



# Winds of Change

Supporting Organized Voices and Empowered Communities Since 1987

Huntington, WV

OVEC

[www.ohvec.org](http://www.ohvec.org)

## IPCC: Climate Change Widespread, Rapid, and Intensifying



Texas National Guard soldiers conduct rescue operations in flooded areas around Houston, Texas. Photo © Zachary West / National Guard

*Excerpt from an IPCC press release*

Scientists are observing changes in the Earth's climate (*Ed. note: As are all of us!*) in every region and across the whole climate system, according to the latest Intergovernmental Panel on Climate Change (IPCC) Report released on August 9.

*continued on page 12*

Climate change disproportionately impacts BIPOC due to historic, ongoing, dangerous injustices.

# Here For the Long Haul: Climate (In)justice, Resiliency, and Hope



*Grow a garden anywhere. Photo courtesy of OVEC member and volunteer Mary Wildfire.*

by Sarah Carballo

There is no perfect metaphor for climate change. Some people describe it as a war. To others, it's a race. Maybe it's an illness that needs to be cured, or a puzzle that needs to be solved. No matter how we try to describe it, climate change is something so big, so complex, and so powerful that it's almost impossible to imagine in totality.

However, we don't need complex and paralyzing imagery to convey one of the greatest injustices of the climate crisis: those least responsible for it are impacted first and hit the hardest.

“The greatest change we need to make is from consumption to production, even if on a small scale, in our own gardens. If only 10% of us do this, there is enough for everyone.”

— Bill Mollison

Wherever we call home, the hope for our shared future—solving the climate crisis, tackling global inequality, and ensuring we all have the right to a dignified life—relies on a movement of people fighting for social justice, environmentalism, and human rights of all kinds.

To build that movement, people don't just need to know the facts; they need to know what to do next. Just like there is no perfect metaphor for climate change, there is no perfect solution to planetary problems. Fortunately, there are many ways we can make a difference. According to Bill Mollison, known to some as the “Father of Permaculture,” if the whole planet took localized action, we would be on the road to solving global issues.

Creating a more sustainable world begins in our own backyards. Visit our blog at [ohvec.org](https://ohvec.org) to read a gardening series by OVEC volunteer Mary Wildfire and learn how to get started. 🍷



# OVEC Welcomes Matt Cochran

by Sarah Carballo

Matt Cochran joined OVEC as Administrative Director early this summer. A Kentucky native, Matt has more than two decades of experience in accounting and administration for non-profits and financial institutions across the region.

“Being raised and currently living on the Ohio River in Eastern Kentucky,” Matt says, “I have seen the damage first hand and how it has affected the health of the people of this area.”

Matt earned a B.A. in Business Administration from Morehead State University and was formerly a senior auditor for the West Virginia Credit Union League. He later worked for credit unions in various managerial capacities. In addition to his professional background in finance and analysis, he also brings extensive experience with computer systems and software.

Away from work, he enjoys being outdoors where he lives in eastern Kentucky. He particularly enjoys working outside, fishing, and spending time with his family. “It is critically important to have organizations like OVEC out there fighting to keep those who deliberately damage and pollute our region for their own economic gain accountable,” Matt says. “It is up to us to keep them in check.” 🐟



“  
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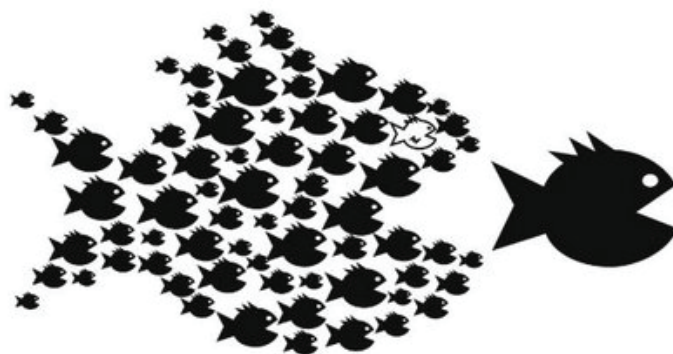
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# ORGANIZE!



***Reflections on a speech by Executive Secretary of the United Nations  
Framework Convention on Climate Change Patricia Espinosa***

On June 1988, NASA scientist James Hansen outlined the grim reality facing the planet: Human carbon emissions had raised global average temperatures to the highest levels in recorded history. Heat waves, drought, and other kinds of unexpected, unusual, severe, or unseasonal weather events were already disrupting people’s everyday lives.

In the following years, amidst an increasing loss of sea ice, widespread extinction, and catastrophic weather events worldwide, scores of leaders have pledged more ambitious climate goals. However, despite the rhetoric, global action has been insufficient to meet the principle goal of the Paris Agreement: limiting the global average temperature rise to as close as possible to 1.5 degrees Celsius.

