

Clearing the Air: Follow-Up Discussion on Ward 8 Air Quality Monitoring Station

Community Meeting: 24 October 2023



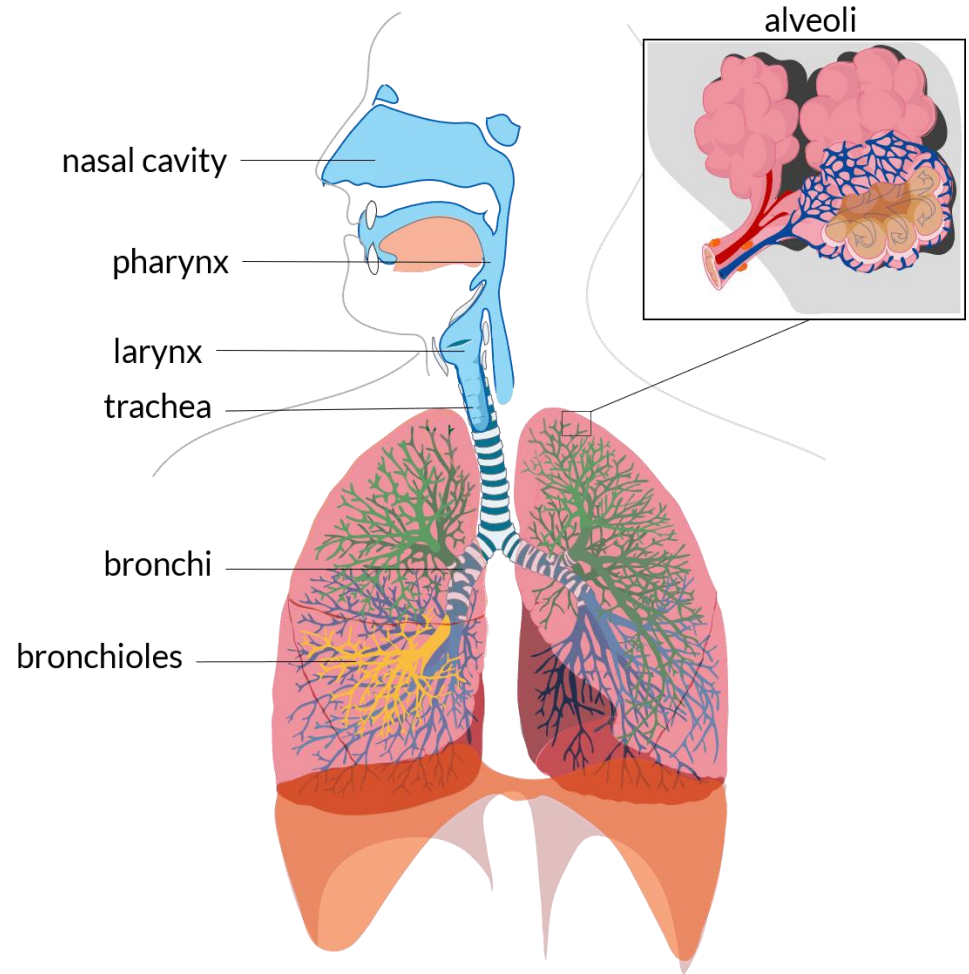
Why Monitor Ambient Air Quality?

- Protecting public health
 - air quality levels vs. national standards
- Identifying air pollution sources
- Developing air pollution controls
- Science and research
- Public outreach and education



Public Contact With Air Pollutants

- Most air pollutants enter our bodies through the respiratory system.
- They come in the form of gaseous or particle pollutants.
- They are either exhaled, left in the lungs, or absorbed into the blood stream.
- Children and older adults are the most vulnerable populations.



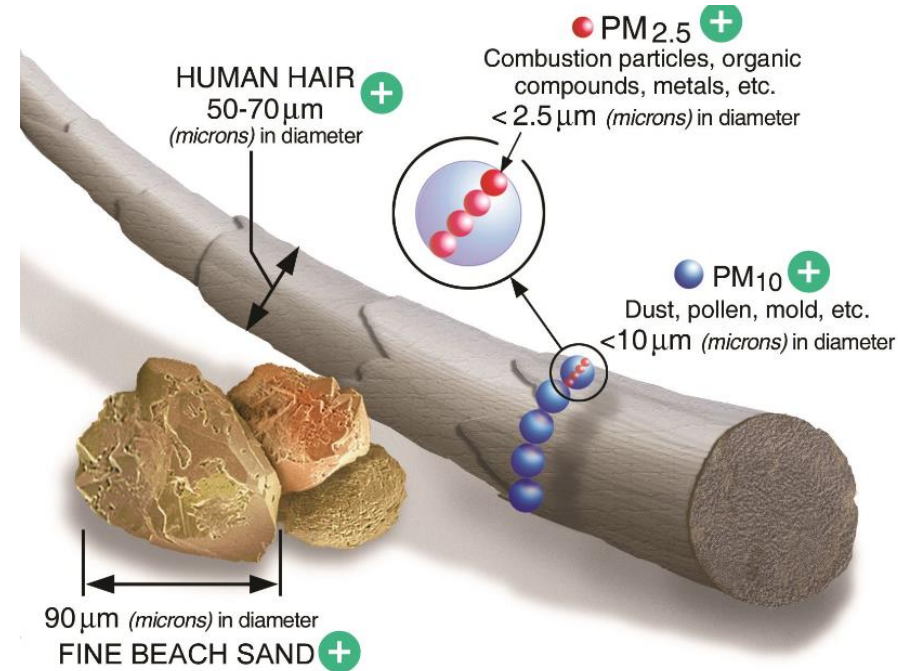
The Health Effects of Particulate Matter

Heart:

- Irregular heartbeat
- Nonfatal heart attacks
- Premature death in those with heart disease

Lungs:

- Aggravated asthma
- Decreased lung function
- Premature death in those with lung disease



