

# Clean Air Partners Board of Directors Meeting

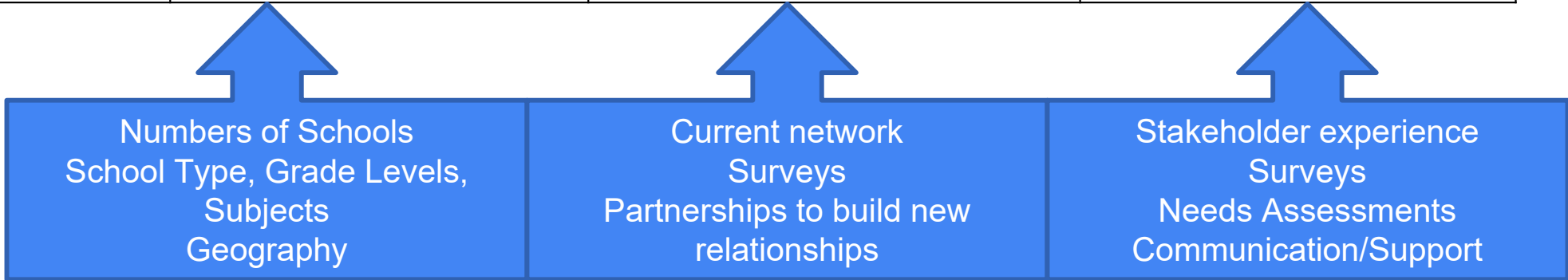
Education Program Updates  
Elizabeth Spike  
Education Program Manager  
January 23, 2025



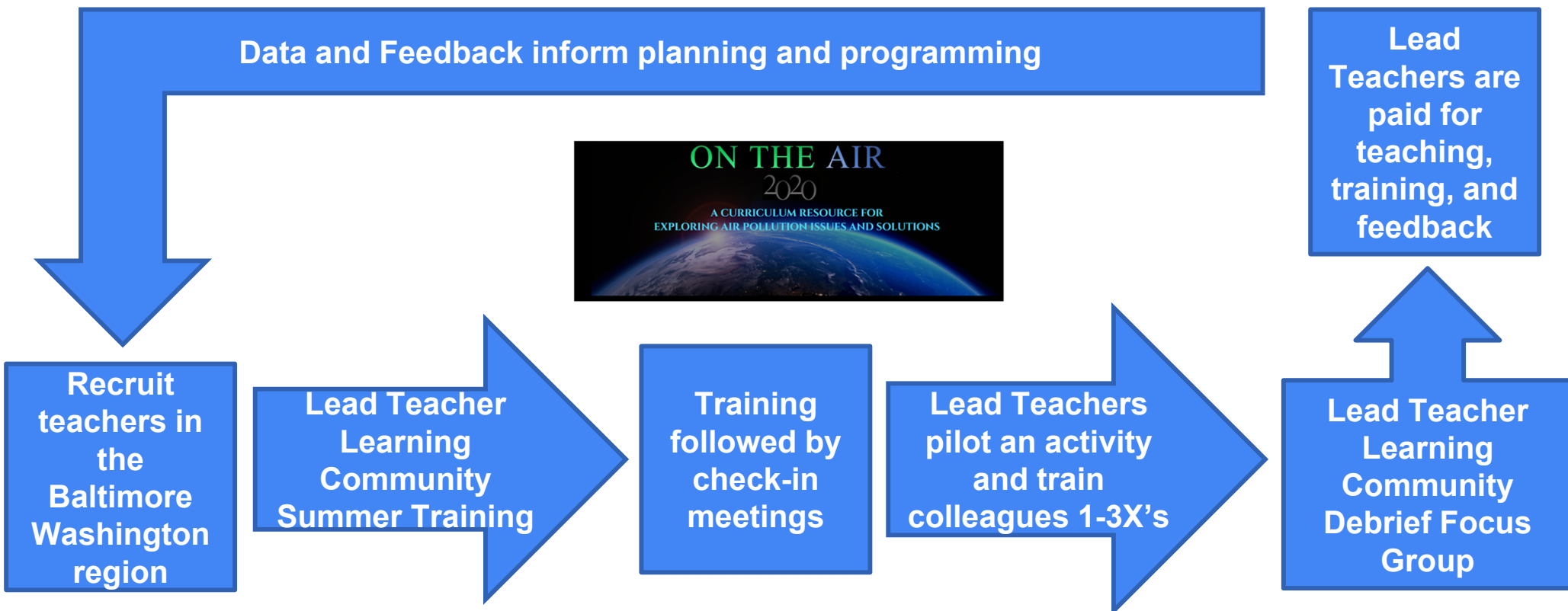
How can we educate students to transform awareness of air quality and climate change into personal actions that protect their communities in the Baltimore-Washington region?

