

# Get WISE to EJ: Bridging the Gap Between Equity & Electrification



building  
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exchange

31 Chambers Street  
New York, NY

Celebrate Climate Week with BE-Ex's Women in Sustainability & Energy (WISE) series! Join us for a moderated panel discussion where women leaders from the climate industry will delve into the intersection of electrification and environmental justice (EJ). Attendees will gain insights into the benefits and challenges of electrification, key considerations for ensuring a just, clean energy transition, plus initiatives that aim to address environmental burdens on marginalized communities. Enjoy a live Q&A and networking with refreshments.

presenter:

Jessica Colon, Deputy Director, Environmental Justice, NYC MOCEJ

moderator & opening remarks:

Lauren Wang, Director of Climate Programs, Trust for Governors Island

panelists:

Annie Carforo, Climate Justice Campaign Manager, WE ACT for Environmental Justice

Jessica Colon, Deputy Director, Environmental Justice, NYC MOCEJ

Nse Esema, Senior Vice President, Green Economy, NYC EDC

Daphany Rose Sanchez, Executive Director, Kinetic Communities Consulting

September 25, 2024  
5:30 - 7:30pm

1.5 AIA  
LU | HSW

# wise

women in  
sustainability  
and energy

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# EJNYC

## New York City's First Comprehensive Environmental Justice Study & Mapping Tool

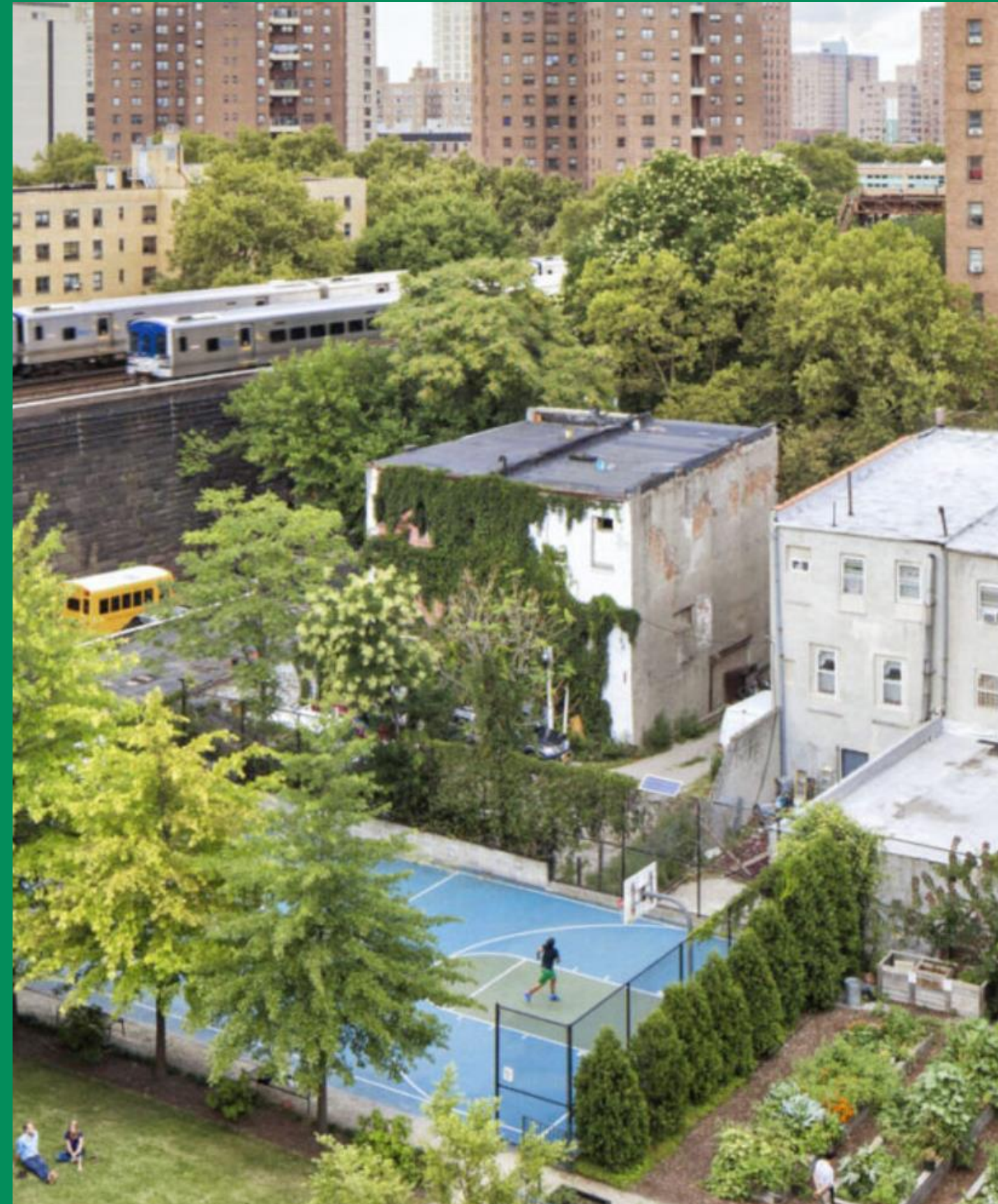
2024



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EJNYC:  
New York's First  
Comprehensive  
Environmental Justice  
Study & Mapping Tool