As cities flood, crops wither, forests burn, and people perish, the question now looms louder than

ever: what will it take for us to take widespread collective action to protect ecosystems and curb use of fossil fuels?

“Numbers and statistics are invaluable, but what the world requires now, more than anything else, is climate action,” United Nations Climate Change Executive Secretary Patricia Espinosa said at a gathering of energy and environment ministers from G-20 nations in 2019.

Achieving those goals will require monumental social change, including phasing out gas-powered cars, eliminating fossil fuels as a source of electricity, and overhauling how humans produce food and manage land.

Read the full speech by United Nations Climate Change Executive Secretary Patricia Espinosa:  
[bit.ly/PEonclimate](https://bit.ly/PEonclimate) 🌰

“ The solution is in the rebuilding of the relationship between human beings and nature, where life, collective well-being, and ecological rhythms —not greed and profit—guide the actions of nations and peoples. ”

– from La Via Campesina’s *Anti-Imperialist  
Manifesto in Defense of the Environment*

# Carbon Capture and Sequestration: *No Solution to Climate Crisis*

by Randi Pokladnik

The Labor Energy Partnership led by the AFL-CIO and Energy Futures is proposing the Ohio River Valley become a hub for fossil-fuel generated hydrogen and carbon dioxide using carbon capture technology.

The major industry contributing to climate change, fossil fuels, now profits from tax breaks and government funding being directed at carbon capture and sequestration (CCS) projects. Tax credits for CCS are \$35 to \$50 per metric ton of CO<sub>2</sub> captured.

According to the Department of Energy, CCS research projects received \$110 million in 2019, \$72 million in 2020, and as of April of 2021 received \$75 million. All but five of the 21 large-scale CCS plants sell or send their carbon dioxide to facilities involved in enhanced oil recovery, enabling more oil to be extracted and continuing our reliance on fossil fuels.

Carbon capture technology is still in the early stages of development. It is not ready to be used at the scale necessary to curtail the climate crisis. It has however become a diversion used by industry and governments to avoid doing what needs to be done to actually address the climate crisis in a timely way.

Read more in Randi's blogs at [ohvec.org](http://ohvec.org). 🍌

## CSS IS A MESS\$

In late July, OVEC was one of more than 500 organizations in the U.S. and Canada that banded together to demand that our national governments stop investing in carbon capture and storage (CCS) technology.

The groups wrote a letter to the Biden administration and its Canadian counterpart, sent out a press release, and placed a full-page ad in the Washington Post and Ottawa's Hill Times, noting that CCS investment is a green guise that will only prolong the use of fossil fuels, hinder our transition to safer and more sustainable energy sources, and exacerbate the effects of climate change.

Please let your elected officials know you don't want your tax money spent on CCS. 🍌

*Stay up to date on  
the latest events.  
Check our online calendar  
at [ohvec.org](http://ohvec.org).*



# Chemical Exposure and Explosions: *Information Essential*



## INFORMATION

You are within five miles of the Belle Chemours Optima plant located in Belle, West Virginia.

This facility produces many deadly and dangerous chemicals that pose major risks to human health, and has been the site of multiple fatal accidents.



OHIO VALLEY ENVIRONMENTAL  
COALITION

## TO SHELTER-IN-PLACE

- Close and lock all windows and exterior doors
- Turn off furnaces, air conditioners, fans, and close vents
- Shelter in an internal room (not basement) with your Disaster Supplies Kit and a battery-powered radio, bringing all pets
- Seal the room with 4-6 mils plastic sheeting and duct tape, including doors, windows, vents, and all wall plugs, and switch plates
- Call your emergency contact
- Listen to your radio or television until you are told all is safe or you are told to evacuate

## IN CASE OF EVACUATION

- Retreat upwind from the chemical spill
- Turn off recirculation in car ventilation system
- Tune into your local emergency radio station



## CONTACT

- Call 9-1-1
- Contact health departments
- Public Response Hotline at 800-CDC-INFO
- U.S. Chemical Safety Board: [public@csb.gov](mailto:public@csb.gov)
- Many facilities are required to hold public hearings within 90 days of an incident



SCAN OR VISIT [OHVEC.ORG](http://ohvec.org) FOR  
MORE INFO AND RESOURCES

On December 8, 2020, an explosion and fire rocked the Chemours/Optima plant in Belle, WV. One worker died, three were injured. In the immediate aftermath of the explosion, nearby residents received sparse information on what measures they should take to protect themselves, their families, and their neighbors.

This explosion is only one of many incidents at area petrochemical plants. Residents near these plants often hear alarms and experience odd smells. While the incidents are not always deadly, the cumulative impacts of the stress of living near these plants and their emissions can take a toll on health and well-being.

In order to help bridge the gap in information and help citizens feel safer, OVEC mailed out a magnet with shelter-in-place procedures (see graphic above) adapted from Red Cross guidance, as well as a letter inviting community members to speak at the Environmental Protection Agency's listening tour to

assess the current Risk Management Plan and share their concerns about the response to the incident.

