



**CLEAN
AIR
COUNCIL**

DO YOU KNOW WHAT'S IN THE AIR WE BREATHE?

**EPA AIR MONITORING PROGRAM FOR
SOUTHERN DELAWARE COUNTY
MAY 21, 2024**

AGENDA

- **Welcome & Introductions**
- **What's Up with the Air in Delco?**
- **JHU Air Monitoring Pilot**
- **EPA Air Monitoring Program**
- **How YOU Can Host an Air Monitor**
- **Questions & Discussion**
- **Announcements**





Clean Air Council is a member-supported environmental organization serving the Mid-Atlantic Region. The Council is dedicated to protecting and defending everyone's right to a healthy environment. The Council works through a broad array of related sustainability and public health initiatives, using public education, community action, government oversight, and enforcement of environmental laws.

www.cleanair.org

Marcus Hook Area Neighbors for Public Health

Marcus Hook Area Neighbors for Public Health is a group of residents from Marcus Hook, Trainer, Linwood (Lower Chichester) and Upper Chichester and surrounding areas who are concerned about the public health impacts of pollution from local refineries and other infrastructure. Our mission is to educate ourselves and others about pollution impacts to public health, and to advocate for health and safety measures to protect the workers, families, and children in our community. We believe we have a right to clean air, pure water, and a healthy environment.



Clean Air Council & Marcus Hook Neighbors Programs:

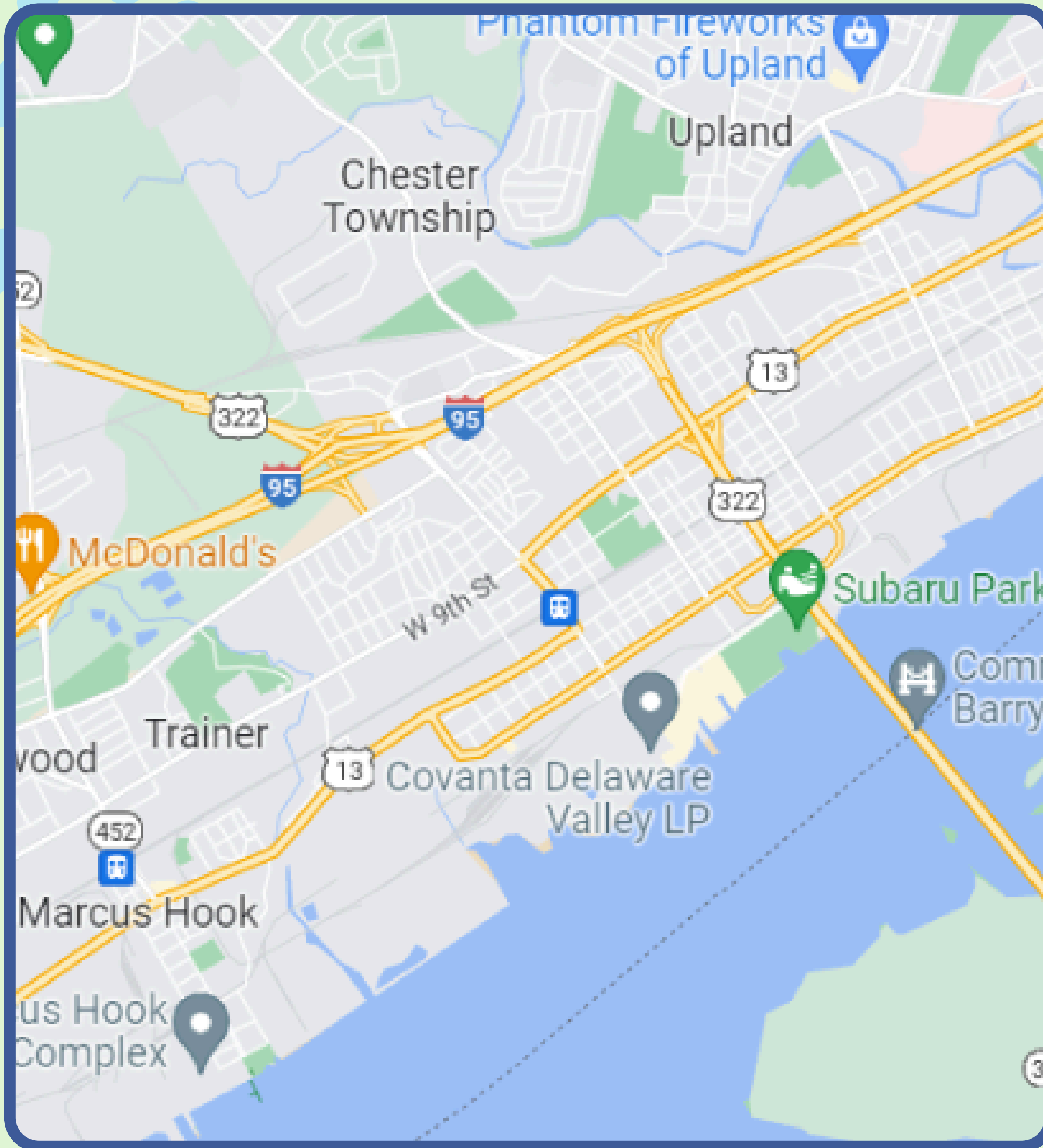
- **Climate Resilient Communities Project**
- **Watershed Protection/ NMS Watershed Group**
- **Environmental Health Survey**
- **Air Quality/ Air Monitoring**





