

ENVIRONMENTAL HEALTH PROJECT

DEFENDING PUBLIC HEALTH SINCE 2012

2025 YEAR IN REVIEW



environmentalhealthproject.org



info@environmentalhealthproject.org





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ENVIRONMENTAL HEALTH PROJECT

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Note from Executive Director Alison L. Steele

This year has brought unprecedented challenges for anyone concerned about public health, environmental health, and climate science. EHP and many of our allies are facing restrictions on funding, rollbacks of protections, and stronger calls to drill for more fossil fuels. The new push to supply a regional data center boom with fracked gas could mean an estimated 1,800 new gas wells in southwestern Pennsylvania alone. Due to these challenges, families living near existing and proposed gas sites will face more risks to their health than ever before.

Despite these difficulties, our team at EHP has been more determined than ever to defend public health in the face of oil and gas development. Whether it's pushing back against new sites before they're built, demanding stronger protections for communities living near existing facilities, or putting powerful educational resources in the hands of our allies, EHP remains a strong and trusted expert on the health impacts of this expanding and evolving industry.

Every day I am amazed and inspired by our team. EHP remains at the forefront of conversations about protecting public health in our region thanks to the incredible expertise of our longtime colleagues and the fresh perspectives introduced by our newest team members.

In the past twelve months, we launched several exciting initiatives including two free, interactive tools to arm frontline residents with critical information about chemical exposures from nearby facilities; a white paper examining the state of public health policy in Pennsylvania, and how far it lags behind established science; and a new cohort of our flagship community engagement program, HealthWatch, in northern Appalachia.

Advocating for better public health practices is hard work, but it helps to know you're there with us. Thank you for supporting EHP in the fight to defend public health.



Alison L. Steele
Executive Director





Program Update



HealthWatch

This year, EHP launched our latest HealthWatch cohort in northern Appalachia with three frontline communities. In partnership with community groups in each area, EHP is training residents to install low-cost air monitors and to interpret the collected data. We are proactively protecting public health near facilities of concern.

The Environmental HealthWatch Model (“HealthWatch”) helps communities better understand the local health impacts of shale gas development. Through analysis of air quality data and local health risk factors, HealthWatch can equip communities with information they need to better protect their health. Over one year of air quality monitoring, participating communities learn how to reduce their exposure to harmful pollution and more effectively advocate for health protections by engaging elected officials, regulators, and site operators. Successful projects with community interest and available funding may be eligible for ongoing support in subsequent years.

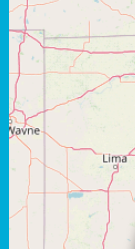
Monitoring and analysis will occur in West Deer Township, PA; North Fayette Township, PA; and Lore City, OH.



West Deer Township, PA

North Fayette Township, PA

Lore City, OH



Program Update



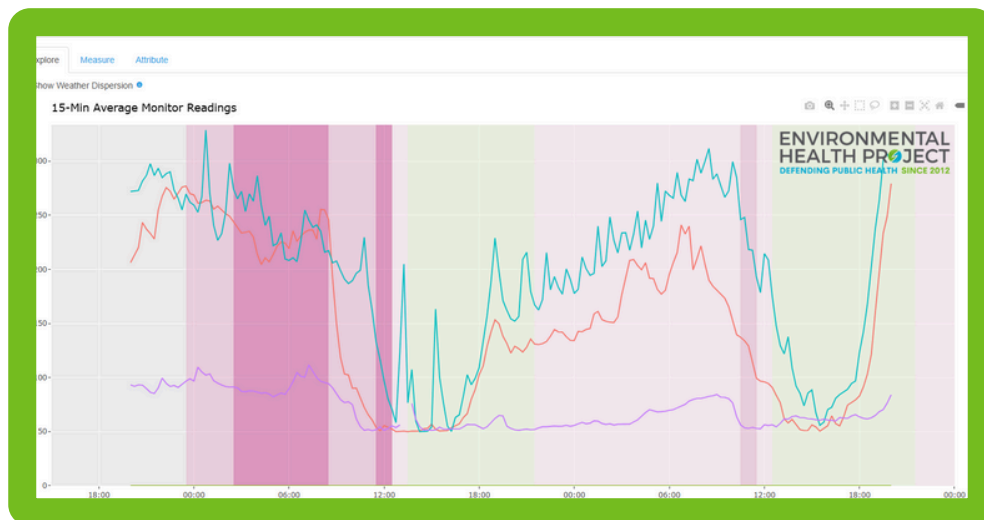
AirView Public

This spring, EHP introduced AirView Public, a free tool designed to help communities understand their air quality so they can better protect residents from pollution harms. This online tool provides access to air quality readings alongside weather and pollution dispersion information. With AirView Public's pollution mapping feature, users can even view the path that air took to arrive at monitoring locations when those monitors recorded high pollution levels.