We also created a page on our website to collect resources from the WV Department of Environmental Protection and other sources regarding the chemicals processed in Belle, their signs and symptoms of exposure to them, and the current Risk Management Plan for each of the companies operating in the facility.

Find out more at [ohvec.org](http://ohvec.org) 🍿

## OVEC WORKS!

*Thanks to everyone near and far for taking action to end environmental injustice, with an extra special thanks to all the folks fighting extreme fossil fuel extraction. We know it takes courage to speak up! We hope you know how much we appreciate you. OVEC works because of you!*

## THANKS!

# Carcinogenic Benzene in the Neighborhood

A report released on April 28, 2021 by the Environmental Integrity Project showed that the Marathon Refinery in Catlettsburg, KY, along with 12 other facilities across the United States, significantly exceeded the Environmental Protection Agency's benzene action level from 2019-2020.

When monitoring results show that benzene levels at refinery fencelines average more than nine micrograms per cubic meter over a year, the 2015 Clean Air Act Rule requires the refinery to investigate and take action by cleaning up the emission sources causing the problem.

Benzene, a known carcinogen that contributes to leukemia and other respiratory issues, was found to be 5.3% over the EPA's action level, and was up 344% from the previous year based on fenceline data. These fencelines are often adjacent to lower-income communities and the adverse effects from pollutants disproportionately affect communities of color.

Catlettsburg native Dani Parent, then an OVEC staff member, told The Daily Independent for a July 10 article ([bit.ly/KYBenzene](https://bit.ly/KYBenzene)), it isn't uncommon for people in the area to mistrust the air they breathe and the water they drink. "Information like this is key to changes that will make people safer and allow for more accurate measurements and preventative maintenance."

Accurate information is lacking. According

to the EIP's report, actual levels of benzene along those fencelines are actually much higher than indicated. "The lowest concentrations of benzene measured along a refinery's fenceline are considered "background" pollution and are subtracted from the highest measurements when determining the annual net benzene levels for the refineries. The regulations also allow refiners with site-specific monitoring plans approved by EPA to make further adjustments

to exclude benzene that comes from specific sources, including plants outside the refinery's boundary and certain sources within the refinery that are exempt from the fenceline monitoring rule (such as benzene storage tanks)."

As Dani told the Nation of Change for its May 1 article ([bit.ly/37r46Kx](https://bit.ly/37r46Kx)) on the EIP report, "I grew up in a place that deserves better, with people who deserve better. And that begins with effective regulation and monitoring from the EPA."

To that end, and as part of our work to address pollution and thwart off a planned regional petrochemical buildout, OVEC has plans and is seeking funding for a new project to place air monitors in crucial sites along the Ohio River Valley.

If you are concerned about benzene or other air pollution and are interested in having an air monitor placed on your property, please contact us [info@ohvec.org](mailto:info@ohvec.org) for more information.



*Photo of emissions at a petrochemical facility courtesy CIEL.*

## Join or Renew at No Cost to You

OVEC knows that many people are experiencing financial stress due to the impacts of the pandemic. That's why we are offering to waive your annual membership dues. Although OVEC depends on membership dues to help support the work we do, we don't want to have dues standing in the way of your membership. If you need to, take advantage of the membership-dues waiver. Your membership is extremely valuable to us: We know there is power in numbers! Join or renew online at [ohvec.org](https://ohvec.org).

# Update: Petrochemical Lawsuits




Back in 2016, working with Earthjustice and community groups nationwide, we filed a lawsuit against EPA to compel the agency to review an update for the air toxics rules for cyanide chemicals manufacturing and carbon black production. We won the case in 2018. EPA is now in the process of completing those long-overdue rulemakings.

The rules EPA proposed (under Trump's EPA) as a result of our court order include some improvements that will make some difference for folks living near and downwind of chemical plants, but the proposals are not strong enough and do not meet EPA's responsibility or legal obligation to protect public health and to satisfy the Clean Air Act.

Groups continue to demand that the rules be strengthened before they are finalized, which according to our latest agreement with EPA, should be by November 1, 2021.

Represented by Earthjustice, OVEC—and other groups nationwide—are working for better rules for other air pollution sources at petrochemical plants in our region and nationwide. Across the country, these petrochemical plants are similar and affect many of the same communities—predominantly populated by people of color and low-income people.

We've been focusing around rules for:


-  Polyether polyols production
-  Synthetic organic chemical manufacturing/hazardous organic national emission standards
-  Miscellaneous organic chemical manufacturing

We have pending reconsideration petitions and/or cases on each of these rules. We believe improvements in these rules are critical for improving the health and safety of plant workers and communities here, as well as for communities in Houston, Louisiana, California, and elsewhere nationwide.



