



Written Testimony for Senate EPW Committee Hearing on Proposed Legislation for Air Quality Monitoring

Wednesday, July 13, 2022

Background on WE ACT for Environmental Justice

WE ACT for Environmental Justice (WE ACT) is a Northern Manhattan-based member organization whose mission is to build healthy communities. We do this by ensuring communities of color and people of low-income lead in creating sound and fair environmental health and protection policies and practices.

We are the first people of color-led environmental justice organization in New York State and are the only environmental justice group with a permanent office in Washington, DC. Our Federal Policy Office also serves as the administrative anchor for the Environmental Justice Leadership Forum (EJ Forum) – a network of approximately 50 environmental justice advocates and groups in 22 states working together to advance policies that ensure the protection and promotion of communities of color and low-income communities throughout the U.S.

My name is Dana Johnson and I serve as Senior Director of Strategy and Federal Policy at WE ACT. I have more than 20 years of strategy, operations and advocacy professional experience in fields ranging from health and science advocacy, climate and environmental justice policies to cultural competence and diversity and inclusion leadership.

WE ACT has played a foundational role in the environmental justice movement, including contributing to the planning and execution of the First People of Color Environmental Leadership Summit over 30 years ago where the “Principles of Environmental Justice” were crafted (National People of Color Environmental Leadership Summit, 1991). These 17 principles of environmental justice are the bedrock for our movement and will be referenced implicitly and explicitly throughout my testimony.

Part 1: Environmental Justice and Poor Air Quality

Environmental Justice communities are communities of color and low-income communities that disproportionately face the brunt of environmental pollution. Within the context of air pollution, these pollution sources include but are not limited to; power plant facilities, transportation corridors, chemical facilities, and plastic production factories. The siting of communities of color and low-income communities near these pollution sources is intentional. “Redlining” was the discriminatory process of grading communities that would be eligible for federally supported loans. Communities that were given lower grades tended to be Black communities and immigrant communities. The process of redlining in the 1930s created many of the environmental inequities



in communities of color that persist to this day (Lane et al., 2022). Studies have identified that communities that were historically redlined are now associated with increased concentrations of air pollution (Lane et al., 2022); (Nardone et al., 2020). These same redlined communities have also been associated with worse health outcomes, such as higher rates of emergency room visits for asthma (Nardone et al., 2020).

The impacts of polluting industries intentionally being sited near communities of color and low-income communities are costly to both the health and economic viability of these communities. Air pollution and poor air quality have been associated with a myriad of negative health outcomes such as pre-term birth, low birth weight, respiratory conditions (asthma, COPD), cardiovascular conditions (heart disease, increased risk of heart attacks), cancer, and stroke (Manisalidis et al., 2020).

Air pollution can worsen asthmatic symptoms and trigger asthma attacks (Environmental Protection Agency, 2018). A report found that asthma caused 11-12% of African American and Puerto Rican children to be absent from school, missing at least a day per month, in comparison to only 3-5% of white children (Mayrides & Levy, 2005). This causes students to miss pertinent classes and educational opportunities, and also has negative impacts on parents who must miss work to care for their children. In adults with asthma, studies have proven that having asthma can increase work absences, especially among those with uncontrolled asthma (Meng et al., 2008). Missed school and missed work creates challenges for economic mobility in environmental justice communities, with chronic health challenges decreasing job performance and impeding academic success. This is coupled with the rising cost of healthcare that can worsen the economic hardship and put families in mounting medical debt.

The financial burden of asthma, and thus the economic impacts on environmental justice communities, cannot be overstated. A study found that those with asthma spent twice as much on healthcare than those without asthma (Nurmagambetov et al., 2018). Those with asthma living in poverty spent more on treating their asthma than those that fall in a high-income bracket (Nurmagambetov et al., 2018). This is due to a myriad of factors, including the siting of polluting facilities in low-income communities. These injustices are truly cyclical where the pollution present in your community makes you sick to the point where you can no longer afford to leave your community.

