



Chicago Air Sensor Network Update

March 7, 2025



Meeting Agenda

- Welcome and introductions
- Meeting objectives
- Background, progress and next steps
- Questions



Welcome and Introductions



Meeting Objectives

- Present overview of environmental health efforts at CDPH
- Review progress on the City's commitment to environmental justice
- Overview of Chicago Air Sensor Network timeline through February 2025
- Provide an update on next steps and the timeline for the project
- Explain the process for the sensor location selections and community engagement opportunities



2024 Environmental Health Overview

★ 2024 Air Pollution Control (APC)

Permitting



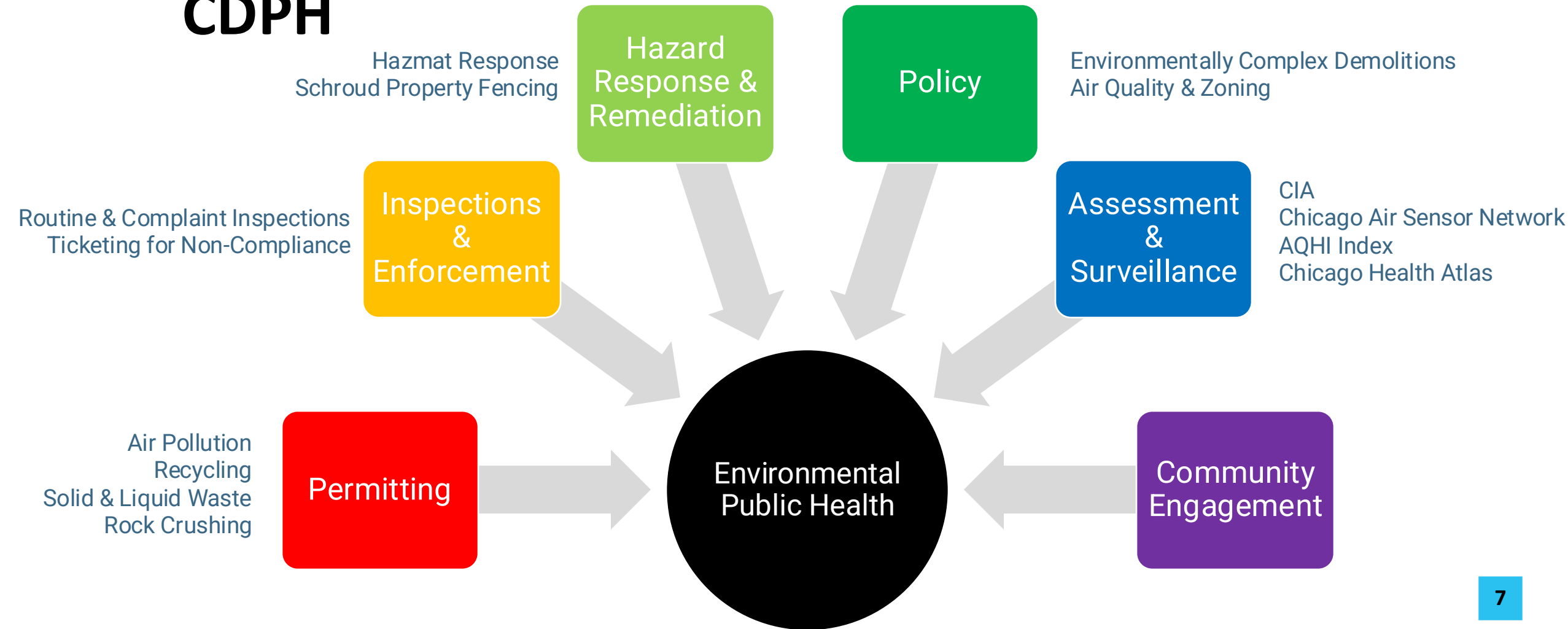
Inspections



Enforcement



Environmental Public Health Functions at CDPH





2024 APC Permitting

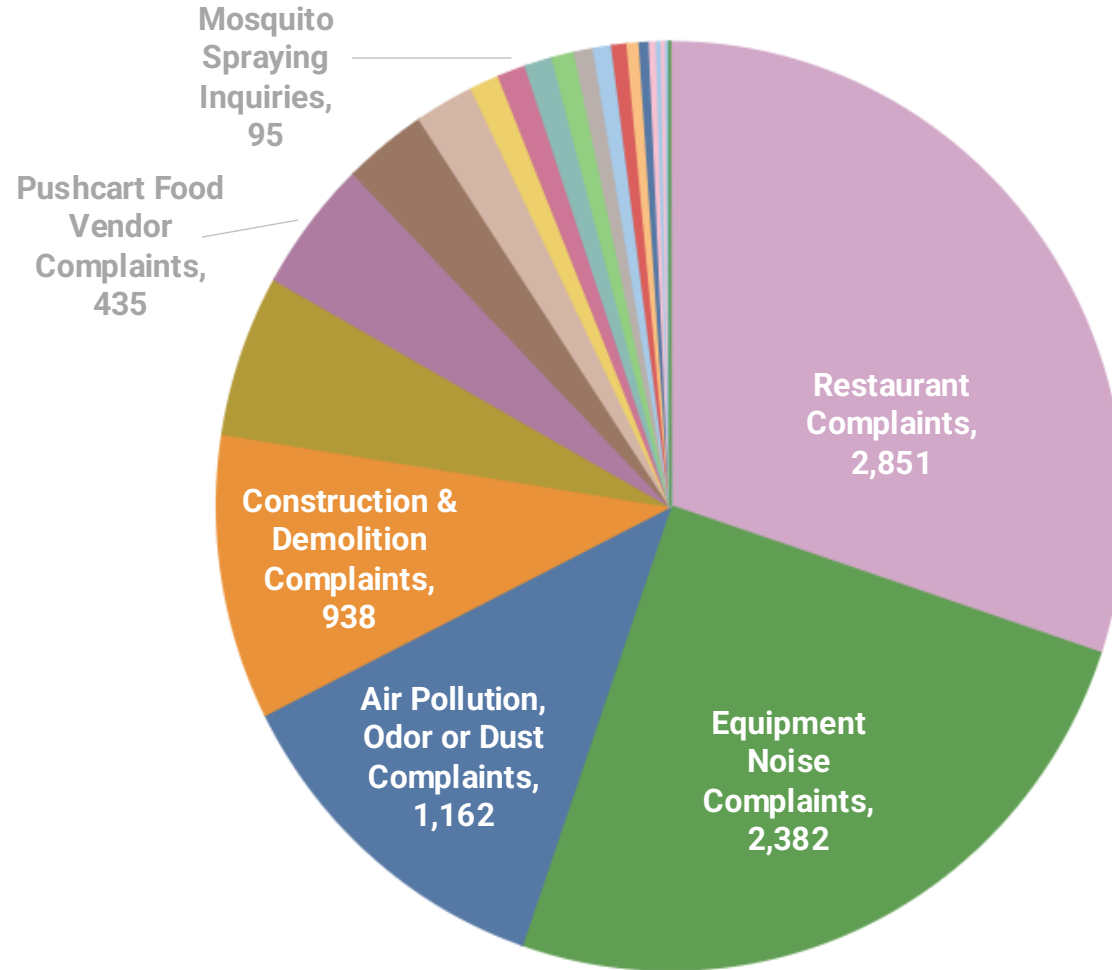
1272

PERMITS REVIEWED



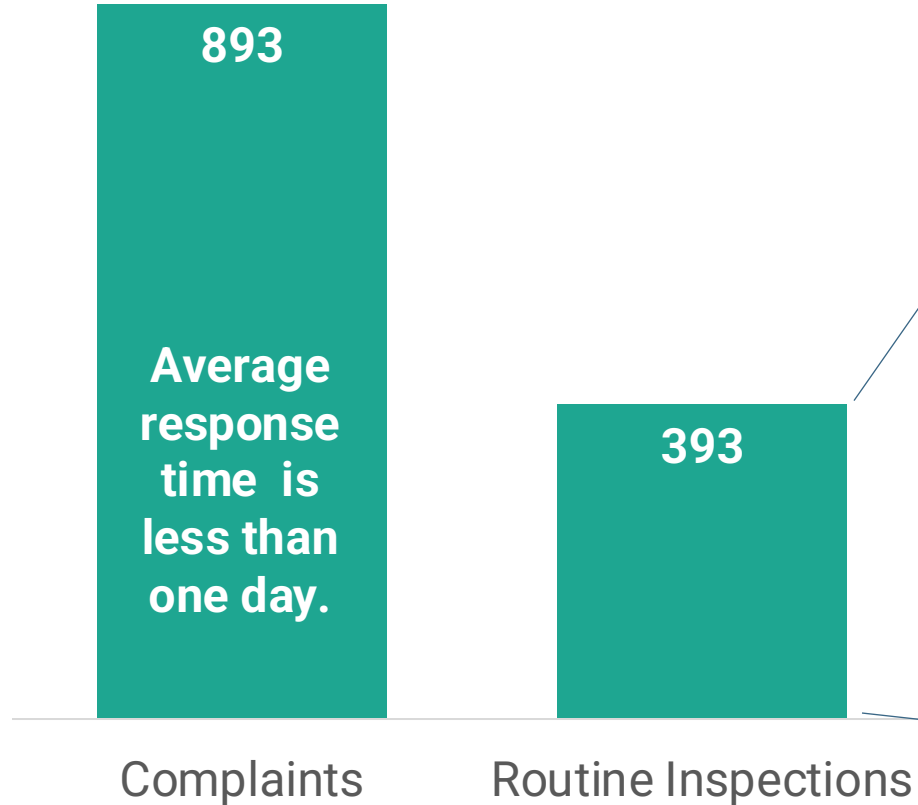


311 Service Requests – Health Protection – 2024





2024 APC Inspections



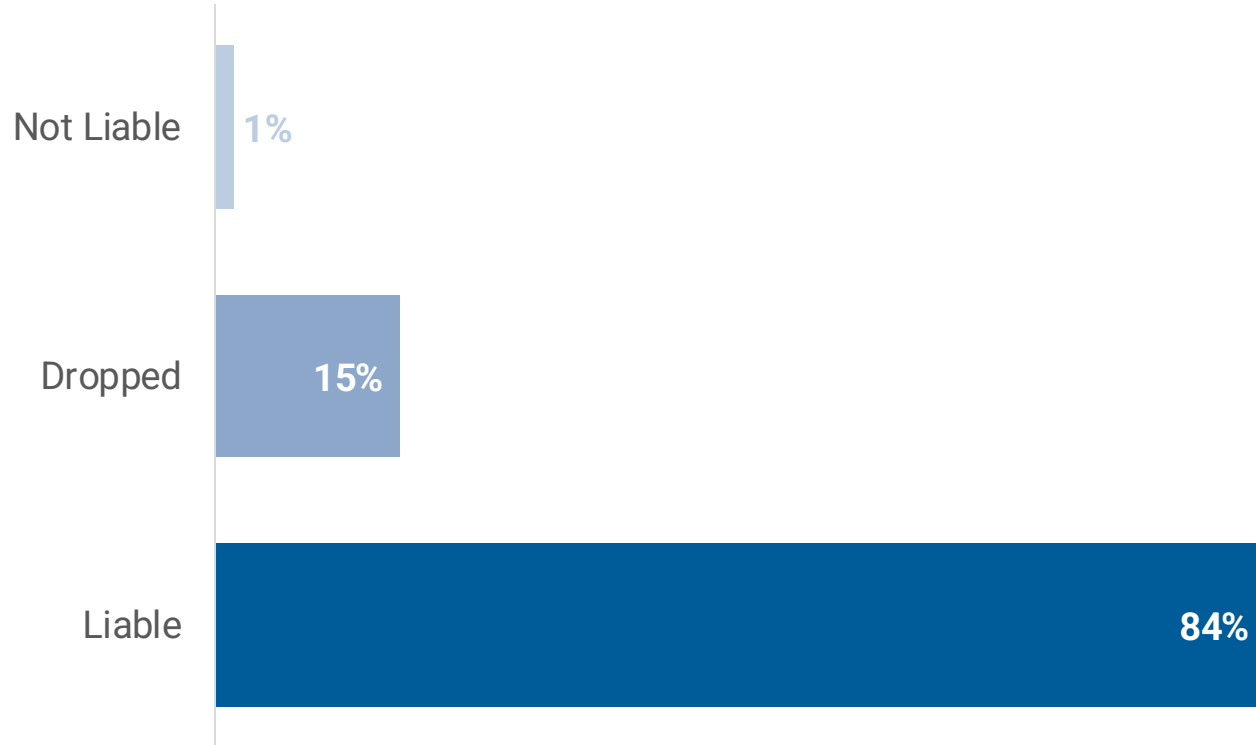
Category	Emissions	Permitted Facilities	Percent Facilities Inspected
A1	Facility whose potential and actual emissions are 100 tons or more per year	29	34%
A2	Facility with potential to emit more than 100 tons per year, but whose actual emissions are less than 100 tons per year	53	21%
B	Facility whose potential and actual emissions are more than 5 tons per year but less than 100 tons per year	253	14%
C	Facility whose potential and actual emissions are 5 tons or less per year	1637	12%
All Permitted Facilities		1972	13%