For all three of these rules (and similar chemical/petrochem rules) OVEC and the other groups are demanding that EPA take these actions:

- (1) Require fenceline monitoring for ethylene oxide, benzene, and other air toxics.
- (2) Per the Clean Air Act, perform a new health risk review rulemaking to ensure EPA follows the most current science.
- (3) Strengthen the cancer risk action benchmark to recognize the cumulative impacts communities face and set action benchmarks for unacceptable non-cancer health threats. 100-in-1 million cancer risk is far too high to be considered acceptable. EPA has no action benchmark that deems non-cancer chronic risk or acute risk unacceptable—EPA should set these in a way that recognizes cumulative impacts.
- (4) Remove all loopholes in the rules that allow uncontrolled startup, shutdown, malfunction emissions.
- (5) Use EPA's full authority under the Clean Air Act to strengthen the emission standards for all units at these sources and assure the maximum level of emission reduction that is achievable from these sources.

EPA must take these actions to protect public health and demonstrate its commitment to clean air and environmental justice. 



# What is Ethylene Oxide?

In May, a reporter from the Charleston Gazette-Mail reached out to us in regards to the environmental community's take on ethylene oxide sources in the greater Charleston area.

We knew just the person the reporter should speak with. His May 22 article begins:

*No one knows better than Pam Nixon why the Kanawha Valley is known as Chemical Valley.*

*"Odors, explosions, the sheltering in place," said Nixon, 69, of South Charleston, a lifelong Kanawha County resident and 15-year former environmental advocate for the West Virginia Department of Environmental Protection. "That's what we live under."*

(Ed. note: Pam, who has testified before Congressional committees, also chairs the NAACP Charleston Branch Environmental and Climate Justice Committee, was central to the group known as People Concerned About Chemical Safety, and has served two terms on OVEC's board of directors.)

The article informs us that ethylene oxide (EtO) is a potent carcinogen "a flammable, colorless gas used to help produce antifreeze and detergent and sterilize medical equipment... There's a lot of ethylene oxide in Kanawha County, and many parts of the county have among the highest cancer risks from ethylene oxide in the U.S... Kanawha County's highest total cancer risk was 366 in 1 million, 10th-highest in the country and consisting largely of the risk from ethylene oxide..."

According to the EPA's 2018 National Air Toxics Assessment, some 12,000 Kanawha County residents face some of the highest cancer risks from ethylene oxide nationwide. The highest cancer risks for the Kanawha Valley are along Route 25 near Union Carbide ethylene oxide distribution in the community of Institute, where Pam lived for many years.

The reporter dove even deeper into the issue in a July 23 article, noting that the federal EPA and state DEP haven't held public meetings about the dangers of EtO as suggested by the EPA Office of Inspector General. Pam has been one of the voices urging them to action.

To make their cancer risk calculations, officials use pollutant concentrations based on computer model

simulations, not actual measurements. Air monitors at the fencelines of chemical plants would help get a real picture of people's exposure to EtO and other pollutants. That's why Pam, OVEC and groups nationwide are asking for fenceline monitoring, with the caveat that they be placed, as Pam says, "at ground level where people are living. And it would have to be over a long period of time. Not just a few months."

The July article states:

Nixon knows all too well that onsite air monitoring has been absent or far removed from the scene at key times in Chemical Valley...

She recalls that the closest ambient air monitoring station was 8 air miles from the Optima Belle chemical plant where an explosion killed one employee and left two others hospitalized in December, causing a fire that burned for two hours after the blast.

The DEP announced two days after the explosion that air monitoring data collected by its Division of Air Quality indicated no federal national ambient air quality standards were exceeded during or in the hours following the explosion, basing that conclusion on data from the monitoring station 8 air miles away...

*Nixon calls Institute an "environmental sacrifice zone," noting the high concentration of Black residents and the historically Black West Virginia State University in the unincorporated community who have been vulnerable to adverse environmental impacts from not only chemical facilities like those operated by Union Carbide, Bayer CropScience and US Methanol but also the nearby Dunbar treatment plant and asphalt-producing company West Virginia Paving.*

*"Even though there's chemicals all along the valley, in Institute it seems to be concentrated," Nixon said. "After living nearly 70 years on this earth and seeing the inequalities that are occurring in my own backyard, it's difficult for me."*

Read the full May article at [bit.ly/3xbSpSK](https://bit.ly/3xbSpSK) and the July article at [bit.ly/3xflb4N](https://bit.ly/3xflb4N) 🍌



# Defend Democracy: Working ‘For the People’

OVEC is a founding member of West Virginia Citizens for Clean Elections (WVCCE), which has been busy this year. Before the state legislative cycle was even finished, we began working with Declaration for American Democracy, a national coalition of more than 200 organizations, and For West Virginia’s Future to revive West Virginians for Democracy, a group of West Virginia-based activists and organizations aligned with a single goal: defending our democracy.