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# EJ History



The Root of Environmental Injustice at New York's Founding

The Burdens & Benefits of Growth: New York in the 19th Century

Land Use & Housing Segregation in the 20th Century

Disinvestment and Health Inequities in New York's EJ Communities



# EJNYC Overview

In 2017, the City of New York passed Local Laws 60 & 64 requiring the city to assess environmental equity issues and develop a plan to incorporate environmental justice (EJ) considerations into the fabric of city decision-making. **This legislation focuses on three core deliverables:**



EJNYC  
Report



EJNYC  
Mapping Tool



EJNYC  
Plan



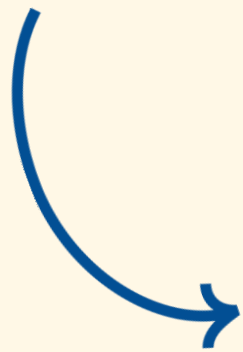
# EJNYC Report



# Report Process

**The EJNYC Report's development process included a wide range of research and stakeholder participation.**

1. MOCEJ and the EJ Advisory Board solicited thousands of public comments on a public engagement process to inform the report's public scope.
2. MOCEJ and the EJ Advisory Board and EJ Interagency Working Group developed the report through a mixed methods research approach for a comprehensive understanding of NYC's historical and current EJ issues.



## **Research Methods:**

- Review of literature from academic, city government, and non-profit research
- Quantitative and spatial analysis of various EJ indicators
- Stakeholder conversations from focus groups and interviews
- Targeted public surveys



# Report Goals

## Goal 1

**To study the environmental burden affecting low-income communities and communities of color, as well as disparities in environmental benefits.**

**Distributional equity:**

programs and policies resulting in fair distribution of benefits and burdens across all segments of a community, prioritizing those with the greatest need.

## Goal 2

**To study the extent to which city processes meaningfully involve and take direction from New Yorkers, particularly those in EJ communities.**

**Procedural equity:**

inclusive, accessible, and authentic engagement and representation in processes to develop or implement programs and policies.



# EJ Areas & Disadvantaged Communities

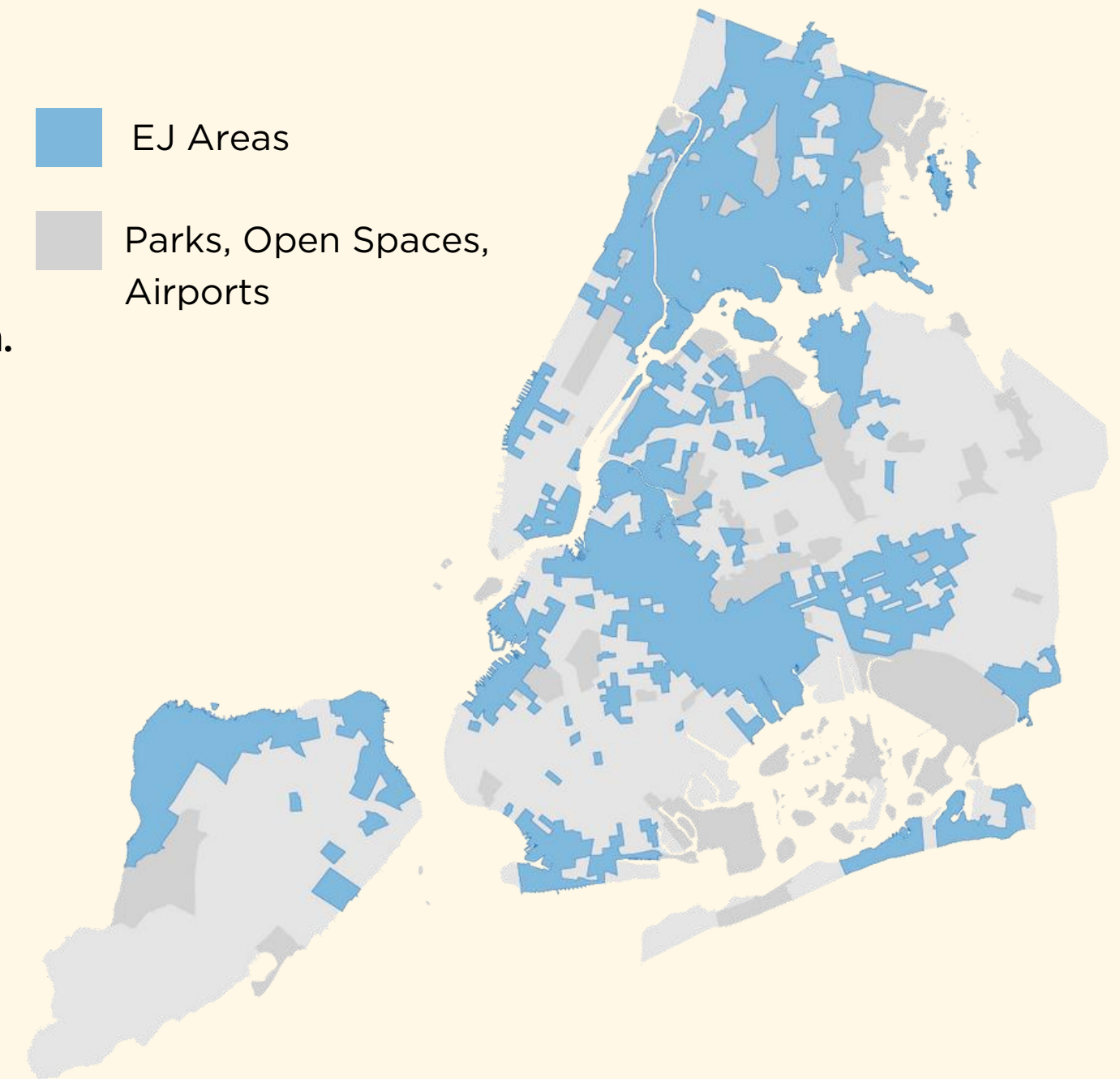
## DAC Overview

The EJNYC report identifies EJ areas using the **NY State's DAC Criteria**, which:

- Uses 45 indicators representing environmental burdens or climate change risks, or population characteristics and health vulnerabilities.
- Ensures frontline, underserved communities benefit from policy implementation.

