



21ST CENTURY ENVIRONMENTAL PROTECTION PUTTING EQUITY AT THE TOP OF THE AGENDA

Enhanced Air Monitoring
Tuesday, December 13, 2022 Workshop
3:00 – 4:30 pm

Findings

1. Areas of high concentrations of aggregate pollution levels are often found in minority and low-income communities, posing substantial health risks.
2. Reference air quality monitors provide valuable information, but often this is not discrete enough, either spatially or in monitoring frequency.
3. Low-cost monitors are being developed for a range of air pollutants with known adverse health effects and frequently measure greater individual or classes of chemical and particulate matter (PM) than reference monitors.
4. Real-time data, such as those provided by low cost monitors, provide opportunities for community members to take action to reduce exposure and to provide data validating their experiences.
5. Environmental impact assessments for proposed land use changes would benefit from the use of enhanced air monitors to verify assumptions and baseline air quality assessments.
6. Enhanced air monitoring may play a role in expanding our understanding of community-level risks and taking action to mitigate them.
7. With appropriate adjustments, such as for humidity, low-cost monitoring may provide reasonably reliable, high-quality monitoring data that is appropriate for such uses as:
 - a. Setting priorities for additional compliance, reference monitoring
 - b. Guiding the needs for placement of additional monitors
 - c. Identifying low-cost corrective action to reducing exposures
 - d. Providing useful data to communities

Contents

1. [How low-cost air monitoring can advance equity: Insights from three communities in Washington, DC](#), October 2022
2. [Comparison of Low-Cost Air Monitoring Sensors](#), October 2022
3. [Enhanced Air Monitoring Working Paper](#), October 2021
4. [Technology Opportunities Symposium](#), May, 2021
5. [Environmental Justice Bibliography](#), December 2022