West Virginians for Democracy and our coalition partners have been hard at work since January to educate and mobilize folks for the passage of the For the People Act, the John R. Lewis Voting Rights Act, and supporting DC statehood.

The For the People Act in particular is crucial to protecting democracy in West Virginia and nationwide, and aligns with a number of priorities

from WVCCE’s Pro-Democracy, Anti-Corruption Platform priorities, particularly addressing access to voting rights and fixing our broken campaign finance system that prioritizes special interests and allows dark money to buy our elections.

“Without that accountability, it’s impossible to

know what their real priorities are whenever they get into office,” says Quentin Berg, a Putnam County



resident to Public News Service.

Based on polling data from DFAD coalition partner End Citizens United, 79% of West Virginians support the For the People Act, and 85% of voters support ethics reform for government officials.

Our coalition has phonebanked and textbanked, held rallies, and is currently canvassing the whole state, but there’s still more to do and West Virginia is crucial to this fight. If you’d like to help pass the most important democracy reform of our time, visit us at [www.wvoter-owned.org](http://www.wvoter-owned.org). 🍌

## Solar Energy for One in Four American Households

A new report from the Institute for Local Self-Reliance (ILSR) found that installing rooftop solar panels and community solar systems for the equivalent of 30 million American homes would create 1.77 million jobs and save \$69 billion in electricity costs over the next five years.

The report, “The National Impact of 30 Million Solar Homes: A Vision for an Equitable Economic Recovery Built on Climate Protection and Energy Democracy,” builds on federal policy recommendations developed by the Initiative for Energy Justice, Institute for Local Self-Reliance, and Solar United Neighbors as part of the 30 Million Solar Homes campaign, an initiative to create 151 gigawatts of new solar capacity over the next five years for roughly one in four households.

Using federal policies to expand solar access through low-income energy assistance, making federal solar energy tax credits more equitable, and supporting federal financing and grant programs for local solar deployment, the 30 Million Solar

Homes initiative prioritizes widespread economic, financial, and employment benefits to address climate action while prioritizing marginalized communities, particularly low- and moderate-income communities, environmental justice communities, and solar deserts.

Read the full report at [bit.ly/3f2MMQo](https://bit.ly/3f2MMQo) 🍌



# Methanol Plant Update

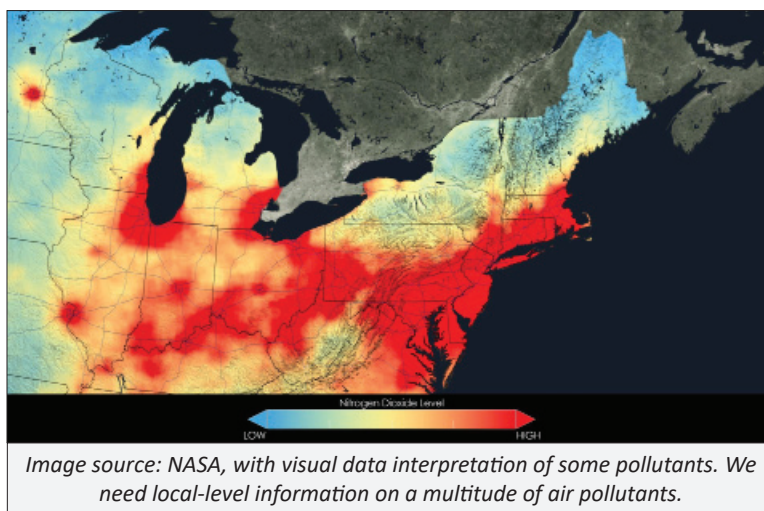
## *The need for expanded EPA air monitoring in the Ohio River Valley*

West Virginia Methanol Inc. recently received an air permit from the state Department of Environmental Protection to construct a methanol plant in Pleasants County, WV, to provide low-cost feedstock to methanol customers in the region.

“As always, the DEP acted like approval is a foregone conclusion,” says Alex Cole, a community organizer with OVEC. “I mean it says right in their notices, ‘this is a notice of intent to approve’.”

Methanol, a chemical predominantly derived from natural gas, is used to produce thousands of products including charging stations, yoga pants, cell phones, space vehicles, and electric vehicles, among others. But, make no mistake: Methanol is a hazardous chemical that is highly flammable and toxic.

Though we partnered with Earthjustice to combat the permit, it was ultimately approved despite consultation from an air quality expert who outlined the concerns about environmental quality since the site of the proposed plant in Pleasants County is



located next to several other major polluters including Willow Island Power Station and a cyanide derivatives plant that has been a toxic mess for over half a century.

The EPA needs to set up better air monitoring in the area, but we’re not waiting to take action. To help protect communities

and the environment, OVEC staff are working in collaboration with other grassroots organizations across the region to install air quality monitoring systems in close proximity to this facility and other industrial sites along the Ohio River and its tributaries.

