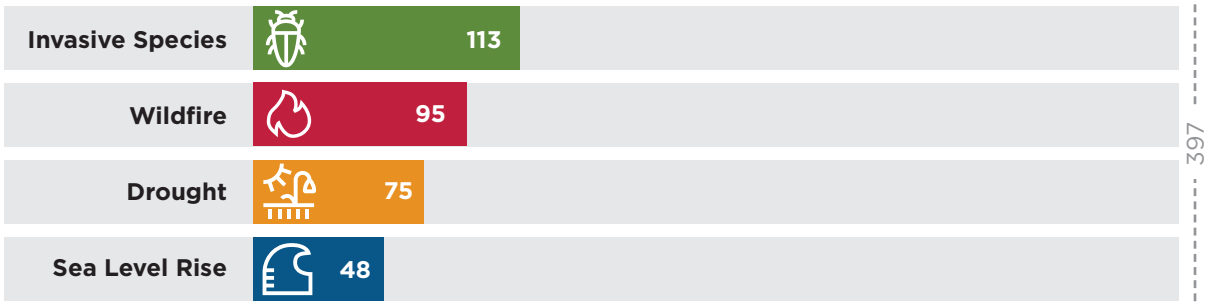
Climate Change

Much of our Polluted Parks analysis focuses on the consequences of air pollution as it harms people, nature and visibility. These pollutants are namely sulfur dioxides, nitrogen oxides, ozone and particulate matter. But greenhouse gases are also air pollutants, emitted primarily from vehicles and industrial facilities through the burning of fossil fuels like coal, oil and gas, are driving the rapid warming of our planet. Carbon dioxide and methane are the two most prominent greenhouse gases of concern, with carbon dioxide making up the biggest portion of global human-created emissions. Methane is the second most abundant, making up about 20% of global greenhouse gases. Over a 20-year period, methane is 80% more potent than carbon dioxide pollution at trapping heat.[14]

All national parks face consequences from rising temperatures that drive fiercer storms, prolong droughts, melt glaciers, cause rising sea levels, encourage invasive plants and animals and fuel extreme wildfires. The effects vary across the National Park System but cover all geographic locations, including coastal areas, desert landscapes, mountain ranges and forests, as well as urban and rural park cultural and historic resources. From microorganisms to large mammals, park wildlife is struggling to adapt—indeed some are facing extinction—while plant life faces challenges that could alter entire ecosystems. National park buildings, visitor infrastructure and historic structures are also being destroyed in the face of climate threats. National parks are particularly vulnerable to changes in climate because of their sensitive natural environments and related risk of exposures.

For this report, NPCA analyzed data for 397 national park sites investigated by the National Park Service for their relative threats from certain climate change high-impact vulnerability factors—climate threats—namely, wildfire, drought, sea level rise and invasive species.[15] The NPS study utilized multiple climate indicators to evaluate parks' exposure and sensitivity to climate change as well as their adaptive capacity.

Number of Parks Facing Climate Threats



The data revealed that 57% of all national parks face a high risk from at least one climate threat which have the potential to alter park ecosystems and resources fundamentally and permanently.

As shown in the chart above, invasive species[16] are the most dominant threats, harming 113 separate parks predominantly across the Southeast, Northeast and Midwest regions. Wildfire stands out as the second most prominent threat—95 parks are at high risk—primarily in California but also in the Four Corners and Southeast regions. Drought is threatening 75 parks primarily in the Midwest and Western states, while sea level rise affects 48 parks predominantly along the eastern and Gulf coasts.