WHAT'S UP WITH *Delco's Air*

Industrialized I95 Corridor Along the Delaware River



- Marcus Hook Terminal
- Monroe Energy
- CSX rail cars
- Tank Farm
- Braskem
- Congoleum
- Adelphia
- DELCORA
- Covanta
- Evonik & PQ Chemical
- Kimberly Clark
- Liberty Electric
- Exelon Eddystone
- Eddystone Rail

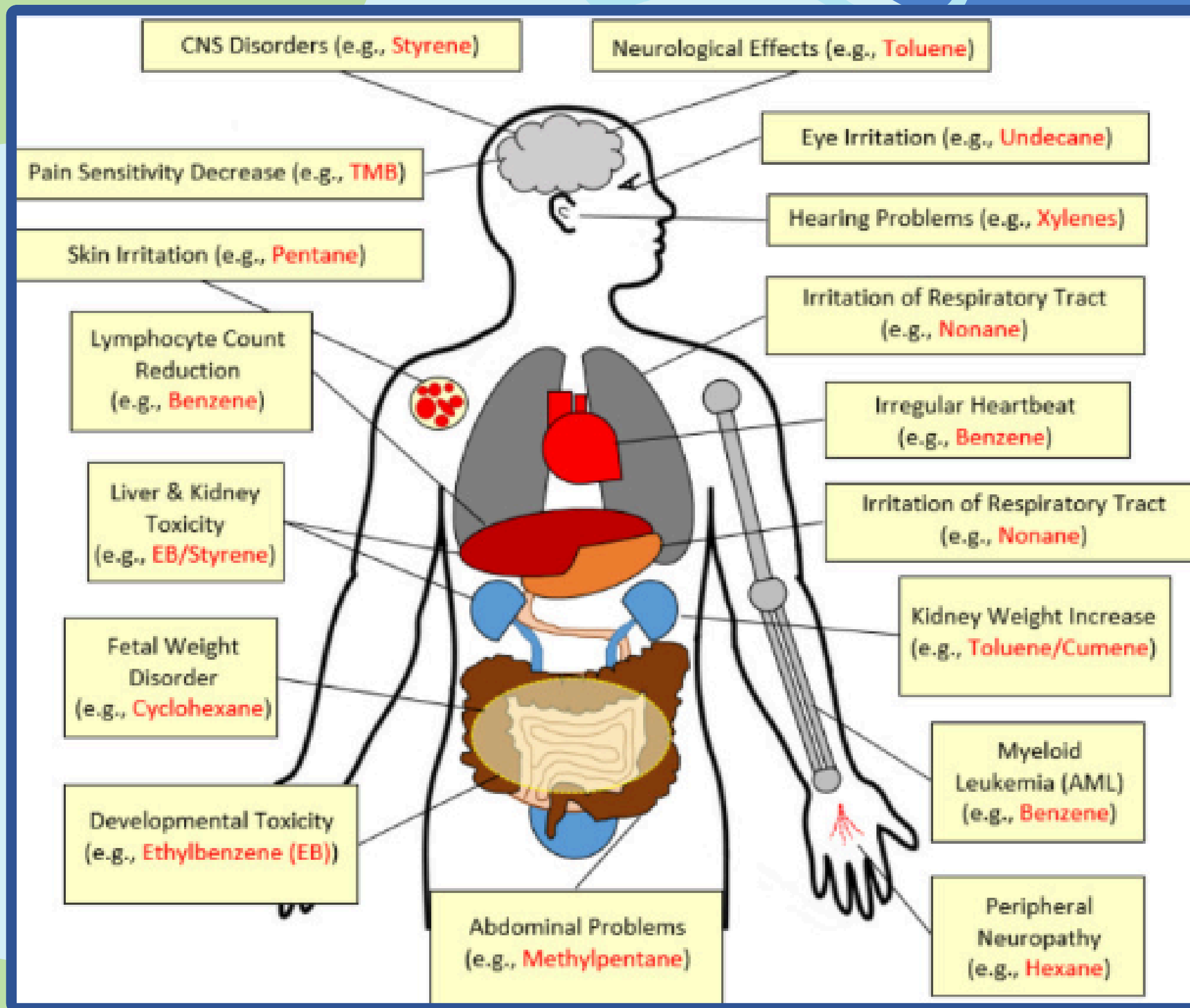
Pollution & Public Health

Industrial facilities emit particulate matter (PM) and other pollutants such as Volatile Organic Compounds (VOCs), ozone, carbon monoxide, nitrous oxide, & sulfur dioxide.