What is the Focus: Criteria air pollutants

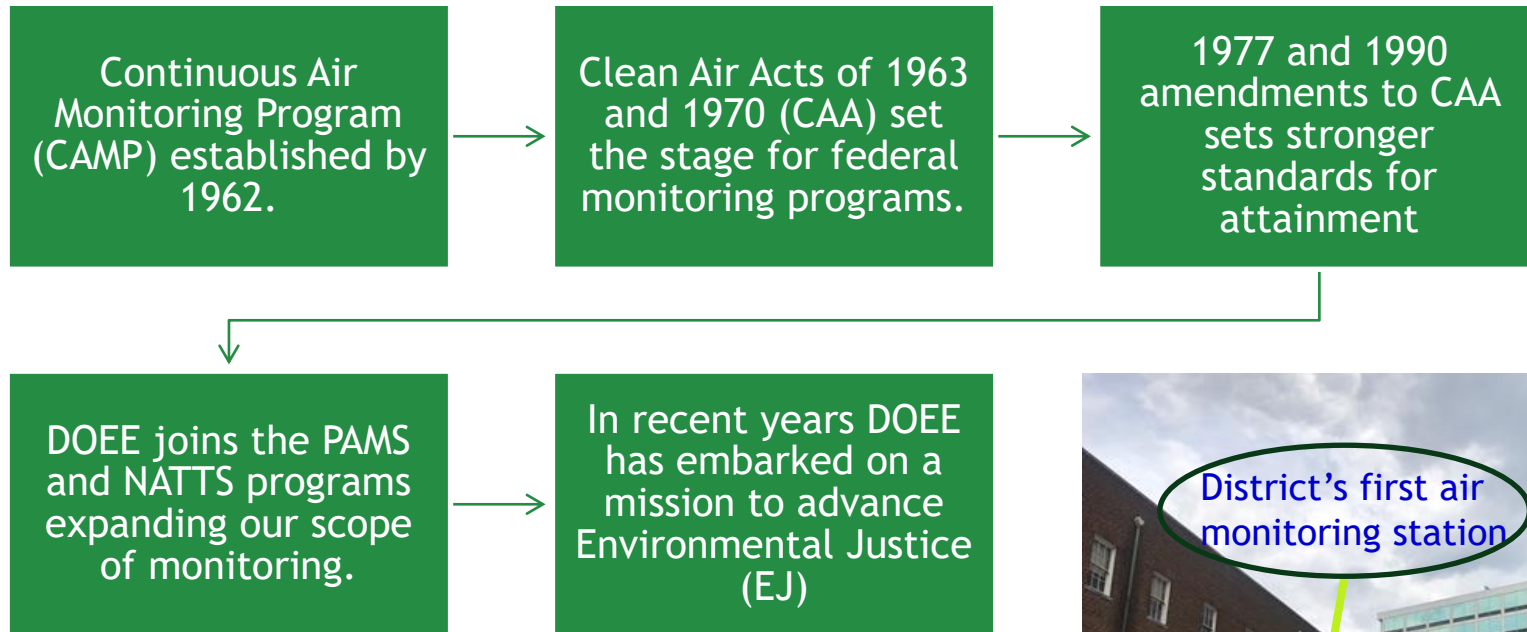


SIX pollutants monitored nationwide:

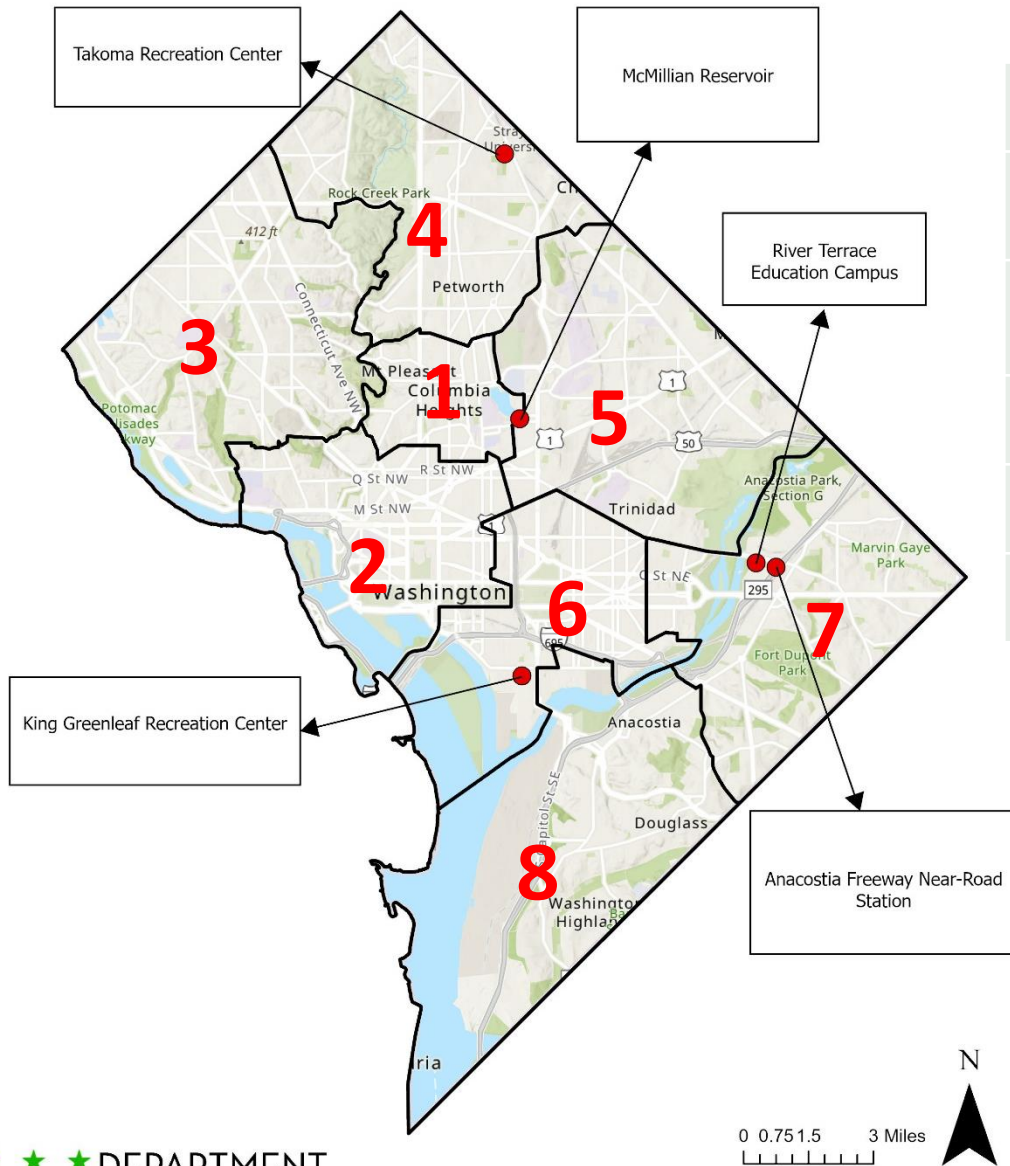
- 1.) Carbon Monoxide (CO)
- 2.) Sulfur Dioxide (SO₂)
- 3.) Nitrogen Dioxide (NO₂)
- 4.) Particulate Matter (PM₁₀ & PM_{2.5})
- 5.) Ground-Level Ozone (O₃)
- 6.) Lead (Pb)

