



**Summary**  
**EPA Air Quality Monitoring in Environmental Justice (EJ) Neighbourhoods**  
**Jersey City 2024-2027**

**Project Overview:**

Community Air Quality Monitoring for [Ozone and Particulate Matter Air Pollution](#) in Jersey City's Underserved/EJ Communities

**Applicant:**

Department of Health & Human Services {DHHS}, Jersey City

**Project Partners:**

Sustainable Jersey City {SJC}

Jersey City Housing Authority {JCHA}

Rutgers EOHSI/CEED

Gensler Research Institute {GRI}

Greater Neighborhood Alliance {GNA}

**Location of the Project:**

Lafayette, Greenville Neighbourhoods in Jersey City, NJ

**Air pollutant scope:**

Ozone and NO<sub>2</sub> (precursor to ozone) and PM<sub>2.5</sub> {Particulate Matter 2.5 and above}

**Period of Project:**

3-Year Period - 2024 to 2027

**EPA Funding Award:**

\$465,249.93

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**Objectives:**

- To assess and monitor the levels of air quality in the EJ neighbourhoods of Jersey City- O3, NO2, Ozone and PM2.5++ for a 3-yr period publishing data findings to a public dashboard for the community.
  - To increase the access of information to community stakeholders about air quality data and educate them about ways to mitigate negative health impacts related to harmful conditions.
  - Identify potential reduction measures for hazardous air quality exposure and potential policy changes to benefit better health outcomes
- Establish and implement JC Environmental Health & Justice Leadership Training Program.
- Execute a Climate Justice & Resiliency assessment for community revitalization of the environmental justice business corridor Jackson Hill Main Street Special Improvement District {JHMS SID}

**Need for the study:**

Jersey City, along with all communities in Hudson County, surpasses both national and state ambient air quality standards (AAQS) for ozone. In 2020, there were five instances where the standards were surpassed, while in 2021, this occurred 12 times. The persistent breaches of ozone standards each year, along with the potential for increased violations due to climate change-induced extreme heat events, highlight ozone air pollution as a significant health issue in New Jersey. This concern is particularly heightened in Jersey City's underserved communities, where asthma prevalence is highest in Hudson County, in addition to a variety of respiratory and cardiovascular concerns which may be related to certain environmental hazard exposures. Additionally, these communities are more vulnerable and face reduced resilience due to a variety of social and economic factors. Given the [alarming rates of respiratory and cardiovascular illness](#) in Jersey City potentially tied to environmental risk factors, e.g., proximity to major transportation routes and industrial sources of air pollution, we proposed implementing an ambient air quality monitoring initiative. This program aims to monitor ground-level ozone (O3), Nitrogen dioxide (NO2), and fine Particulate Matter (PM2.5). These pollutants are directly linked to respiratory and cardiovascular health concerns and/or serve as precursors to ozone formation, which in the lower atmosphere is extremely harmful to humans.

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**Deliverables:**

- Develop a Quality Assurance Project Plan {QAPP} to be approved by the US EPA for purposes of proper execution of the project.
- Provide real-time air quality data via a community-facing dashboard. Analyse the influence of regional air emission sources on ambient air quality and potential exposure routes.
- Gather community health data, reflect on health system access issues, and assess available health services.
- Create infographics and other education materials illustrating the relationship between air pollution levels and its health impacts.
- Establish partnerships with community organisations and municipal agencies to share findings of the 3-year study.
- Implement a JC Environmental Health & Justice Leadership Training Program to graduate 36 community ambassadors at the end of the 3-year grant period
- Submit quarterly performance reports to the US EPA working with JCHHS.