



Maryland
Department of
the Environment

Curtis Bay and Cheverly Air Monitoring Initiatives

*Kelsey Sisko – Air and Radiation Administration
Clean Air Partners Board Meeting – September 15, 2022*



Overview of Presentation



ENVIRONMENTAL JUSTICE
AND COMMUNITY
ENGAGEMENT



CURTIS BAY PARTNERSHIP



CHEVERLY PARTNERSHIP

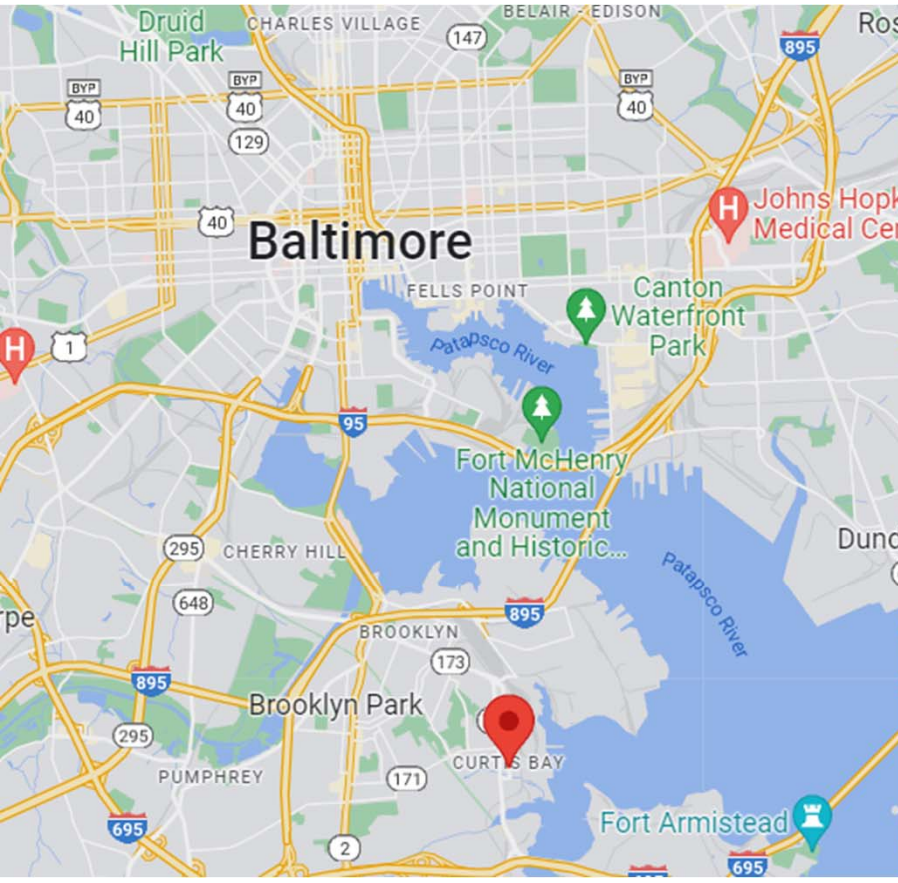


QUESTIONS?