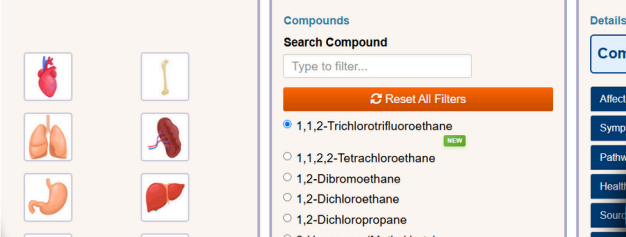
Anyone can easily access readings on AirView Public from 13 communities across Pennsylvania, New York, and Ohio. Specific communities include Beaver, PA; Ligonier, PA; Mon Valley, PA; Neville Island/Coraopolis, PA; Union Township, PA; Yukon, PA; Youngstown, OH; Clymer, NY; Dover, NY; Peekskill, NY; Seneca Falls, NY; Slate Hill, NY; Tompkins/Ithaca, NY.

EHP hopes to expand access to many more communities by inviting areas with existing air quality monitoring networks to add their data to AirView Public.

You are welcome to participate! To help us enhance coverage, add your air quality monitor to AirView Public by emailing us at communityscience@environmentalhealthproject.org.



This graph shows volatile organic compounds attributed to a specific emitter detected by three monitors in Neville Island, PA.



Compounds of Concern Tool

This summer, EHP introduced our new [Compounds of Concern](#) tool! The tool provides users with easy-to-understand details on exposure symptoms and health impacts of chemical compounds associated with industrial operations, including oil and gas facilities. On Wednesday, July 16, we hosted a one-hour launch event covering details about the new tool. EHP staff showed how to access and use the tool, which centers on an easily searched interactive database of compounds.

Compounds of Concern will be especially helpful to anyone living near polluting facilities. “EHP designed the Compounds of Concern tool because residents living near industry, such as shale gas wells or power plants, were having health issues, and they didn’t know why,” said Nathan Deron, EHP’s Program Manager. “These frontline residents needed to better understand what compounds industries were emitting and how those compounds might play a part in their health.”

The Compounds of Concern tool identifies compounds (including a wide range of toxic chemicals), common sources that emit them, and how they may impact systems and organs of the body (respiratory system, circulatory system, etc.). “This interactive tool is easy to use and connects the dots between sources of pollution, the compounds released, and how they affect the body,” said Sanjana Parmar, EHP’s Environmental Data Analyst. “Anyone can find the information they want with a few simple clicks. If they know the compounds they may have been exposed to, residents have a better chance of protecting their health and the health of their families.”

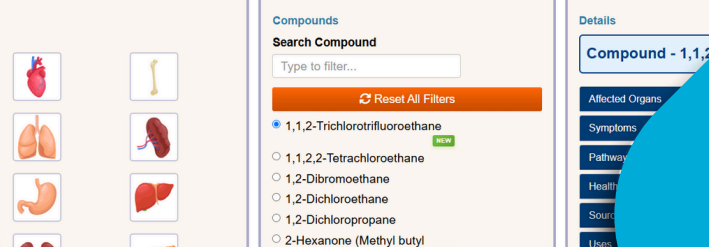
The Compounds of Concern tool is an easy-to-use database, searchable by

- compound name,
- pollution source,
- symptom, or
- body system impacted.

Each selection generates a list of relevant compounds. By clicking each compound, information can be viewed in expandable panes or by downloading a PDF report. Alternatively, if you are experiencing a health symptom and want to know what compound(s) are known to cause that symptom, you can find possible answers here. Or, if you learn about the release of a chemical compound from a nearby facility in the news, you can find out more about that compound, how it is used, and its known related health effects.