Left: Historically, homes adjacent to Cape Hatteras National Seashore were outside of the high tide line; with sea level rise, many are now within the tidal zone and are collapsing due to shoreline erosion. ©National Park Service

14. Why do we compare methane to carbon dioxide over a 100-year timeframe? https://climate.mit.edu/ask-mit/why-do-we-compare-methane-carbon-dioxide-over-100-year-timeframe-are-we-underrating
15. In its study, NPS identifies several limitations and data gaps for assessing climate threats, including indicators and metrics related to freshwater flooding risk, region-specific severe storm impacts, and historical and projected risks associated with interconnected high-impact climate events.
16. Invasive species in this study include insects, pathogens, or diseases that affect trees and vegetation in natural ecosystems and national parks including the Asian Longhorned Beetle, Balsam Woolly Adelgid, Beech Bark Disease, Chestnut Blight, Dogwood Anthracnose, Dutch Elm disease, Emerald Ash Borer, Gypsy Moth, Hemlock Woolly Adelgid, Sudden Oak Death, White Pine Blister Rust, and Winter Moth, among others.

Climate Threats Affecting National Parks

Everglades National Park, Florida: Rising sea levels threaten the park's freshwater marshes and mangrove forests. Saltwater intrusion can harm the unique ecosystems of the Everglades. As a result, rare tropical orchids and herbs, pine forests and freshwater marshes that support many species of wildlife, bird and amphibians are at risk.

Wind Cave National Park, South Dakota: Here in one of America's oldest national parks and high above some of the longest and most complex cave systems in the world, changes in precipitation patterns and rising temperatures are causing more frequent and severe drought conditions. Prolonged drought adversely affects this park's unique prairie grasslands and forested hillsides as water sources are depleted, increasing the risk of wildfires and stressing wildlife like the iconic American bison.

Shenandoah National Park, Virginia: Warmer winters have profound implications for the proliferation of invasive pests and insects such as the Hemlock Woolly Adelgid that destroys Hemlock trees. Extended periods of milder temperatures contribute to increased survival rates and expanded geographic ranges for these invasive insects. In turn, their rapid reproduction and population growth is facilitated, intensifying the challenges posed to native insects and ecosystems.

Saguaro National Park, Arizona: Increased drought in the Sonoran Desert negatively harms the health of the saguaro cacti and other desert vegetation, threatening the long-term viability of the species in its namesake national park.

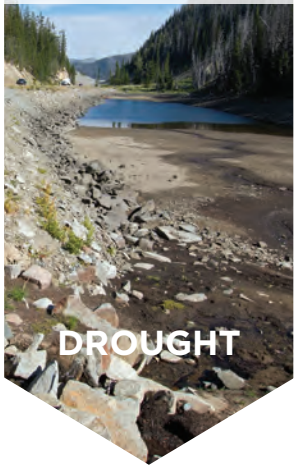
Sequoia and Kings Canyon National Parks, California: Wildfires, such as the 2020 Castle Wildfire and 2021 KNP Complex Wildfire burned through tens of thousands of acres and numerous sequoia groves within the parks. In recent years, as many as 19% of the world's mature giant sequoias may have been lost due to wildfires, which not only threatens the regeneration of the iconic trees but also disrupts ecosystems and harms wildlife within these parks.

In addition, numerous national parks face simultaneous risks from multiple climate threats. For instance, the data show that a single climate threat was identified in 142 parks, while 72 parks are dealing with two threats and 14 parks are struggling to manage three different climate threats all at the same time. The table on the next page lists the parks facing three climate threats simultaneously.

Top left: Bison grazes in Wind Cave National Park ©Nyker1 | Dreamstime **Top right:** A rare and endangered Ghost Orchid in Florida ©Francisco Blanco | Dreamstime **Bottom left:** Extreme wildfires are increasingly affecting the sensitive ecosystems of Sequoia National Park. ©NPS **Bottom right:** Beautiful view from Shenandoah National Park ©Jon Bilous | Dreamstime

