

# Clean Air Partners Executive Committee Meeting

Education Program Updates

Elizabeth Spike

Education Program Manager

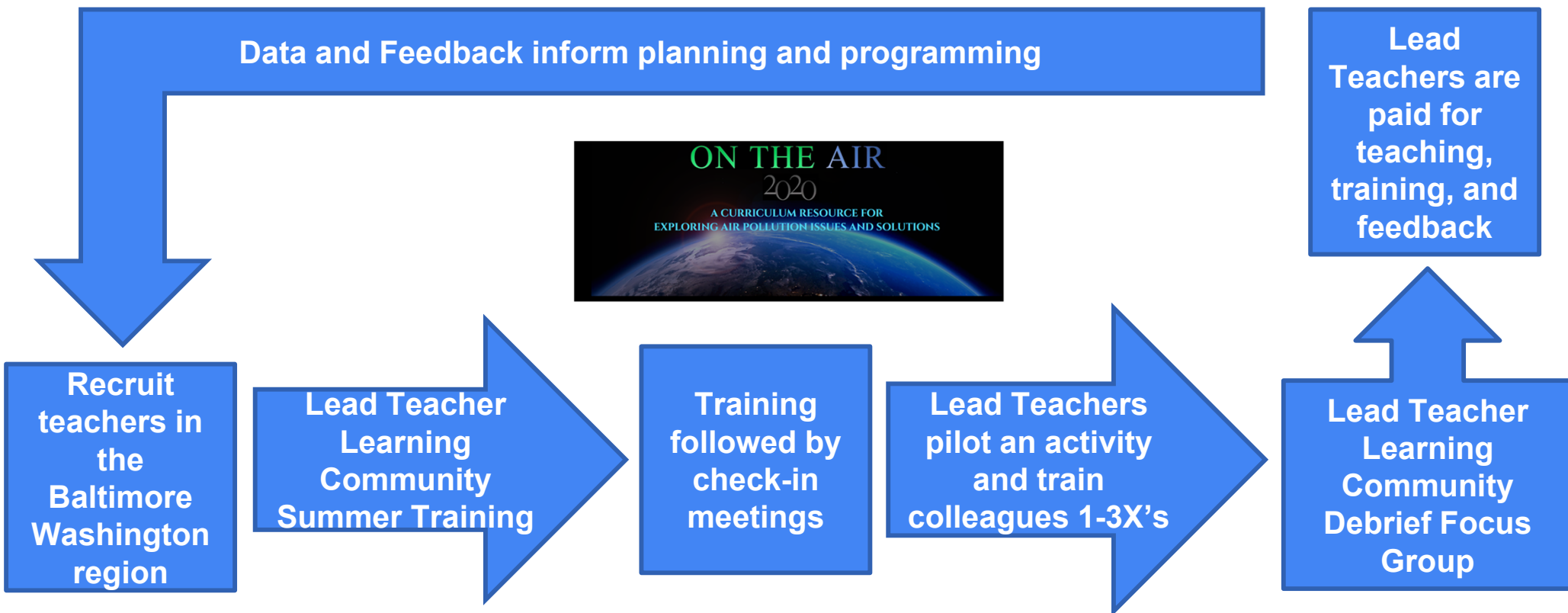
March 20, 2025



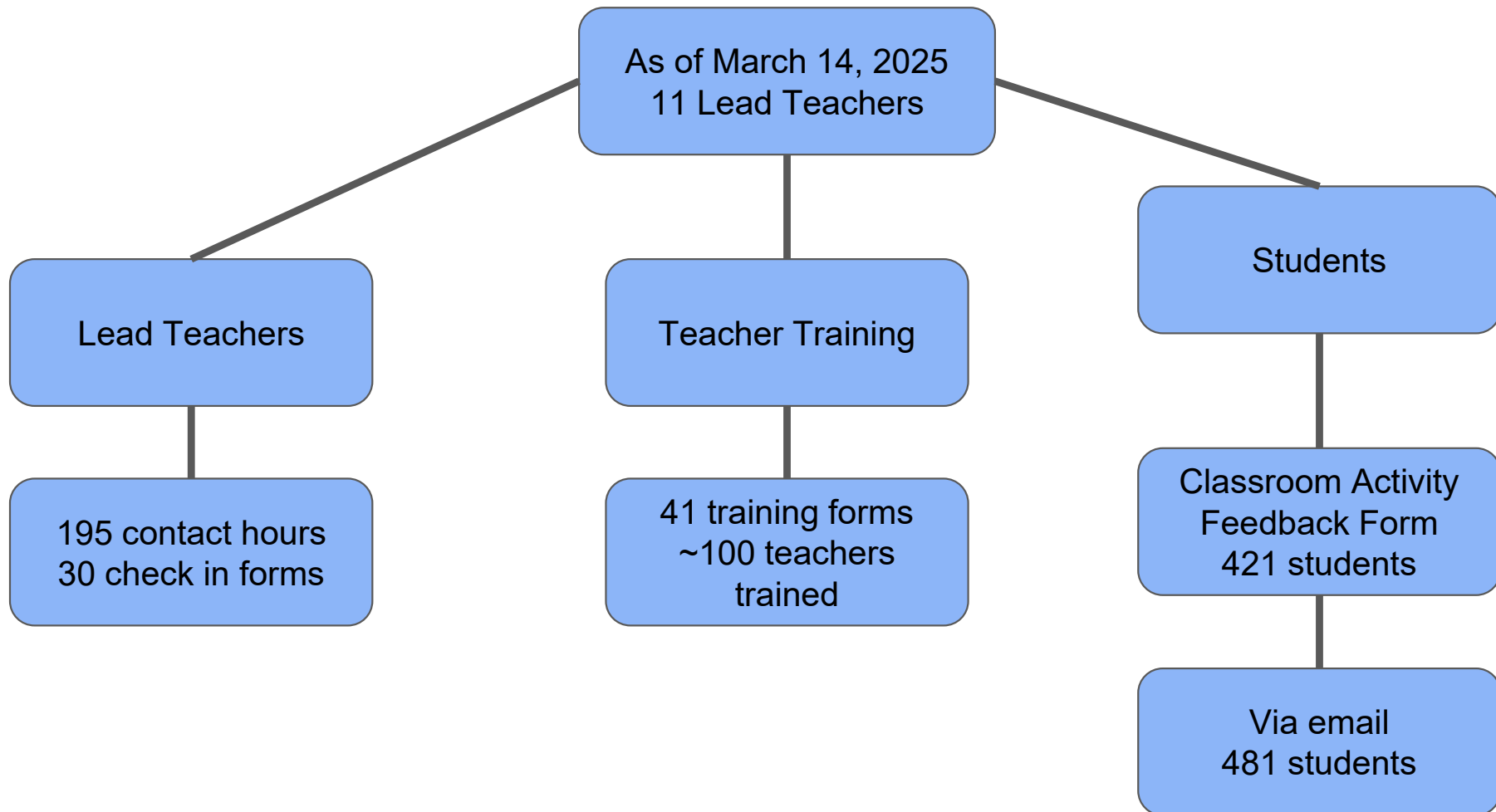
How can we educate students to transform awareness of air quality and climate change into personal actions that protect their communities in the Baltimore-Washington region?

Objective: Promote the use of <i>On the Air</i> curriculum. (FY 2023 Work Plan)			
Activity	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	Numbers of Schools School Type, Grade Levels, Subjects Geography	Current network Surveys Partnerships to build new relationships	Stakeholder experience Surveys Needs Assessments Communication/Support