EPA established National Ambient Air Quality Standards for these SIX “criteria” air pollutants

The History of D.C.'s Air Monitoring Program









Washington DC's Ambient Air Monitoring Network



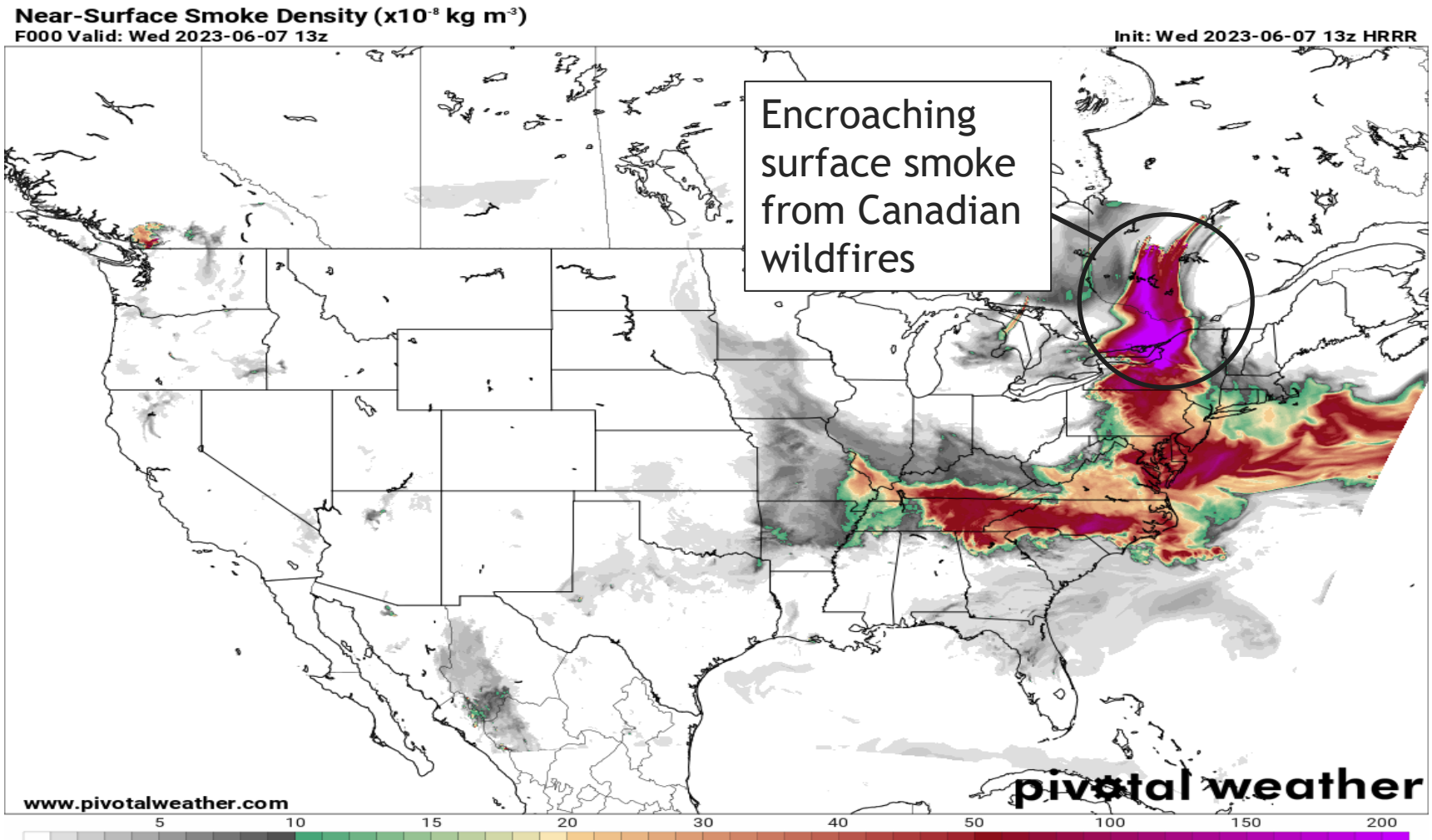
Site Location	Address	Location Setting
River Terrace School	405 Anacostia Ave NE	Urban / EJ community
I-295 Near-Road Station	Benning Rd NE @ I-295 On-ramp	Urban / EJ community
King Greenleaf Rec Center	201 N St SW	Urban / EJ community
McMillan Reservoir	2500 First St NW	Urban
Takoma Rec Center	301 Van Buren St NW	Urban

National Ambient Air Quality Standards (NAAQS)