Only **half** of air inspector positions are filled.

★ 2024 APC Enforcement

The **majority** of APC tickets were successfully prosecuted at City of Chicago Administrative Hearings.





EJ Plan Progress and Next Steps

★ Setting the Stage: CDPH's EJ Commitment



★ Completed EJ Action Plan Activities

COMMUNITY AIR MONITORING

- Inventory past air quality data collection efforts
- Evaluate hardware, software, and data processing options
- Identify best practices
- Develop recommendations for Chicago's air monitoring network
- Procure sensors

COMMUNITY ENGAGEMENT

- Continue to update website, apply public engagement guidelines, and maintain email-based notification system

ENVIRONMENTALLY COMPLEX DEMOLITIONS

- Draft, publish, and implement new process for environmentally complex demolitions
- Conduct community notification for environmentally complex demolitions as required by the new process

TRANSPARENT COMPLAINT TRACKING

- Conduct assessment of 311 fields completed by OEMC operators (phone complaint) and complainants (311 app or online)
- Make recommendations regarding 311 processes and system

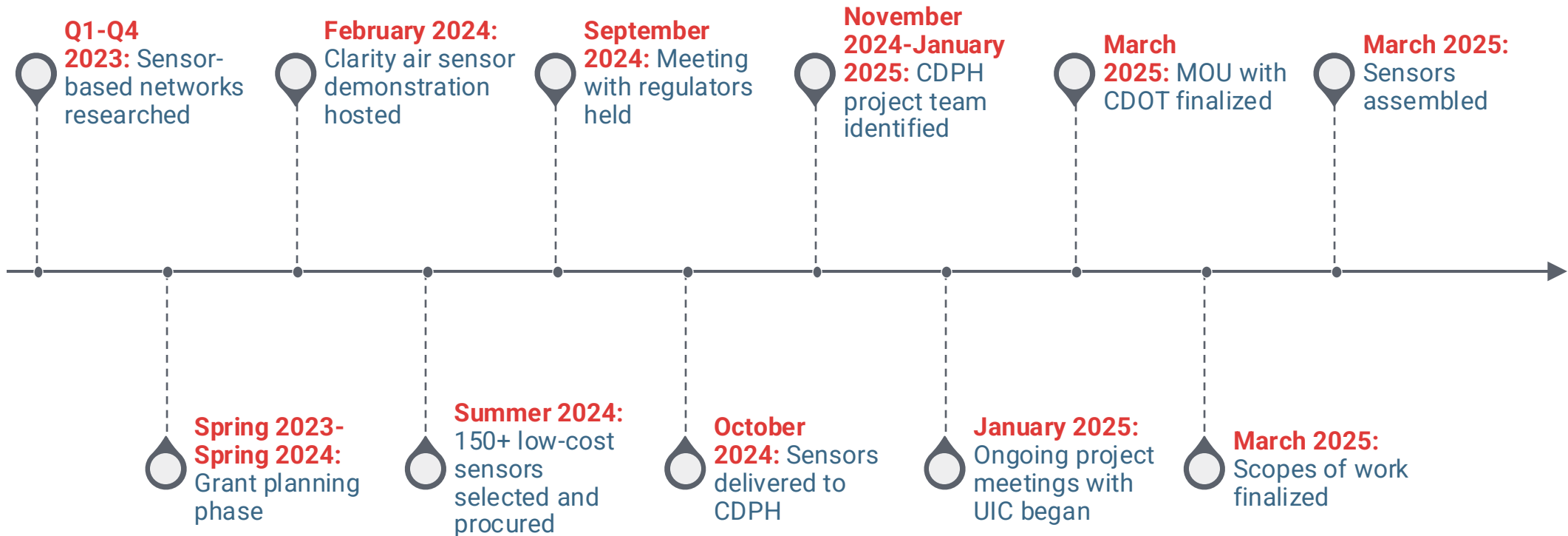
EMISSIONS INVENTORY

- Adopt rules for the annual collection of emissions inventory data from aggregate-reprocessing facilities

REAL TIME AIR DISPERSION MONITORING