## *On the Air* Train-the-Trainer Model

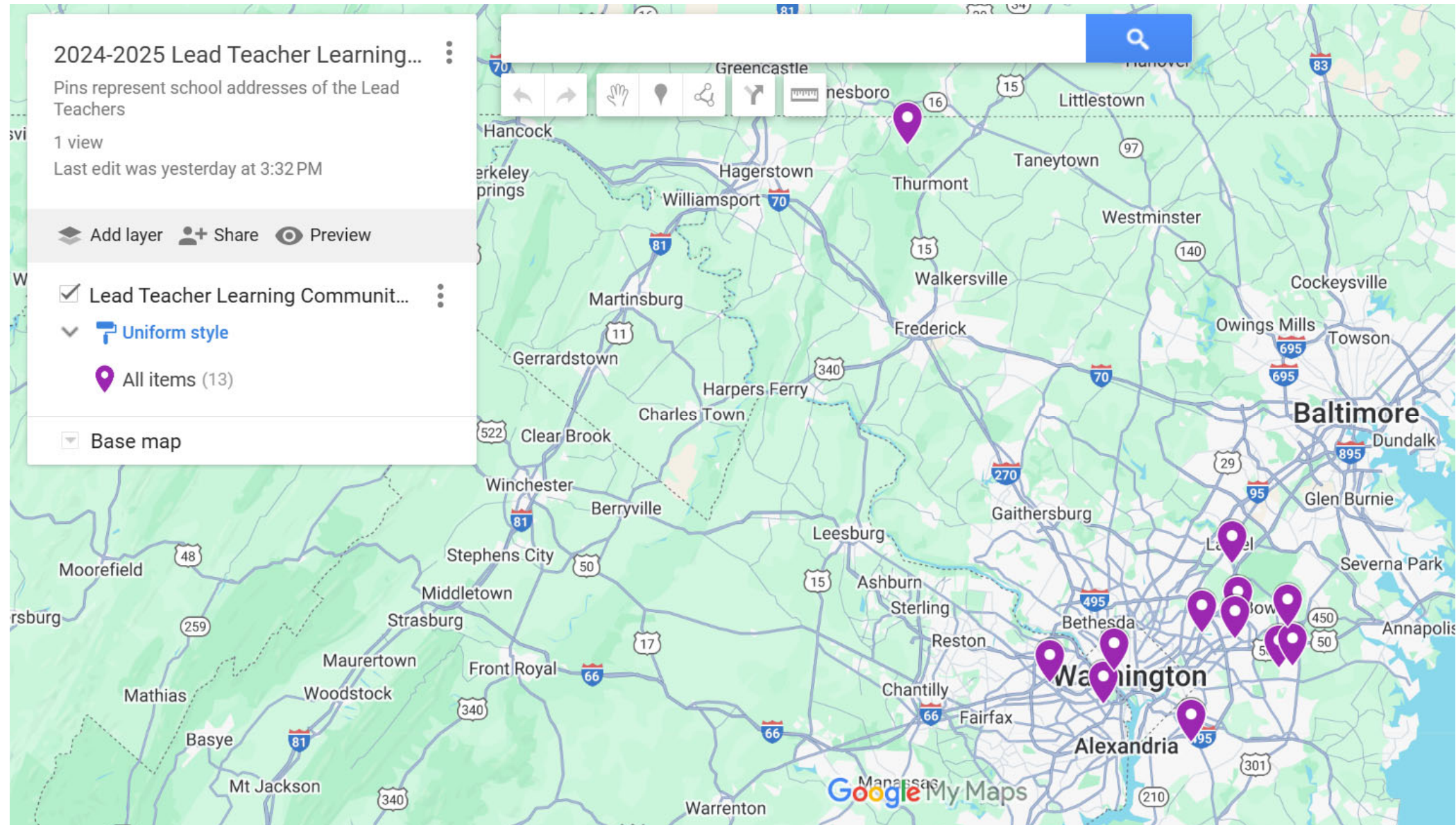


# 2024-2025 Lead Teacher Learning Community



# Lead Teachers

Base map



# Teacher Trainings

## Teacher Trainings—Some highlights

- 32 out of 41 would like to receive updates from Clean Air Partners
- $\frac{2}{3}$  were high school teachers
- Top subjects taught: Biology, Environmental Science, Middle School
- Other subjects reported: physical education and world I history
- Most reported teaching more than 10 years
- 42% reported they teach AQ and CC, 27% reported CC only, and 24% neither
- 93% have never worked with Clean Air Partners