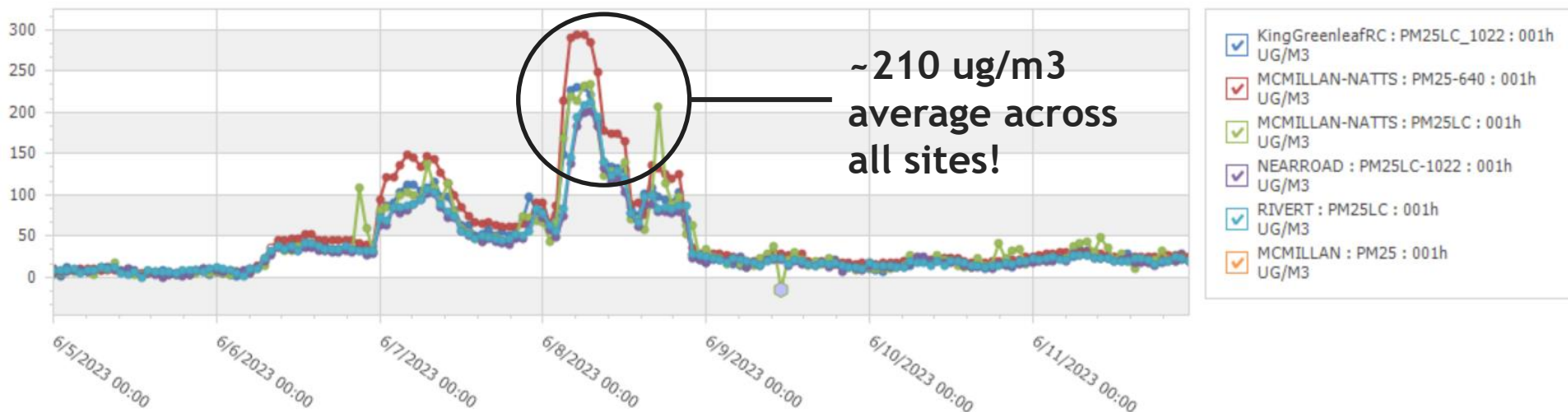
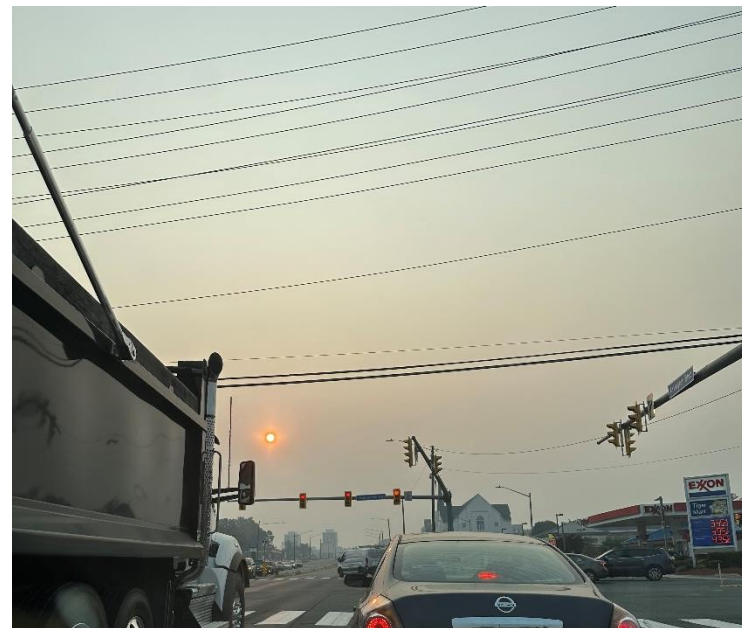
Pollutant	NAAQS	District's Status
Ozone	70 ppb	
PM2.5 PM10	35 $\mu\text{g}/\text{m}^3$ & 12 $\mu\text{g}/\text{m}^3$ 150 $\mu\text{g}/\text{m}^3$	
Carbon Monoxide	35 ppm & 9 ppm	
Nitrogen Dioxide	100 ppb & 53 ppb	
Sulfur Dioxide	75 ppb	
Lead	0.15 $\mu\text{g}/\text{m}^3$	

Source: <https://www.epa.gov/criteria-air-pollutants/naaqs-table>

Capturing Exceptional Events: Canadian Wildfires

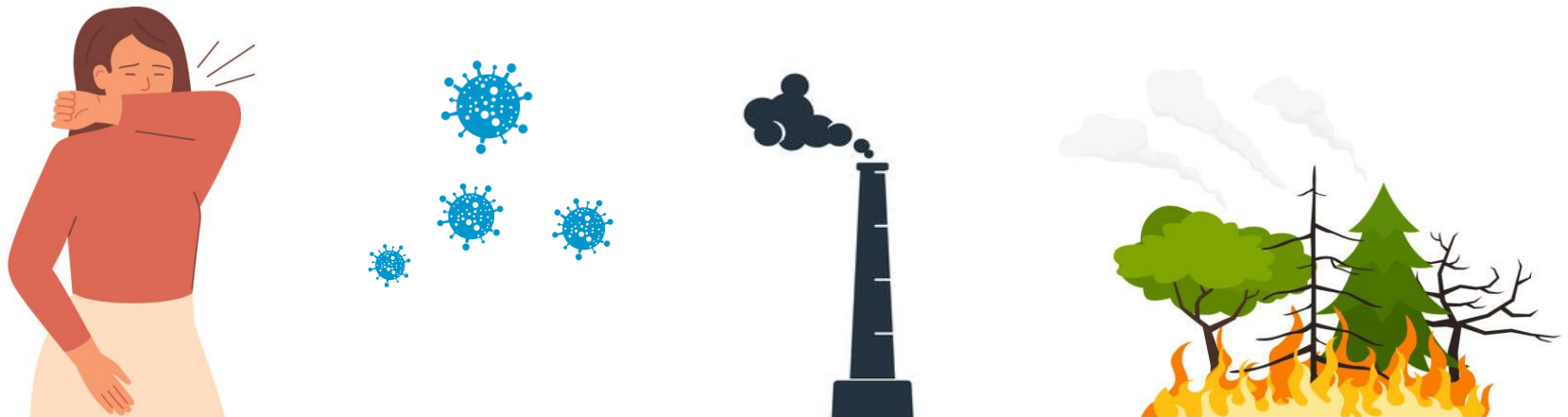


Capturing Exceptional Events: 6/8/23



New Air Monitoring Station in Ward 8: What does the Grant Provide?