- Install weather stations to improve modeling accuracy

Chicago Air Sensor Network



★ What's Next in 2025?

Spring 2025

- List of viable light pole locations provided by CDOT
- Sensors charged and tested
- Advisory Board selected by HCZ Regional Leads
- Advisory Board meetings begin
- Sensors co-located with IEPA Air Monitoring Stations for calibration

Summer 2025

- Advisory Board meetings continue
- Community input on sensor placement collected through focus groups, ChicagoAQI submissions, and CBO meetings
- Sensor placements finalized based on EPA Air Quality Monitoring Network Design Criteria, Air Quality and Health Index and community input
- Sensors installed
- Sensor quality control and assurance begins
- Community input on the public dashboard collected through community engagement sessions

Fall-Winter 2025

- Advisory Board meetings continue
- Community Leads provide training to residents
- Public dashboard developed
- Sensor quality control and assurance continues

★ 2026 and Beyond

2026

- Public dashboard released
- Ongoing Advisory Board meetings (without promise of funding)
- Sustainability planning for network post-2030

2027-2030

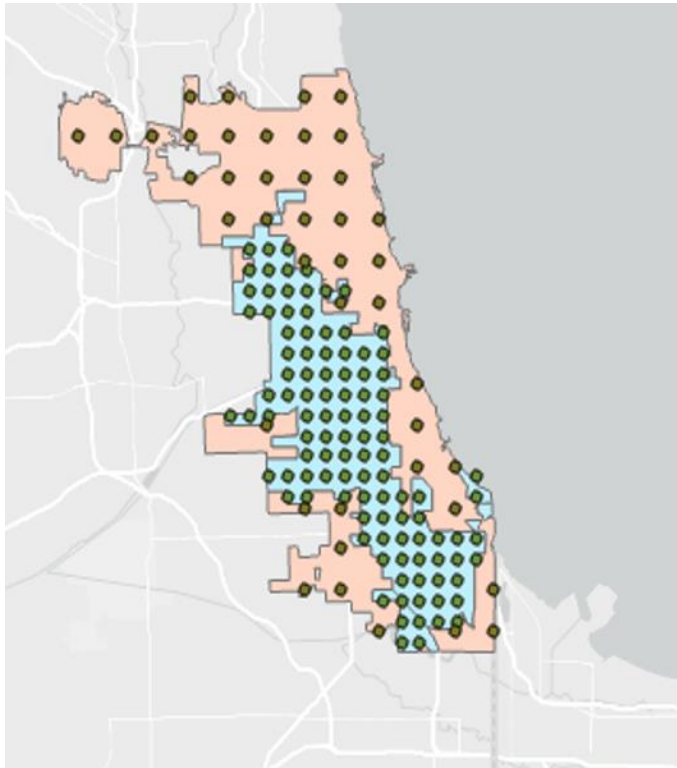
- Sensors replaced as needed
- Ongoing data collection and disseminated via public dashboard
- Sustainability planning for network post-2030 as needed

