

MAY 2022

# Field Notes

NEWS FROM WESTERN RESOURCE ADVOCATES

## Could Your Gas Stove or Furnace Be Making You Sick?

Find out how we can protect the climate and our health and save money by switching to electric appliances. **Pg. 2**

## A Clean Water Agency's Dirty Decision to Protect Polluters Over People

When the state agency charged with protecting our waterways put them in danger, the community rallied to protect people over polluters. **Pg. 14**

## OZONE: HOW THE WEST'S INVISIBLE KILLER IS GOING UNNOTICED AND UNCHECKED

### **Odorless. Colorless. Deadly.**

Ground-level ozone has plagued communities across the West for decades. Living in the region has unfortunately come to mean living with air pollution that threatens our health, our economy, and our environment. Ozone levels have been on the rise in recent years, and science tells us that exposure, even at relatively low levels, seriously compromises our health.

Now, as we live the climate crisis, communities that have historically borne the burden of deadly air pollution are suffering most as ozone levels stay at dangerous heights for longer. So, why aren't our decision makers taking every action necessary to remedy the serious threat to public health and the environment? And what can we do to protect our neighbors and families right now?

*(continued on page 9)*



Gas stoves like these can leak dangerous pollutants into our homes and business even when turned off.



#### NEWS FROM THE FIELD

## Could Your Gas Stove or Furnace Be Making You Sick?

Indoor air pollution can be just as dangerous as outdoor pollution due to gas combustion from fossil-fueled gas stoves and furnaces, which produce fine particulate matter — one of the most harmful forms of air pollution — as well as methane, nitrogen oxides, carbon monoxide, and formaldehyde. Pollutants from gas appliances may be carcinogenic and pose respiratory, cardiovascular, and neurological risks, particularly for children, and can disproportionately impact low-income communities where poor ventilation is more prevalent.

Methane, the main component of “natural gas,” is also the second largest greenhouse gas contributor to climate change. In the U.S., methane from gas stoves has a climate impact comparable to

about 500,000 gas-powered cars driven for a year, and approximately three-quarters of methane emissions can occur when gas stoves are off.

So, what’s the solution? Meera Fickling, WRA’s senior climate policy analyst, explains more:

### **How do we achieve pollution-free homes and buildings?**

We need to transition from fossil gas appliances to alternatives like efficient electric heat pumps and induction cooktops. A 2022 study<sup>1</sup> showed that heat pumps can reduce emissions by 55%, and heat pump water heaters cut emissions by 65%, compared with gas appliances. Electric appliances also avoid the health risks of using gas and save consumers money, particularly

<sup>1</sup> Neil Kolwey & David Petroy. (2022). *Benefits of Heat Pumps for Colorado Homes: 2022 Analysis*, 21. <https://swenergy.org/pubs/heat-pump-study-2022>.

# Approximately three-quarters of methane emissions can occur when gas stoves are off.

in new homes and buildings, by avoiding running gas lines and paying fixed gas bills.

## **What are the main barriers to building electrification, and how can we overcome them?**

We need to transform the market. Currently, heat pumps make up only 2% of residential space heating appliances in Colorado and 8% across the Interior West. This small market means there is scant consumer awareness, low product availability, and a shortage of contractors. Retrofitting buildings for electric appliances can be challenging, as some buildings first require improvements to service panels or wiring. But workforce development and consumer awareness efforts can help overcome those barriers, along with state and local policies.

## **How can state and local policies help?**

We need innovative state, local, and utility policies that drive building electrification. Last spring, Colorado passed a novel Clean Heat Standard bill,

which requires gas utilities to reduce their greenhouse gas emissions 22% by 2030. The bill will catalyze investment and market transformation in new clean heat technologies. Utility incentive programs and innovative financing

options — particularly incentives targeted at low-income households and underserved communities — can make electric appliances more affordable for consumers. Additionally, advanced building energy codes drive electrification in new construction, where it is currently most cost effective. Finally, integrating local and state policies with improved gas system planning will prevent customers who remain on the gas system from paying for poor investments made by utilities.