Program Update



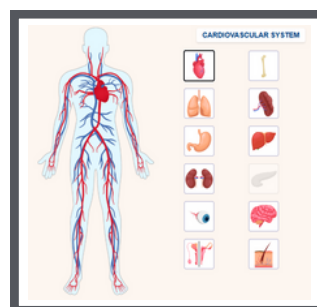
“Compounds of Concern can be a key tool for residents who experience health complications,” said Jackson Zeiler, EHP’s Public Health Analyst. “For example, if you’re having trouble breathing and want to know what compound may be causing that symptom, you can find possible answers with this tool. Or, if you hear about the release of a chemical compound from a nearby facility in the news, you can find out more about what that compound is, how it’s used, and its related health effects.”

Research has shown a variety of potential negative health effects relating to shale gas development and the petrochemical buildout impacting virtually every part of the body. The sheer volume of compounds emitted, paired with the potentially widespread impacts and symptoms that may be experienced, pose difficulties

for frontline residents seeking information to protect and improve their health. To simplify the search for information pertaining to this wide array of compounds and their effects on health, EHP cross-referenced the list of 600 compounds. The Compounds of Concern tool was first launched with a set of compounds that were prioritized for the hazards they pose to human health. Now, EHP is continuously adding new compounds in response to the public’s need for a comprehensive resource addressing industrial pollution exposure.

COMPOUNDS of CONCERN Tool

A research-based tool to understand chemical exposure and its impacts on your health.



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WHO IS IT FOR?

- Anyone!
- Health advocates
- Coalitions and non-profits

WHAT CAN YOU LEARN?

- Symptoms you might notice
- Pathways of exposure (inhalation, dermal)
- Cancer risks, exposure limits, and scientific evidence
- Affected organs
- Source & uses

THREE EASY WAYS TO SEARCH

DISCOVER THE IMPACT OF EXPOSURE BY



START HERE

environmentalhealthproject.shinyapps.io/compounds/

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Meeting with Impacted Communities

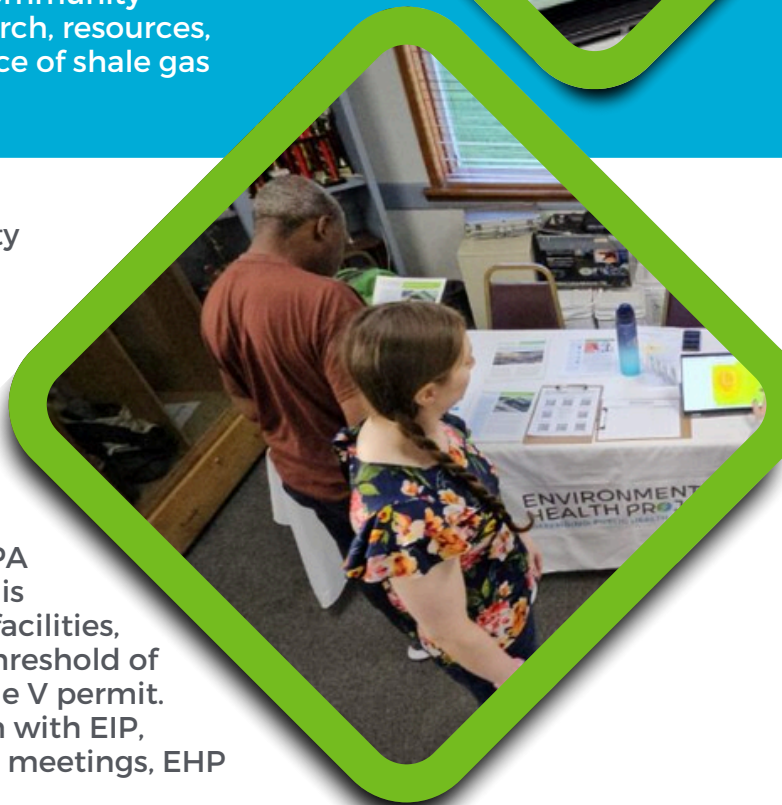
EHP representatives frequently meet with community groups and frontline residents to share research, resources, and strategies for protecting health in the face of shale gas development.

West Newton Community Meetings: EHP provided health education in four community engagements on

- February 26,
- April 30,
- July 23, and
- October 29.