<b>Objective:</b> Promote the use of <i>On the Air</i> curriculum. (FY 2023 Work Plan)			
<b>Activity</b>	Target CAP participating member school systems, charter, private, and independent schools in the District of Columbia, Maryland, and Northern Virginia.	Build relationships with stakeholders in public, charter, private and independent schools, school districts, and teachers of grades 5-12 across the BW region to create legacy and longevity for the CAP's Education Program.	Develop evaluation tools to conduct a needs assessment and gauge the extent of promoting the <i>On the Air</i> curriculum and <b>Train-The-Trainer</b> model in the BW region.

DATA / METRICS



# On the Air Train-the-Trainer Model



# 2024-2025 Lead Teacher Learning Community

Three monthly check-in's as of January 23, 2025

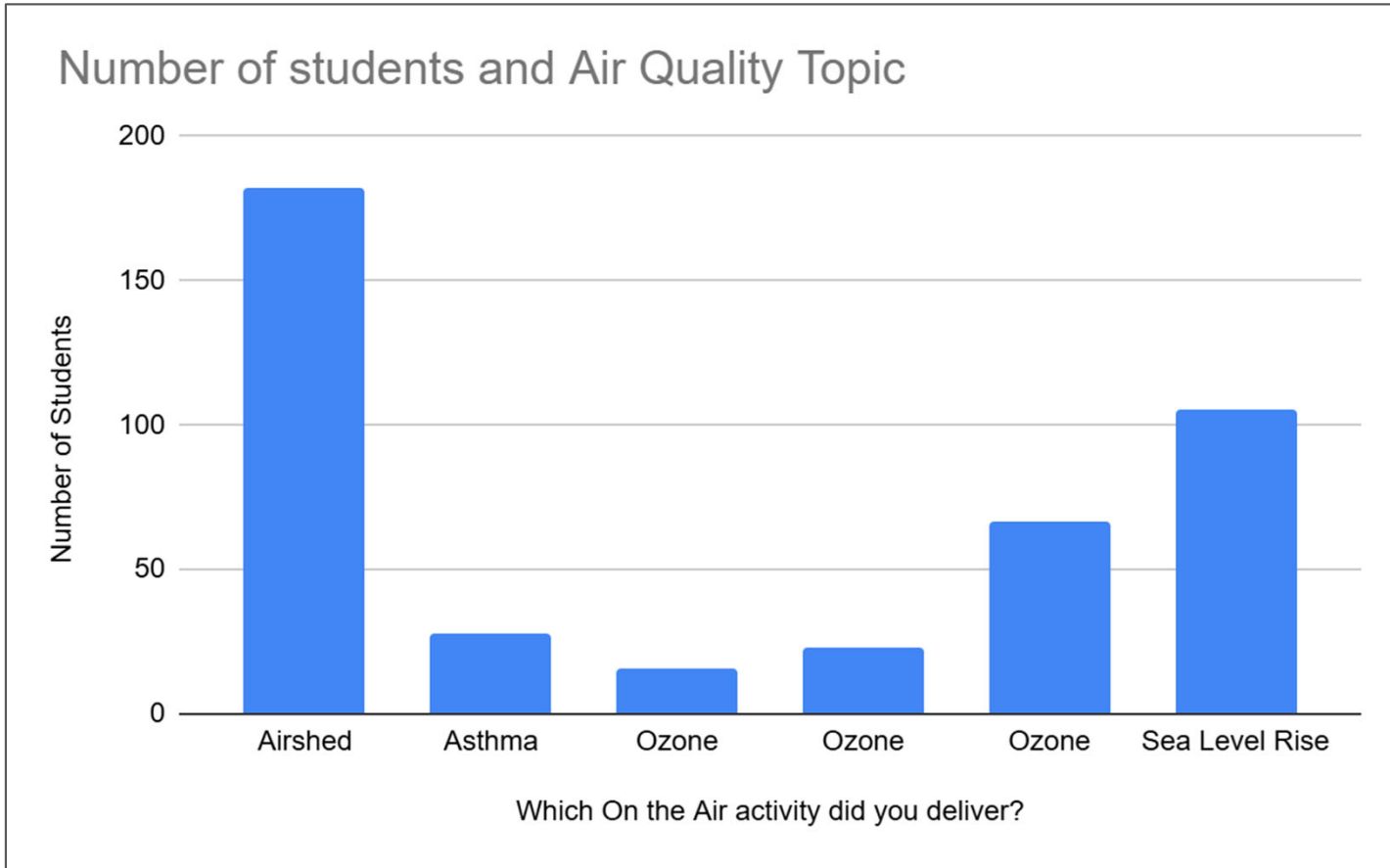
Started with 13 teachers, 11 participating, 6 actively participating, 4 catching up, and 1 seems inactive