We can make a huge difference by transitioning our homes and office buildings to electric power, and WRA is leading the way. We work with utilities and regulators to incorporate building electrification into gas and electricity infrastructure planning, provide market incentives, strengthen building construction codes, create innovative financing options for households and small businesses, and prepare the workforce to install those technologies. Clean heat is better for the climate, your lungs, and your wallet.

*Installing electric heat pumps and heat pump water heaters can drastically reduce carbon emissions and indoor air pollution.*



# Joro Walker, WRA's Leading Air Quality Expert

Powder days in the Wasatch backcountry. Utah slot canyons. Sunsets over Great Salt Lake. Canyon country vistas. Backpacking above 8,000 feet. Western birds and wildlife. Those are just some of the reasons Joro Walker is inspired every day to protect the West and her home state of Utah.

Walker has been practicing law for 33 years, which coincidentally is the same number of years WRA has been a nonprofit. While she started out as a civil rights and First Amendment lawyer, she made her way to WRA in 1998, founded our Utah office, and became its director.



Since then, her work has evolved from litigating environmental cases in Utah to developing regional policies. During that time, Walker developed an expertise in enforcing federal and state air quality and water quality laws. Because statutes and regulations often require specific and significant government actions, they are a particularly effective way to safeguard public health and the environment.

After 24 years, Walker's impressive resume of results at WRA includes:

- Protecting more than 350,000 acres of public lands and developing management plans that conserve more than 500,000 acres of national forest in Utah, which adds up to more than 3% of all public lands and national forests in the state.
- Expanding sensitive wildlife habitats that are closed to oil and gas development to 5.5 million acres in Colorado, which is a major step forward to help protect the more than 9 million acres of land in Colorado needed to reach our goal of protecting 30% of land by 2030.
- Canceling 1,295 megawatts per year of new coal-fired energy generation, avoiding 918 metric tons of carbon emissions annually in one of the most polluted areas in our region.
- Scrapping plans for more than 2,000 acres of oil shale mining that would have produced close to 1 million tons of carbon emissions.
- Reducing harmful air pollutants by more than 15,000 tons per year — the equivalent of removing approximately 970,000 passenger vehicles from the road each year.
- Stopping the proposal to withdraw 353,000 acre-feet of water annually from Great Salt Lake, which threatened habitat for the 10 million birds that rely on the lake.