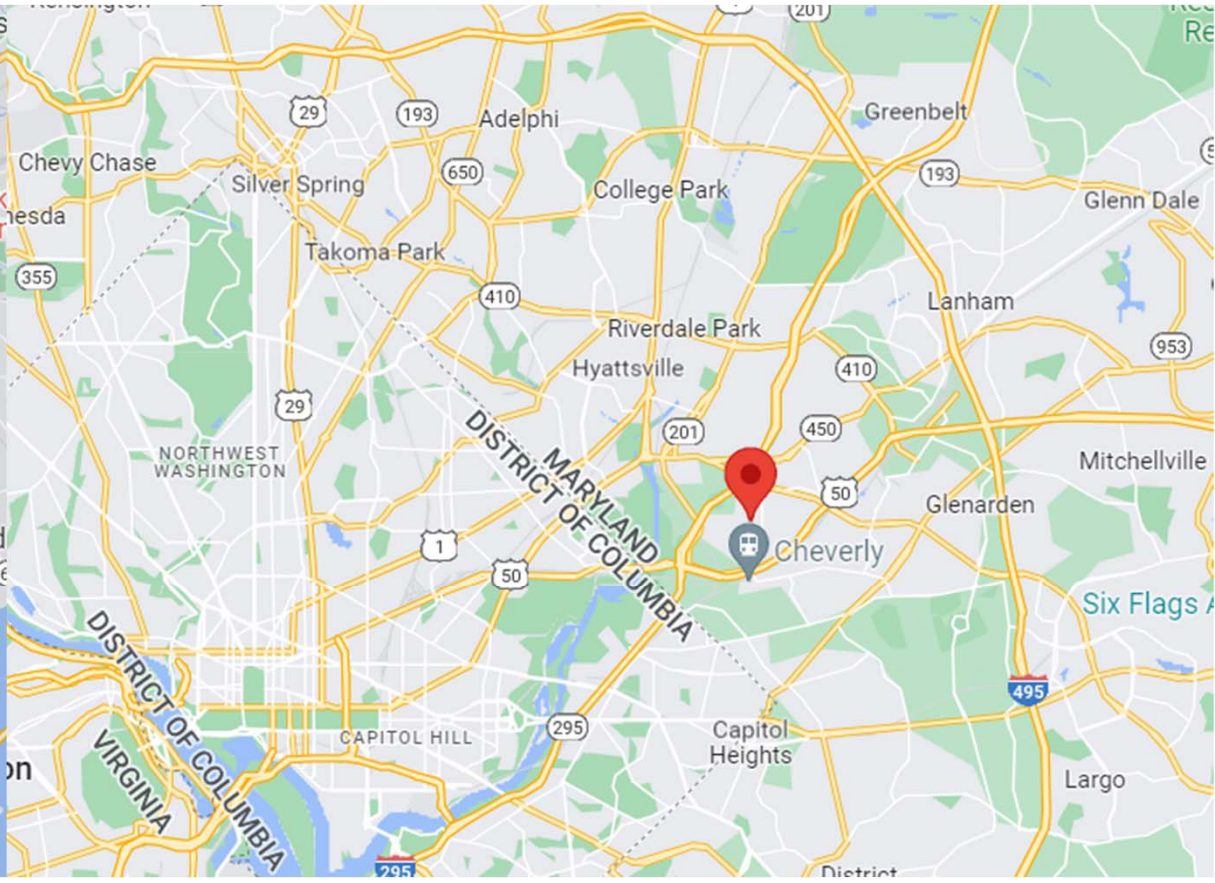


Locations

Curtis Bay, Maryland



Cheverly, Maryland



A photograph of a bright blue sky filled with large, white, fluffy cumulus clouds. The clouds are concentrated on the left and bottom-left sides, leaving a clear blue area on the right. A white horizontal band is overlaid across the middle of the image, containing the title text.