## DAC Criteria Constraints

- Regional Ranking:
  - Ensures greater state-wide distribution, excludes hundreds of NYC tracts.
- Inappropriate Indicators:
  - Not all indicators make sense for NYC's urban context (e.g. housing vacancy rates).
- Missing Criteria:
  - Critical local data has not been incorporated (e.g. pluvial flooding).

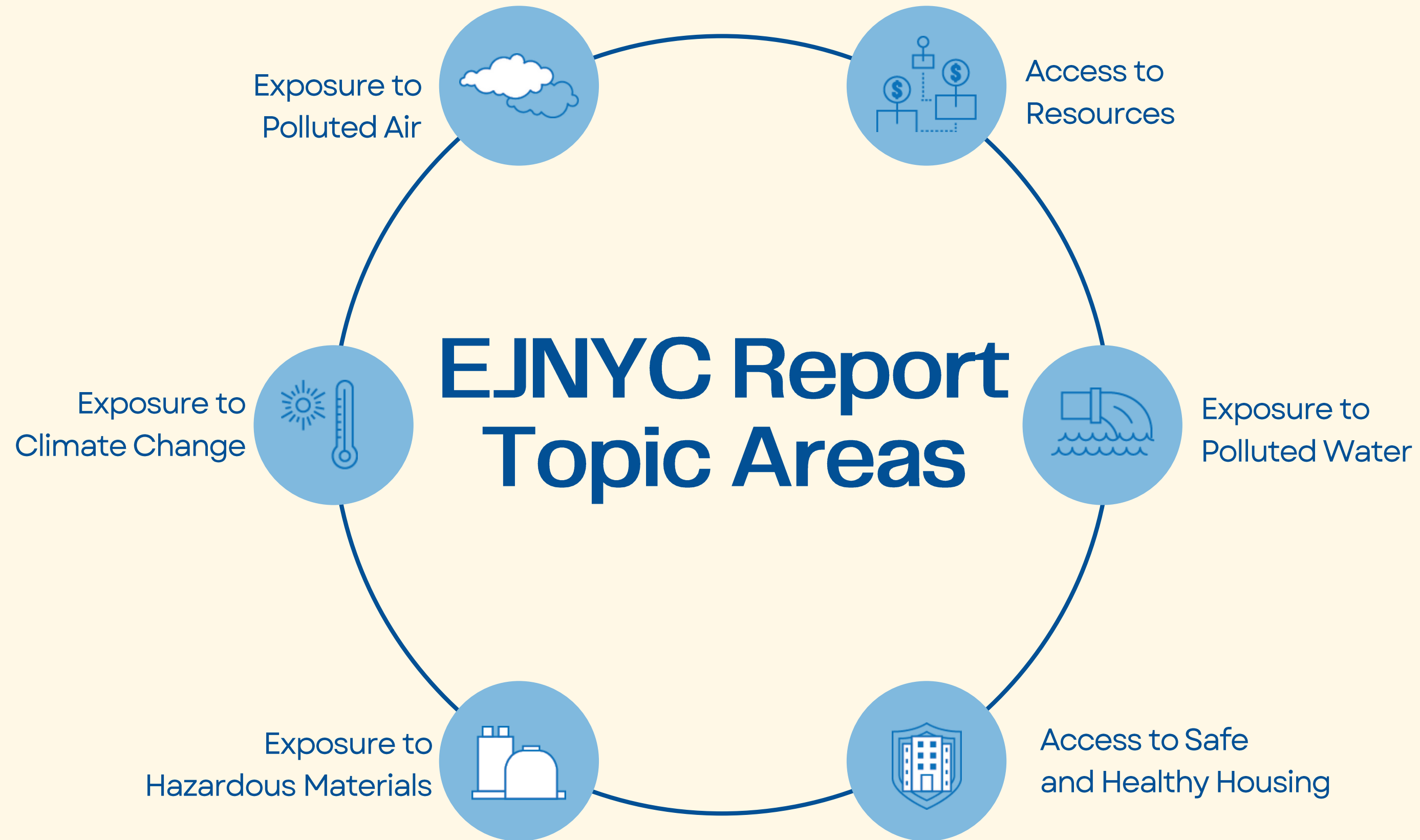


**45%** of NYC's census tracts are EJ Areas

**49%** of NYC's population live in EJ Areas

**59%** of NY State's DACs are in New York City





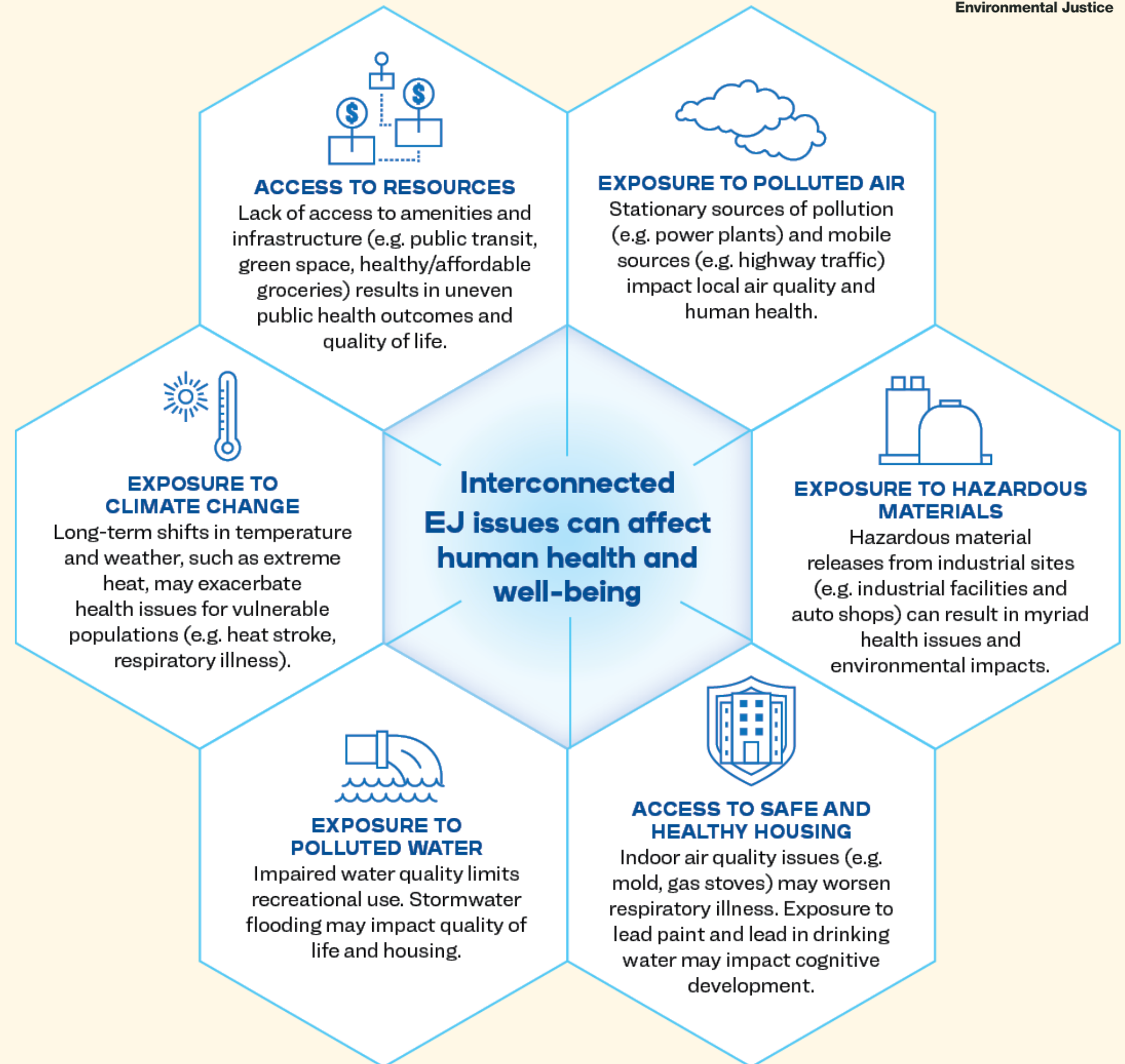


# Cumulative Impacts

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The effects of **exposure to multiple environmental and climate hazards, health vulnerabilities, and social factors** often **interconnect** and compound on one another.

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# Access to Resources

## Redlining

- Higher proportion of **Black and Hispanic or Latino residents**
- Higher vulnerability to heat



## Transit and Alternative Transportation Access

- Highest rates of transit hardship/inability to afford fares:
  - Hispanic or Latino and Black residents
  - Bronx residents
- **Within a 45-minute commute, Black residents have access to 44% fewer jobs than white residents.**

## Parks and Open Spaces

Ratio of Accessible Park Space per 1,000 Residents