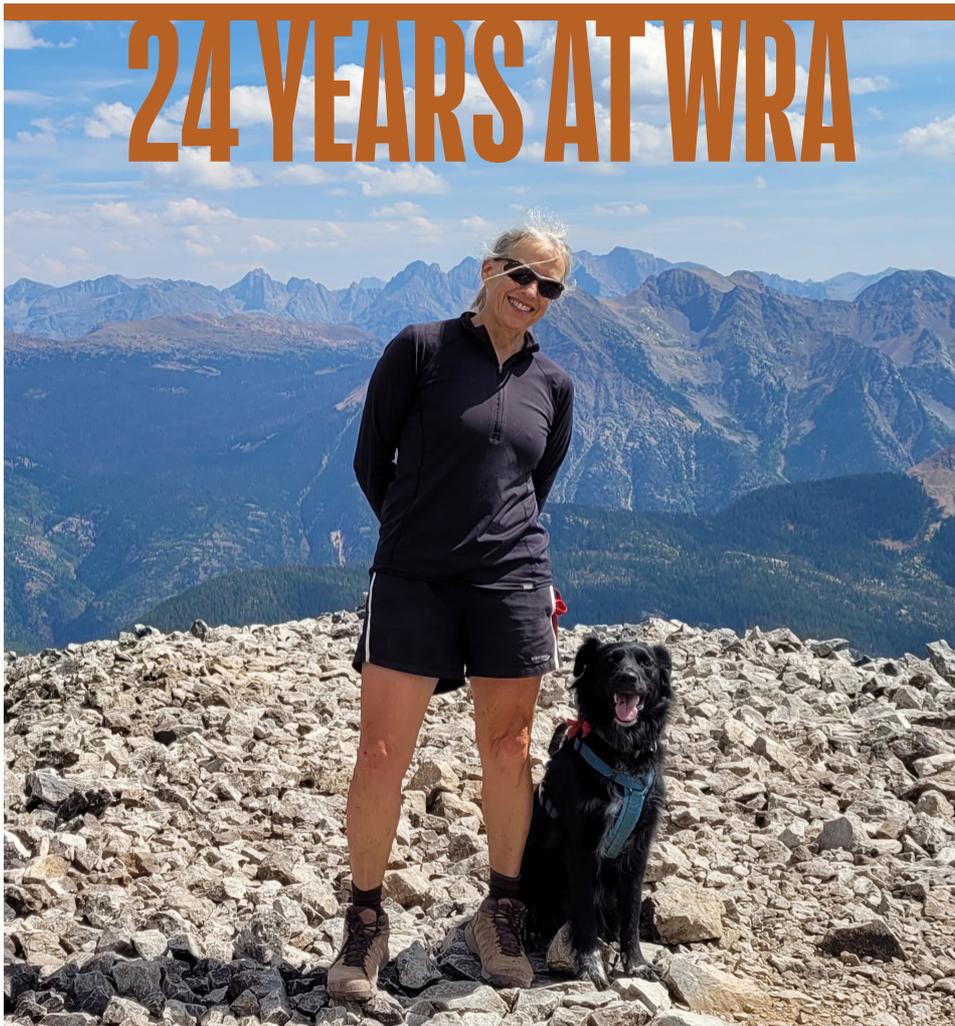
And while her list of well-fought victories continues to grow, Walker has found a particularly impactful niche in using the law to protect and improve air and water quality and aquatic ecosystems and to reduce emissions of greenhouse gases. She has challenged proposed discharges that threaten Great Salt Lake ecosystems, contested air quality permits issued to coal plants and oil and

gas refineries, and worked tirelessly to ensure that Utah quickly adopts and implements plans to bring the Wasatch Front into attainment with national health-based air quality standards. Walker also used Clean Water Act and Clean Air Act laws and regulations to curb unlawful oil shale and tar sands development and to protect the most sensitive habitats in national forests from energy development and motorized vehicle abuse.

More recently, Walker represented WRA in several key Colorado proceedings that promulgated rules to dramatically

reduce methane emissions from the oil and gas sector, keep oil and gas development out of many key riparian areas, and help ensure that Colorado streams — including urban waterways — are protected from degradation.

Over the years, Walker has received several community awards that honor her clean air and clean water advocacy. Not only is she a legal force; she is also a fantastic colleague. Our region, and especially Utah, is a healthier and more vibrant place because of Walker's dedication to saving the things we all treasure about the West.



*Walker, an avid backpacker and hiker, enjoys canyon country vistas and hiking above 8,000 feet with her canine companion, Lumi.*

# Inspired to Give: Longtime WRA Donors Share Their Inspiration

WRA donors are essential partners in tackling the impacts of climate change facing the West. Our community of longtime donors is instrumental in the hard-fought progress we've

made over the years to protect this region we call home. Meet just a few of the people who have been dedicated and generous supporters of WRA's mission for more than 10 years.

## Dave Foss | Boulder, Colo. 13 years giving to WRA



*Dave Foss, a dedicated supporter of WRA, hikes with his dog, Charlie.*

“WRA is a leading environmental advocacy group working to protect the Interior West’s land, air, and water. WRA’s staff comprises experts in their fields, their work is based on sound science and policy, and they work collaboratively with other stakeholders. WRA presents their positions based on facts, without inflammatory rhetoric, to effect positive changes in a meaningful way. Their focus and reach are effective on a local scale, but they also have the size and presence to be effective regionally. With global warming, mega-droughts, the associated increases in natural disasters, and added pressures on the natural environment, WRA’s work is more important than ever. I feel fortunate I am in a position to support WRA.”