2030

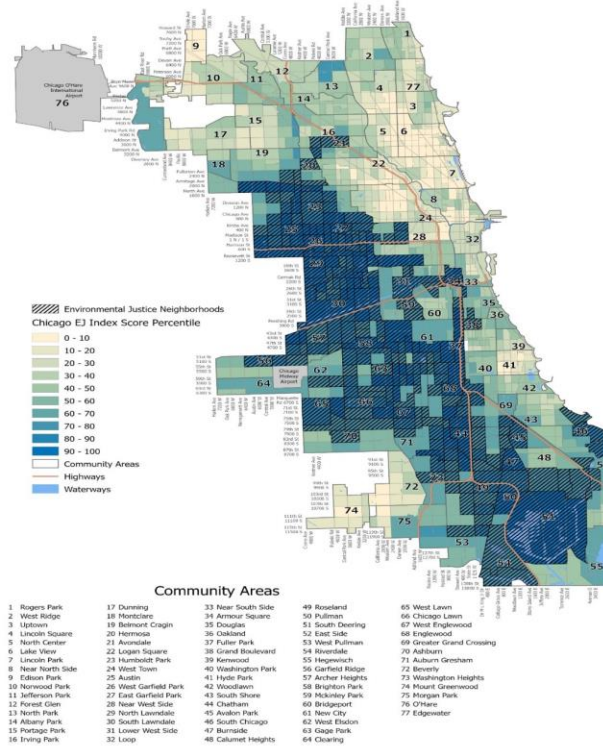
- Sensors replaced based on sustainability plan identified

Chicago Air Sensor Network Grid Design Basis

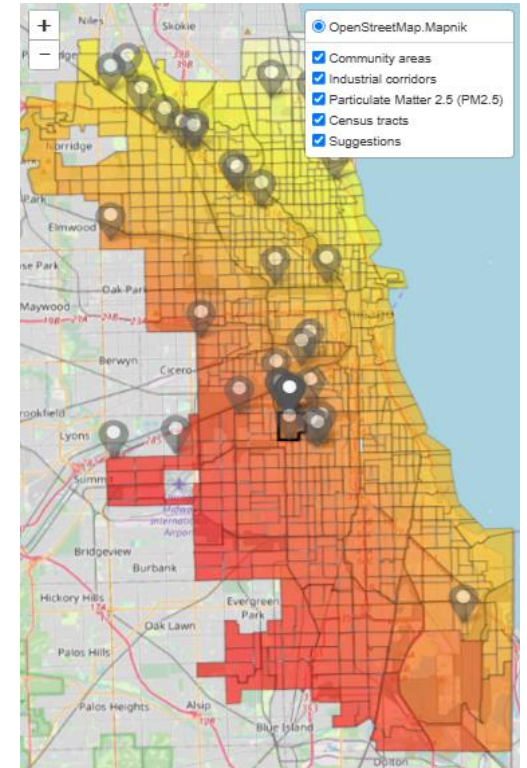
USEPA AQ Monitoring Network Design Criteria