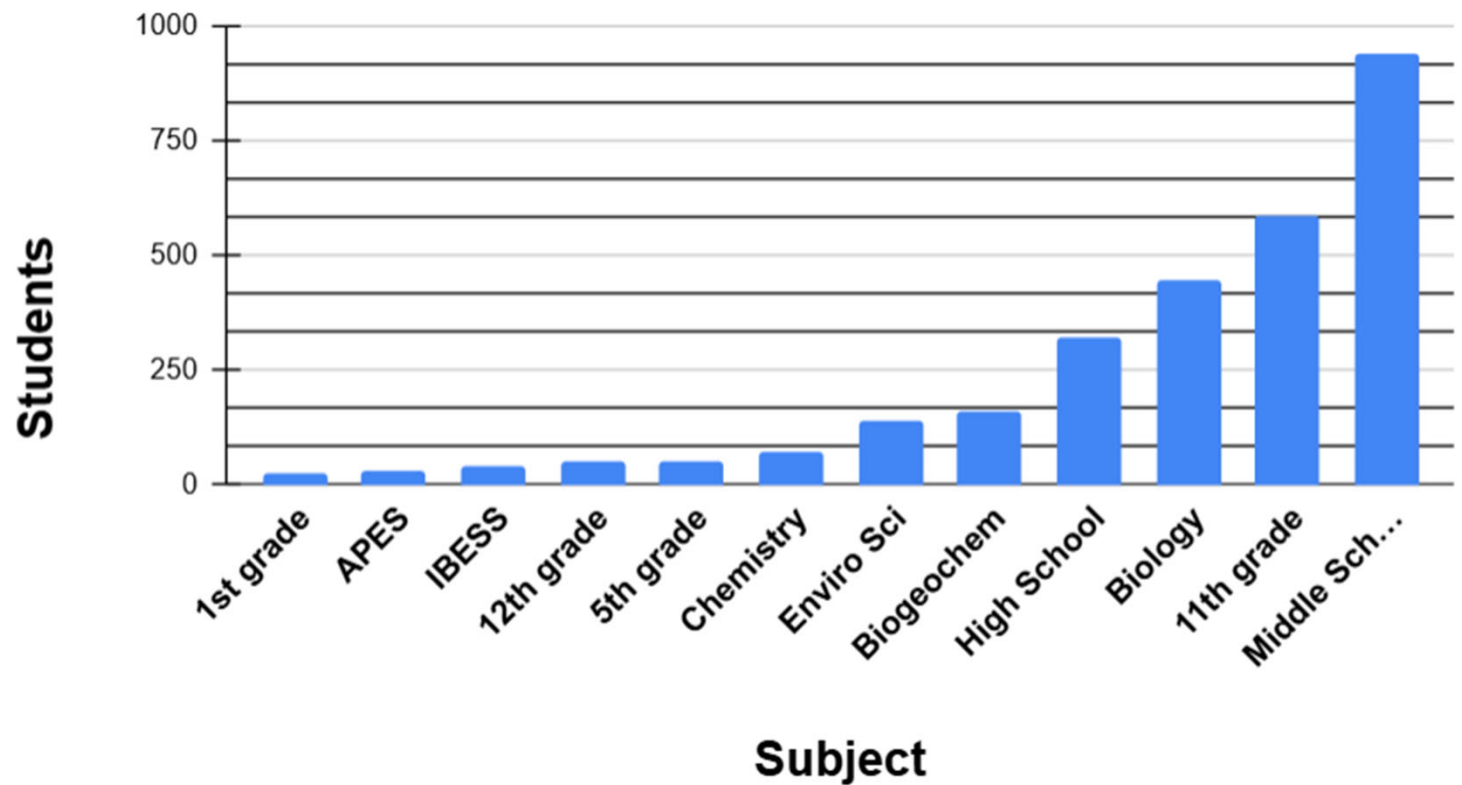


# Teacher Trainings—Some highlights

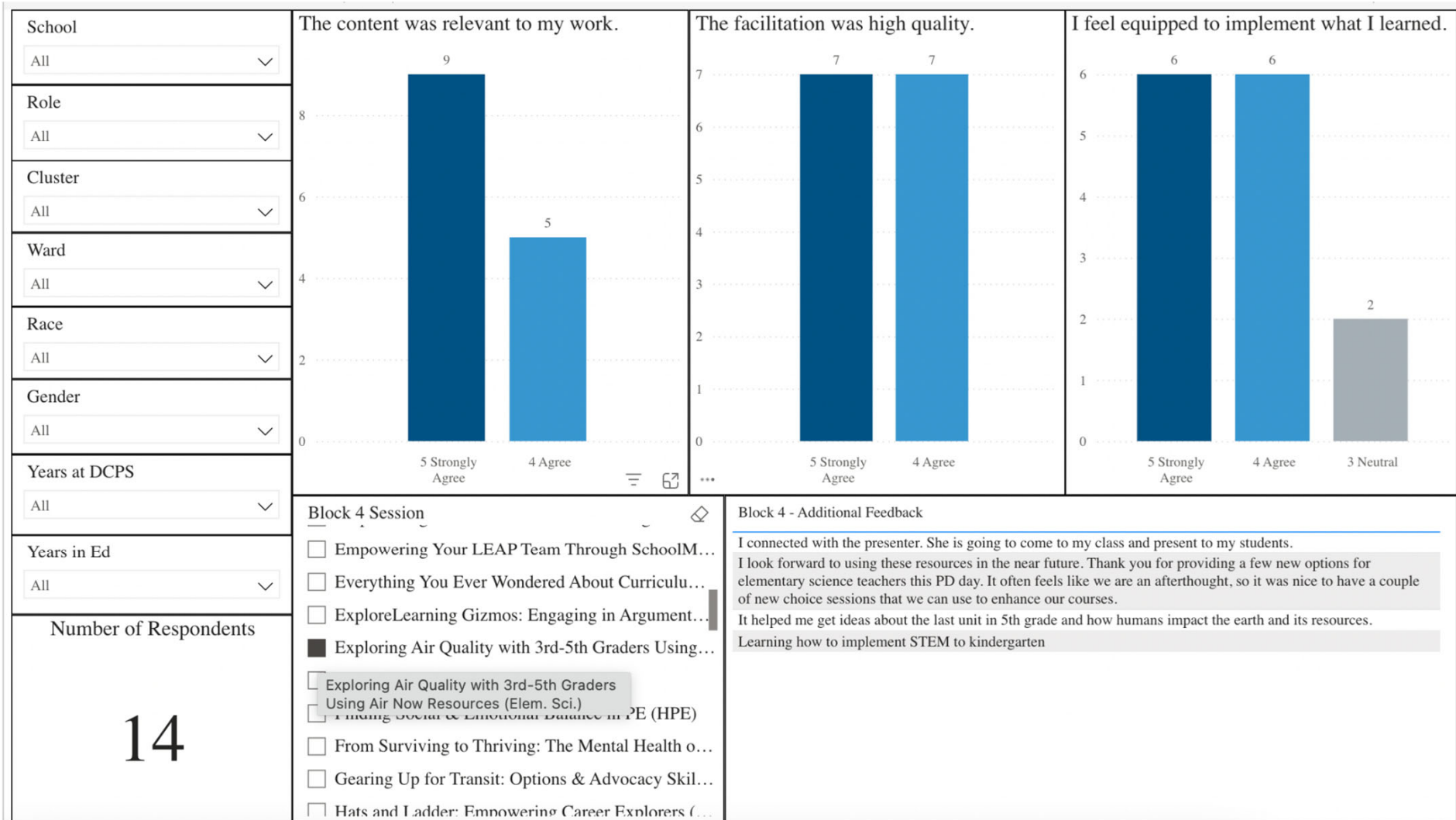
- Top training topics: data literacy, human impact on dead zones, criteria air pollutants
- 80%+ satisfied with training and with the activity and 60%+ likely to teach the activity (scale 1-3; 1 dissatisfied, 2 neutral, 3 satisfied)
- If not likely to teach the lesson→ ‘does not apply to overloaded curriculum’, ‘harder to apply to chemistry’
- **Positive comments:**
  - Keep providing us with great lessons.
  - Ms. Solomon did an excellent presentation.
  - ...meaningful and relevant.
  - Great help to continue my professional development.