- The primary objective of this project is to **enhance monitoring of PM2.5** and other National Ambient Air Quality Standard (NAAQS) pollutants in and near communities with environmental justice concerns, who face disproportionate exposure to these pollutants and health risks which are also associated with increased vulnerability to COVID-19.



New Air Monitoring Station in Ward 8: EPA Siting Requirements

The placement of air monitor(s) must be:

- Between 2m (6.5 ft) and 15m (49 ft) above ground level
- At least 10m (33 ft) distance from any tree-canopy
- 100m-250m (330ft-820ft) minimum distance from major roadways
- Unrestricted airflow
- Safe and easy access to staff

Federal Method Monitors vs. Emerging Technology Low-cost Air Sensors

EPA Approved Federal Method PM2.5 Air Monitor



Low-cost PM2.5 Air Sensor



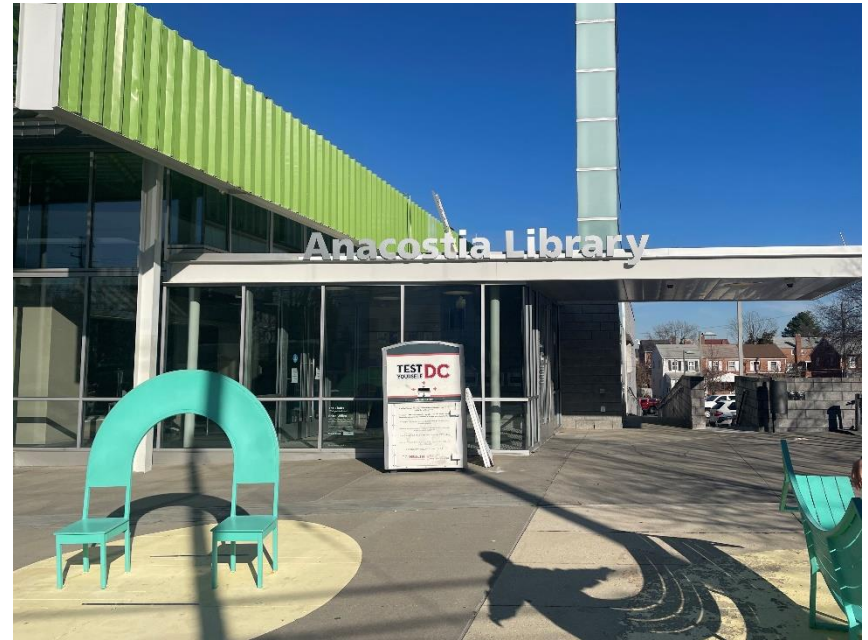
Emerging technology sensors
are not EPA-approved

Where we left off...

Barry Farm Recreation Center



Anacostia Neighborhood Library



New Considerations Since our Last Meeting

Public Comments

Bring more attention
to southern regions
of Ward 8

Concerns of
pollution from I-295
corridor

EPA Audit

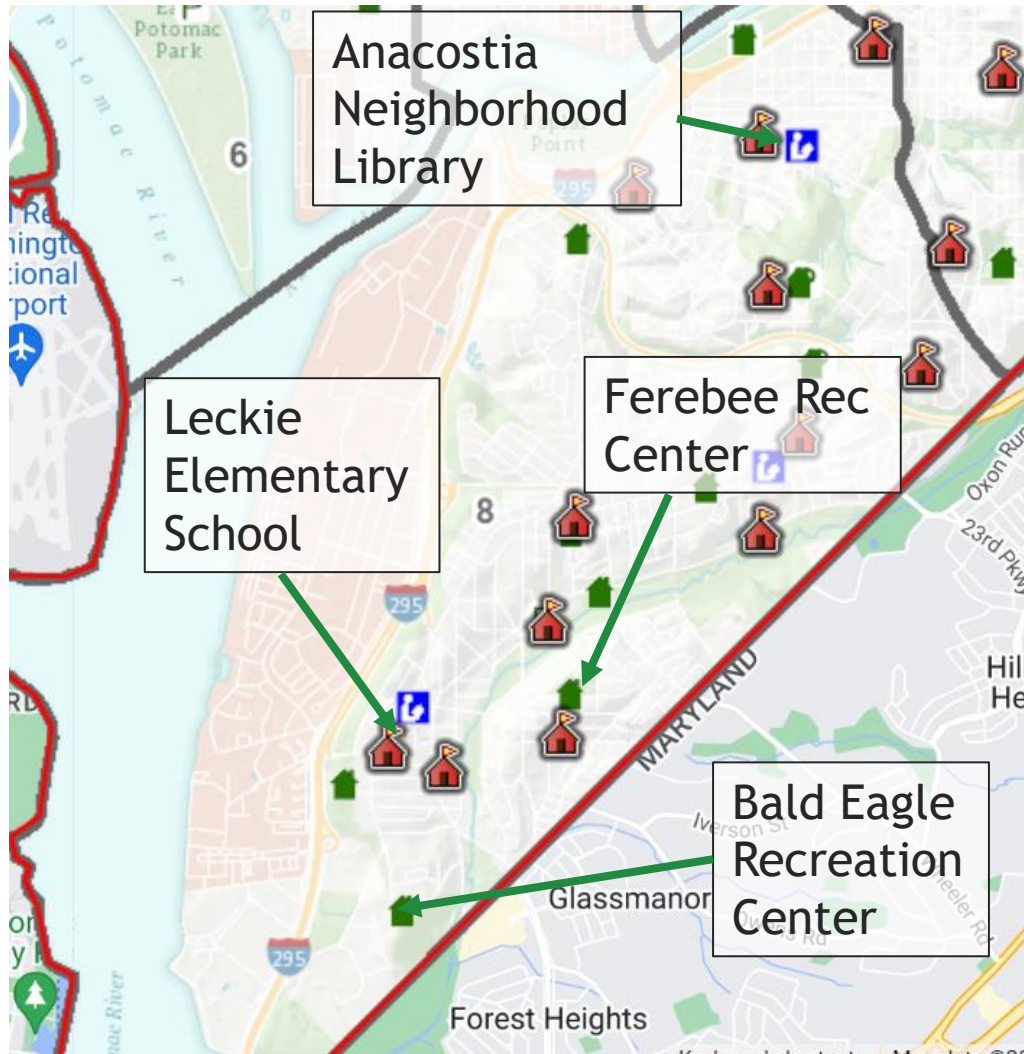
Increased focus on
site safety for staff
and auditors