Environmental Justice and Community Engagement



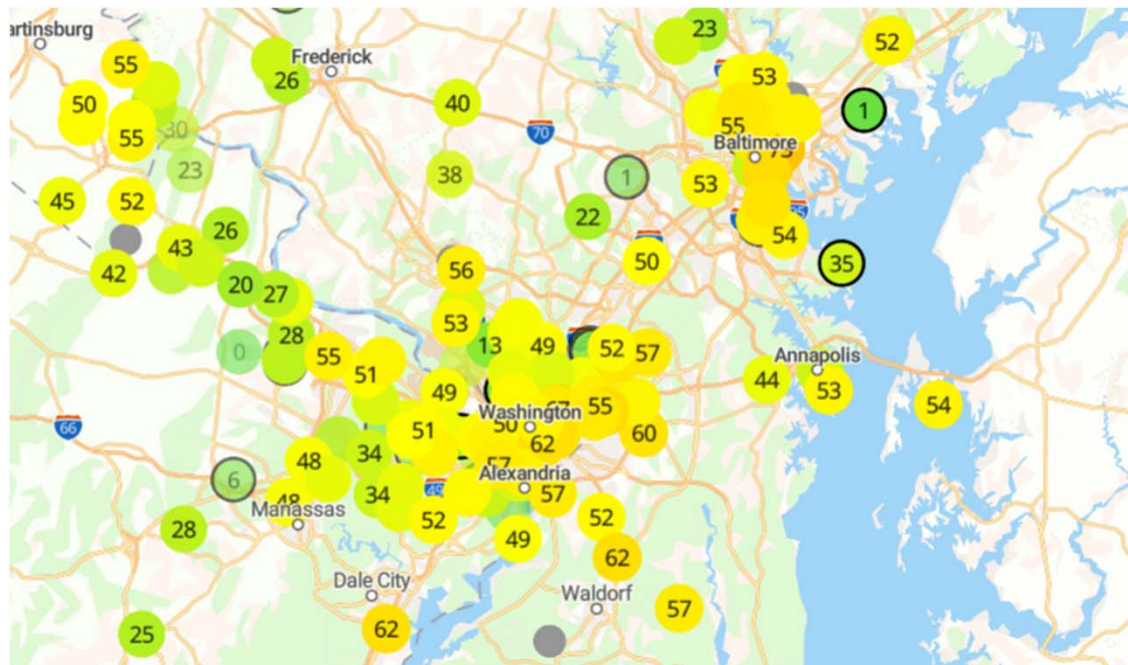
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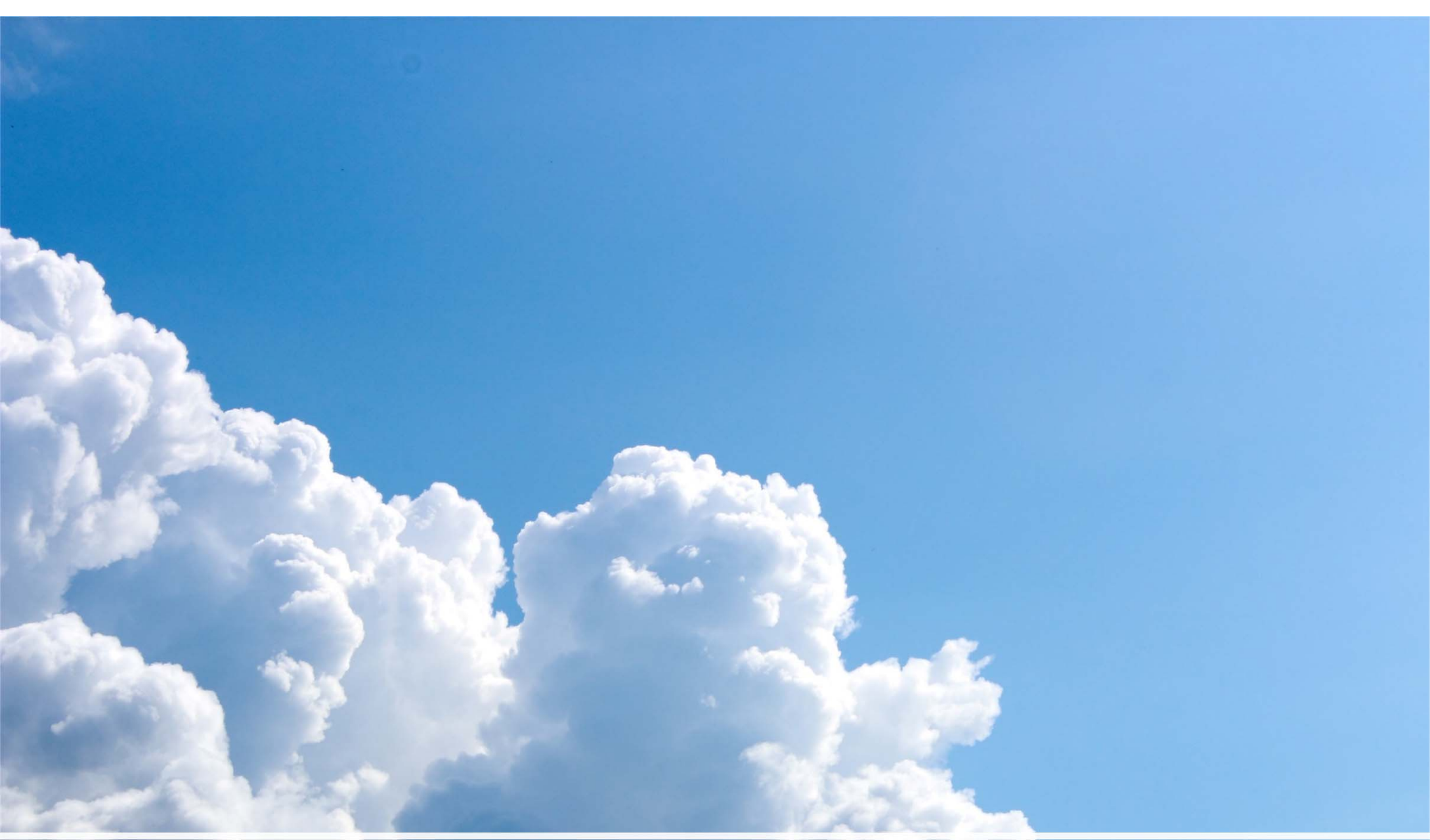
Environmental Justice & Community Engagement