4 Activities taught to 421 students from upper elementary to high school

3 Teacher trainings delivered to 24+ teachers: Falls Church and PG County

2025-2026 LTLC Monthly Recruitment February-June 2025

# Highlights from the Classroom Activity Feedback Form



Of the 421 students,  
5% Upper Elementary Science  
23% Biology, YCI, Green Team  
29% Middle School Science  
43% Biogeochemical Systems

# Highlights from the Classroom Activity Feedback Form

## FEEDBACK ON SUCCESSFULLY MEETING LEARNING TARGETS

Instead of using activities 2 to demonstrate the use of lungs I incorporated the **district's curriculum to support** the cystic fibrosis phenomenon.

My students demonstrated evidence of meeting the lesson objectives through their writing and discussions. The students connected their background knowledge to the new learning. **I was impressed by their use of the lesson vocabulary and explanations about how pollution and other environmental allergens trigger asthma attacks.**

Students understand the **real-world connection** since many of them either currently have asthma or have out grown asthma. **Many students wanted to join the my YCI/Green Team after the data review of asthma in the DMV.**

# Highlights from the Classroom Activity Feedback Form

## Some feedback on how the OTA activity informs teacher planning, delivery, and assessment of skills

This activity involved my skill in **analyzing data**. This is a very important science and engineering practice we **demonstrate throughout the school year** in the science class in order for the students be **better prepared in the standard assessments**.

I learned that my **students are ready to be challenged beyond their grade level curriculum**. I need higher level curriculum resources for the Gen Ed classroom. My students followed the lesson activities with supports from the teacher. **I am anxious to move on the next topic**.

I introduced students to industry professionals that work within transportation to seek and interview **how the industry is changing to meet new EPA regulations**.

# Highlights from the Classroom Activity Feedback Form

## Some feedback on how the OTA activity informs teacher planning, delivery, and assessment of skills

With the honors biology courses Module 1 activities support the curriculum for the unit that teaches students about cellular respiration and the plasma membrane function. **The connection to pollution supports preparation for the MISA exam which accounts for 20% of their total grade in the course.** This year the MISA exam incorporates environmental connections with process learned in biological systems.

With the YCI/Green Club students need ideas to create capstone projects as their final activity before graduation. Once complete students earn cords and a digital name badge to wear with their graduation garments. **Module 1 activities allowed a few club members to design their projects on air pollution in Bowie.**



# Highlights from the Teacher Training Feedback Form

- 63% teach high school and have 10 years or more of teaching experience
- Top four subjects taught: biology/life science, middle school science, environmental science, and earth science
- Over 80% were very satisfied with the training and the activity presented
- Potentially over 1,600 students could be reached with OTA activities in:
  - Biology
  - Biogeochemical systems
  - IBESS
  - Chemistry
  - Physics
  - Middle School
  - Elementary School