Adherence to siting
requirements is key

List of Sites Surveyed

Site #	Name	Address
1	Barry Farm Rec Center	1230 Sumner Rd SE
2	DC Firehouse 15	2101 14th St SE
3	Environmental Design & Construction	1104 Good Hope Rd SE
4	AYT Institute	1110 U St SE
5	Anacostia Neighborhood Library	1800 Good Hope Rd SE
6	DCPD	2701 Pennsylvania Ave SE
7	Fort Stanton Recreation Center	Avalon Playground, 1812 Erie St SE
8	Boone Elementary School	2200 Minnesota Ave SE
9	Anacostia Community Museum	1901 Fort Pl SE
10	Ballou High School	3401 4th St SE
11	Bald Eagle Rec Center	100 Joliet St
12	WMATA Garage	2 DC Village Ln SW
13	Bellevue Library	115 Atlantic St SW
14	Leckie Elementary	4201 Martin Luther King Jr Ave SW
15	Savoy Elementary	2400 Shannon Pl SE
16	Hendley Elementary	425 Chesapeake St SE
17	Ferebee Rec Center	700 Yuma St SE
18	Mary Virginia Merrick Rec Center	4275 4th St SE

Locations of Interest



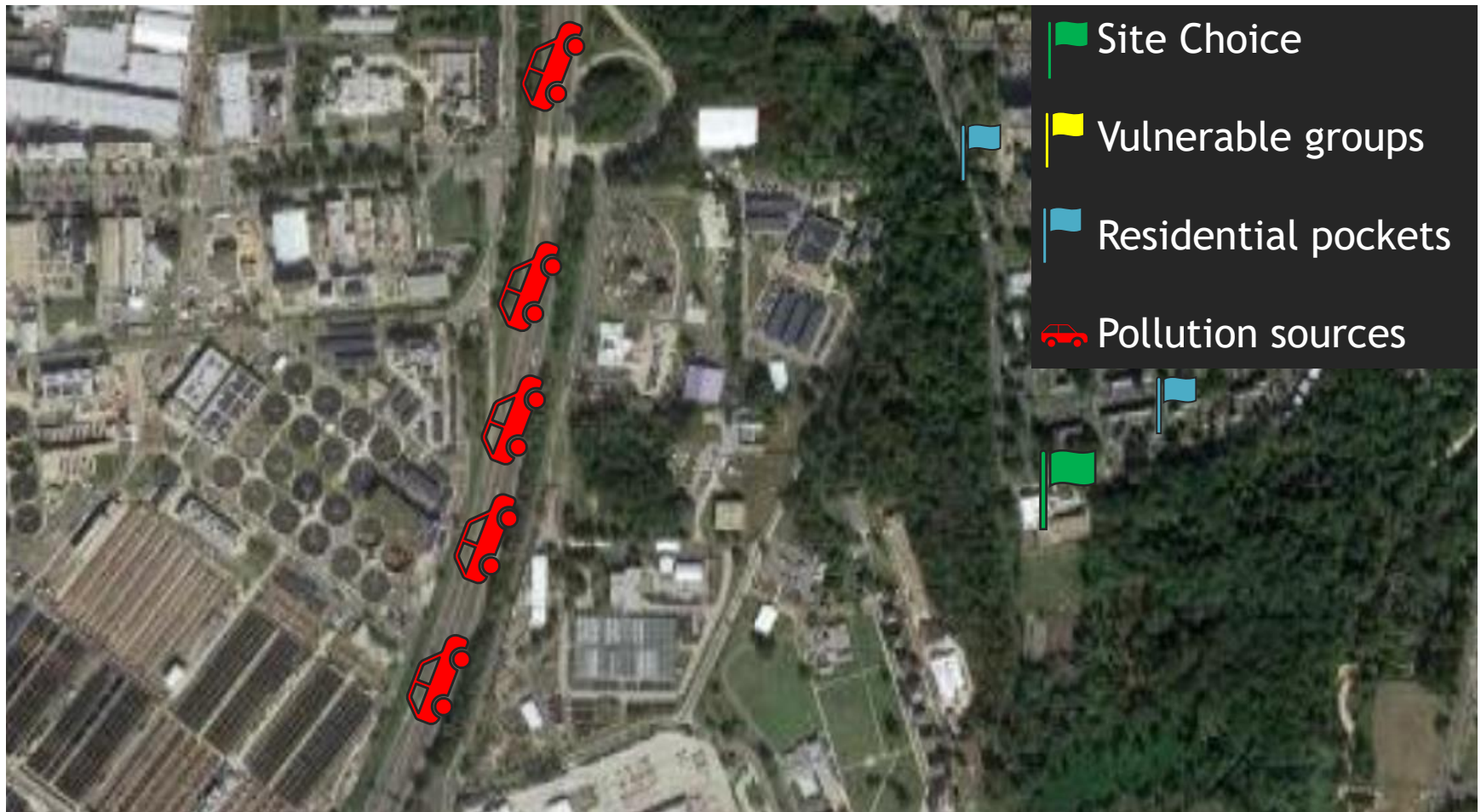
New Air Monitoring Station in Ward 8: Bald Eagle Recreation Center



Features

- Proximity to high-volume roadway traffic (I-295 and South Capitol/Rt. 210)
- Proximity to other air pollution sources
- In a residential community