**Interested in becoming a donor?**

Visit [WesternResourceAdvocates.org/donate-now](https://WesternResourceAdvocates.org/donate-now)

## Anne and Bob Barry | Anacortes, Wash.

24 years giving to WRA



Anne and Bob Barry stand in front of Butchart Gardens ready to birdwatch.

“Our roots go deep. Just say, “Rio Grande, Canyon Lands, San Juan Mountains, Gunnison, Salmon, Desolation Canyon, Yellowstone, Bob Marshall, or Glacier Park” and you trigger a flood of fantastic memories for us. The Interior West is our home country! Today it is threatened as never before and we are very fortunate to have WRA working to protect and preserve it. WRA brings a rare understanding of how to address an amazing range of issues and the ability to bring together the stakeholders to cooperate in finding solutions. For our money, supporting WRA’s work is the best investment anyone who loves this fantastic country can make.

## Stuart Bluestone | Santa Fe, N.M.

25 years giving to WRA



Longtime donor Stuart Bluestone and his grandchildren in Colorado.

“To anyone just learning about WRA and considering donating to it, I would say, “Yes. Do it.” I have been a longtime supporter of WRA, going back to its earliest days, when it was first called the Land and Water Fund of the Rockies. I have consistently been impressed by the high quality of their work and the exceptional results they have achieved. I have known personally some of their outstanding staff and leaders, and I know WRA is first rate. I think anyone who cares about protecting our increasingly fragile environment, especially in the Western United States, should consider doing what they can to support WRA.

We are truly grateful for your commitment, trust, and partnership in our work over the years — thank you!

*Fossil-fuel vehicles  
are a major  
source of one of  
the dangerous  
ozone precursors:  
nitrogen oxides.*

# **Ozone: How the West's Invisible Killer Is Going Unnoticed and Unchecked**

(...continued from page 1) Ground-level ozone is one of only six “criteria” pollutants considered widespread and dangerous enough to be regulated nationally under the Clean Air Act, which acknowledges that everyone has a right to be protected from air pollution above the federal standards. And because studies continue to confirm adverse

risk of premature death, cardiovascular and pulmonary disease, and decreased lung function. However, as shown on the map on page 11, the relatively high ozone concentrations in many Western counties do not immediately trigger federal requirements to reduce pollution there. Rather, the Clean Air Act focuses mainly

## **WRA is pushing to get the job done. In 2021, we fought for air quality rules in Colorado that reduce greenhouse gas emissions and, as a result, reduce emissions of VOCs from the oil and gas sector.**

health impacts of ozone at increasingly lower concentrations, in 2015 the U.S. Environmental Protection Agency (EPA) strengthened the national standards for ground-level ozone for the third time in as many decades.

The impacts from ozone are obvious in daily life, like hearing your six-year-old neighbor playing outside, wheezing and coughing, and short of breath. Or taking a run on a summer day with a trail companion who experiences an asthma attack. Or learning your aunt is hospitalized for inflamed and damaged airways, with a high risk of respiratory infection. Or discovering your childhood friend as an adult has lung disease and a greater risk of heart attack, stroke, heart disease, congestive heart failure, and death. It’s especially infuriating to know that these preventable ozone concentrations are harming Black, Indigenous, Latino, Asian, multi-racial and bi-racial individuals more than anyone else.

According to the American Lung Association’s 2021 State of the Air Report, 60% of the population of the Interior West lives in areas where ozone increases the

on ozone nonattainment areas — or airsheds in which levels of ozone violate national health-based standards. Generally, once EPA designates an ozone nonattainment area, the relevant state must develop and implement a plan that will reduce emissions sufficiently to bring the area into compliance with the standard as soon as possible. If the state misses the attainment, the status of the nonattainment area is downgraded, and the state must develop and implement new plans that include increasingly rigorous mandates to further reduce emissions of ozone precursors in the area.