EHP presented the health risks associated with the permitted emissions at the Tenaska Generating Station, a gas-fired power plant. Then, we helped residents engage with the PA DEP about the proposed Title V permit for this facility. Any major source, such as industrial facilities, that may potentially exceed the minimum threshold of pollution (100 tons/year) must apply for a Title V permit. These meetings were hosted in collaboration with EIP, MWA, and YCC. Over the course of these four meetings, EHP engaged with 93 residents.

Pitcairn Community Meeting: EHP's Appalachia Project Coordinator, Jennifer Palmquist provided resources to residents living near the Monroeville Landfill, which accepts fracking waste. She also introduced an interactive demonstration showing how air pollution disperses from oil and gas operations. This meeting was hosted in collaboration with Protect PT on August 18, 2025.





Field Update

Frackland Tour: new EHP staff met with impacted residents in Washington County and Beaver County to learn about people's experiences living near oil and gas operations. The tour was hosted by Lois Bower-Bjornson, a resident and staff member of the Clean Air Council, in August 2025.

West Deer HealthWatch Townhall: EHP and the Concerned Residents of West Deer (CROWD) hosted their first HealthWatch townhall on October 18. Eleven residents living near three proposed well pads attended the event to learn more about the potential health impacts of living near fracking wells and how to protect their health.





Field Update

Total Residents Engaged: 259



West Deer, PA:	11
West Newton, PA:	93
Monessen, PA:	6
Jefferson County, OH:	2
Beaver County, PA:	37
Pitcairn, PA:	7
Youngstown, OH:	40
Washington County, PA:	9
Plum and Monessen, PA:	2
Brookfield, CT:	5
Westchester, PA:	22
AirView Trainings:	5
Sierra Club-CT:	15
Windham-Willimantic NAACP Environmental Justice Committee, CT:	5





Field Update



Leveraging Data for Change

Youngstown Baseline Air Quality Study: EHP prepared a report summarizing the air quality trends in Youngstown, Ohio to inform local decision-making as their community considers extending their moratorium on pyrolysis. Data from a community air monitoring network showed elevated levels of particulate matter pollution. The results were shared in a community meeting in August 2025, and the final report was released in September 2025.

Dispersion Modeling: EHP used HYSPLIT modeling to create 20 dispersion maps showing where air emissions may travel after being emitted from fossil fuel facilities. These maps were used for door-to-door canvassing locations in communities with proposed facilities in Pennsylvania and West Virginia. They also helped identify the best locations for placing air monitors in our recently launched Northern Appalachia HealthWatch cohort, which includes two communities in SW PA and one in eastern Ohio. These maps also served as educational tools to communicate the impact proposed facilities would have on more than just the residents living on the fenceline. Later, EHP's maps successfully contributed to the cancellation of a proposed pyrolysis facility in Sugarloaf, PA, explained in more detail on the next page.