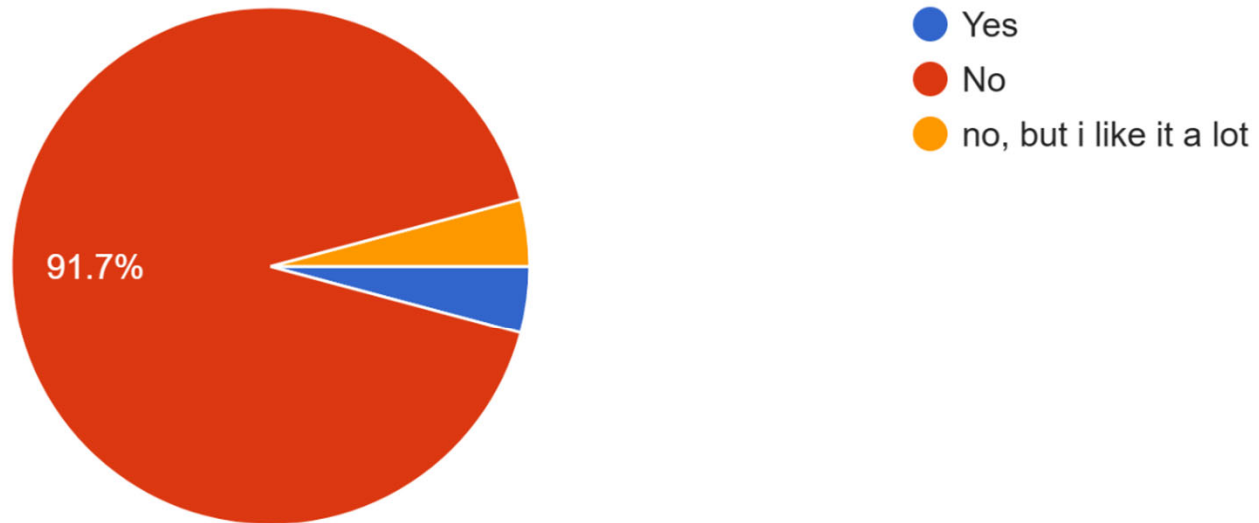
## Do you already teach air quality and/or climate change in your science classes?

24 responses



# Have you ever worked with the Clean Air Partners Education Program before?

24 responses



# Conferences, Tabling, other Outreach

## Fall 2024



NAAEE conference  
Poster presentation  
Nov 7-9, 2025



PGCPS AQ  
Professional Learning  
Community



VAST  
conference tabling  
Nov 14-16, 2025

Networking: OSSE,  
EPA, GLOBE

OTA activities  
Oct, Nov, Dec 2024  
Led by OTA Lead  
Teacher,  
Training feedback

36 teachers received  
OTA AQ resources,  
traffic to the WIX site,  
networking

# Conferences, Tabling, other Outreach



Data Classroom Partnership:  
<https://about.dataclassroom.com/>

AQ data literacy partnership with CAP



VDOT contacts, Career Fair 2025

CAP to table at 2025 VDOT Career Fair held in PWCPS, VA



Institute for Humane Education AQ support for IHE/MWEE/SWCD training

CAP letter of support to provide AQ resources as needed as part of CBT Youth Environmental Education Grant

# Conferences, Tabling, other Outreach



AGU conference  
Poster presentation  
Dec 9-11, 2025



Partnering with  
YLACES  
<https://www.ylaces.org/>  
on CEC grant:  
<http://www.cec.org/>



National Air Quality  
Education Work  
Group #3  
Jan 13, 2025

Networking:  
YLACES, GLOBE,  
community AQ  
projects

CAP letter of support;  
subward, AQ teacher  
training, EJ4C  
Environmental Justice  
Climate Resilience Grant

Discuss teacher  
license renewal/best  
practices for  
recruiting/training  
teachers

# Conferences, Tabling, other Outreach



Cool Green Schools partnership

CAP letter of support; subward, AQ teacher training, EPA Thriving Communities grant



Maryland State Library Agency possible partnership

Presented an AQI Outreach Kit for MD libraries, AQAW and Ozone Action Month



Mobilize Frederick MOLE kits to 8 elementary schools

Mobile Outdoor Learning Equipment with input from CAP, AQI resources

# Upcoming and Ongoing Outreach



Student intern(s) spring 2025—EJ Screen data to school PTA's Spring 2025



MAEOE Green School and Green Center Application Reviewer Spring 2025



MAEOE conference, three-hour workshop and tabling, Attune partner Feb 2025



DCPS AQ PD session to K-5 Teachers Feb 2025



NSTA AQ interactive presentation Mar 2025



Science Fairs: Arlington, Loudoun, Fairfax Mar 2025



Thank you.

Questions?

Contact me at [espikes@cleanairpartners.net](mailto:espikes@cleanairpartners.net)

Let's partner. Interest in...

- co-presenting
- joining a summer LTLC training—introduce yourself, your org, your commitment to AQ
- introducing me to your networks
- collaborating on grants and sponsorships
- introducing me to your organization