PM and other air pollutants can impact every system of the human body.

Some VOCs are carcinogenic like benzene, ethylbenzene, n-hexane, and formaldehyde.





Pollution Impacts Every System in the Human Body

Particulate Matter (PM)

Fine inhalable particles, 2.5 micrometers; 30 times smaller than a strand of hair

Can be made up of hundreds of different chemicals emitted from pollution sources

Can get deep into the lungs and enter the bloodstream

Can cause heart and lung disease

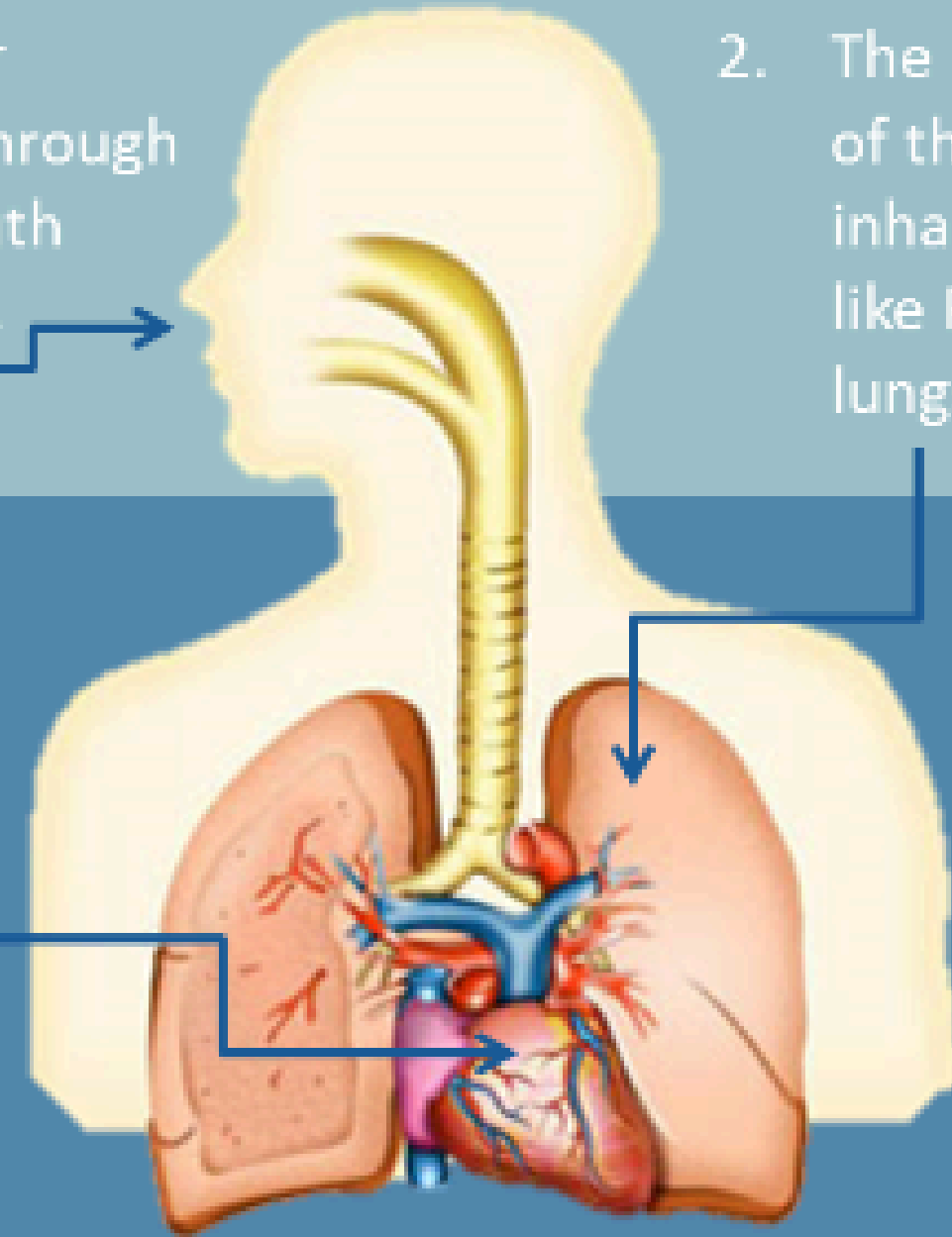
One of six “common pollutants” under the Clean Air Act

