Climate Justice Working Group Meeting

June 17, 2024

Meeting Procedures

- Meeting rooms will be muted to reduce noise
- Working Group members should raise their hand to indicate they would like to speak
- Please state your name before speaking for transcript purposes
- Remote participants should be on video with name visible per Open Meetings Law

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Agenda

Agenda

- Roll call
- Approval of minutes
- New Staff Update
- Recap of criteria and Annual Review Process
- Initial Consideration for Annual Review:
  - Moving to 2020 census tracts
  - Updating the Data to 2020 Tracts
  - Refining the DAC criteria
  - Potential Indicators
- Next steps

Roll Call

Approval of Minutes

DEC Staff Update: New Staff

- Oliver Riley, Climate Policy Analyst, DAC Program Coordinator

  - Hired in February

  - Support DEC in all things DACs

  - Provide quantitative and qualitative analysis for all DAC criteria methodology, indicators

  - Review and develop data underlying DAC indicators

  - Advise on the application of the DAC criteria inter- and intra-agency-wide

- Ahmed Al Balushi, Office of Environmental Justice Intern

  - Hired in June

  - SUNY Albany Environmental Engineering student

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It's been a minute

Recap of DAC Criteria and Annual Review Process

1 Environmental Burdens and Climate Change Risks: Indicators (20)

Potential Pollution Exposures

- Vehicle traffic density
- Diesel truck and bus traffic
- Particulate Matter (PM2.5)
- Benzene concentration
- Wastewater discharge

Land use and facilities associated with historical discrimination or disinvestment

- Remediation Sites (e.g., NPL Superfund or State Superfund/Class II sites)
- Regulated Management Plan (chemical) sites
- Major oil storage facilities (incl. airports)
- Power generation facilities
- Active landfills
- Municipal waste combustors
- Scrap metal processors
- Industrial/manufacturing/mining land use (zoning)
- Housing vacancy rate

Potential Climate Change Risks

- Extreme heat projections (>90° days in 2050)
- Flooding in coastal and tidally influenced areas (projected)
- Flooding in inland areas (projected)
- Low vegetative cover
- Agricultural land
- Driving time to hospitals or urgent/critical care

This factor has 2x weight

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1 Population Characteristics and Health Vulnerabilities: Indicators (25)

Income, Education & Employment

- Pct <80% Area Median Income
- Pct <100% of Federal Poverty Line
- Pct without Bachelor's Degree
- Unemployment rate
- Pct Single-parent households

Race, Ethnicity & Language

- Pct Latino/a or Hispanic
- Pct Black or African American
- Pct Asian
- Pct Native American or Indigenous
- Limited English Proficiency
- Historical redlining score

Health Impacts & Sensitivities

- Asthma ED visits
- COPD ED visits
- Heart attack (MI) hospitalization
- Premature Deaths
- Low Birthweight
- Pct without Health Insurance
- Pct with Disabilities
- Pct Adults age 65+

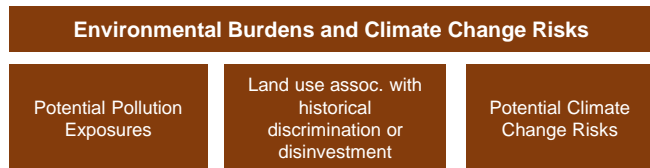## Housing, Energy, Communications

- Pct Renter-Occupied Homes
- Housing cost burden (rental costs)
- Energy Poverty / Cost Burden
- Manufactured homes
- Homes built before 1960
- Pct without Internet (home or cellular)

Within this factor, both income metrics have 2x weight

Within this factor, Pct Latino/a and Pct Black have 2x weight

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② Scoring Approach: Multi-Step Process

Estimate factor scores as weighted averages of indicator percentile ranks (step 1), then estimate component scores as weighted average of percentile scores.