Physics	24
1st grade	26
APES	30
IBESS	40
12th grade	50
5th grade	52
Chemistry	70
Enviro Sci	140
Biogeochem	160
High School	320
Biology	447
11th grade	584
Middle School	938

Who would you teach this activity to? 2,881 students



School	The content was relevant to my work.			The facilitation was high quality.			I feel equipped to implement what I learned.																								
All	<table border="1"> <caption>Data for 'The content was relevant to my work.'</caption> <thead> <tr> <th>Response</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>5 Strongly Agree</td> <td>3</td> </tr> <tr> <td>4 Agree</td> <td>3</td> </tr> </tbody> </table>			Response	Count	5 Strongly Agree	3	4 Agree	3	<table border="1"> <caption>Data for 'The facilitation was high quality.'</caption> <thead> <tr> <th>Response</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>5 Strongly Agree</td> <td>2</td> </tr> <tr> <td>4 Agree</td> <td>2</td> </tr> <tr> <td>3 Neutral</td> <td>2</td> </tr> </tbody> </table>			Response	Count	5 Strongly Agree	2	4 Agree	2	3 Neutral	2	<table border="1"> <caption>Data for 'I feel equipped to implement what I learned.'</caption> <thead> <tr> <th>Response</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>5 Strongly Agree</td> <td>3</td> </tr> <tr> <td>4 Agree</td> <td>2</td> </tr> <tr> <td>3 Neutral</td> <td>1</td> </tr> </tbody> </table>			Response	Count	5 Strongly Agree	3	4 Agree	2	3 Neutral	1
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Number of Respondents	<div>6</div> <div> <div>Block 3 Session</div> <div> <input type="checkbox"/> Empowering Educators with Lumio: Enhancing C...           <input type="checkbox"/> Enhancing Self-Regulation in Deaf and Hard of H...           <input type="checkbox"/> Executive Skills Across the Tiers: Embedding Crit...           <input type="checkbox"/> ExploreLearning Gizmos: Expanding the Gizmos ...           <input checked="" type="checkbox"/> Exploring Air Quality with 3rd-5th Graders Using...           <input type="checkbox"/> Exploring Air Quality with 3rd-5th Graders Using Air Now Resources (Elem. Sci.)           <input type="checkbox"/> Finding Social &amp; Emotional Balance in PE (HPE)           <input type="checkbox"/> Focused and Ready to Engage in the Afterschool ...           <input type="checkbox"/> From Fluency to Understanding: Bridging the Ga...         </div> </div> <div> <div>Block 3 - Additional Feedback</div> <div>           I can incorporate the learning with my unit lessons on weather            It was great to focus on the environment.         </div> </div>																														