**11 acres**  
non-EJ Areas

**9 acres**  
EJ Areas

## Food and Nutrition



- Bronx residents experience the highest rates of:
  - Food insecurity
  - Diet-related diseases such as high blood pressure and diabetes



# Exposure to Polluted Air

**EJ Neighborhoods have the greatest levels of pollution-attributable hospital emergency department visits.**

Nearly all neighborhoods with the highest pollution-attributable emergency department visits are within a mile of a large stationary source polluting facility, such as a power plant or manufacturing facility.



## Stationary Sources of Pollution

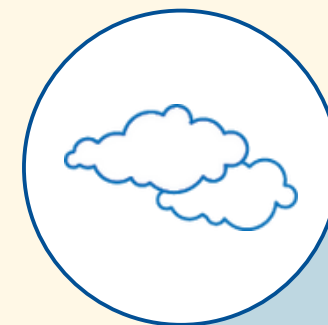
**In 2021, 13 of 19 “peaker” power plant facilities were located in an EJ area or less than a block from one.**



## Mobile Sources of Pollution

**Communities of color are disproportionately exposed to emissions from heavy-duty diesel vehicles.**

These vehicles are major sources of NOx and PM2.5 emissions in New York City.



## Solid Waste Facilities

**Most of the city’s waste is processed and transferred in a handful of EJ Areas,** increasing heavy-duty vehicle traffic in those communities.

**Many of these same neighborhoods suffer from the highest rates of pollution-attributable health impacts,** sometimes at over three times the citywide average rates.