Environmental Burdens and Climate Change Risks

| Potential Pollution Exposures | Land use assoc. with historical discrimination or disinvestment | Potential Climate Change Risks |

+

Population Characteristics and Health Vulnerabilities

| Income | Race/Ethnicity | Health Impacts & Burdens | Housing, Energy, Communications |

Factor scores are weighted and added before adding:

$$[\; 1x \; + \; 1x \; + \; 2x \;] \; + \; [\; 1x \; + \; 1x \; + \; 1x \; + \; 1x \;]$$
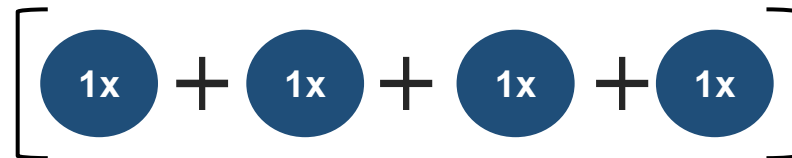
Climate Risks are given double weight within Component to equalize the combined weights of Environmental factors (Pollution Exposures + Land Use) with Climate.
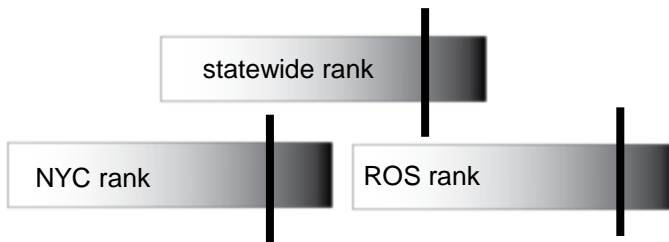
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2 **Scoring Approach: Combining Data**

Group Indicators into **Factors** (factor scores are weighted average of indicator percentiles)

| Exposures | Climate |
| Discriminatory Land Use |

| Income & Education | Health |
| Race & Ethnicity | Housing & Mobility |

Combine Factors into **Component** Scores (also weighted averages)

Env. Burdens & Climate Risk Score **+** Population & Health Vulnerabilities Score

Add components to generate an **overall score** (used to calculate a relative ranking statewide and regionally)

statewide rank

NYC rank ROS rank

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3 Designation: Include 35% of Tracts

CJWG considered including
35% of census tracts
in New York as Geographic
Disadvantaged Communities

1,736 of New York's 4,918 census
tracts identified as Geographic DACs.

65% 35%
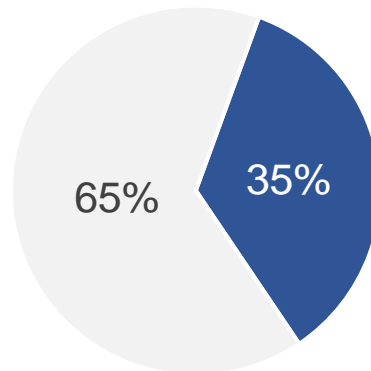
3 Designation: Overview of Approach

Bubbles are not sized to scale.

Scored based on combined score
Included if top-scoring in region
(NYC, rest-of-state) or statewide

Automatically included

Scored based on Environmental/Climate alone **if** population >100 people (53 of 138 eligible for scoring)

4,780 tracts with sufficient census data to score Env/Climate *and* population/health

19 Indigenous Tribal Areas

138 tracts with insufficient population/ health data

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4 **Individual Criteria**

Geographic DACs

Low-income households
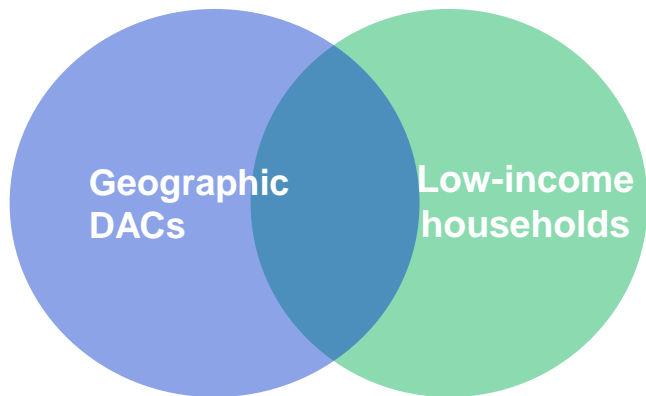
Include low-income households located anywhere in the State in the Disadvantaged Communities criteria **for the purpose of** investing or directing clean energy programs, projects or investments (i.e., only for purposes of ECL 75-0117).