MAEOE Conference February 2025



# Students

## Students via feedback forms

- 421 students taught, 6 activities taught
- 100% of Lead Teachers reported they are learning more about AQ
- 100% reported their students are more interested in AQ
- 100% reported knowing the science content would NOT be a barrier to teaching the activities in non-science classes
  - **Some comments:** Fairly easy, require little or no experience, need some foundational knowledge, graph analysis, appropriate, scripted parts help new teachers, interdisciplinary theme

## Students via email

- Number of activities taught: 25
- Number of students taught 481
- Number of On the Air student contact hours: 1,630
- Some highlights: 1 elementary school teacher, 1 sponsors Green Team and Youth Climate Institute, 1 activity co-taught, 1 teacher part of Purple Air LCS serving over 200 students, 1 teacher leading the AQ PLC this year and will continue next year



# 2025-2026 Lead Teacher Recruitment



# Conferences, Tabling, other Outreach

## Spring 2025



**Betty Hyatt Park  
Tree Planting  
March 15, 2025**

Thank you to  
Mike Taylor,  
Anna Marshall, and  
Brian O'Malley



**PGCPS AQ  
Professional  
Learning Community**

OTA activities  
Jan, Feb, Mar 2025  
Led by OTA Lead  
Teacher,  
Training feedback



**MAEOE three-hour  
workshop and  
tabling**

25 teachers participated,  
all received free  
resources, co-presented  
with Attune, interest in  
IAQ and LCS



# Betty Hyatt BTT/CAP Tree Planting Event 3/15/25



# Conferences, Tabling, other Outreach



**Letters of Support  
for partnerships**

Three letters to support  
Institute for Humane Education  
to train VA teachers about  
solutionary framework, OTA  
module 4 MWEE



**DCEEC  
Teacher Night  
February 13, 2025**

Networking  
opportunity,  
tabling in 2026

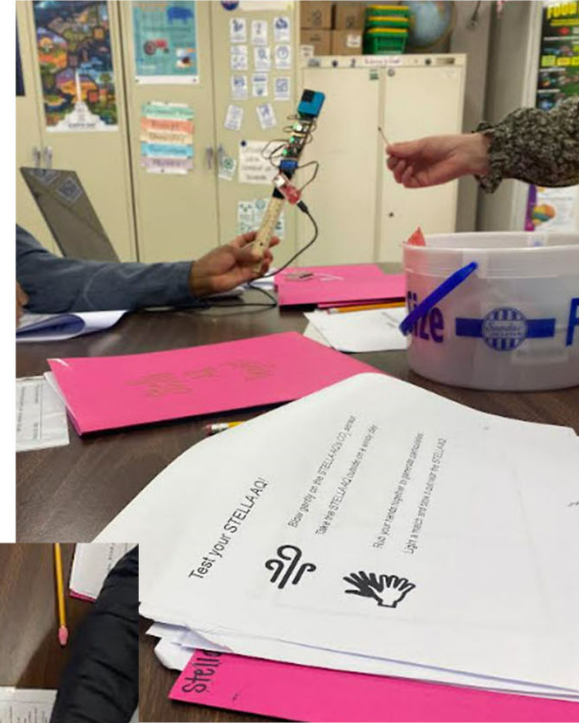
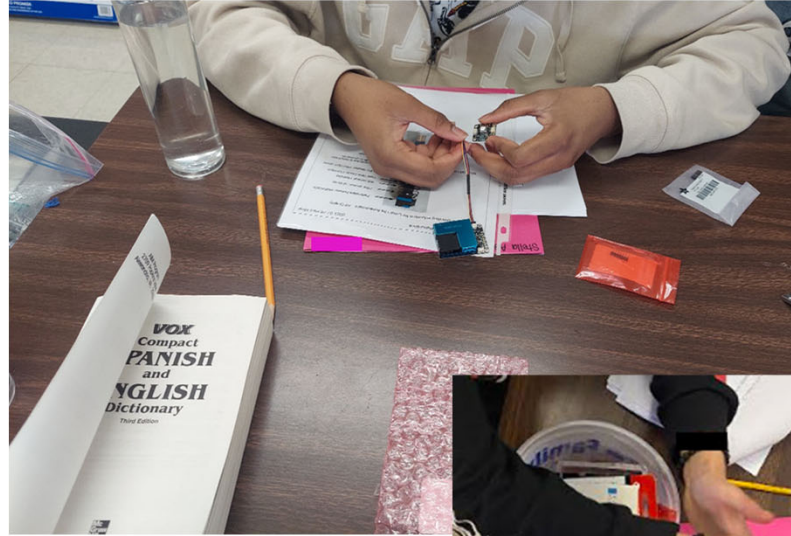
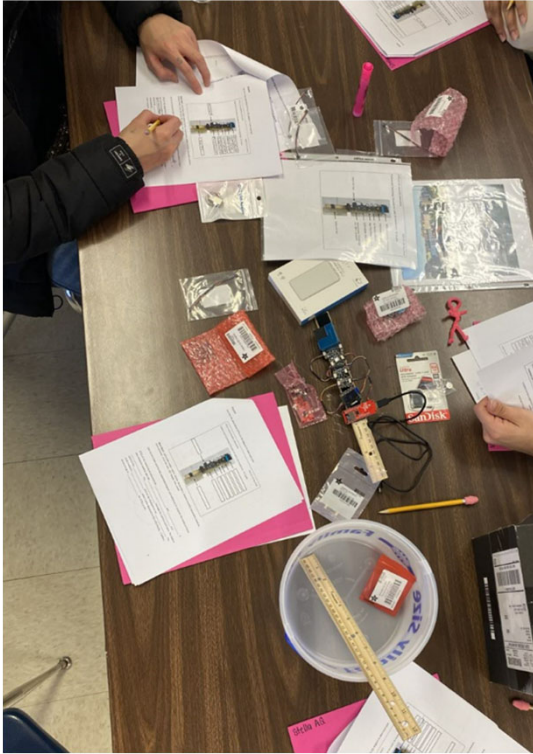