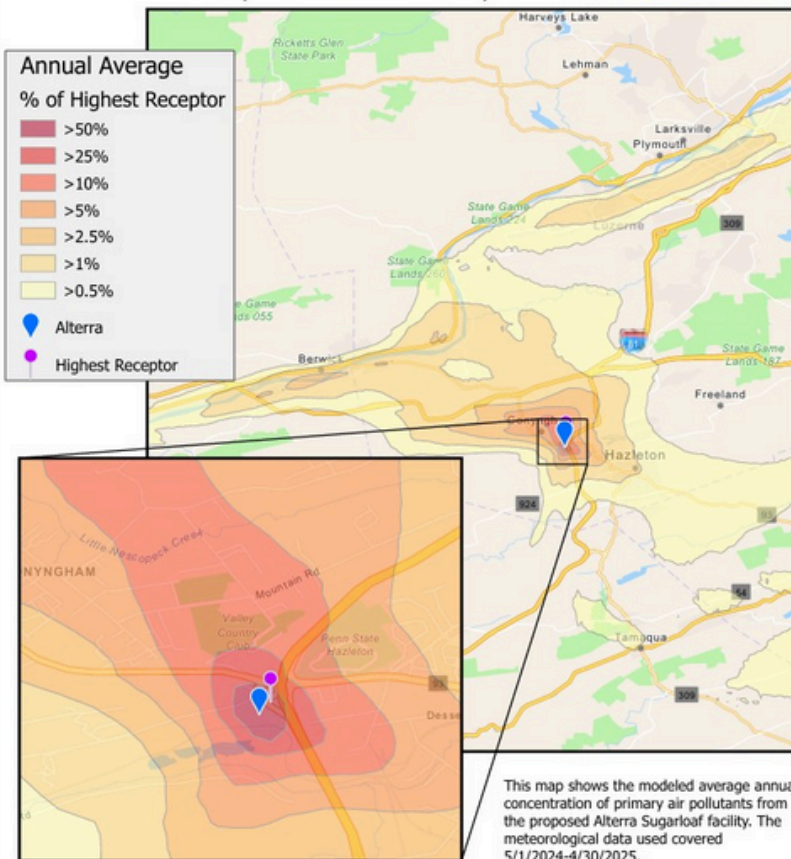
Field Update

Victory in Sugarloaf, PA

Following lengthy disputes, Alterra Energy submitted a letter to the Sugarloaf Township Board of Supervisors to formally withdraw their proposal for a plastics recycling plant.

Modeled Relative Average Airborne Pollutant Levels from the Proposed Alterra Facility

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This map provides an understanding of the geographical distribution of primary pollutants on a relative scale. It does not provide specific levels of pollutants expected at any location. Secondary pollution formation has not been modeled.

Data Source: NOAA High-Resolution Rapid Refresh Atmospheric Model
Modeling Conducted by the Southwest Pennsylvania Environmental Health Project using NOAA HYSPLIT
Contact Nathan Deron at nderon@environmentalhealthproject.org
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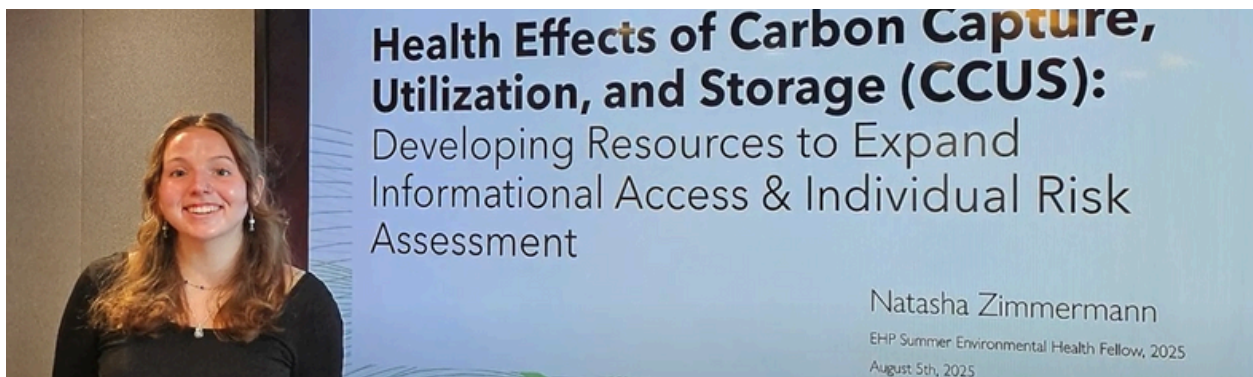
“The withdrawal of Alterra’s chemical recycling proposal represents a significant win for the health and well-being of the Sugarloaf community,” said Talor Musil, Environmental Health Project’s field manager. “This decision will prevent the release of toxic air pollutants and the health harms associated with exposure to those pollutants. EHP applauds community members living near this proposed site for successfully raising awareness of the risks posed by petrochemical development.”

[EHP provided a map modeling where emissions would travel](#) or disperse (pictured above) from the facility, which helped organizers to prioritize outreach to community members most at risk of exposure to pollution and to demonstrate the geographic reach of the facility's emissions to local decision-makers. EHP supported this community victory working alongside ally organizations including Beyond Plastics, Luzerne County Community Action Coalition, Physicians for Social Responsibility - Pennsylvania, Clean Air Action, Clean Air Council, Mom's Clean Air Force, Ohio River Valley Institute, Save Our Susquehanna, and others.