Accurately identifying and acknowledging the sources of ozone pollution is the first step in creating any state implementation plan. Ozone forms when other dangerous pollutants — called precursors — mix in the atmosphere in the presence of heat and sunlight. Ozone precursors, in particular nitrogen oxides (NOx) and volatile organic compounds (VOCs), are emitted from sources such as cars, electric utilities, and oil and gas development and industrial facilities, like refineries and chemical plants. Ultimately, EPA must determine if a state’s

implementation plan is adequate based on monitoring data.

The Interior West includes seven nonattainment areas. Let's examine how ozone pollution has gone unnoticed and unchecked in the following examples:

### **Denver Metro/North Front Range**

The Denver Metro/North Front Range has failed to meet the less rigorous 2008 ozone standard for the past six years. The primary drivers of ozone in the Denver Metro/North Front Range region are oil and gas development and mobile sources, including cars and trucks, with contributions from industry. Reducing VOCs from the oil and gas industry, reducing NOx from cars by electrifying transportation, while promoting public transportation options, and reducing both pollutants from industrial sources are all viable solutions that together will go a long way to addressing the region's severe ozone problem. And yet, many local and state leaders continue to wrongly blame Denver's ozone problem on wildfire pollution.

WRA is pushing to get the job done. In 2021, we fought for air quality rules in Colorado that reduce greenhouse gas emissions and, as a result, harmful VOC emissions from the oil and gas sector. We also fought to secure one of the most ambitious utility transportation electrification plans in the nation, which invested more than \$110 million to support electric vehicle adoption. In 2022, WRA will actively participate in the creation of the required state implementation plan, pushing Colorado to chart a path toward meeting the ozone standard in the Denver Metro/North Front Range *as soon as possible*.

### **Northern Wasatch Front**

The Northern Wasatch Front in Utah regularly violates the less stringent 2008 ozone standard, with high summertime concentrations caused by local emissions from vehicles, industry, and smaller sources. However, to evade further control measures on well-known sources of ozone pollution

within the region, the state is trying to make the case that international sources are to blame for the region's poor air quality. WRA is actively opposing the state's efforts to ignore its legal obligation to meet the national ozone standard, efforts that would condemn communities in the Northern Wasatch Front to living with dangerous ozone levels indefinitely. Should EPA reject Utah's petition, WRA will participate in the development and implementation of the state's plan to impose emission reduction requirements and ensure we bring clean air to the Northern Wasatch Front.