Air Quality & Health Index

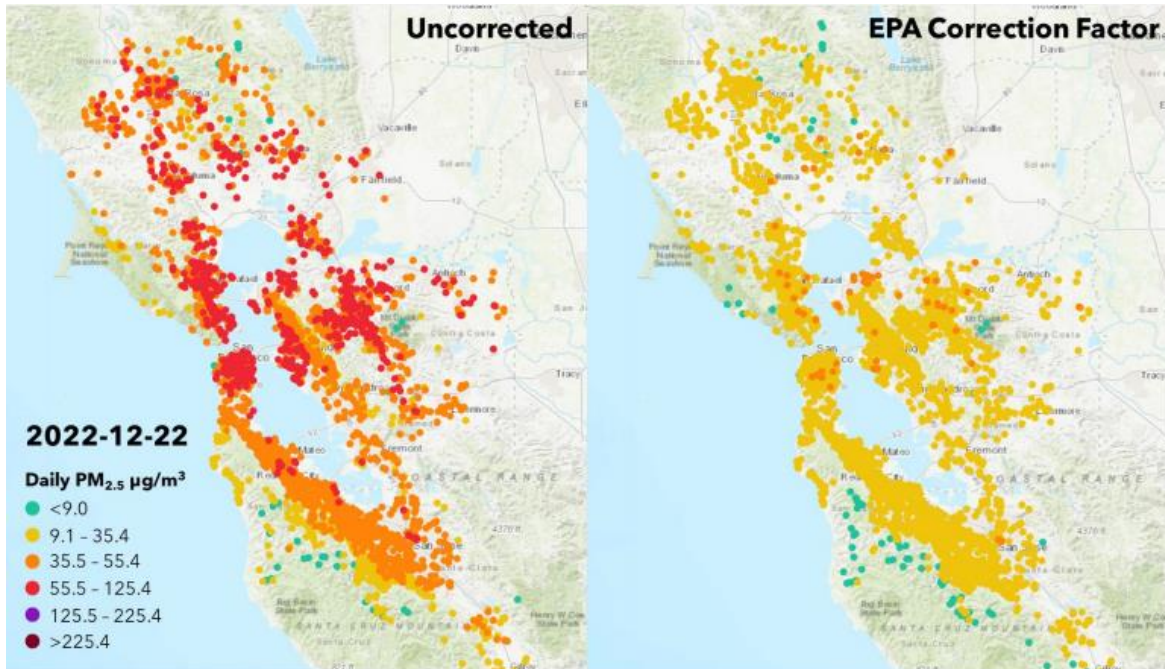


Community Input (ChicagoAQI.com, Advisory Board, Engagement Sessions)



★ Chicago Air Sensor Network Data Dashboard

San Francisco



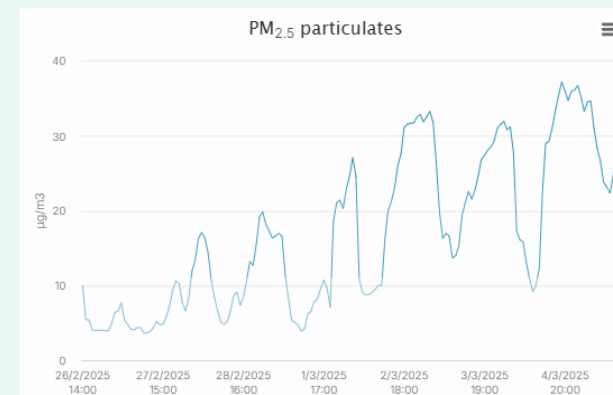
London

Hourly graphs

Change dates:

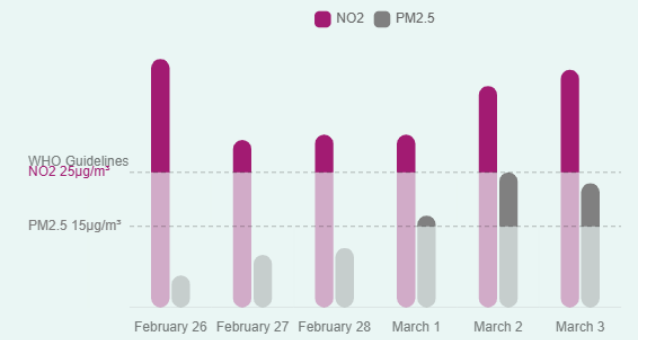
26 February 2025

5 March 2025



Daily

[WHO guidelines explained](#)