Mapping Carbon Storage Risk

In Summer 2025, EHP participated in the Environmental Health Fellowship Program, made possible by Nonprofit Partners with support from The Heinz Endowments. The program aimed to strengthen the region's capacity to address issues impacting the environment, health, equity, and sustainable outcomes by providing opportunities to bring high-quality environmental and public health students to the Greater Pittsburgh community.

EHP was proud to host Natasha Zimmerman, a master's student at the Yale School of Public Health, whose research focused on carbon capture, utilization, and storage (CCUS). CCUS refers to the process of capturing CO₂ directly at the source of emission. Once captured, the CO₂ is transported and then it is either used for other purposes or it is stored deep underground.



CCUS is an emerging practice in the United States, and both federal and state laws are expanding CCUS infrastructure. Although some proponents cite CCUS as processes that will mitigate climate change by reducing CO₂ emissions, evidence suggests that implementing CCUS may increase emissions. CCUS could also potentially increase the U.S. energy system's reliance on fossil fuels.

To date, the success of carbon capture and storage technology stands on nothing more than a promise. The health and safety risks associated with CCUS have not been formally assessed. And yet, some communities with CCUS projects are experiencing negative impacts, suggesting there may be serious health risks linked to CCUS.

Furthermore, in order for CO₂ to be stored underground, CCUS operators need to obtain permission to do so from whoever holds the rights to the subsurface spaces where the CO₂ would be stored, otherwise known as pore space. States that have codified surface owner's rights over pore space, including Pennsylvania, West Virginia, and potentially Ohio, may grapple with companies requesting to store more CO₂ under properties. Residents ought to be informed about the CO₂ storage process, including potential health effects.

The review and digital map produced by Zimmerman during her fellowship with EHP details processes for CCUS and the effects of carbon storage and the utilization practices.

Communicating the health risks of shale gas development

Clear and concise information is essential for residents to make decisions about risks to their health. Likewise, healthcare providers and policymakers benefit from having shale gas health impacts centered in conversations about patient care and policy. To make the latest factual information widely accessible, we regularly publish factsheets and public statements on relevant issues. Every month, EHP circulates a newsletter and blogpost to over 5,000 recipients. Plus, EHP shares a quarterly Health Care Professionals Newsletter featuring the latest research and resources to more than 600 health professionals across the country.

EHP is raising awareness and defending public health by maintaining constant contact with core constituencies, then we amplify the voices of people impacted by shale gas development. We provide factual information to the media in the form of press releases, media advisories, interviews, and even live press events. Also, we publish letters to the editor, guest columns, and op-eds in local papers across Pennsylvania, West Virginia, Ohio, and New York, focusing on the newsworthy developments that are important to each region.

Beyond print media, EHP has a robust social media presence on Facebook, Instagram, Bluesky, LinkedIn, and Vimeo. Our Digital Marketing Coordinator, Jo Resciniti, employs lively visual media, such as infographics and short videos, to keep more than 6,000 followers informed and to engage audiences more broadly.

OPINION Commentary: Expanding Iroquois Pipeline compressor stations will harm public health

Hochul's approval of the project runs counter to the state's energy goals and its commitment to environmental justice.
By Taylor Husell
March 10, 2025



COMMENTARY

Still room for frontline community protections in Gov. Shapiro's "Lightning" energy plan

"When it comes to energy, there must be a reckoning with how we define "clean."



ALISON STEELE

The Times

COLUMNS | Opinion This place expresses the views of its author(s), separate from those of this publication.

Your Turn: Health factors also should be considered in review of Shell cracker plant

Alison Steele Special to The Times

Nov. 8, 2025, 5:12 a.m. ET

/LETTERS

LETTER: Communities deserve better

APR 2, 2025 2 MIN READ

FEATURED COMMENTARY

Alison L. Steele: Linking Pa.'s shale gas industry to Calif. wildfires

TRIB ALISON L. STEELE | Monday, Jan. 20, 2025 2:00 p.m. [Go Ad-Free Today!](#)



LETTERS TO THE EDITOR

Letter to the editor: Tackling methane waste

TRIB TRIBUNE-REVIEW | Saturday, March 22, 2025 5:00 a.m. [Go Ad-Free Today!](#)

OPINION

9 in 10 Pennsylvanians support stronger health protections on fracking

The best way to protect Pennsylvanians from fracking health risks is a just transition to renewable energies.