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5 Individual Criteria

Poverty: Annual household income at or below 100% of Federal Poverty Level

Low income: Annual household income at or below 60% State Median Income (SMI), or categorical eligibility with other low-income programs

Selected to (a) align with publicly-administered programs, (b) minimize additional income documentation and screening (SNAP, SSI, Temporary Assistance), (c) and start at low-income threshold, which can be reassessed after 1 year

Moderate income: Annual household income above 60% of SMI, but lower than 80% of Area Median Income (and sometimes 80% state median income)

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Moving to 2020 census tracts

Data Updates – Census Tract Transition

Region	2010 Tracts*	2020 Tracts	Net	%
Capital Region	282	326	44	16%
Central NY	218	244	26	12%
Finger Lakes	308	358	50	16%
Long Island	607	671	64	11%
Mid-Hudson	536	600	64	12%
Mohawk Valley	149	158	9	6%
New York City	2,167	2,327	160	7%
North Country	111	134	23	21%
Southern Tier	171	189	18	11%
Western NY	369	404	35	9%
TOTAL TRACTS	**4,918**	**5,411**	**493**	**10%**

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*Counts are based on 2019 data using the 2010 tracts as a foundation

Same Tracts (Most Cases)

2010 tracts
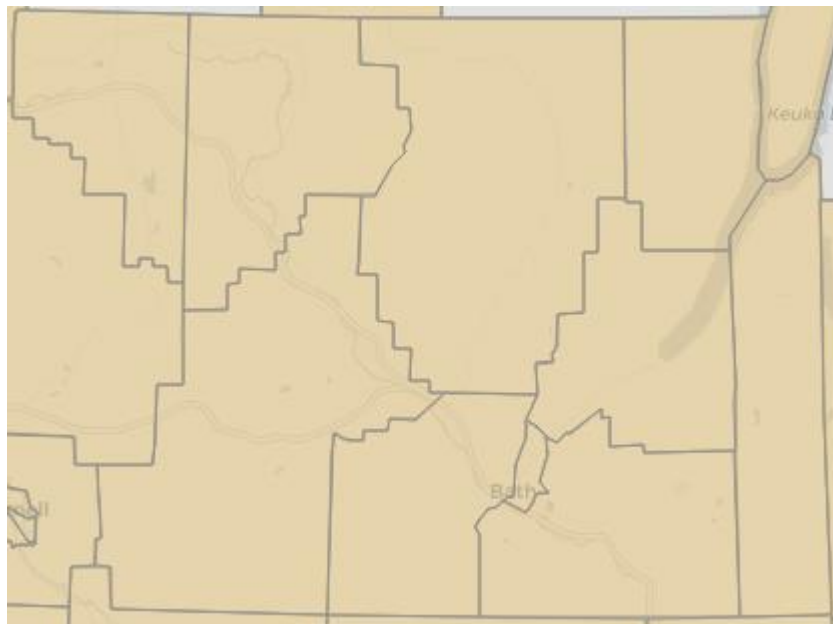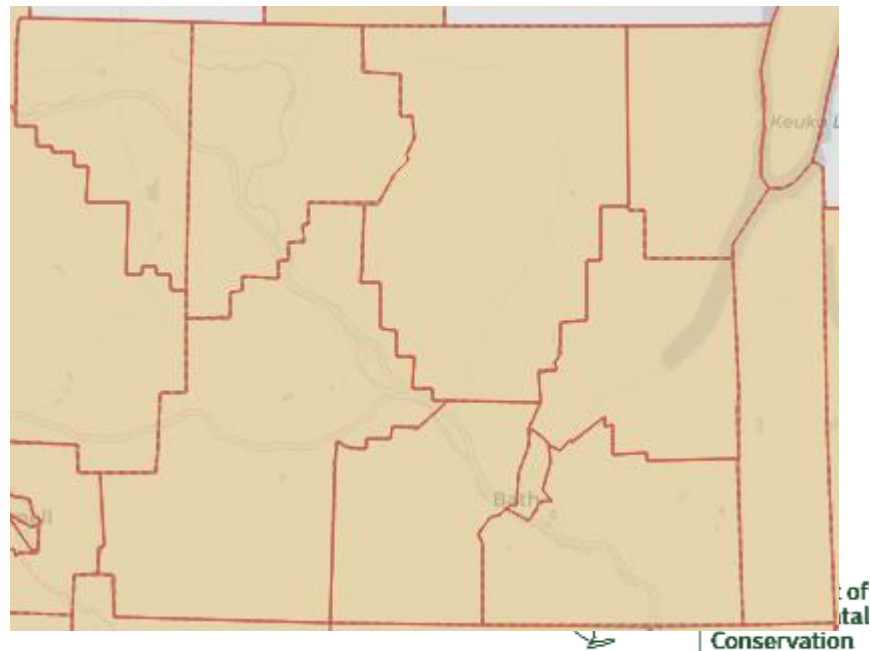
2020 tracts