Methanol plants appear to be the industry’s next bid to continue developing the proposed Appalachian Storage Hub (a huge, regional petrochemical buildout) and we will continue to fight the development of this facility and similar operations in the Ohio River Valley.

Are you an Ohio River Valley resident interested in installing an air monitor near your home or community? Contact us at [info@ohvec.org](mailto:info@ohvec.org). 🌰

## Let’s Crash ASH

This summer WV Interfaith Power and Light has been hosting a series of online educational events called Standing Up for Appalachia, and OVEC staff and volunteers have helped out with some of the events. The events are funded by a grant from the WV Rivers Coalition.

On July 14, OVEC staffer Sarah Carballo and volunteer Dr. Randi Pokladnik participated in a panel discussion regarding the health and environmental dangers posed by the proposed Appalachian Storage Hub/massive petrochemical complex. 🌰



## Donate Via Kroger Card

If you shop at Kroger, there’s a way to donate to us at no extra cost to you. Link your Kroger Plus card to OVEC at [krogercommunityrewards.com](https://krogercommunityrewards.com). When looking for us there, this information will be useful:

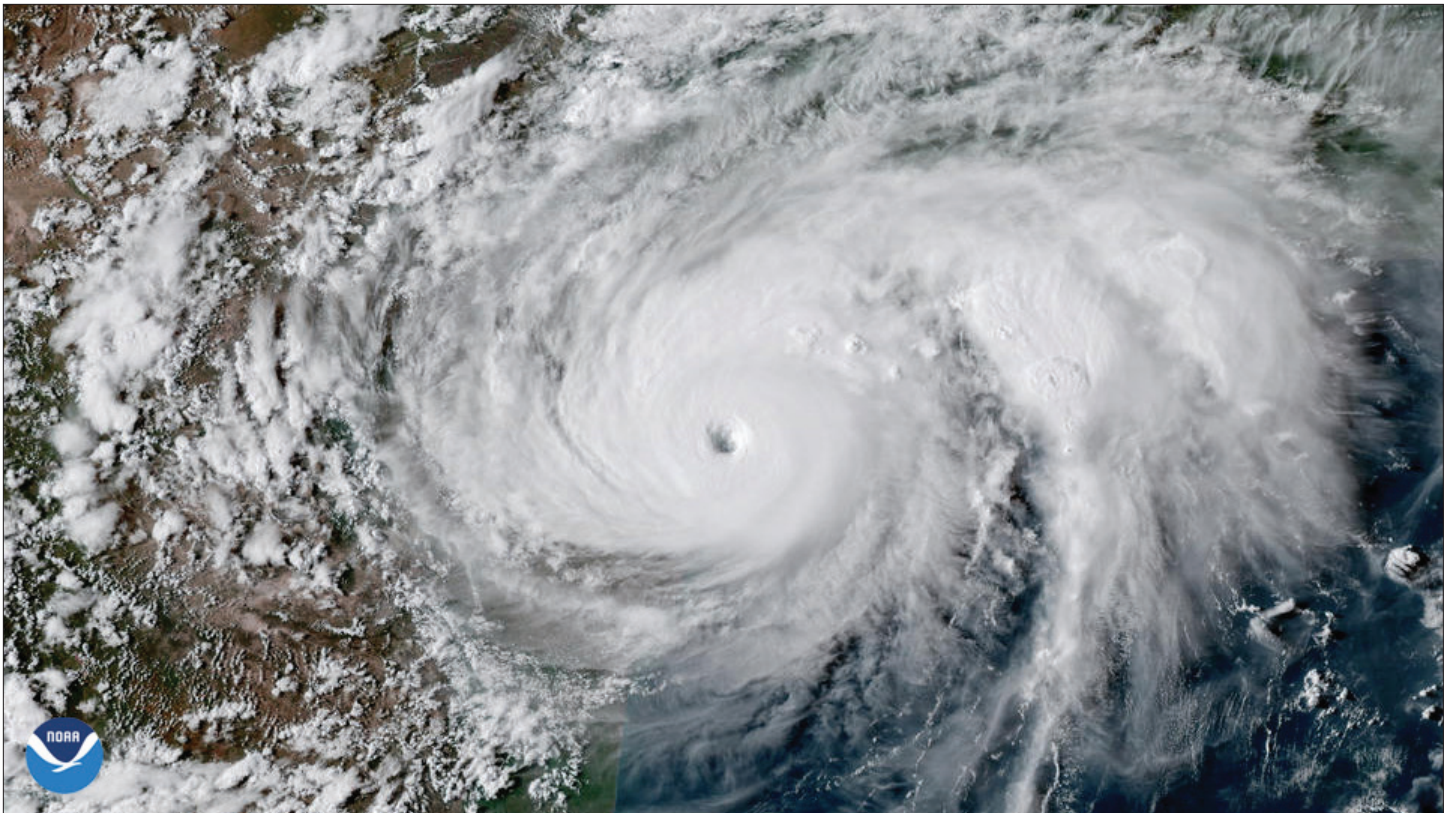
Organization Name: OVEC\*Ohio River Valley Environmental Coalition

Organization Number: BY864

As you checkout, scan your Kroger Plus card. If you have linked the card directly to OVEC via their Community Rewards program, then Kroger will contribute to OVEC. Over the years, OVEC has received more than \$40,000 via this program, so it really makes a difference! 🌰

# IPPC: Climate Report Says Strong and

*continued from page 1*



Many of the changes observed in the climate are unprecedented in thousands, if not hundreds of thousands of years, and some of the changes already set in motion—such as continued sea level rise—are irreversible over hundreds to thousands of years.