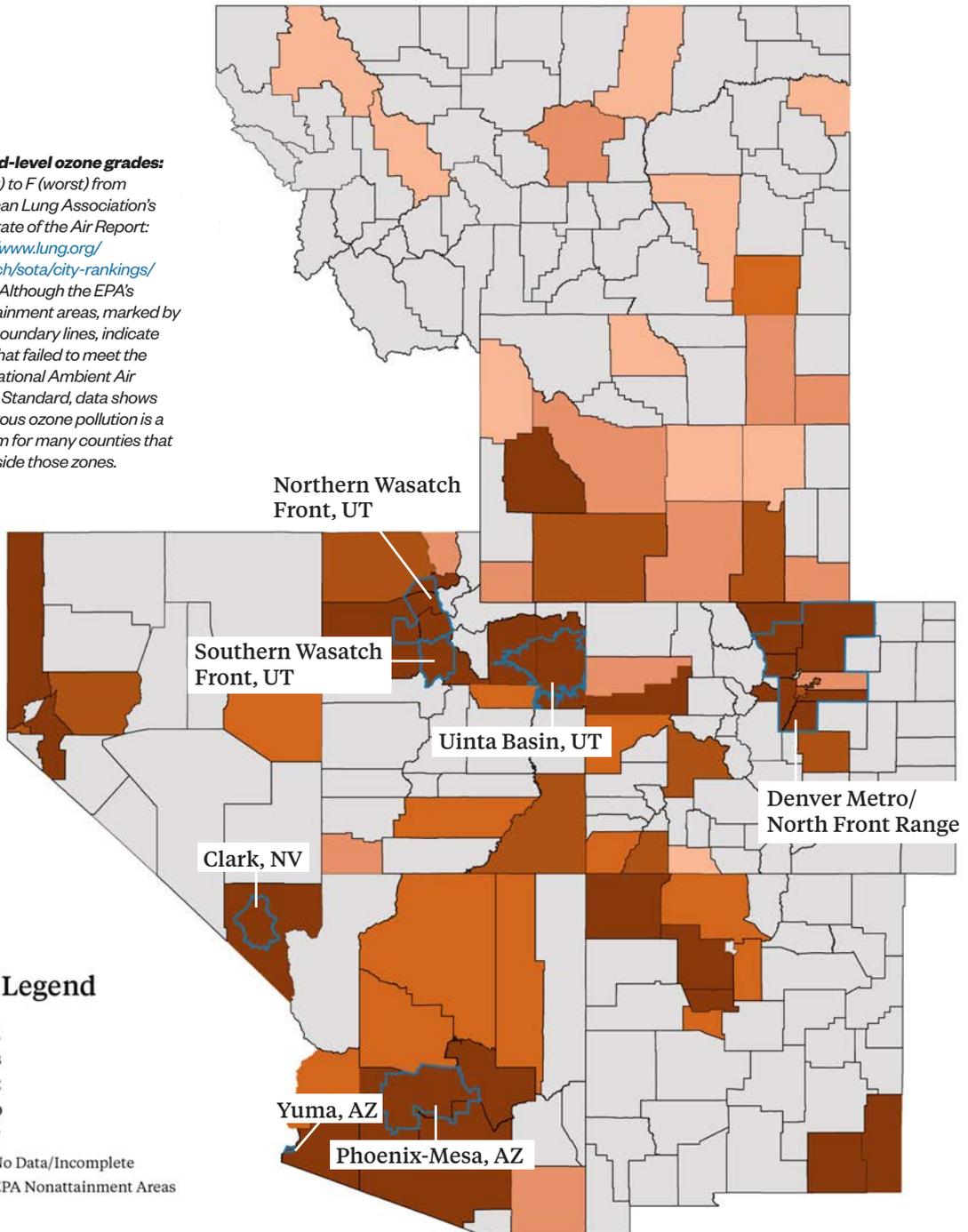
### **Uinta Basin**

The Uinta Basin is one of the few places that violates the ozone standard in the winter and has been out of attainment since 2018. Ozone levels in Utah's Uinta Basin are directly tied to oil and gas development in the region. The state could take immediate steps to further reduce emissions from the oil and gas sector, but instead Utah plans to ask for an extension to meet the standard. WRA, on the other hand, will not be waiting to act. We have long worked to secure better controls on oil and gas emissions to improve air quality in the Uinta Basin. But more needs to be done. In 2022, WRA filed comments supporting new national rules proposed by the EPA that will help reduce both greenhouse gas and VOC emissions from the U.S. oil and gas industry. WRA will also push Utah and the EPA to adopt additional site-specific emission reduction measures for the Uinta Basin oil and gas industry, such as those recently adopted in Colorado.

WRA is working to encourage our local, state, and federally appointed and elected leaders to step up and act. We cannot sustain delays in the actions needed to dramatically improve air quality for all Western communities. And we need to start being brutally honest about what dangerous ozone pollution levels translate to for communities forced to live with them: *a death sentence*.

# Ground-Level Ozone Grades by County and Nonattainment Areas

**Ground-level ozone grades:**  
 A (best) to F (worst) from American Lung Association's 2021 State of the Air Report: <https://www.lung.org/research/sota/city-rankings/states>. Although the EPA's nonattainment areas, marked by black boundary lines, indicate areas that failed to meet the 2015 National Ambient Air Quality Standard, data shows dangerous ozone pollution is a problem for many counties that fall outside those zones.