Gift Share

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Public Statements/Comments to Government Agencies/Legislators

EHP representatives have been busy sharing best practices in a variety of public contexts, including

- providing testimony on
 - the risks of delaying industry compliance with the federal methane and the health consequences for communities across the United States, and
 - the drawbacks of halting the Greenhouse Gas Reporting Program, which would set the United States back in its ability to make data-informed decisions about reducing industrial emissions.
- writing letters to policymakers, including Pennsylvania Governor Josh Shapiro about, urging him to acknowledge and protect residents from the health risks associated with shale gas, and to set Pennsylvania on course to becoming a leader in renewable energy, and
- participating in press conferences
 - at the AI Energy Conference, where we promoted renewable energy sources for data centers and clean energy jobs for the Commonwealth, and
 - at the Harrisburg Capitol Rotunda, where we advocated for increasing set-back distances to put more space between fracking and communities.

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In-Depth Blog Posts

On our website and across social media, EHP is frequently updating our blog series to keep our followers up-to-date on the most recent oil and gas industry developments affecting our communities. Topics include

- a clear, accessible overview of how pipelines function and the risks they pose,
- tips for families who have children going to school near oil and gas infrastructure,
- the ongoing consequences of climate change, and
- tools and resources that the public can freely access for personal education and safety.

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Published Opinion Pieces

EHP engages with media outlets, such as local newspapers across Pennsylvania, New York, and Ohio, so that we share important information with the specific communities most impacted by oil and gas development. In the last year, we published information on a range of topics, including

- enhancing protections for frontline communities and regulations on methane emissions in Pennsylvania,
- raising concerns about Iroquois Pipeline compressor stations in New York, and
- denouncing the inadequate precautions to protect public health taken by political figures, such as Pennsylvania Governor Josh Shapiro.

5

Factsheets

EHP's factsheets make information more accessible for those who need to efficiently gain a thorough understanding of the myriad subjects that comprise the intersection of public health and oil and gas industry. We convert complicated jargon into plain language and deliver these to our audiences in just a few short pages. Responding to the need for more transparent information to increase awareness, we have developed factsheets in the last year about

- effects of shale gas development on public health,
- effects of volatile organic compounds on public health,
- effects of particulate matter on public health, and
- an overview of AirSense, an air monitoring and risk assessment program that empowers community members to make decisions about their health.

3

Featured Research Reviews

Because peer-reviewed research can be difficult or costly to access, and it tends to be laden with jargon, EHP offers free, open-access summaries of recent and relevant studies, clarifying the health impacts of shale gas development. Our Public Health Analyst, Jackson Zeiler, carefully curates the most recent advances in research, then delivers the essential information to health care professionals and general audiences. Most recently, we've reviewed research about

- the threat of dioxin exposure in the wake of the East Palestine train derailment,
- depression, anxiety, and psychological distress in fracked communities, and
- the potential for fossil fuel air pollution to alter gene functions.