However, strong and sustained reductions in emissions of carbon dioxide (CO<sub>2</sub>) and other greenhouse gases would limit climate change. While benefits for air quality would come quickly, it could take 20-30 years to see global temperatures stabilize, according to the IPCC.

## Faster Warming

The report provides new estimates of the chances of crossing the global warming level of 1.5°C in the next decades, and finds that unless there are immediate, rapid and large-scale reductions in greenhouse gas emissions, limiting warming to close to 1.5°C or even 2°C will be beyond reach.

The report shows that emissions of greenhouse gases from human activities are responsible for approximately 1.1°C of warming since 1850-1900, and finds that averaged over the next 20 years, global temperature is expected to reach or exceed 1.5°C of warming.

## Every Region Facing Increasing, Dramatic Changes

“Climate change is already affecting every region on Earth, in multiple ways. The changes we experience will increase with additional warming,” said IPCC Working Group I Co-Chair Panmao Zhai.

The report projects that in the coming decades climate changes will increase in all regions. For 1.5°C of global warming, there will be increasing heat waves, longer warm seasons and shorter cold seasons. At 2°C of global warming, heat extremes would more often reach critical tolerance thresholds for agriculture and health, the report shows.

But it is not just about temperature. Climate change is bringing multiple different changes in different regions—which will all increase with further warming. These include changes to wetness and dryness, to winds, snow and ice, coastal areas and oceans. For example:

- Climate change is intensifying the water cycle. This brings more intense rainfall and associated flooding, as well as more intense drought in many regions.

# Sustained Action Can Stave Off Worst

- Climate change is affecting rainfall patterns. In high latitudes, precipitation is likely to increase, while it is projected to decrease over large parts of the subtropics. Changes to monsoon precipitation are expected, which will vary by region.

- Coastal areas will see continued sea level rise throughout the 21st century, contributing to more frequent and severe coastal flooding in low-lying areas and coastal erosion. Extreme sea level events that previously occurred once in 100 years could happen every year by the end of this century.

- Further warming will amplify permafrost thawing, and the loss of seasonal snow cover, melting of glaciers and ice sheets, and loss of summer Arctic sea ice.

- Changes to the ocean, including warming, more frequent marine heatwaves, ocean acidification, and reduced oxygen levels have been clearly linked to human influence. These changes affect both ocean ecosystems and the people that rely on them, and they will continue throughout at least the rest of this century.

- For cities, some aspects of climate change may be amplified, including heat (since urban areas are usually warmer than their surroundings), flooding from heavy precipitation events and sea level rise in coastal cities.

For the first time, the Sixth Assessment Report provides a more detailed regional assessment of climate change, including a focus on useful information that can inform risk assessment,

adaptation, and other decision-making, and a new framework that helps translate physical changes in the climate—heat, cold, rain, drought, snow, wind, coastal flooding and more—into what they mean for society and ecosystems.

This regional information can be explored in detail in the IPCC's Interactive Atlas (see [interactive-atlas.ipcc.ch](https://interactive-atlas.ipcc.ch)).

## Human Influence

“It has been clear for decades that the Earth’s climate is changing, and the role of human influence on the climate system is undisputed,” said Masson-Delmotte. Yet the new report also reflects major advances in the science of attribution—understanding the role of climate change in intensifying specific weather and climate events such as extreme heat waves and heavy rainfall events.

The report also shows that human actions still have the potential to determine the future course of climate. The evidence is clear that carbon dioxide (CO<sub>2</sub>) is the main driver of climate change, even as other greenhouse gases and air pollutants also affect the climate.

“Stabilizing the climate will require strong, rapid, and sustained reductions in greenhouse gas emissions, and reaching net zero CO<sub>2</sub> emissions. Limiting other greenhouse gases and air pollutants, especially methane, could have benefits both for health and the climate,” said Zhai.

For more information go to [ipcc.ch](https://ipcc.ch) 🍪



*Opposite page: Hurricane Harvey slams into the Texas coast.  
Here: Drought in the Northern Plains. NOAA images.*

# Rest in Power Chuck Nelson



Chuck Nelson at a mountaintop removal site on a cold day. Photo by Vivian Stockman.