In the midst of the ongoing COVID-19 pandemic, numerous studies have identified connections between communities with poor air quality and increased COVID-19 morbidity (Xu et al., 2021); (Ali & Islam, 2020). For example, in New Orleans, the areas with the highest per-capita COVID-19 deaths were located in St. John the Baptist Parish and neighboring St. James parish also known as "Cancer Alley" (Hernandez, 2020). Cancer Alley is an industrial corridor that is predominantly Black and low-income.



Part 2: Using Air Quality Monitors to Decrease Environmental Inequities

When reports came out about the connection between air quality and COVID-19 deaths, community members in New Orleans sounded the alarm and wrote to their representatives. In November of 2021, Administrator Regan visited Cancer Alley (Environmental Protection Agency, 2022). Following his visit, the Administrator committed to taking action including increasing inspections for facilities and dedicating \$600 thousand to mobile air pollution monitoring in the community (Environmental Protection Agency, 2022). In June of 2022, Chair Grijalva of the House Natural Resources Committee, visited New Orleans to discuss environmental justice concerns (Center for Constitutional Rights, 2022). The advocacy of environmental justice community members in “Cancer Alley” gained much-needed traction through concrete data available on health outcomes and air pollution. Once communities had the knowledge available to them on air quality and its subsequent health impacts, they were able to educate, mobilize, and spark action.

While there is now increased monitoring happening in New Orleans, there are likely many other “Cancer Alleys” throughout the United States that we are unaware of due to a lack of high-quality data. I will provide three clear and simple steps for air quality monitoring and data utilization in environmental justice communities, grounded in the principles of environmental justice:

1. Community Engagement and Data Gathering

The need for robust air quality monitoring in environmental justice communities has been widely demonstrated. In development of air quality monitoring projects and programs, there should be direct consultation and meaningful involvement of environmental justice communities. Environmental Justice principle #7 states that “Environmental Justice demands the right to participate as equal partners at every level of decision making, including needs assessment, planning, implementation, enforcement, and evaluation. (National People of Color Environmental Leadership Summit, 1991)” Environmental justice communities have been created out of inequities both racially and financially, projects to address these inequities have the potential to worsen community tensions and reinforce power imbalances through improper engagement with communities.

2. Education, and Community Right to Know

Communities have the right to know about the pollution where they live, work, and play. For pollution present in their community, they have the right to know about the health risks associated with the pollution and how it might exacerbate any present health conditions. Environmental Justice Principle #13 states that: “Environmental Justice calls for the strict enforcement of principles of informed consent,” (National People of Color Environmental Leadership Summit, 1991). Communities cannot make informed decisions about current and future developments in their community as well as understand the full picture of their health risk factors, without widely available data to inform their decisions.



3. Corrective Action

Once there is an awareness and understanding of air pollution in communities, corrective action must be taken. Environmental Justice Principle #6 states that “Environmental Justice demands the cessation of the production of all toxins, hazardous wastes, and radioactive materials, and that all past and current producers be held strictly accountable to the people for detoxification and the containment at the point of production. (National People of Color Environmental Leadership Summit, 1991)” Without corrective action such as, but not limited to, the removal of facilities, communities are left to suffer. While education is important, without accountability to improve the environmental conditions and the resulting health outcomes in communities, then the money that goes into monitoring is not being utilized effectively.

There are multiple case studies that demonstrate the success of this model. In 1997, Northern Manhattan was home to six of the eight diesel bus depots, accounting for one-third of the entire city's bus fleet. At the time PM10 monitors were one of the most common monitors for tracking particulate matter. Despite Northern Manhattan having a high concentration of diesel buses, and thus air pollution there were no PM10 monitors in Northern Manhattan, in contrast to four PM10 monitors present in wealthier Lower Manhattan (Environmental Protection Agency, n.d.). WE ACT and the Columbia Children's Center for Environmental Health (CCCEH) partnered on a community-based participatory research study to gather data on air pollution in Northern Manhattan. Paid youth interns, known as the “Earth Crew,” wore backpack air quality monitors in “hotspots” for vehicular traffic proximate to the bus depots. Their monitors found that in an 8-hour period, the fine particulate matter range was between 22 to 69 mg/m³, in comparison to the annual fine particle standard set by the EPA at 15.1 mg/m³ (Vasquez et al., 2006). At the urging of WE ACT, the EPA placed ambient air quality monitors in these same areas, which validated the data accuracy. With the data to support their claims of air pollution and respiratory health issues, WE ACT and its team of concerned community members, were better able to advocate for change (Vasquez et al., 2006). One historic win was negotiations with the Metropolitan Transit Authority (MTA) on their capital plan that resulted in the conversion of the entire bus fleet from “dirty diesel” to a lower emission diesel.