14 Parks Face Three Out of Four Climate Threats

Risks to National Parks as a Result of Climate Change



PARK FULL NAME (STATE)	DROUGHT	SEA LEVEL RISE	WILDFIRE	INVASIVE SPECIES
Bighorn Canyon National Recreation Area (MT & WY)	X		X	X
Big Hole National Battlefield (MT)	X		X	X
Crater Lake National Park (OR)	X		X	X
John Day Fossil Beds National Monument (OR)	X		X	X
Lava Beds National Monument (CA)	X		X	X
Lake Roosevelt National Recreation Area (WA)	X		X	X
Lassen Volcanic National Park (CA)	X		X	X
Mount Rushmore National Memorial (SD)	X		X	X
Nez Perce National Historic Park (ID, MT, OR & WA)	X		X	X
Wind Cave National Park (SD)	X		X	X
Yosemite National Park (CA)	X		X	X
Sequoia & Kings Canyon National Parks (CA)	X		X	X
Cumberland Island National Seashore (GA)		X	X	X
Fort Raleigh National Historic Site (NC)		X	X	X

Solutions and Recommendations

This report underscores the ongoing challenges national parks face with air quality and the dramatic effects of climate change. Even though some progress has been made to clean national park air, over 90% of parks are still experiencing significant or unsatisfactory concern levels for air quality conditions. These conditions not only negatively affect park ecosystems and landscapes, but also the