*Based in the high desert of Colorado, Diné artist Tyana Arviso uplifts and educates audiences in a mindful way, using photography that inspires a greater connection to the mind, body, and spirit. With seven years of experience as a photographer, she specializes in commercial, contemporary, and landscape photography. This photo was captured between Durango and Silverton, Colo.  
@tyanaarviso | tyanaarviso.com*





# Fighting Fire with Fire: How the Use of Prescribed Burns Can Help Keep Our Air Cleaner

One of the things we love most about living in the West is the ability to take in the outdoors and our abundant natural spaces. Walk along the Rio Grande River Trail in Albuquerque or spend time in the foothills of Colorado and you'll see the forest and natural ecosystems that are vital to producing the clean air we all breathe. However, for an increasing number of days each summer, massive amounts of wildfire smoke — and the resulting poor air quality — make it harder for us to live, work, and play in the region we call home. In fact, in August 2021, Denver drew national attention as fine particulate matter (PM 2.5) from wildfires contributed to its rank as having the worst air quality among major *world cities* for several days in a row.

Each year, more catastrophic blazes — unnaturally high-intensity fires that cause damage to communities — continue to break out across our region, creating impacts that range far beyond their burn scars. In Colorado alone, the three largest and most destructive fires were in 2020, each scorching more than 100,000 acres. Fires of this nature continue to increase in size and intensity. The most recent Assessment Report from the U.N. Intergovernmental Panel on Climate Change found that the probability of devastating wildfires in places like the Western U.S. could increase by one-third by 2050.

The massive amounts of smoke from catastrophic wildfires add to the already

unhealthy levels of air pollution with which many Western communities struggle — notably Denver, Phoenix, and Salt Lake City. Visible wildfire smoke cloaks other serious sources of air pollution, like the combustion of fossil fuels and industrial byproducts that lead to dangerous levels of PM 2.5, PM 10, ground-level ozone, and other toxic chemicals. While PM 2.5 is the main component of wildfire smoke and the gravest air pollutant, it also worsens health outcomes for communities with other deadly sources of air pollution and forces at-risk individuals, like people with heart disease and asthma, to remain indoors.

But wildfire has always been a part of our healthy, functioning ecosystems in the West. Some important tree species like Lodgepole and Ponderosa pine trees require smaller, more frequent burns for their seeds to germinate and to stimulate regrowth. So how can we return to a healthier state of wildfire and prevent the overwhelming levels of smoke that come from out-of-control megafires?

Prescribed burns — controlled fires conducted under the trained and watchful eyes of experts — can help communities create more resilient forest systems and reduce the risk of catastrophic fire, while restoring many of the benefits of natural fire regimes. Using fire to improve ecosystem health isn't new. Indigenous communities across the West have used controlled fire to promote healthy forest ecology for centuries, and forest managers in the Eastern U.S.

regularly use fire as a tool to enrich the soil and reduce fuel loads.

Prescribed burns allow forest managers to choose when and where to use fire on the landscape, turning a powerful force of nature into an effective tool for resource management. Healthy forests treated with prescribed fire can improve air quality, as early successional forests — those regrowing after healthy burns — work to absorb carbon and produce oxygen, like lungs of our ecosystems. Increasing our proactive use of prescribed burns is an essential way to protect our communities, ecosystem health, and public lands.

WRA is partnering with land managers and decision makers in Western communities to work with trained professionals to make our homes safer, our environment healthier and our air quality better. By reducing the risk of catastrophic wildfires, we take one more variable of the air quality conundrum out of the equation. With the help of more regular, expert-guided use of prescribed fire, we can ensure our forests, wildlife, and communities are healthier and more resilient against the threats of catastrophic wildfire, keeping our air cleaner and clearer for all of us to enjoy. And that can help us all breathe a little easier.

## A Clean Water Agency's Dirty Decision to Protect Polluters Over People

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In 2020, a Colorado agency quietly passed a decision to roll back water quality protections after a request from two industrial dischargers: Metro Wastewater and Molson Coors in Golden.