In 2005, the EPA released data about air quality in Cook County, Chicago that showed there were elevated levels of lead and other hazardous chemicals in the air. In Cook County, Latinos and Black people are more likely to live near industrial facilities. Following the release of the air quality information, concerned community members wrote to their representatives and the EPA demanding change (Hawthorne & Little, 2008). This resulted in action from the EPA, such as citing facilities with Clean Air Violations (Environmental Protection Agency, 2005), and some facilities agreeing to clean up and reduce emission levels (Hawthorne & Little, 2008). Cook County was ranked in 2005 as the worst in the nation for dangerous air pollution (Hawthorne &



Little, 2008). Due to environmental justice advocacy air pollution has gradually improved with Cook County dropping in rank to #18 for air pollution in 2019 (Cotto, 2022). However, ongoing action, including monitoring and industry accountability, is still needed to ensure that Cook County does not backslide, as recent trends suggest (Cotto, 2022).

The Environmental Justice Hyperlocal Air Quality Monitoring Act and the Public Health Air Quality Act are both needed to address air quality concerns in environmental justice communities. Passage of these two bills has the potential to make more success stories, like in Northern Manhattan, possible.

The Environmental Justice Hyperlocal Air Quality Monitoring Act creates a pilot program on hyperlocal air quality monitoring in environmental justice communities. Some key features of this bill include the creation of equity maps, community notification and training, and the hiring of local residents to carry out the air quality monitoring work.

As demonstrated in previous case studies, community mobilization and participation in air quality monitoring is a well-tested method for success. These opportunities for community-based participatory air quality research usually stem from community concern, with community members being compensated minimally, if at all. By hiring local residents to do air quality monitoring work, we have the opportunity to reduce the burden on community volunteers who are doing the work out of necessity, with the joint benefit of decreasing underemployment in our communities. As outlined in our "Green Jobs Report," creating new opportunities for employment is critical as we embark on a "just transition" from our fossil-fuel-dependent economy (Environmental Justice Leadership Forum, 2020). A "just transition" envisions an economy where "good-paying jobs, healthy communities, and a sustainable planet can coexist" (Environmental Justice Leadership Forum, 2020).

While hyperlocal air quality monitors tend to be lower cost and require less training, they play a critical role in providing data that can be used for "ground-truthing" community concerns and necessitating further screening from additional monitors. The initial involvement and training used for hyperlocal air quality monitors can also serve as a stepping stone for more complex technical training for advanced monitors.

The Public Health Air Quality Act includes funding for a variety of high-capacity monitors in communities that have high health risks. Some key features of this bill include community notification and input on where monitors will be located as well as corrective action for identified sources that are above air quality standards.



Part 3: The Need for Robust Funding for Air Quality Monitoring Programs and Corrective Action

A 2020 GAO report on: “Opportunities to Better Sustain and Modernize the National Air Quality Monitoring System” found that there has been a 20% decrease in federal funding available to states and localities for air quality monitoring (Government Accountability Office, 2020). This funding level has made it challenging for states and localities to upkeep their air quality monitoring systems. An example of states' and localities' inability to upkeep their air quality monitoring systems is the age of the air quality monitors themselves. Some state agencies interviewed by GAO stated that their air quality monitors were up to 20 years old; however, the air quality monitors were designed for only 7 years of use (Government Accountability Office, 2020).