**NASA STELLA AQ  
pilot STEM project**

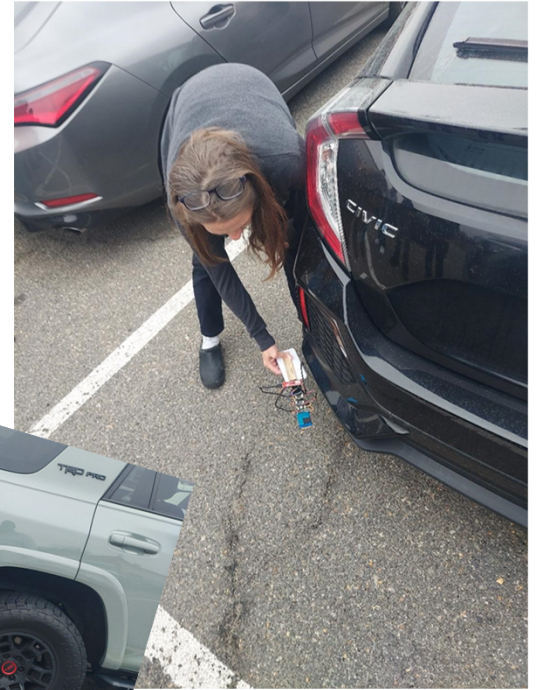
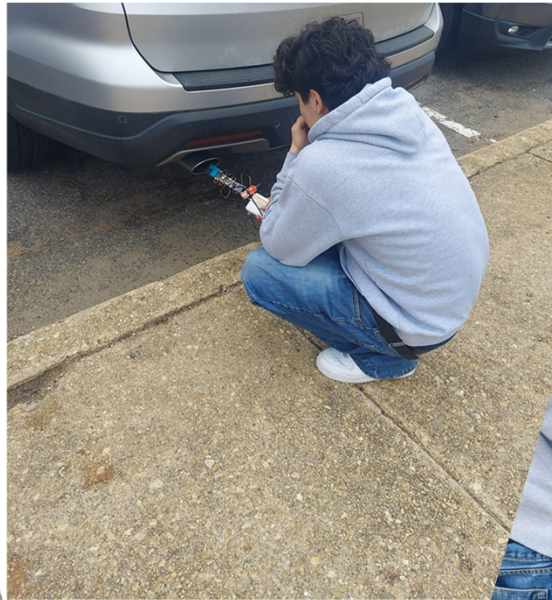
Students  
successfully built a  
LCS to measure  
CO2 and PM2.5



# NASA STELLA AQ STEM PROJECT PILOT



# NASA STELLA AQ STEM PROJECT PILOT





# Conferences, Tabling, other Outreach



## **Student Intern Update**

Generated reports,  
email script, flyers,  
and slide deck to  
present at PTA/PTO