- Environmental Justice (EJ) is a very high priority for Maryland and the Maryland Department of the Environment (MDE)
 - The Commission on Environmental Justice and Sustainable Communities (CEJSC) continues to advise MDE on strategies and opportunities to prioritize communities with environmental justice concerns
 - MDE-wide initiatives on outreach, compliance, permits, and mapping
- Air Program Initiatives
 - Partnership effort with over nine communities to work together to reduce environmental risk
 - So far, two of these efforts have resulted in diesel cleanup projects selected by the community (Turners Station and Curtis Bay)
- The Port Partnership is a collaboration with over 15 communities and has driven huge investment into diesel cleanup in and around the Port. **By 2025, over \$35 million will have been invested to reduce air pollution around the Port**
 - Several existing efforts involve community-based, hyper-local air monitoring/sensor networks
 - Targeted inspection initiatives are now being implemented

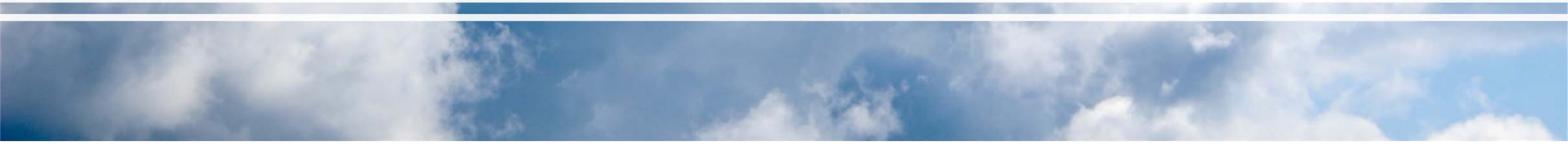
Community Air Monitoring

- These community partnership efforts focus on citizen science and building air monitoring networks using low-cost sensors that are spread throughout a given area
 - Typically, there are 20 to 30 monitors/sensors in a community
- Over the past few years, the evolution of low-cost air monitoring sensor technology has improved significantly





Curtis Bay Partnership





Curtis Bay Partnership

- The Curtis Bay community is considered a high priority area for MDE
 - Significant effort on this partnership over the last several months after an explosion at a local coal pier and a major fire at an oil processing facility
- Community projects for Diesel Yard Trucks
- Efforts include:
 - A community driven partnership effort
 - Enhanced monitoring
 - New permit requirements
 - Targeted inspection and enforcement activities done by MDE
 - Multi-media targeted inspections as well as other community goals, such as reducing fugitive dust and establishing a zero-waste center that also provides a space for community engagement and education



Diesel Emission Reduction Efforts

Current and Future

- Projects in the Port of Baltimore area:
 - Port projects
 - Dray trucks, repower tugs and purchase trucks, handling equipment, and more
 - Nitrogen Oxides (NOx) reduced by 406 tons
 - Private Sector projects
 - Repower tugs and purchase diesel buses, locomotive switchers, and electric cranes
 - NOx reduced by 1,876 tons
- Other Projects:
 - Purchase new electric and alternative fuel school buses, trash trucks, and transit buses
 - NOx reduced by 1,307 tons

A photograph of a bright blue sky filled with large, fluffy white cumulus clouds. The clouds are concentrated in the lower half of the frame, with the upper half being a clear, solid blue. A white horizontal bar is positioned across the middle of the image, containing the text.