The passage of The Environmental Justice Hyperlocal Air Quality Monitoring Act and the Public Health Air Quality Act will increase funding to expand our air quality monitoring capacity. There is a need for increased funding for air quality monitoring through the general appropriations process to upkeep and replace aging monitors. Beyond expanding our funding for air quality monitoring there is also a need to end matching requirements for states and local agencies to access air quality monitoring funding. Currently, most federal funding for air quality monitoring requires a 40% match for states and localities (Government Accountability Office, 2020). This can be cost-prohibitive to states and localities that face budget cuts amidst ongoing economic challenges from the COVID-19 pandemic and rising inflation.

The Justice40 initiative is an executive action by the Biden Administration that directs the benefits of 40% of the federal funding on climate change to disadvantaged communities (*Executive Order on Tackling the Climate Crisis at Home and Abroad*, 2021). As part of this initiative, the Council for Environmental Quality created the Climate and Economic Justice Screening Tool (CEJST). The intention of CEJST is to identify “disadvantaged communities” based on environmental and socio-economic data (Council on Environmental Quality, 2022). CEJST utilizes data currently available from the EPA. Currently, the available data often underestimates the burden of air pollution in environmental justice communities (Environmental Integrity Project & Galveston-Houston Association for Smog Prevention, 2004).

There are multiple examples of severe cases where facility explosions go undetected by EPA monitors or the data gathered by the monitors cannot be used to assess health impacts in environmental justice communities. In 2019 there was a fire at the ITC Deer Park Chemical Plant in Harris County, Texas. A study conducted in partnership between Environmental Justice Leadership Forum member, T.E.J.A.S., and Rice University that assessed the impacts of the fire on the surrounding communities, faced numerous obstacles in obtaining high-quality air monitoring data. Monitors from the EPA and the Texas Commission on Environmental Quality (TCEQ) both detected elevated levels of hazardous air pollutants such as benzene and of fine particulate matter (Goldman et al., 2021). However, in this highly industrious area, there tended to be



elevated levels of air pollutants outside of the event making it hard to distinguish what was directly related to the fire (Goldman et al., 2021). This is alarming for multiple reasons, firstly that this mostly low-income community of color is experiencing elevated levels of air pollution frequently. Additionally, despite dense monitoring in this industrial region, the monitors are mainly designed “to capture ambient, regional levels of pollution”, thus in situations of elevated exposures from point sources, the health impacts of those sources cannot be adequately assessed (Goldman et al., 2021). The study concluded that: “unmeasured harm is still harm: limited or absent data do not indicate minimal or no impacts on community exposure. (Goldman et al., 2021)”

In 2019, there was a refinery explosion in Southern Philadelphia that was completely missed by EPA monitors at the time (McLaughlin et al., 2020). This area of Southern Philadelphia is predominantly Black and working-class (Schmidt, 2022). EPA monitors missing an explosion that released 5,239 pounds of hydrofluoric acid into the environment, underscores the need for these crucial investments in air quality monitors (Brown & Tigue, 2021). Multiple communities surrounding the now-closed Philadelphia Energy Solutions Refinery and larger industrial corridor are not identified in the CEJST for having a high percentile of PM2.5 in the air and are not considered “disadvantaged” for the “clean energy and energy efficiency” category (Council on Environmental Quality, 2022). In order to accurately identify “disadvantaged communities”, and thus equitably distribute funds within the Justice40 initiative there must be increased monitoring of air pollution in environmental justice communities.

Environmental justice communities often notice the adverse health outcomes plaguing their community before there is data to identify and validate the source of the problem. The burden of health protection has been placed on environmental justice communities from fundraising for monitors to performing community-based participatory research projects to confirm pollution. The passage of the Environmental Justice Air Quality Monitoring Act and the Public Health Air Quality Act can shift the burden of protecting the environment and human health away from environmental justice communities by providing employment opportunities for affected community members and investing in effective monitoring by the government. Having this information is critical to the health and wellbeing of our communities, and has the opportunity to help identify and thus catalyze clean-ups in our communities.

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