We join with the family and friends of Chuck Nelson—including many OVEC members—in mourning his passing and celebrating his legacy. Chuck was born on March 23, 1956 and left this world on June 25, 2021.

Years ago, Chuck was out shopping at a Logan County store. When he returned to his car, on his windshield he found an OVEC newspaper that provided information about the abuses of mountaintop removal strip mining (MTR) for coal. He was a retired deep miner and already abhorred MTR. Paper in hand, he called OVEC's office to volunteer. From that day forward, Chuck was all-in for ending mountaintop removal.

Chuck joined OVEC's board of directors in late 2008 and worked closely with OVEC and Coal River Mountain Watch on issues related to coal sludge impoundments. He was a familiar face at community meetings in Boone and Mingo counties, encouraging others to get active to pressure state regulators and politicians to provide clean, potable water.

He wrote an article for our newsletter saying:

*Do not let anyone take away your heritage, your memories and your way of life. You are not expendable for the comfort of others, and that's exactly what is happening.*

*Don't be content with the idea that it's "just the way it is." A contented person will never change anything. You have a voice, and you have power in your personal stories and history.*

Chuck wanted two things: justice for these communities and access to safe water. A self-starter, Chuck often took initiative to set up meetings with agencies on his own. He was a truth-teller and a credible, powerful voice of the people in Appalachia impacted for decades by mining abuse.

It truly was a privilege to know and work with Chuck. His is a legacy of generosity, love, and seeking justice for the land and the people of Appalachia. Read more about and by Chuck Nelson on the OVEC blog at [ohvec.org](https://ohvec.org). 🍌

# Farewell Leon Miller

On July 31, Leon Miller left this Earth. OVEC extends our deepest condolences to his wife Lucille and all the rest of the Miller-Caudill family who hail from the Mud River region of Lincoln County.

OVEC staff first met Leon and many members of the family after he called the office to ask what the family could do to save the old home place in what was left of Mud, WV, from mountaintop removal coal mining.

As recounted on the front page of the July 2004 Winds of Change, what they did was take their fight all the way to the WV Supreme Court. We ran an excerpt from a May 8, 2004, Charleston Gazette article by Ken Ward Jr. Titled “Supreme Court Blocks Forced Sale of Lincoln County Family’s Ancestral Land,” the excerpt reads:

*The state Supreme Court ruled Friday that a Lincoln County family was wrongly forced to sell its homeplace to make way for a mountaintop removal mine. Justices said a lower court was wrong to discount the family’s “sentimental or emotional interests” in the property in favor of the economic concerns of a coal operator.*

*Writing for the court, Justice Robin Davis said that the Lincoln County Circuit Court decision, if allowed to stand, “would permit commercial entities to always ‘evict’ pre-existing owners.”*

*“I’m on cloud nine,” said Leon Miller, whose family fought the forced sale to Arch Coal Inc. “This is going to change the law from now on as far as people taking your property. I think it’s about time somebody stood up to these people.”*

*St. Louis-based Arch Coal had forced Miller and his family to sell their homeplace along the Mud River in Lincoln County.*



Above: Leon Miller, and behind him, part of the valley fill that would have crushed the old homeplace had he and his family not fought the coal company. Below: Leon, right, hosts visitors who came to see mountaintop removal in person. Photos by Vivian Stockman.

The rest of the article gives fascinating detail on what went down. Read it here: [bit.ly/WOC-7-04](http://bit.ly/WOC-7-04)

In the years that followed the court’s decision, Leon, Lucille and others in the Miller-Caudill clan opened up the old homeplace, smack in the middle of the massive Hobet mountaintop removal (MTR) operation, as a spot where people could come and see MTR up close and personal.

OVEC staff and members were always welcome, and we brought a host of journalists, students, activists, scientists, and officials over the years. Visitors included the head of the Office of Surface Mining and Reclamation, a National Geographic photographer and writer, and numerous scientists from Duke University who were able to set up monitors and conduct years-long studies that yielded valuable information on the impacts of MTR valley fills on the environment.

The old homeplace required a lot of upkeep and a lot of mowing. All those people tromping through in the growing seasons never once had to trek through tall grass. Leon joked that he spent all his spring, summer, and fall hours mowing.

But we know that family was most important to Leon and that’s where the majority of his hours went. Still the hours Leon gave to his love of the old homeplace—where his wife grew up—were invaluable to OVEC. Thanks to Leon, Lucille and other members of the family, the world knows so much more about mountaintop removal than it would have otherwise.

Leon, we hope there’s a good rider mower where you are now. 🍌



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## *OVEC Staff Unionize*

At its 3rd quarter board meeting on August 10, the OVEC Board of Directors recognized the OVEC Union, which is affiliated with Industrial Workers of the World (IWW), by unanimous consent following an official National Labor Relations Board election held on July 9.

We congratulate our employees and are committed to working with staff through contract negotiations.