Bald Eagle Recreation Center



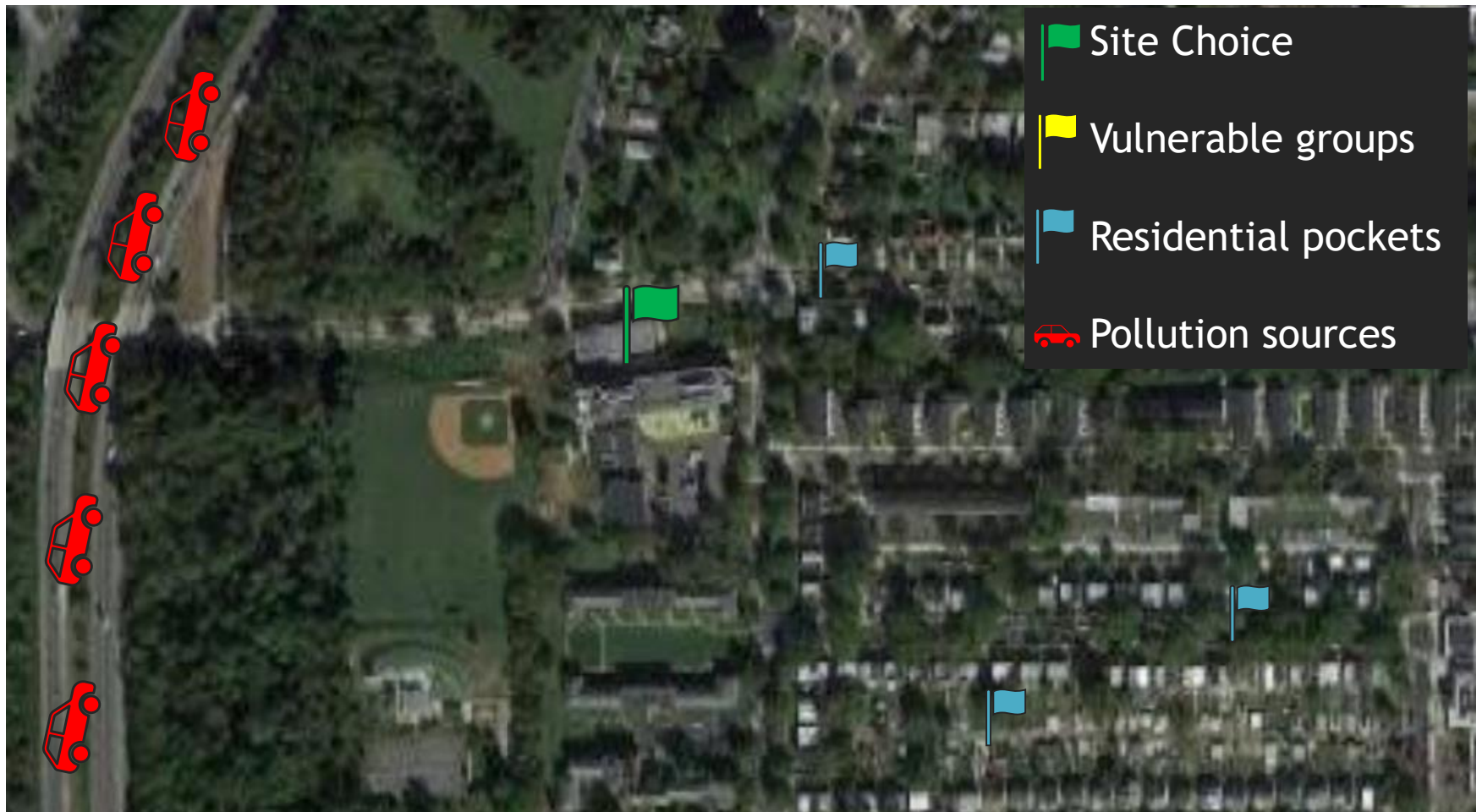
New Air Monitoring Station in Ward 8: Leckie Elementary School



Features

- Proximity to high-volume roadway traffic (I-295)
- Reagan Airport airplane traffic (frequent low-altitude flyovers)
- In a residential community

Leckie Elementary School



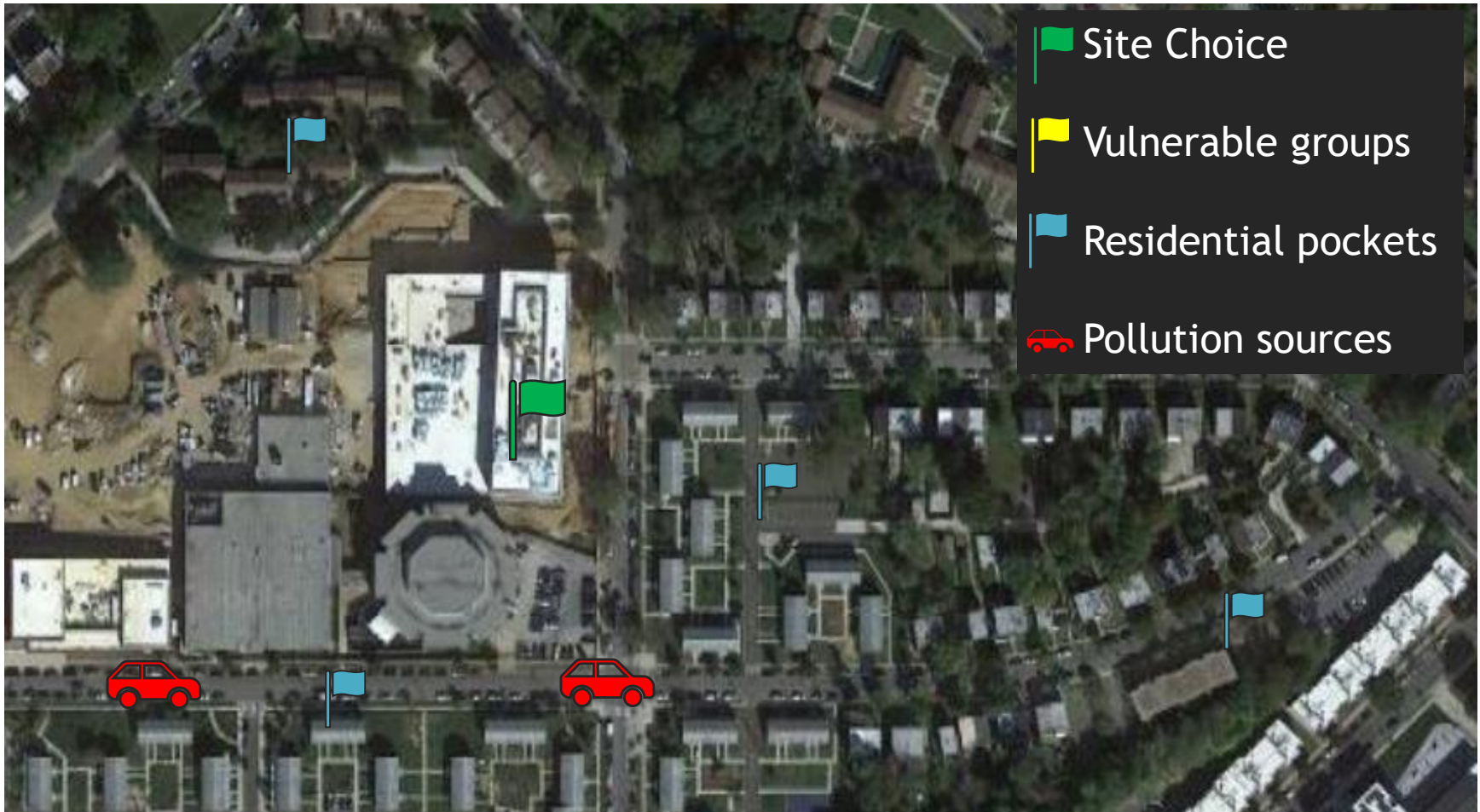
New Air Monitoring Station in Ward 8: Ferebee Hope Recreation Center