Cheverly Partnership



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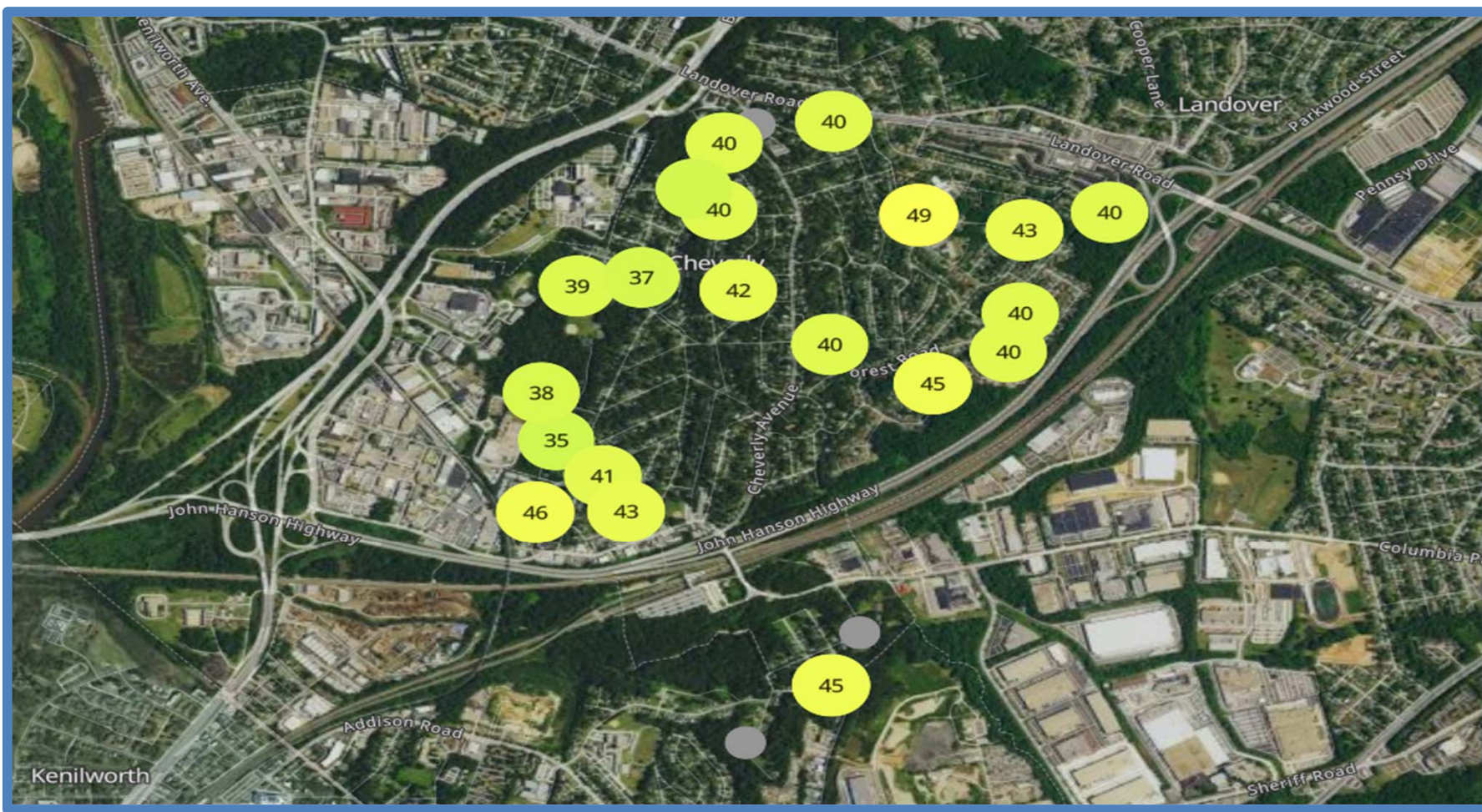
Cheverly & Sheriff Road Partnership

- In 2019, the University of Maryland's Center for Community Engagement, Environmental Justice, and Health initiated a partnership with the Town of Cheverly to build a hyper-local air monitoring network in and around the area
- MDE joined this partnership in 2020
 - Assisted with educational efforts
 - Assisted with the hyper-local air monitoring network
 - Implemented a targeted inspection program in 2021
 - The 2021 effort led to three new enhanced enforcement programs that are now being implemented
- The Town of Cheverly resides outside of Washington, D.C. in Prince George's County and is an area of concern for EJ
 - Numerous stationary sources and major highways around the Sheriff Road area; generally upwind of populated areas
- Community wide air monitoring/sensor network made up primarily of Purple Air fine particle units now in place