# Exposure to Polluted Water



## Stormwater Management

### Areas most impacted by stormwater flooding:

- Southeast and Central Queens
- North Staten Island
- Southeast Bronx

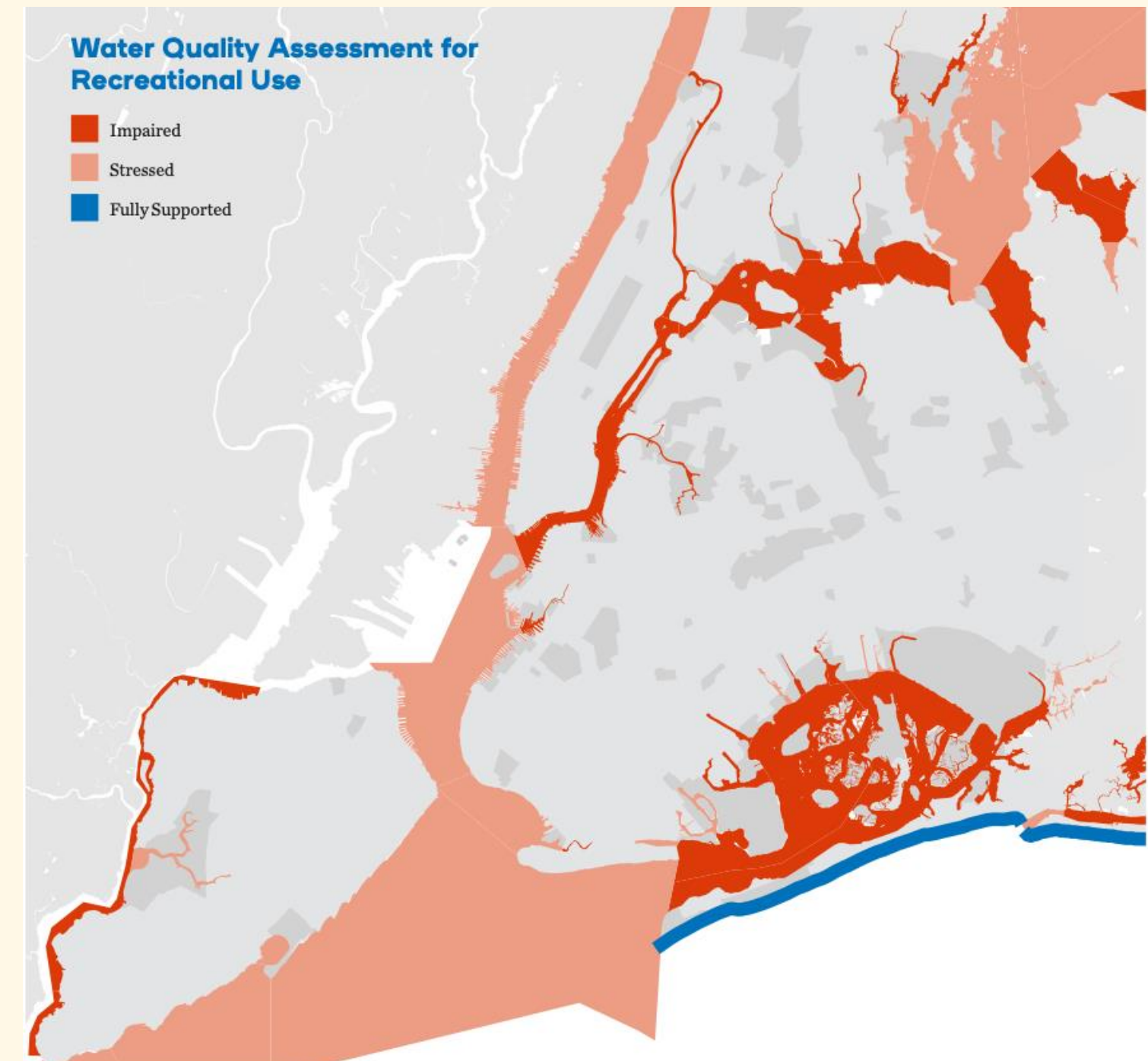
Black residents are overrepresented amongst census tracts with an above average number of confirmed sewer backup complaints.

## 7 of the top 10

most confirmed sewer backup complaints are **EJ Neighborhoods**.



## Polluted Water Bodies





# Exposure to Hazardous Materials



## Hazardous Waste Generators and Storage Facilities

**Hazardous waste generators and storage facilities are predominantly located in EJ Areas.**

These facilities can emit hazardous materials that can pose adverse health effects to exposed populations.



## Contaminated Land

**Across the country, there is:**

- no complete list of potentially contaminated sites
- no widespread effort to characterize legacy industrial areas across the city for existing contamination

**The locations of these cleanup sites do not necessarily reflect the distribution of land contamination across the city. There is no public data on cleanup work done privately.**

Superfund Cleanup:

- driven by environmental and public health concerns

Brownfield Cleanup:

- driven by real estate market and area-wide rezonings



# Exposure to Climate Change



## Extreme Heat

- Black New Yorkers are 2x more likely to die from extreme heat than white New Yorkers
- Low-income New Yorkers are less likely to have AC
  - 76% vs. 91% citywide average



## Coastal Storm Surge & Chronic Tidal Flooding

NYC’s EJ Areas are disproportionately exposed to flooding due to coastal storm surge and chronic tidal flooding, which is expected to persist if EJ Areas remain the same.

