

## DEPARTMENTAL ENVIRONMENTAL JUSTICE ACTION PLAN

**CITY OF CHICAGO'S GOAL:** *Take a whole-government approach to improve and protect the environment, health, and quality of life in environmental justice (EJ) communities through changes to internal policies, processes, practices and/or budgets.*

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**Department Name:** Chicago Department of Public Health (CDPH)

**Department Scope and Authorities:**

Chapter 11-4 of the Municipal Code, the Chicago Environmental Protection and Control Ordinance, is “enforced by the commissioner of the department of health,” with “[a]ll duties and powers granted” under that ordinance to be exercised by her. MCC § 11-4-020. The Commissioner is empowered to adopt rules “necessary or proper” to administer the City’s environmental ordinances, MCC §§ 2-112-070; 2-112-110(b)(6). The Commissioner is also empowered to “encourage and conduct studies, investigations and research, including joint cooperative investigation and research with public and private agencies and organizations, relating to the environmental protection authorities conferred on the Commissioner pursuant to subsection (b) of this section, as the Commissioner may deem advisable and necessary;” and is granted wide authority to “do any and all other acts which may be necessary for the implementation of other powers conferred on the Commissioner under [the Municipal Code].” MCC § 2-112-110(b)(12), (c).

**Environmental Justice Strategy: Expand the City’s community air monitoring network to increase the concentration of fence-line monitors and community sensors in Environmental Justice Neighborhoods. This network will be co-developed with organizations representing Environmental Justice Neighborhoods.**

Currently, air quality data for Chicago is derived from many disparate air sensor sources. It is collected and mapped by various levels of government, researchers, nonprofit organizations, and citizen scientists. This fragmentation is a problem for the community and the City: it doesn’t consistently add up to a sustainable, usable, comprehensive understanding of ambient air quality – particularly for EJ neighborhoods with concerns about the localized impacts of intensive industry and transportation. As a result, the data produced by these sensors are not generally used for enforcement or policy development outside of the EPA’s regulatory monitoring network. Community groups have also grown frustrated with repeatedly collecting data through pilot initiatives limited by time and funding, which has created a cycle of constantly “starting over” with new data collection.

With this strategy, CDPH will partner with the Chicagoland Environmental Justice Network (CEJN), Center for Neighborhood Technology (CNT), and UIC School of Public Health (UIC) to advance EJ through a better understanding of air quality. An equitable network design requires citywide coverage with a focus and super-saturation in communities that are most burdened by and vulnerable to air pollution. For the City of Chicago, a robust network of community air sensors will have a variety of applications, including efforts to:

- Determine ‘hot spots’ for future regulatory monitor placement, public education, outreach, and advocacy efforts
- Assess cumulative impact of air pollutants in a city-wide analysis
- Improve the prioritization and allocation of inspections and enforcement activities
- Develop new policies and evaluate the effectiveness of existing policies to improve air quality
- Create models to predict emission sources and facilitate response to resident inquiries
- Validate/calibrate air quality sensor and modeling data

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<p><b>Supporting Department(s):</b> For sensor placement: Chicago Public Schools, Chicago Park District, Department of Finance (e.g., for bus shelters); for data use/application: Department of Planning &amp; Development and Department of Transportation, among others; for leadership coordination: Office of Climate &amp; Environmental Equity</p>		
<p><b>Impact Measures:</b></p> <ul style="list-style-type: none"> <li>• Community partners engaged in planning and decision-making related to sensor network technology, placement, and governance</li> <li>• Number of sensors in place and operating</li> <li>• Public data platform launch, number of unique visitors</li> <li>• Evidence of data being applied to improve air quality in EJ areas</li> </ul>		
<p><b>Related Department Investments &amp; Prior Commitments:</b> CDPH included its commitment to a citywide air monitoring network in the Chicago Climate Action Plan. The City allocated approximately \$4.5 million through the Chicago Recovery Plan and a grant from the Partnership for Healthy Cities to carry out this work, together with CEJN. UIC and CNT have also secured independent funding to support their aligned efforts.</p>		
Action Steps	Timeline	Status
Inventory past air quality data collection efforts in Chicago and other jurisdictions; evaluate hardware, software, and data processing options; identify best practices in community co-ownership and management of monitoring strategies; consider sensor location, installation, maintenance, QA/QC; develop recommendations for Chicago’s air monitoring network.	<u>Phase 1:</u> Q1 – Q4 2023	<i>In progress; project team (CDPH, CNT, CEJN, UIC) meeting regularly</i>
Procure and deploy sensors; pilot a program to directly fund community organizations for co-governance over the community air monitoring network and data, including air sensor siting.	<u>Phase 2:</u> Q1 – Q4 2024	<i>Scopes to be developed based on recommendations from Phase 1</i>
Organize existing data sources and create a unified, public-facing platform to support data analysis, visualization, and community-driven decision-making.	<u>Phase 3:</u> Q2 – Q4 2024	<i>Scopes to be developed based on recommendations from Phase 1</i>
Pursue strategies to secure sustainable funding for the network, which may include increasing permit fees and/or requiring companies to fund fence-line monitors as a condition of their permits.	2024	<i>Planned</i>
Community Input & Response		
<p><b>Community Input:</b> <i>Community input included developing online modeling to identify pollution and sources, publicly report air quality, share data at the community and neighborhood level, improve air data collection, monitor for particulate matter, take care in placement of monitoring locations and include residents in the decision-making process.</i></p>		
<p><b>Response to Community Input:</b></p>		

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*This strategy was not updated in scope based on the review of the community feedback because the strategy met or exceeded the level of improvements recommended. However, this proposal was updated to add clarity on community organization roles in the Phase 2 Action Step to “co-governance over the community air monitoring network and data, including air sensor siting.” instead of “performing” the duties of installation and maintenance of the network and analysis of the data.*