

## ENVIRONMENT

# Coming Soon to a Neighborhood Near You: Air-Quality-Monitoring Cars



by **Kayla Benjamin**  
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Ivy City environmental justice activist Sebrina Rhodes climbs into a car equipped with specialty air quality sensors for a ride-along through her neighborhood following the official launch of the District's hyperlocal air quality monitoring pilot program. (Kayla Benjamin/The Washington Informer)

Anowar Hossain's job looks a lot like an Uber driver's: he gets behind the wheel and spends up to eight hours following a map on the iPad mounted near the dashboard. But instead of picking up passengers, Hossain's car picks up air quality data.



Anowar Hossain drives an Aclima vehicle through study areas, following routes created by a specialized algorithm that detects data gaps.

The pilot program will collect information using fewer than six of Aclima’s electric, sensor-equipped cars. The vehicles operate 24/7, the company’s CEO, Davida Herzl, said. Drivers follow a new path every day because a specialized algorithm designs the route based on gaps in the data.

If the pilot goes well, DOEE plans to expand the program to more District neighborhoods facing environmental justice issues, said the agency’s branch chief of air quality planning, Joseph Jakuta. During the press event, Herzl emphasized the fact that Aclima’s mobile monitoring system enables the company to scale up projects quickly, since the fleet already exists.

While the two-week pilot program will use drivers like Hossain, who are already employed by Aclima, the company typically hires its drivers from the communities being mapped. Jakuta said that if the program turns into a longer-term effort, Aclima would hire D.C. residents as its professional drivers.

The pilot program cost DOEE \$150,000 dollars, Jakuta said. He also said the agency has money set aside in fiscal year (FY) 2024 to expand the program to more environmental justice communities, but that it was “definitely not enough”

As a driver for the air quality measuring and mapping company Aclima, Hossain’s usual routes wind their way through his own community in Queens, New York. But Thursday he drove the air sensor-equipped car through D.C. neighborhoods to join Aclima executives and government officials for the launch of the District’s hyperlocal air quality monitoring pilot program.

“This project is going to give us block-by-block information on air pollution in our pilot communities,” Hannah Ashenafi, the associate director of the Air Quality Division at D.C.’s Department of Energy and Environment, said at a press conference about the launch. “This is a first [and] important step in determining the best ways to improve air quality and health.”

The two-week pilot program will begin June 12 in Ivy City/Brentwood, Buzzard Point and Mayfair. All three predominantly Black neighborhoods have long histories of industrial or development-related air pollution.

“The ability to use air monitors in neighborhoods to try to see what the status of the air quality is in those places — we know that’s going to be a really important tool for understanding the impacts,” said Brenda Mallory, chairwoman of the White House Council on Environmental Quality, in an interview following the event. “And we know that for our goals under environmental justice, that information is vital.”



Brenda Mallory, chairwoman of the White House Council on Environmental Quality, speaks during a press event at Kingman Island on May 25 to kick off the air monitoring pilot program, which will begin collecting data June 12.

to fully map the entire city’s air. Like many agencies across the District government, **DOEE has had to cut or shrink some of its programs** in the face of a tight budget citywide.

“I view this as like [an] initial checkup when you go to the doctor, and what we then need to do is see what spots need additional scrutiny,” Jakuta said. “We’re testing out low-cost stationary sensors, and we’re planning on doing this in tandem, having the cars give us an idea of where they may be appropriate to go. And then [we’ll] put out stationary monitors that we have funding for in our capital budget and use that sort of one-two punch to really get at what’s going on.”



Air flows through pipes mounted on the car window to a device in the trunk that analyzes it, checking for a wide range of possible pollutants, and sends it to Aclima's mapping platform.

Aclima's cars constantly pick up information about a wide range of possible air pollutants and send it to the company's digital platform in real time. Last year, Time magazine named Aclima's air quality data analysis and mapping platform one of its "Best Inventions." The company has implemented large-scale air quality mapping projects in California's Bay Area and across the whole state of New York.

"We believe that clean air is a fundamental human right. But the unfortunate reality is that we don't all breathe the same air," Herzl said in remarks at the press event. "Our science and published work... has proven that air quality can vary by almost 800% from one block to the next."

Generally, air quality in D.C. and nationally has improved drastically over the last 25 years, according to annual ["State of the Air" reports](#) compiled by the American Lung Association. But that progress has not been uniform, and minority and low-income communities face disproportionate levels of toxic air pollution. People of color are 3.7 times more likely to live in a county that fails on all three pollution measures used in the 2023 American Lung Association's report.

The District sees similar trends within the city. One [2021 study published in the journal GeoHealth](#) found that some neighborhoods in Southeast experience more than four times as many premature deaths related to pollution compared to some wealthy areas in Northwest.

Advocacy efforts to reduce air pollution in [Ivy City](#), [Brentwood](#) and [Buzzard Point](#) have all made headlines in recent years. Sebrena Rhodes, a longtime Ward 5 activist, starred as the subject of the short film ["People Rising: Ivy City"](#) as a leader in the fight to close a long-running chemical facility in the neighborhood. The D.C. Environmental Film Festival screened the film earlier this year.

"Even though Ivy City is not a crime-ridden community, you still don't feel safe because we're being poisoned," Rhodes said in a conversation with media, Aclima employees and District officials during a ride-along after the press event.

"I'm not giving up until this changes," she said.

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