Costal Flood	2020 Projections	2080 Projections
100-year coastal floodplain	57% EJ Area Residents	58% EJ Area Residents
90th percentile projection of chronic tidal flooding	69% EJ Area Residents	60%* EJ Area Residents

\*Whereas the 2020s stormwater flooding scenario is for a Moderate Stormwater Flood, the 2080s scenario is for an Extreme Stormwater Flood. As such, a direct comparison cannot be drawn between these scenarios



# Access to Safe & Healthy Housing



## Health-Related Housing Maintenance Issues

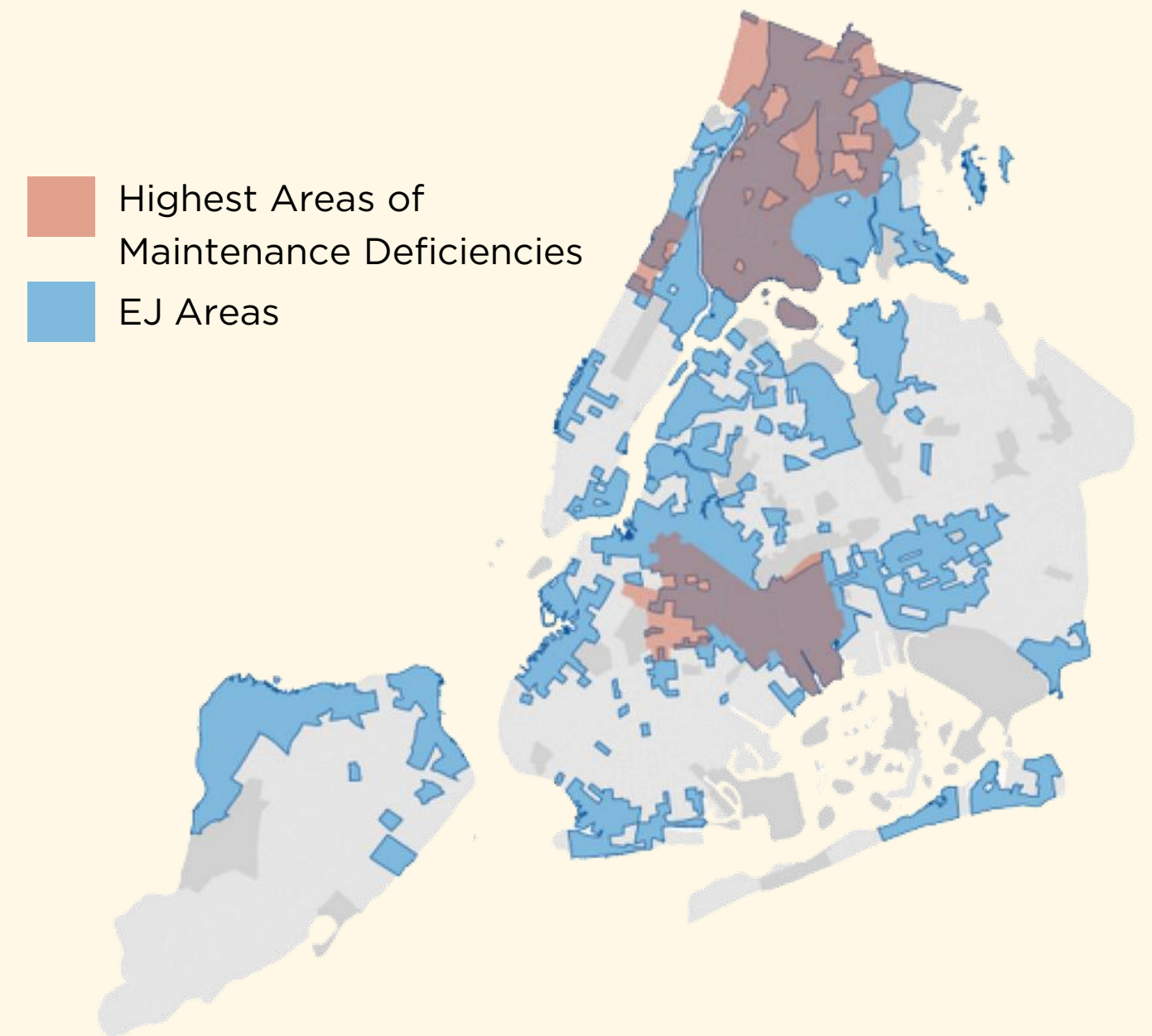
Out of the households reporting 3+ maintenance deficiencies,