## **Bruce Monroe Elementary @ ParkView**

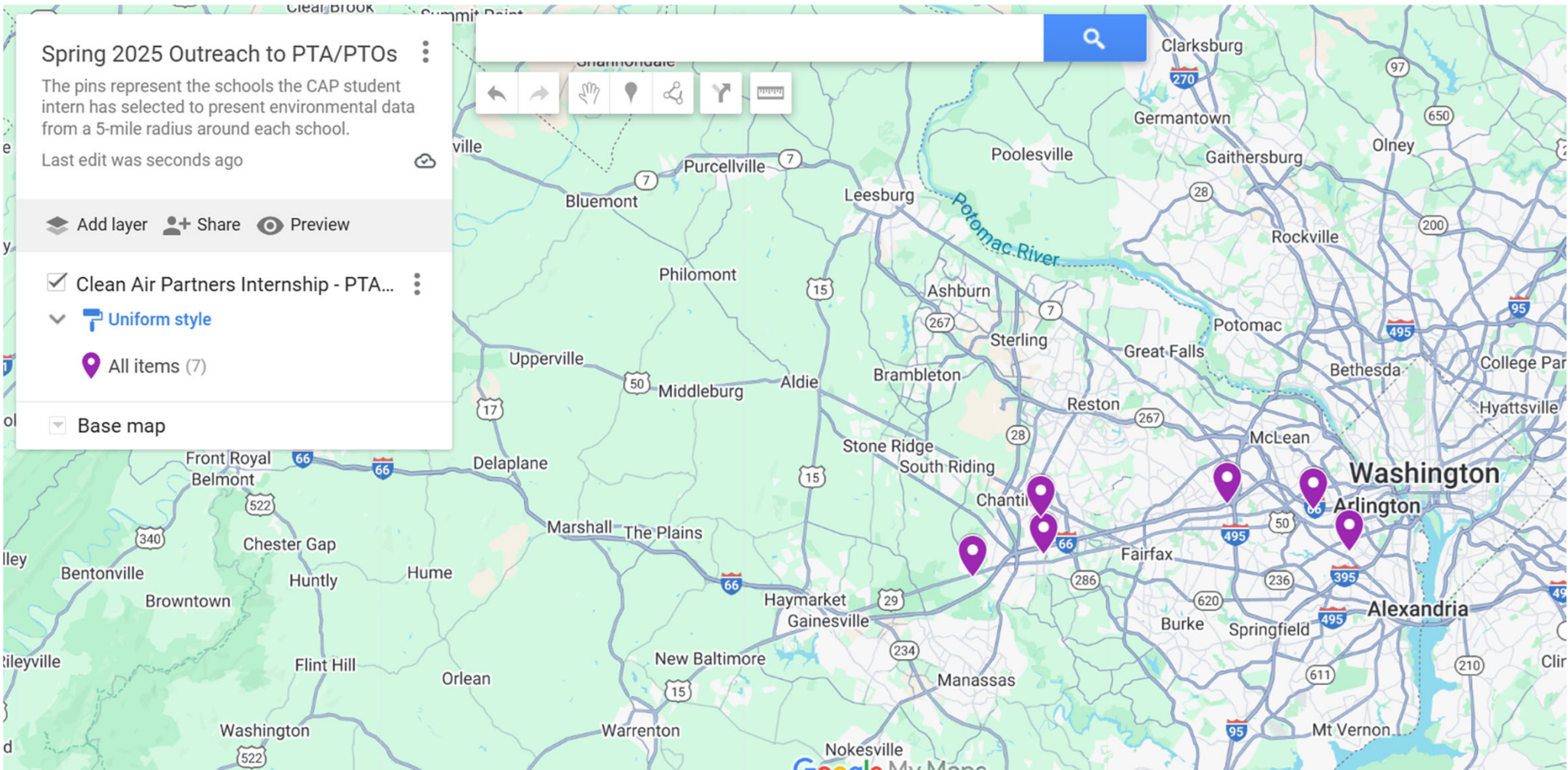
Present to elementary  
school students, model  
for teacher how to  
deliver AQ activities



## **Science Fairs!**

Thank you to Glenna Tinney  
to be judge at FCPS, VA  
ACPS 3/1, LCPS 3/19,  
FCPS, VA 3/22,  
FCPS, MD 3/22





# Upcoming and Ongoing Outreach and Networking

- Invited Leidos and Attune to continue to support LTLC
- NSTA Conference March 26-29 co-present AQ activities with AWMA and CDPHE
- Present at AWMA annual Leadership Training Academy early April 2025
- LTLC Debrief Focus Group April 7, 2025
- Arbor Day BTT planting 45 trees at Patterson HS in Baltimore April 26, 2025
- Howard County Conservancy presentation on wildfires May 1 2025

Thank you to Kristen Willard, Anna Marshall, and Kelsey Sisko for all the links, data files, etc to share with those who reach out with a need for AQ, UHI, CC information!

Thank you.  
Questions?

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