health of park visitors, staff and communities across the country. And climate change is causing irreparable harm to our national parks—the consequences of extreme drought, sea level rise, wildfires and the spread of invasive species become more evident every day.

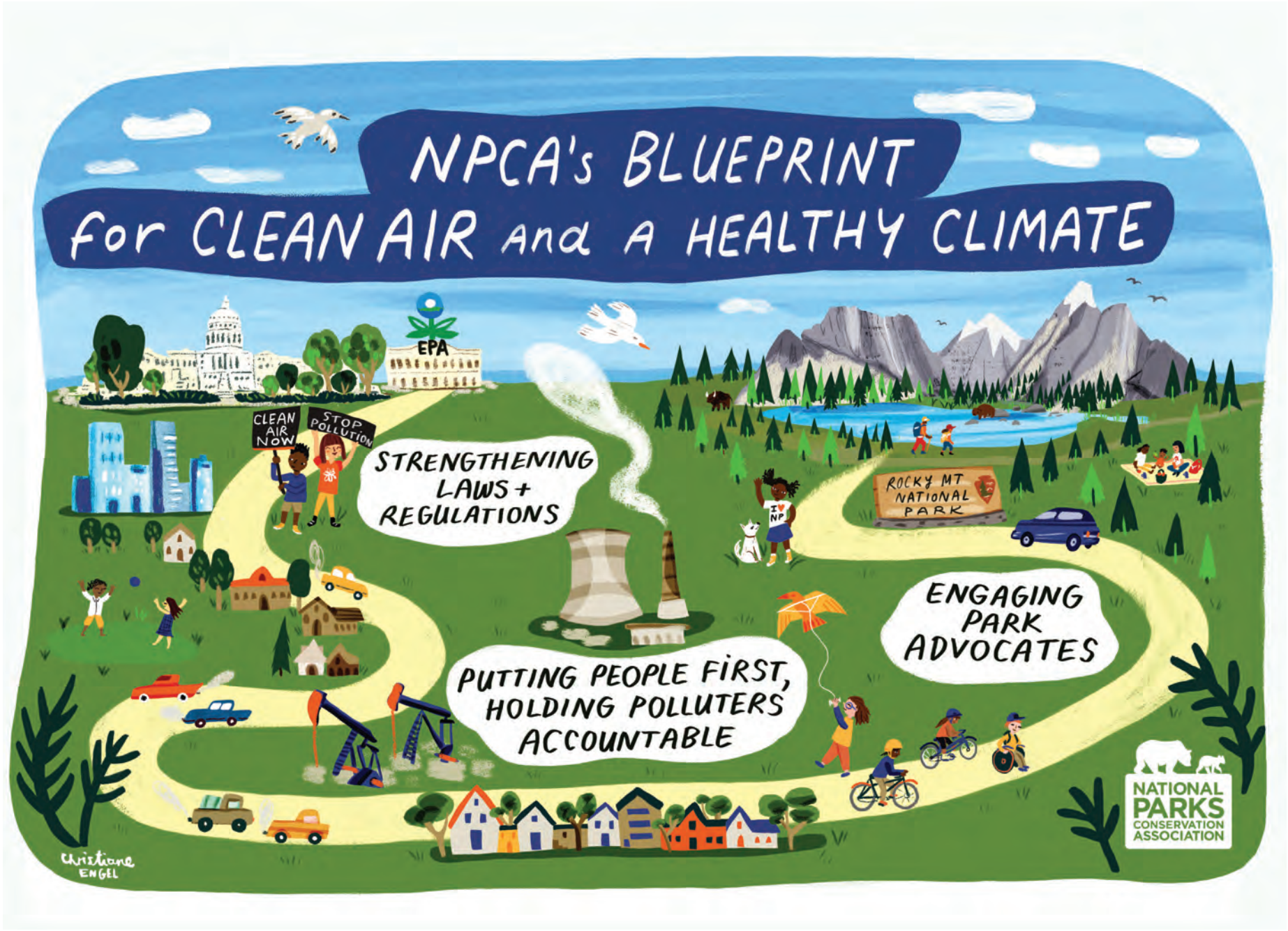
NPCA advocates for cleaner air and a healthy climate for our national parks and works to raise awareness about the negative consequences of polluted air and climate change in and around America's national parks. NPCA collaborates with communities and partner organizations to reduce air and climate pollution through the implementation of strong policies and regulations such as the Clean Air Act's Regional Haze Rule, National Ambient Air Quality Standards and New Source Performance Standards for power plants as well as vehicle emission standards. We work to hold federal agencies, states and industrial polluters accountable for the air pollution driving climate change and harming visibility and nature in national parks and the health and well-being of people and communities. Our work is aimed at making sure that national parks, park visitors and nearby residents enjoy optimal air quality conditions, clear views and healthy ecosystems.