New Tracts (Lots of Cases)

2010 tracts

2020 tracts

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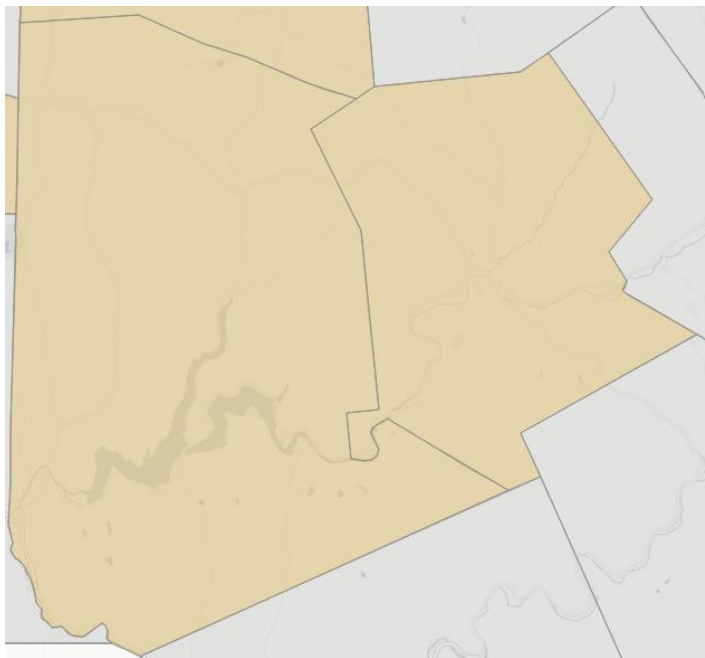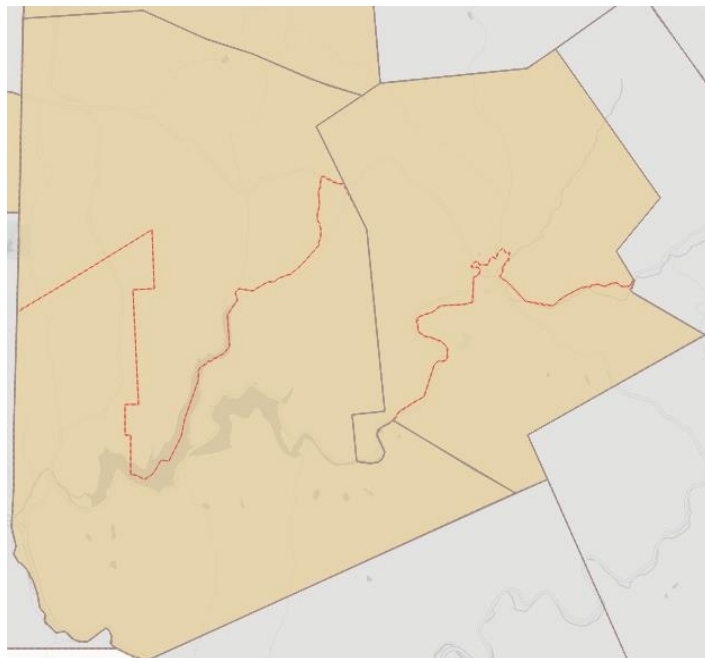
Combined Tracts (Few Cases)

2010 tracts

2020 tracts

Other Shapes (Exceptions)

2010 tracts

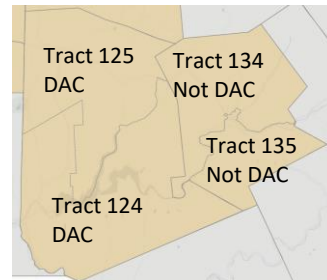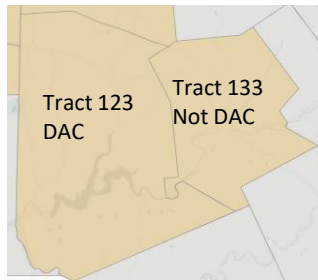2020 tracts