**32%** are Black

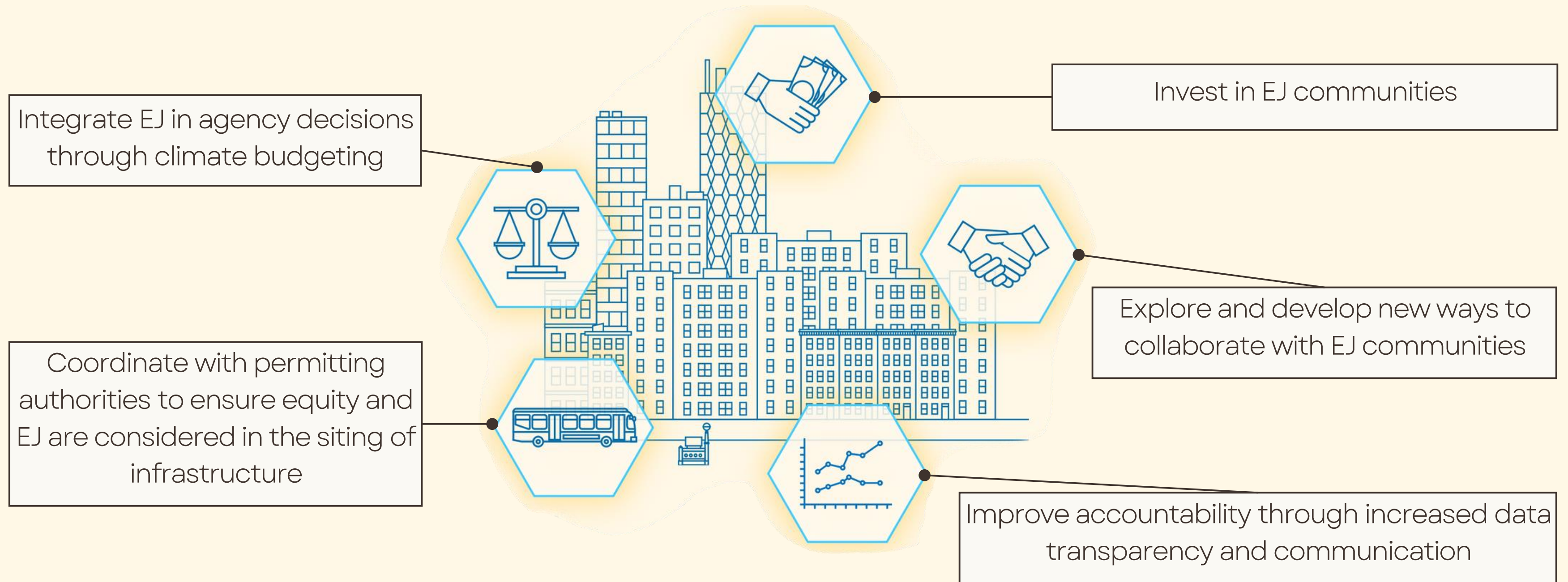
**40%** are Hispanic or Latino

**90%** are EJ Neighborhoods.

- Most prevalent in The Bronx, Central Brooklyn, Upper Manhattan.
- The Department of Health and Mental Hygiene (DOHMH) found that even when controlling for income, Black and Hispanic or Latino people are still more likely to live in buildings with serious maintenance issues.



# EJNYC Report Policy Opportunities





# EJNYC Plan





# EJNYC Plan

The EJNYC Plan will identify potential citywide initiatives for promoting EJ and provide recommendations for city agencies represented on the interagency working group.



## City-wide Initiatives

Methods to:

- Promote **environmental justice**
- Encourage **greater public engagement** in decision-making that raises EJ concerns
- Promote **transparency and consistency** in the City's approach to EJ
- Promote **equitable distribution** and access to environmental benefits
- Improve **research and data collection** relating to human health and the environment

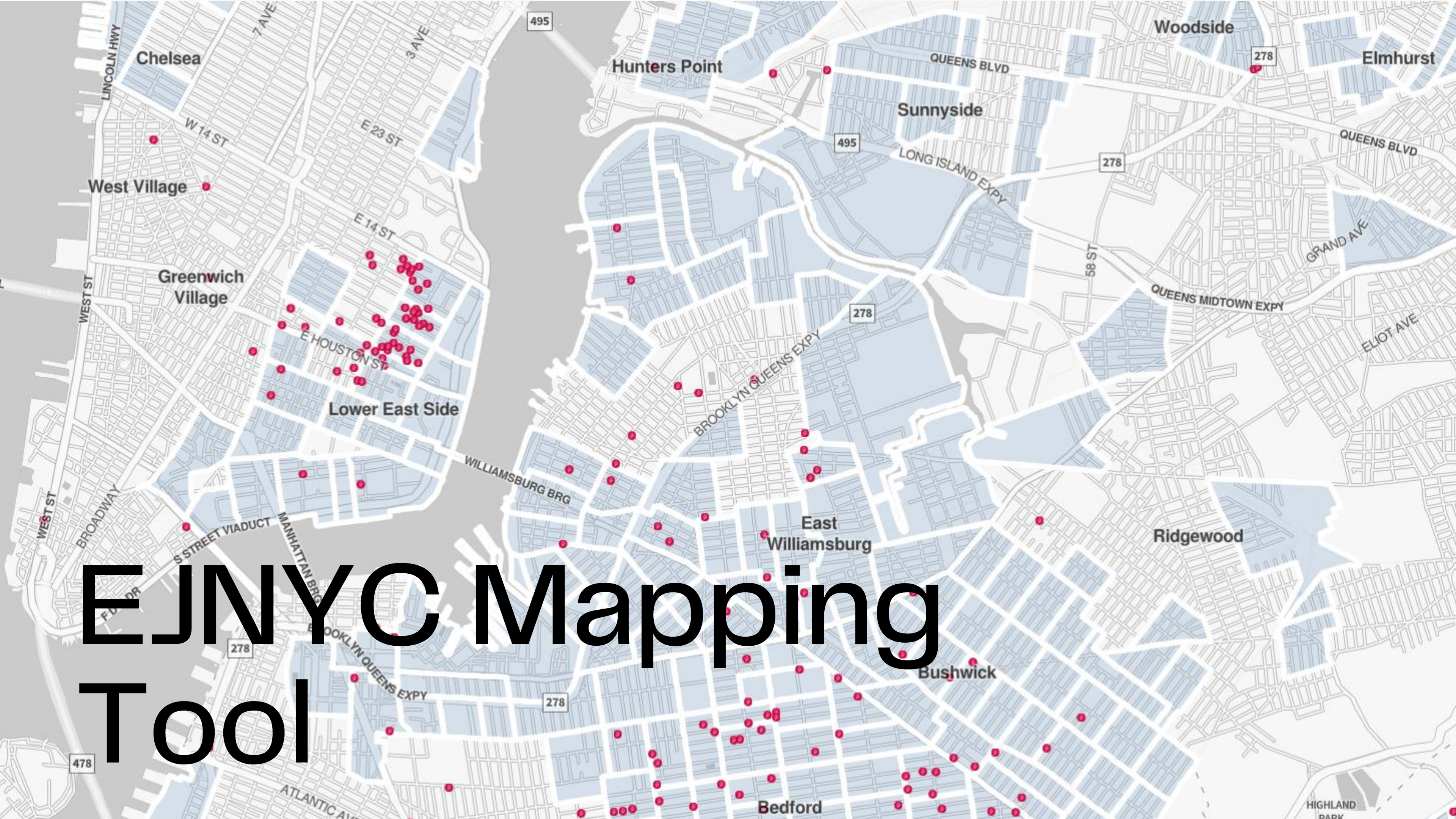


## Agency-Specific Recommendations

Changes to programs, policies, activities or processes that will promote EJ, including:

- **Capital projects** that address EJ concerns or provide environmental improvements to EJ Areas
- **Enforcement actions** that can be strengthened or expanded to address EJ concerns
- **Promote public participation and transparency** in agency decision-making





# EJNYC Mapping Tool



# EJNYC Mapping Tool

## What's In It?

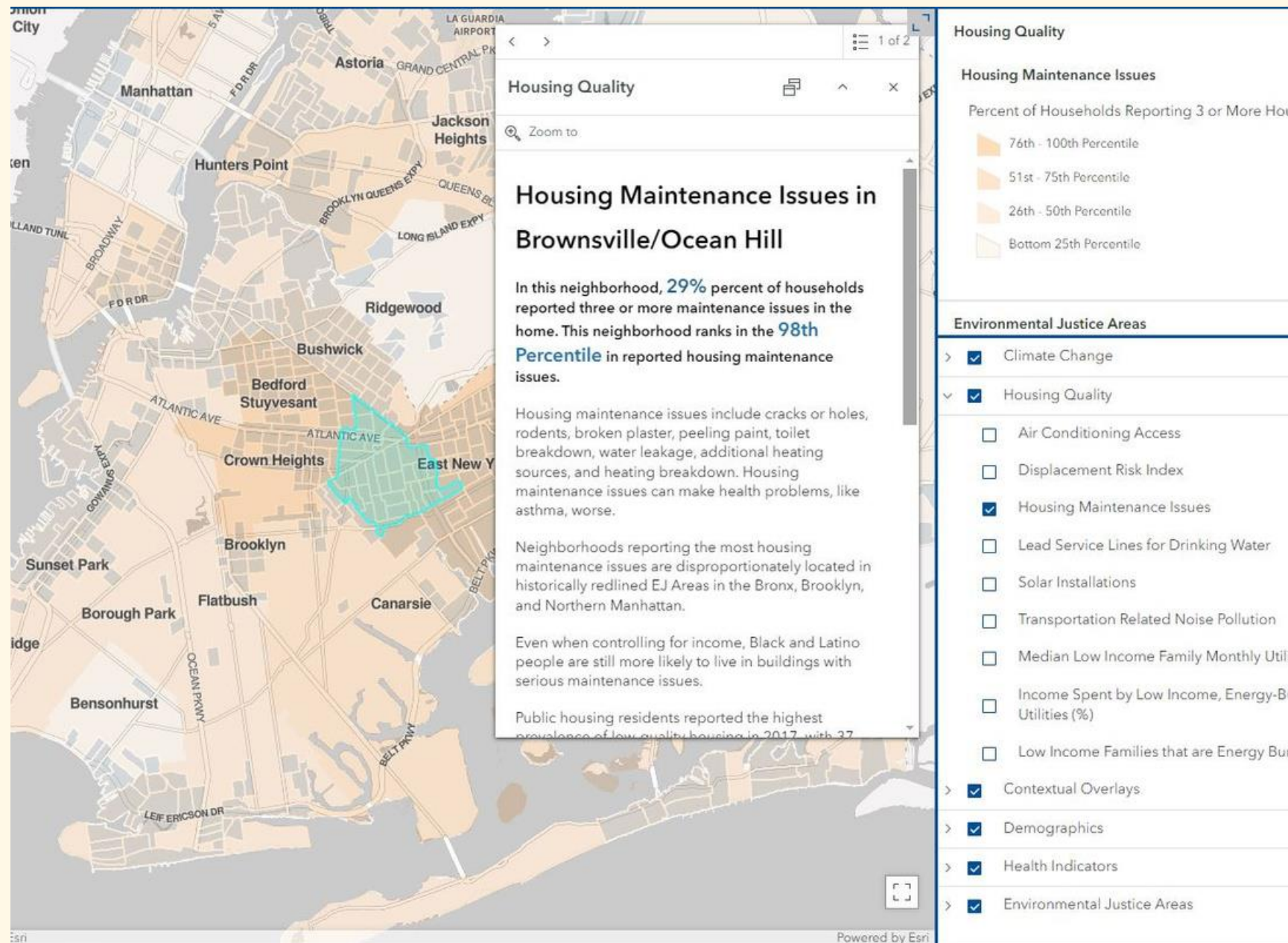


115 data layers relevant to understanding EJ concerns. Data sets were sourced from city, state, federal, non-profit, and private sources.

- All data layers are processed into GIS - includes points, lines, and polygons.
- Pop-up content with interpretive information embedded within all layers.

Includes new maps and broadens the scope and understanding of EJ in New York City for everyone alike.

- Flood Vulnerability Index
- Energy Cost Burden
- Peaker Power Plants
- Last-Mile Facilities
- Chemically-Intensive Small Businesses



[Access the Mapping Tool Here](#)





Thank You!





# discuss.

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