More work is required to continue decreasing the air and climate emissions that harm our parks. There are achievable solutions to safeguard national parks for future generations and protect communities, but we need your help!

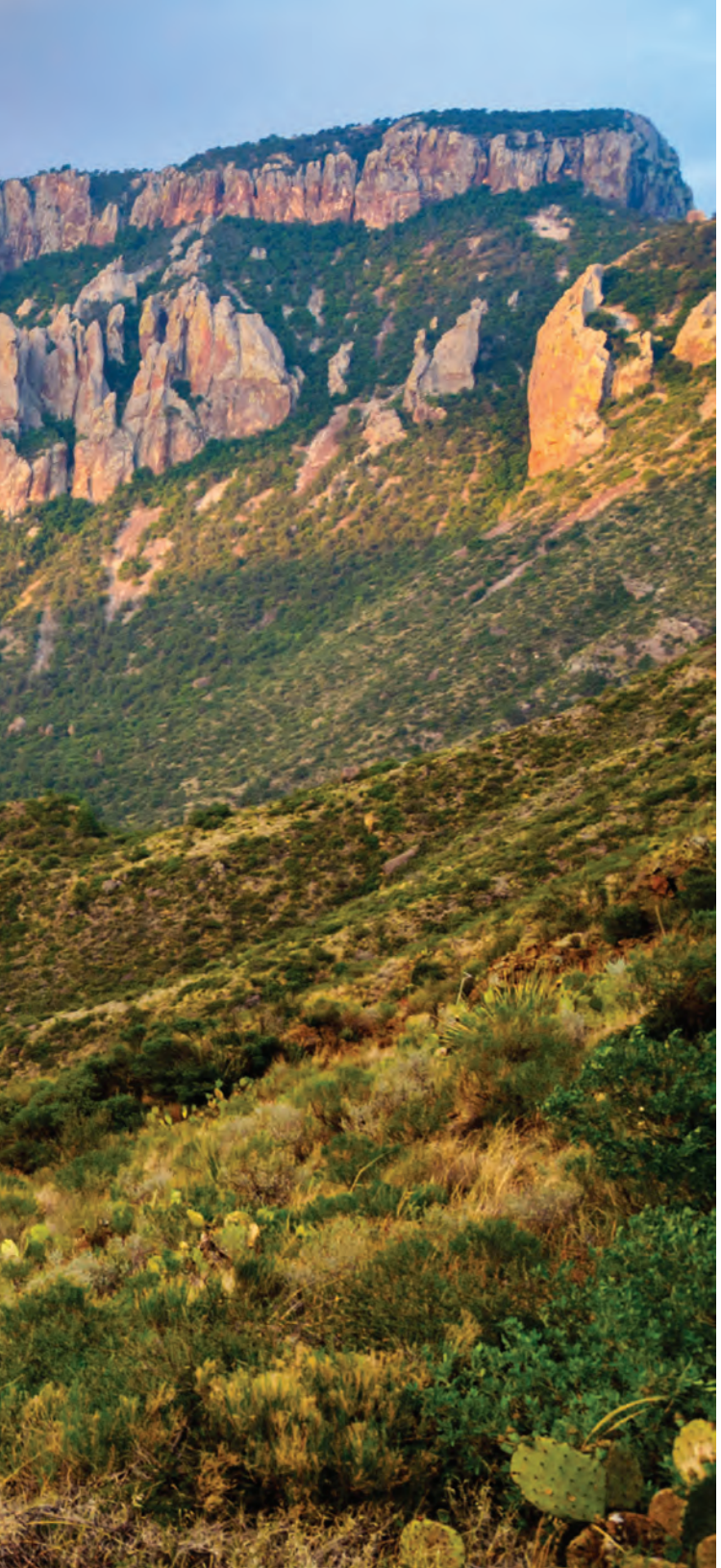
Join NPCA in calling for the below recommended actions from the Environmental Protection Agency, Congress and the administration to deliver clean air and a healthy climate for our national parks:

- Hold states and polluters accountable for strong second round regional haze plans that require federally enforceable pollution cuts, control technologies and tighter emissions standards for coal-fired power plants and other industrial sources that are causing hazy skies in national parks and wilderness areas.
- Amend the Regional Haze Rule for future rounds of state planning to resolve fundamental flaws, minimize confusion, and provide more specific direction for states and industries to support a clearer process in complying with the Clean Air Act to reduce haze-causing emissions.
- Establish and implement new rules to curb greenhouse gas emissions from new power plants and methane pollution from new and existing oil and gas operations.
- Swiftly finalize strong new vehicle emissions standards for cars, trucks, buses and other on-road vehicles to cut air and climate pollution from the transportation sector.
- Establish distinct and unique secondary national air quality standards for ozone and fine particulate matter pollution to ensure greater protection for scenic views, sensitive ecosystems and nature. Strengthen primary national air quality standards to align with scientific findings about the levels necessary to fully protect people's health from ozone and particulate matter.
- Ensure funds are allocated to the National Park Service and the EPA to maintain and improve current air monitoring infrastructure, expand the networks and use of state-of-the-art air monitoring instrumentation.

Above: Bass Harbor Head Lighthouse at Acadia National Park ©Luckydoor | Dreamstime



Learn more about NPCA's clean air work:
https://www.npca.org/issues/clearing-the-air



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National Parks Conservation Association (NPCA). Washington, DC.
https://www.npca.org/reports/air-climate-report

Resources and Analytical Methods

Our methodologies and further explanation of our analysis of data for this report are available here: **https://www.npca.org/methodology** Please contact Daniel Orozco at dorozco@npca.org with any questions.

Interactive Polluted Parks Website

https://www.npca.org/reports/air-climate-report

Left: Long range valley views at Big Bend National Park ©Zrfphoto | Dreamstime

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