Media Quotes/Mentions

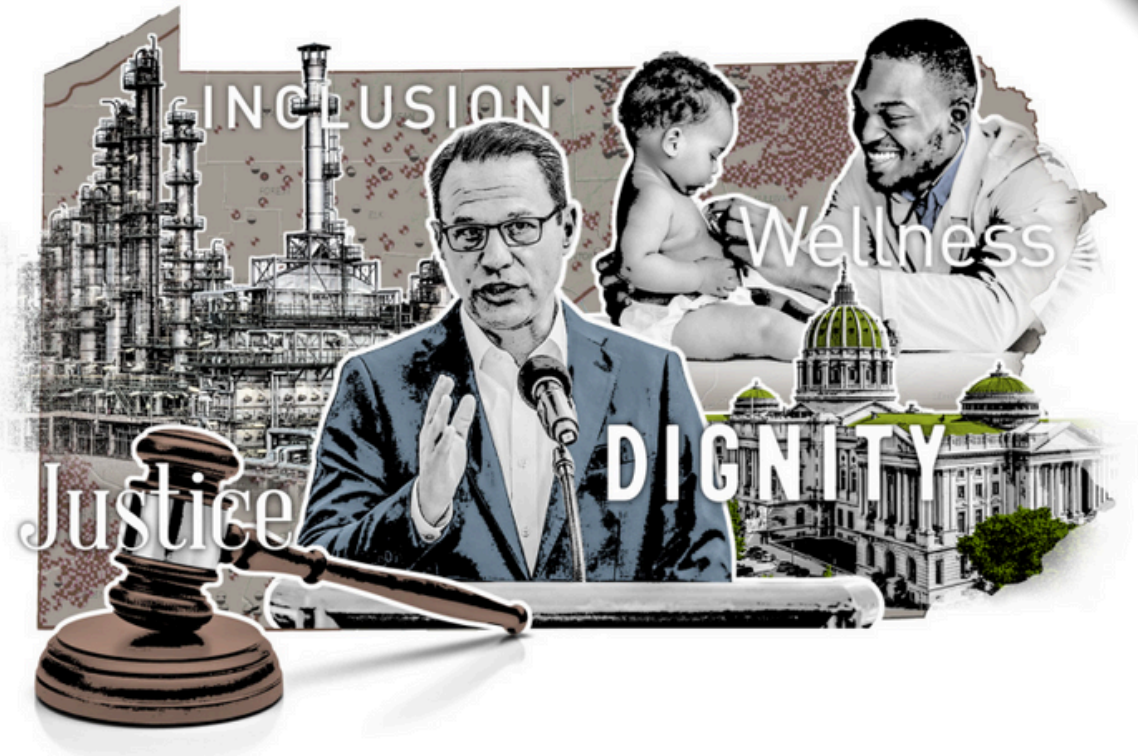
EHP's experts provide interviews and essential information to reporters, media outlets, and our communities. In the last year, we provided commentary and guidance in response to new oil and gas proposals and statewide regulations. Additionally, some publications have shared EHP's contributions to enhancing public awareness, such as the Compounds of Concern tool, covered in more detail beginning on page 6 of this report.

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PENNSYLVANIA'S SHALE GAS BOOM:

What the Shapiro Administration Can Do to Better Protect Public Health



On April 1, 2025, the Environmental Health Project unveiled its latest white paper, Pennsylvania's Shale Gas Boom: What the Shapiro Administration Can Do to Better Protect Public Health. It serves as a companion piece to [EHP's 2022 white paper](#), which detailed the history of shale gas health research and public policy in Pennsylvania.

This paper identifies meaningful ways the Shapiro administration can correct course and work toward better health protections for Pennsylvania residents impacted by shale gas development.

Governor Shapiro spoke passionately about the importance of protecting public health from shale gas development when he was attorney general. He pointed to industry and regulatory failures and vowed to address recommendations made in a Grand Jury Report released in 2020. When he campaigned for governor, he promised stronger health protections for Pennsylvanians, given their constitutional guarantees to clean air and pure water. As of the launch of this white paper, more than two years into his term, residents were still waiting for meaningful action.

Read our latest white paper [here](#).



EHP continues to expand, enlisting bright professionals to enhance our monitoring, advocacy, and engagement. This year, we welcomed four new colleagues who have each made significant contributions to furthering our mission and to innovating new methodologies. Please welcome:

- 1. Sarra Bridges, MPH, MS, Northeast Project Coordinator**
Sarra was an Environmental Health Fellow at EHP in the summer of 2023, during which she developed resources for conducting health impact assessments. Now, she is excited to bring her knowledge and experience back to EHP, supporting communities in the northeast in their efforts to attain a healthier environment and move toward a more just and sustainable future.
- 2. Elan Justice Pavlinich, PhD, Communications Manager**
EJ employs a range of communications strategies to make information about oil and gas industry more accessible, including tailoring messages to the people and communities most effected, and developing interactive media that enhances public reception and increases engagement.
- 3. Jennifer Palmquist, MEd, Appalachia Project Coordinator**
Jennifer supports Appalachian communities impacted by oil and gas development through education, outreach, and environmental health engagement. She values creating space for meaningful learning and connection, especially when it helps people feel informed, supported, and empowered.
- 4. Santosh Muralidaran, Appalachia Project Coordinator**
Santosh assists communities in Pennsylvania, Ohio, and West Virginia whose health and livelihoods have been impacted by oil and gas development. He is passionate about community outreach, education, and environmental advocacy.

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4165 Blair Street, Pittsburgh, PA 15207

(724) 260-5504 | info@environmentalhealthproject.org



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