Cheverly & Sheriff Road Partnership

Sensors in Cheverly, Maryland





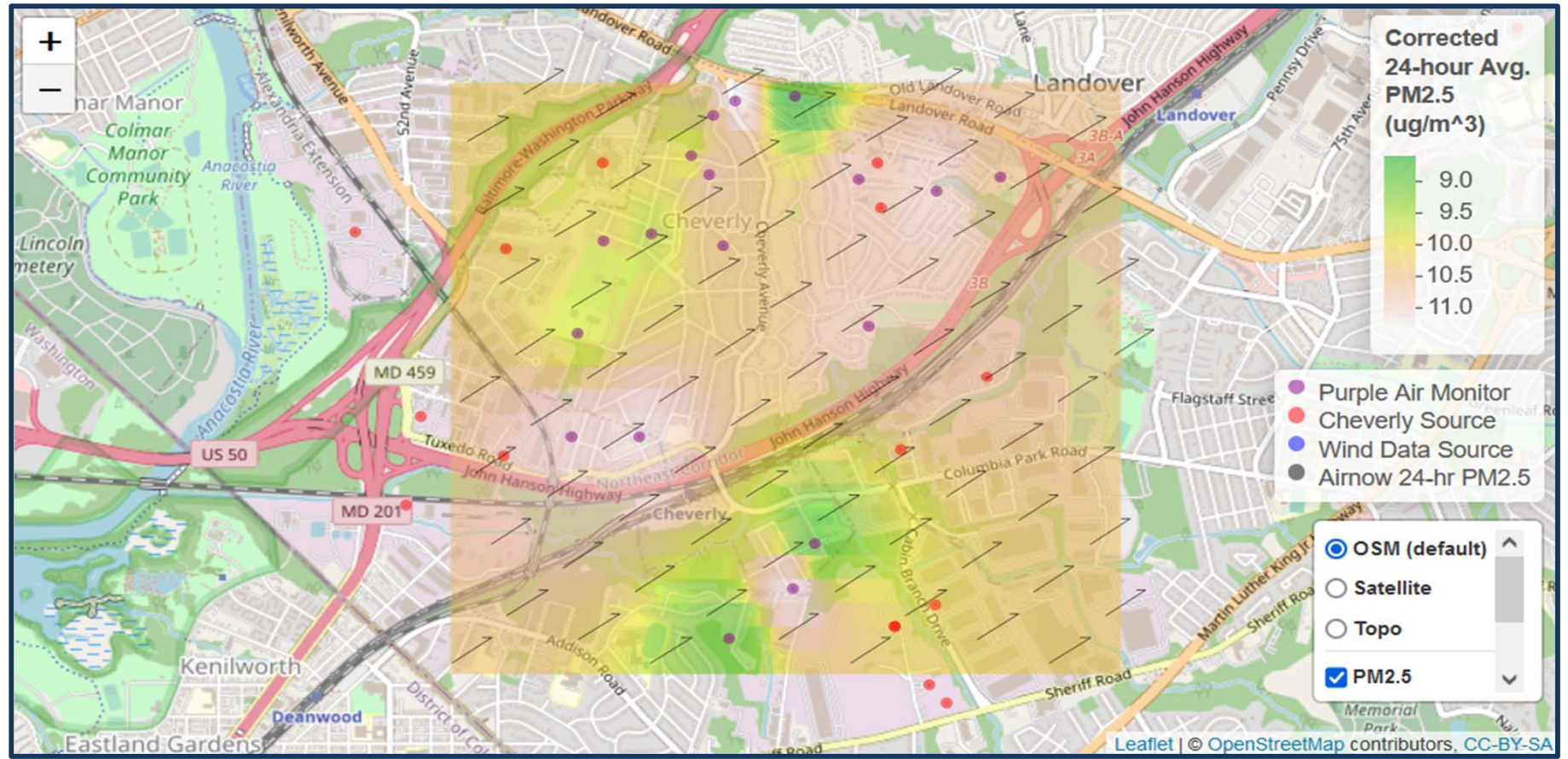
MDE Targeted Inspection Initiative in Cheverly

- MDE held intensive inspection efforts in June/July 2021
 - Held several meetings with the community
 - Used sensor, wind and source data, citizen input, and other information to target inspections
 - Held area-wide surveillance and source specific inspections three or more days a week
 - Focused on stationary and mobile sources
 - MDE conducted 28 days of inspections with many site visits; there were a total of three Notices of Violations issued
 - There is a webpage online that summarizes daily activity and inspection reports (mde.maryland.gov/programs/Air/AirQualityCompliance/Pages/CheverlyTargetedInspectionInitiative.aspx)
- MDE is currently implementing follow-up activities that focus on:
 - Targeted inspections
 - Idle reduction
 - Fugitive dust
- There has been positive feedback from both the mayor and the residents of Cheverly



MDE Targeted Inspection Initiative in Cheverly

Daily Hotspot Map - Using Sensor, Wind and Emission Source Data to Identify Hotspots and Target Inspections





Current Activities Being Done by MDE

- MDE, in partnership with the community and the University of Maryland, is implementing several of the recommended follow up activities:
 - Electrification and alternate fuel sources
 - Eliminating or reducing illegal idling and tampering
 - Reducing fugitive dust
 - Continuing the targeted inspection and enforcement effort started in 2021





Questions?