Features

- Proximity to Low-volume roadway traffic
- In the heart of a residential area

Ferebee-Hope Recreation Center



New Air Monitoring Station in Ward 8: Anacostia Neighborhood Library



Features

- Proximity to Low-volume roadway traffic
- In the heart of a residential area

Anacostia Neighborhood Library



DOEE's Recommendation for Ward 8

Following reviews of EPA safety and siting standards and in combination with the community's recommendations, DOEE believes the **Bald Eagle Recreation Center**, is a highly suitable location for the new PM monitoring station.



Located in Ward 8



Meets all grant and EPA requirements

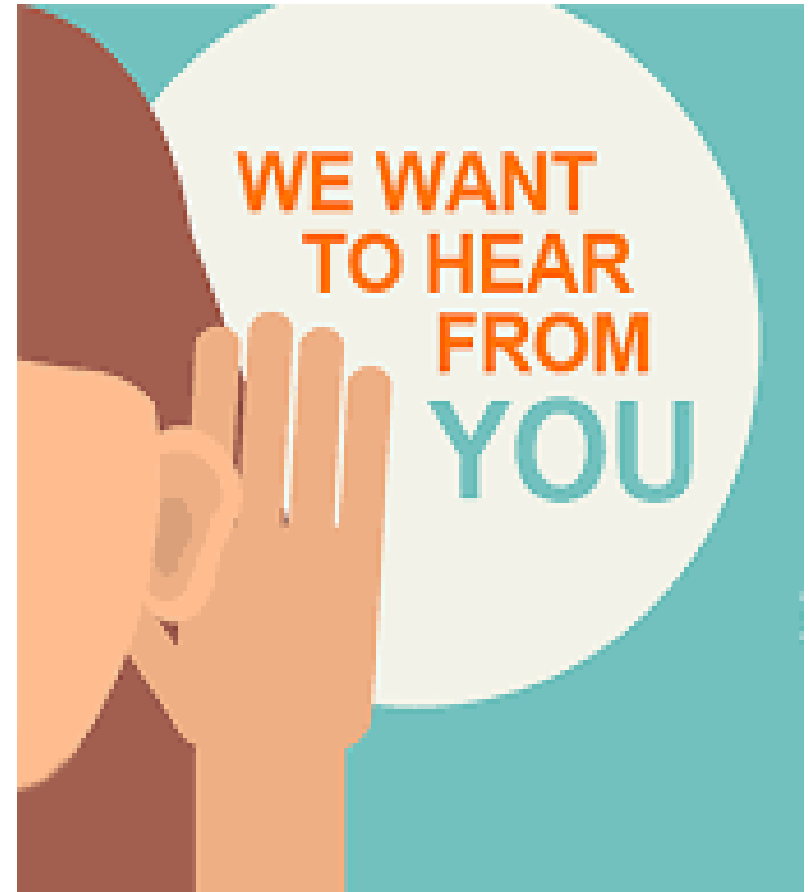


Near vulnerable groups and significant sources

Your recommendation for Ward 8

- Are you satisfied with the follow-up to suggestions from the June community meeting?
- What option do you prefer?

Let us know by 11/10/2023:
airquality.planning@dc.gov



Stay connected with our resources

Contact:

Dr. Rama Tangirala
(202) 535-2989
rama.tangirala@dc.gov

Hannah Ashenafi
(202) 281-7485
hannah.ashenafi@dc.gov

Special thanks to:
Amanda Lahan
Joseph Jakuta

Randall Bowers
(202) 309-7007
randall.bowers@dc.gov

If you would like to know
more, please follow us!

@DOEE_DC



Clearing the Air
Community
Workshops



Resources

<https://www.airnow.gov/>

[https://dchealth.dc.gov/publication/health-equity-report-district-columbia-2018\](https://dchealth.dc.gov/publication/health-equity-report-district-columbia-2018)

https://doee.dc.gov/sites/default/files/dc/sites/d DOE/service_content/attachments/DOEE%20Equity%20Framework_Oct%202021.pdf

<https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-58>

https://doee.dc.gov/sites/default/files/dc/sites/d DOE/service_content/attachments/DC_CY2023%20NetworkPlan%20June2022.pdf