HOW PARTICULATE MATTER ENTERS THE BODY

1. Particulate matter enters the body through the nose and mouth when we breathe.

2. The body eliminates most of the larger particles we inhale. Smaller particles like PM_{2.5} continue to the lungs.

3. PM_{2.5} can penetrate deep into the lungs, having serious health consequences for the lungs and heart.



Delaware County, State of the Air

Delaware County earned a D for 24 hour particle pollution in 2023.

City of Chester asthma rates are 5 times the national average.

Many residents cite local cancer rates as a leading concern of air pollution.



What do residents say?





AIR MONITORING

Pilot Study



2021 Pilot Study with Johns Hopkins University

Connected JHU researchers with residents in Marcus Hook & Trainer to host stationary solar powered air monitors

JHU Pilot Study

Mobile “Areodyne” van measured ambient air samples throughout Marcus Hook, Trainer, & Chester over the course of one month.



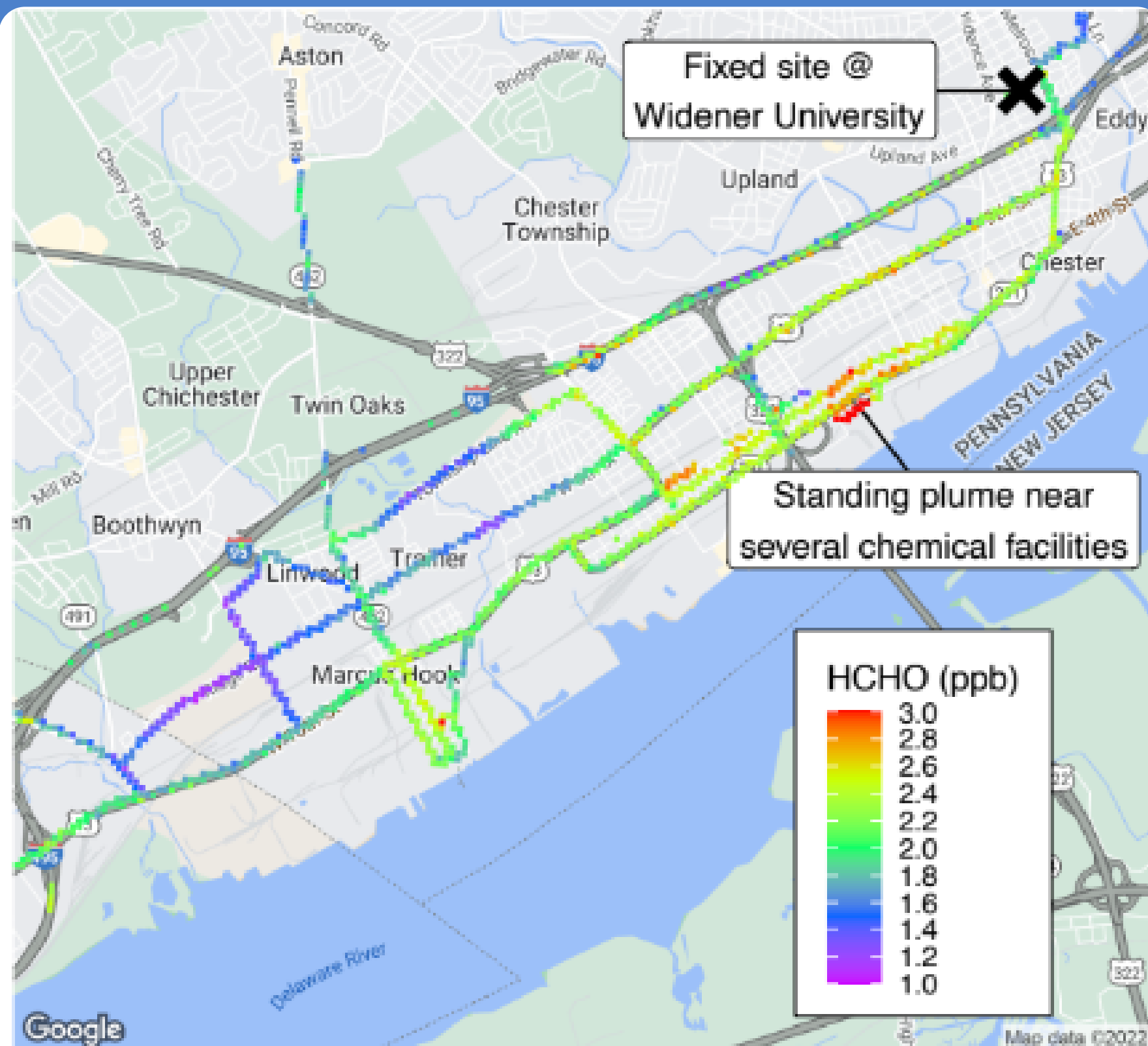


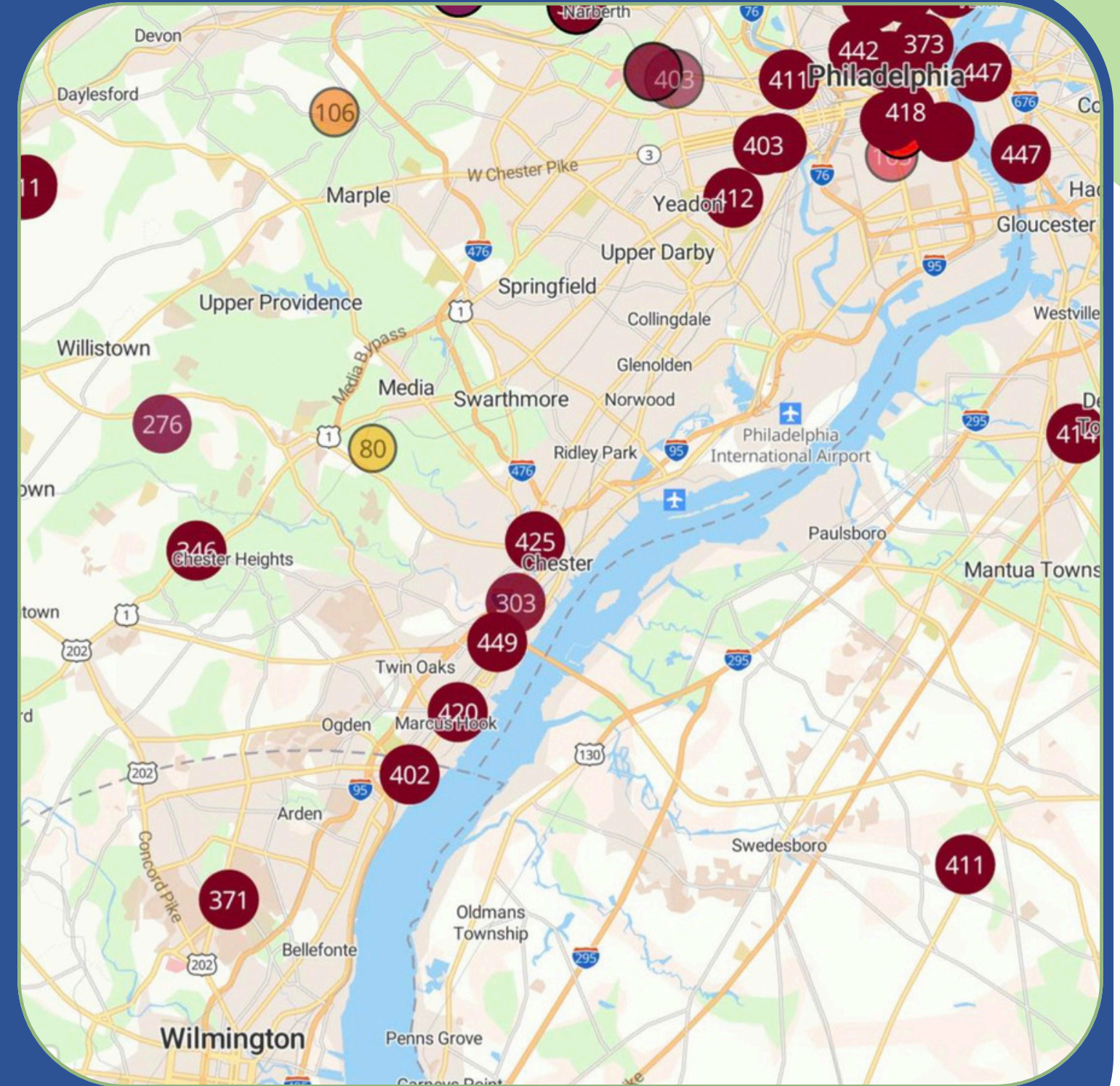
Figure 5. Map of average formaldehyde concentrations measured by the mobile laboratory in September of 2021