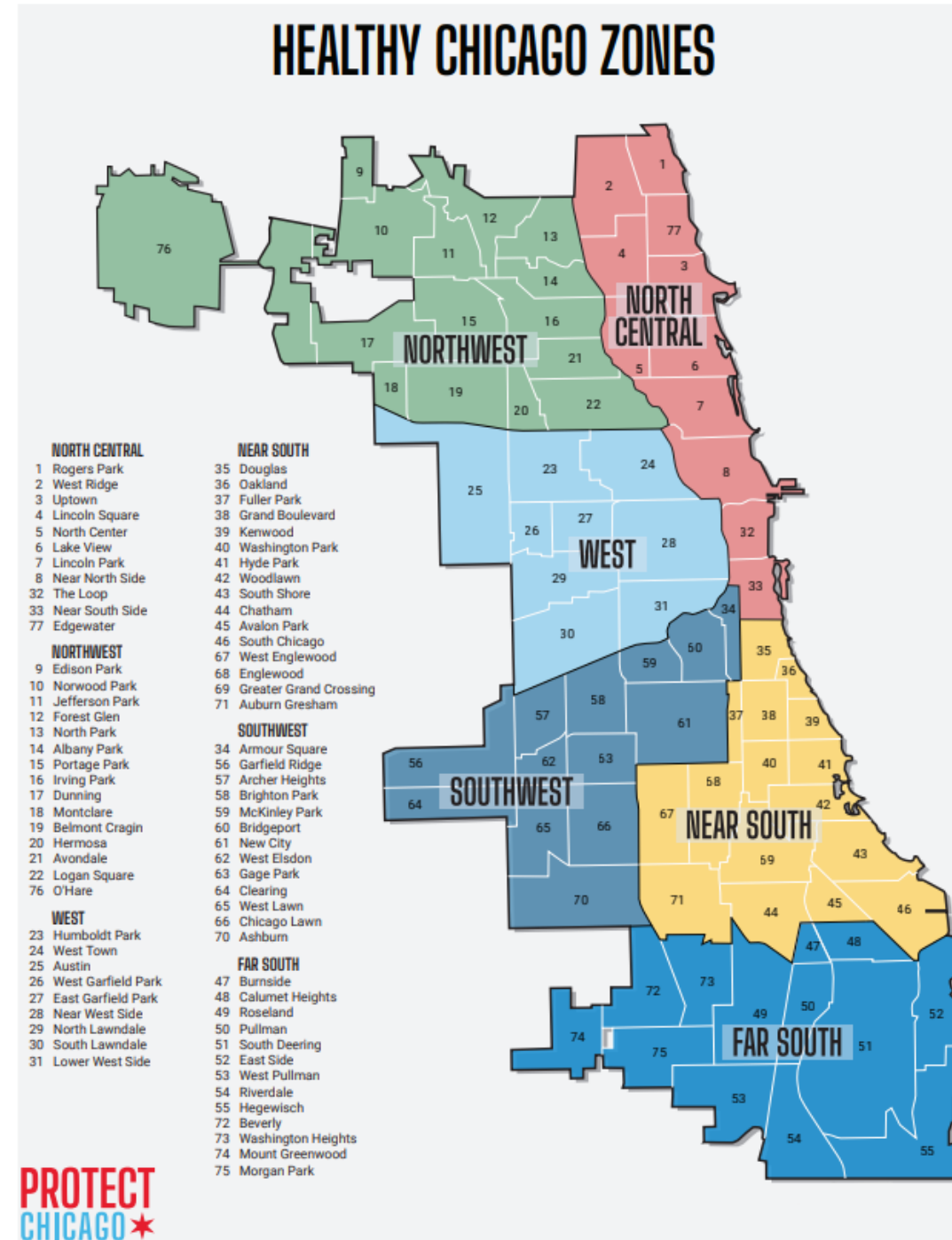




Community Engagement

★ Healthy Chicago Zones

- The **Healthy Chicago Zones (HCZs)** is a six region, hyperlocal partnership network covering all 77 Chicago community areas.
- Each Zone is led by a Regional Lead Organization, which acts in an administrative role as the fiscal agent. Regional Leads will select community-based organizations (“Community Leads”) to serve on the Chicago Air Sensor Network Advisory Board.
- Community Leads will provide input and feedback on sensor locations, the public facing dashboard, educational/communication materials and training.
- Illinois Public Health Institute is serving as the Lead Coordinating Organization, working alongside CDPH, Regional Leads, and UIC School of Public Health to convene the Advisory Board.





Opportunities for Involvement

- ✓ Apply to join the Advisory Board (*Note: Selection coordinated by HCZ Regional Leads*)
- ✓ Submit suggestions to the ChicagoAQI portal developed by Anthony Moser
- ✓ Participate in community engagement sessions on sensor placement and the public dashboard
- ✓ Conduct air quality trainings with community members to better equip them with knowledge

Thank You!



grace.adams@cityofchicago.org