**“Once conservation advocates learned of this decision, we came together as a community and made engaging in the process a priority.”**

– Josh Kuhn, Conservation Colorado

And in in true stealth fashion, it did it without adequate public input and against recommendations from its own staff.

The Colorado Water Quality Control Commission (WQCC), the agency responsible for protecting the state's streams, downgraded protections for three reaches of Clear Creek and the South Platte River. These two waterways run through

several North Denver neighborhoods. Historically, both Clear Creek and the South Platte have been contaminated by industrial activity. Communities along the waterways have not had the full benefits of clean rivers and streams — such as safe recreational opportunities for tubing, boating, and angling.

The WQCC's decision put the waterways in danger of further degradation, continuing a legacy of environmental injustice in North Denver and undercutting ongoing efforts to improve and safeguard water quality in urban streams. In response, WRA embarked on an ongoing effort, working side by side with metro-area communities and advocates, to protect these two important waterways in Denver.

In early 2021, in a bold attempt to retroactively justify its flawed decision making from 2020, the WQCC asked to expand the rollback of antidegradation protections for Clear Creek and the South Platte River beyond those two streams,



to all rivers and streams across the state. The WQCC proposed a change to Colorado's statewide water protection rules to allow increased levels of any pollutant in a waterway in which just one pollutant — out of the dozens the state monitors — exceeds a set limit. For example, if monitoring finds high levels of one harmful type of bacteria in a river, then discharges that raise levels of other, not currently elevated, pollutants would be allowed.

State and local environmental groups, including WRA, teamed up with advocacy organizations and local communities to safeguard urban waters and to ensure that they have the same protections as rural and mountain streams. Josh Kuhn, a water advocate with Conversation Colorado, one of the advocacy organizations, said that “once conservation advocates learned of this decision, we came together as a community and made engaging in the process a priority.”

When the WQCC held a hearing on the proposed statewide rule change, in May 2021, an unprecedented number of Coloradans provided public comment. Community members showed up in force and took the opportunity to testify to the importance of rivers to their neighborhoods in North Denver, shedding light on the failure of the 2020 decision to protect urban rivers and frontline communities.

Mely Whiting, legal counsel for Trout Unlimited's Colorado Water Program, said: “Watching the community come together to protect their home waters has been inspiring. Too often these commissions make decisions in a vacuum — hearing only from attorneys and consultants representing regulated entities and not from the communities affected by the pollution. I hope this is the beginning of a trend. And I hope the Colorado Water Quality Control Commission is listening.”

The WQCC did hear the communities' voices and rejected the statewide change. However, the story doesn't end there.

The WQCC did not revise its earlier decision to downgrade protections for the two urban streams in North Denver.

In response, WRA filed a petition in November 2021 on behalf of a coalition of more than 12 environmental justice and local government organizations, asking the WQCC to reconsider its 2020 ruling. The petition requested that the commission recognize a legal error behind the original decision and restore protections for the three reaches of Clear Creek and the South Platte River.

**“Watching the community come together to protect their home waters has been inspiring. Too often these commissions make decisions in a vacuum — hearing only from attorneys and consultants representing regulated entities and not from the communities affected by the pollution.”**

– Mely Whiting, Trout Unlimited

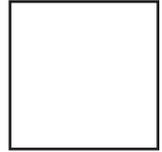
As a result, in a December 2021 meeting, the WQCC granted WRA's petition and agreed to undertake a rulemaking process in 2022 to reexamine antidegradation protections on Clear Creek and the South Platte River. That result speaks to the power of communities to make change. Kuhn spoke to this power, saying, “While more work is still to come to formally upgrade protections, we have shown that when decision makers' decisions are unjust, we will hold them accountable.”

WRA is committed to seeing the rulemaking process through and to help guarantee that all Coloradans, including North Denver residents, can access clean and healthy rivers.





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## From Your Field

A mountain view taken by longtime WRA supporter Andy Franklin while on a recent trip to Creede and South Fork, Colo.