**Pilot study
demonstrated high
levels of particulate
matter, as well as
plumes of air toxins such
as benzene &
formaldehyde in
residential
neighborhoods**



EPA AIR MONITORING *Program*

**Two year program
launched October 2023 to
install up to 30 outdoor air
monitors for PM and
VOCs on homes,
businesses, and
organizations throughout
Delaware County, from
Marcus Hook through
Chester.**





Purple Air Monitors

- **PurpleAir Monitors are open-source. Anyone can access real-time air quality data from all monitors by visiting map.purpleair.com**
- **Measures Particulate Matter and Volatile Organic Compounds that can negatively affect health**

EPA Community Air Monitoring Program

- Partnership between Marcus Hook Neighbors, Clean Air Council, and community groups.
- Funded by the Environmental Protection Agency (EPA) federal grant
- Guided by a Community Advisory Board made up of impacted residents
- Program includes outreach, education, and advocacy.

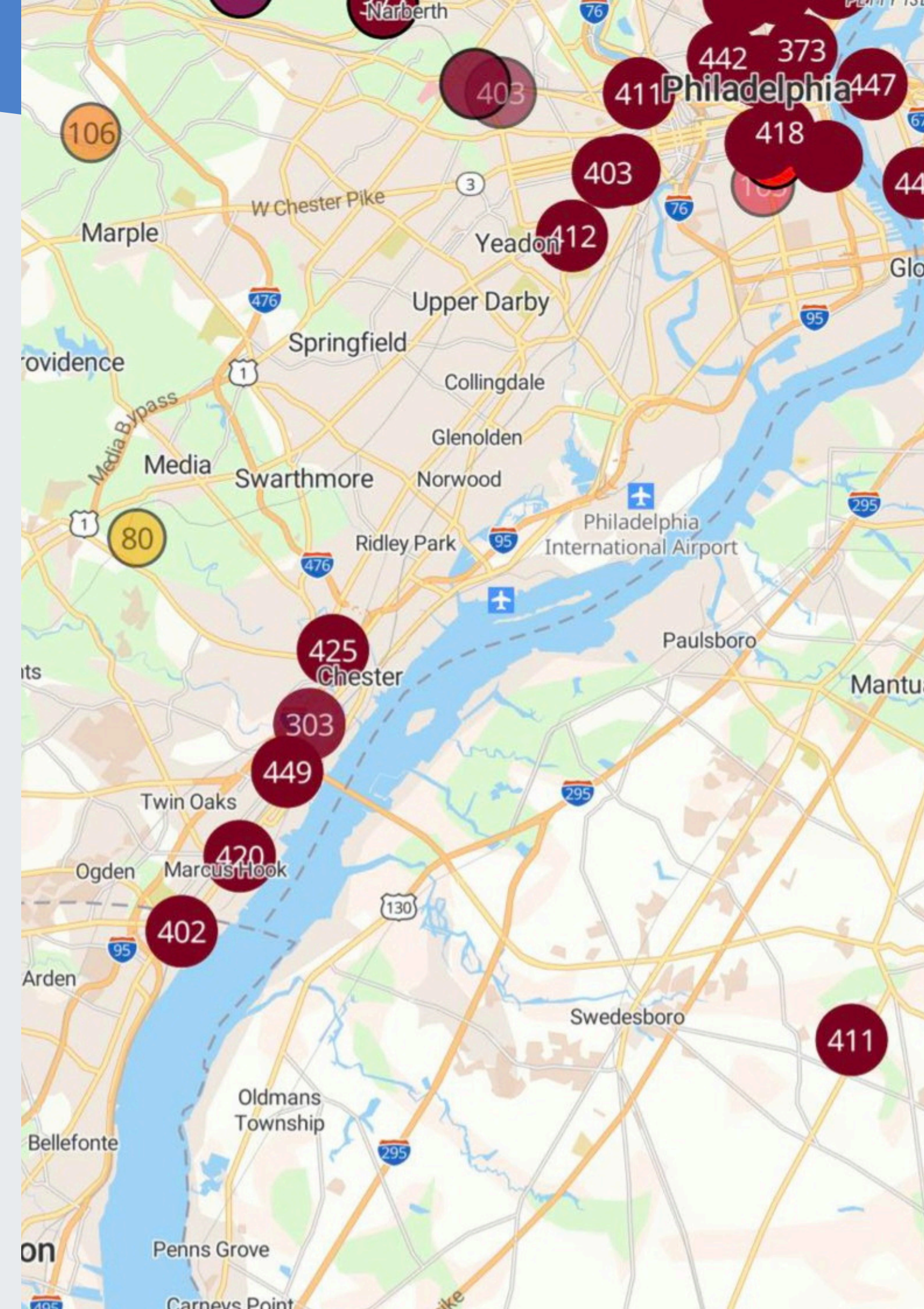


Air Monitoring Program Goals

Outreach to residents who want to host free air monitors

Community based education on why air monitoring is important, how the data can be used in daily life

Empower residents to join the effort to track pollution, watchdog facilities, and to advocate for long term change and reduction from harm



How to Get Involved!!!

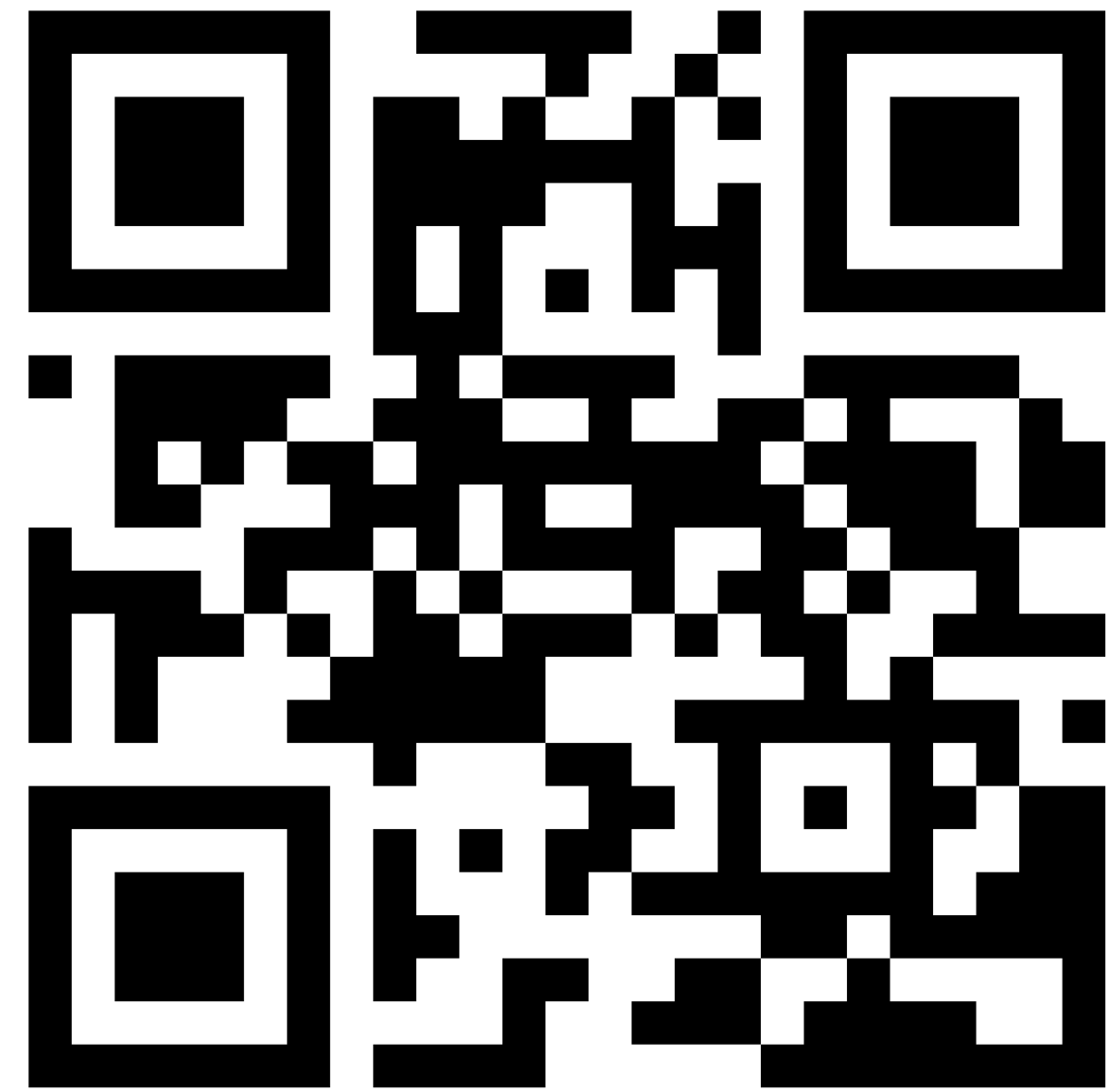
**Sign Up to
Host an Air
Monitor!**

Join the
Advisory Board
to help choose
air monitor
locations!

**Help Get
the Word
Out!!**

Get Involved! Fill out an interest form today if you'd like to host a monitor.

Air Monitor hosts will receive a \$50 gift card as thanks.



bit.ly/hostairmonitor

Join Our Community Advisory Board

Are you passionate about Clean Air and Public Health? Do you want to get more involved in this project to help choose monitor locations, help with installation, or talk with more community members about the importance of air monitoring? Join us! Contact kwarren@cleanair.org to learn more.





QUESTIONS & *Discussion*

Upcoming Meetings & Events

6/4 Climate Resilient Communities
Meetings in Chester

June Climate Resilient Communities
Meetings in Trainer (dates TBD)

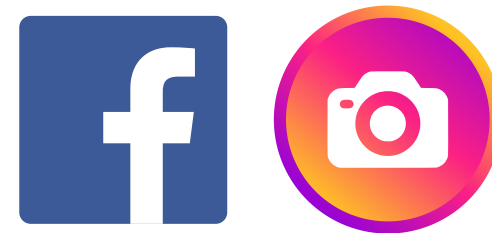
6/10 Next NMS Watershed Group Mtg
(Zoom)

6/22 Youth Art Gallery Exhibit
Opening at 4 Circles & Beyond

7/30 July MHANPH Mtg w/ Johns
Hopkins & Health Survey Results at
Keystone Wellness Center



Follow us on FACEBOOK
for updates and actions!
@MarcusHookAreaNeighbors



Want to get more involved in the
Air Monitoring Program?
Contact Kearn Warren at
kwarren@cleanair.org



**Thank
you very
much!**