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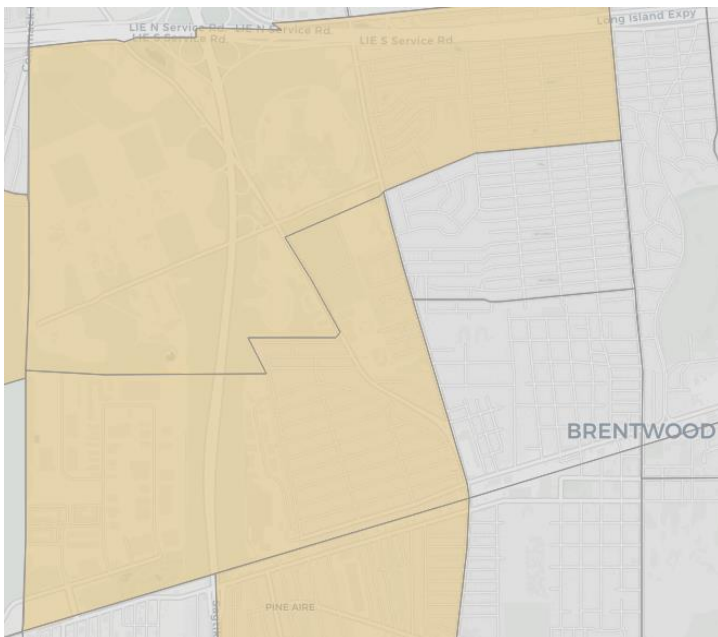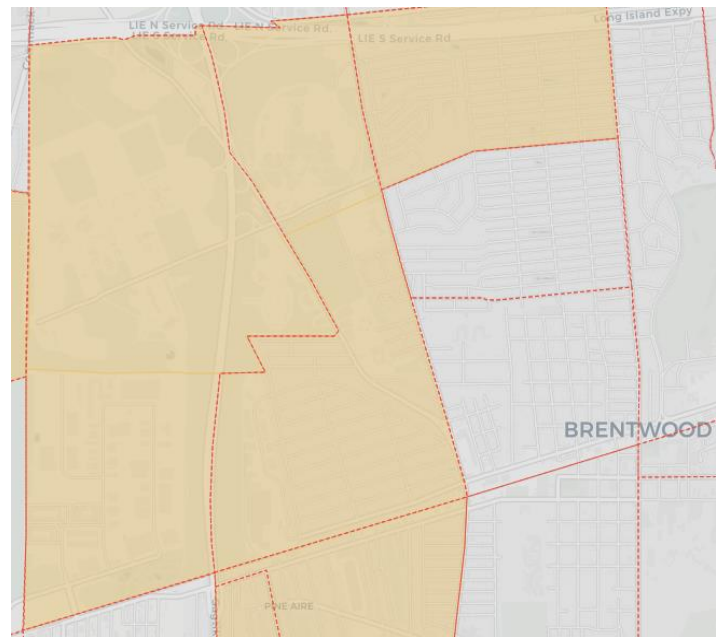
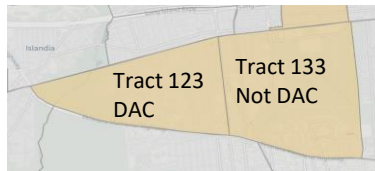# New baseline for comparison of DACs

Most tracts and their DAC designations stay the same.

For tracts that changed, we translated the DAC designations onto the new 2020 tracts by using an average weighted on the area of overlap with the 2010 tracts.
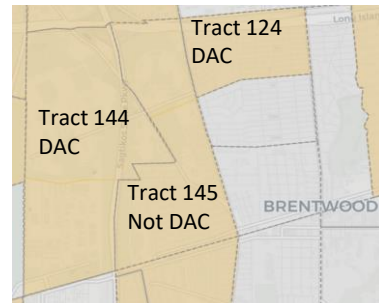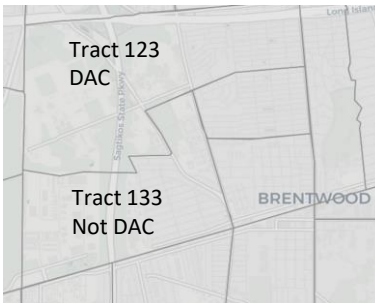
New tracts (lots of cases)

Tract 123 DAC

Tract 133 Not DAC

Tract 125 DAC

Tract 134 Not DAC

Tract 135 Not DAC

Tract 124 DAC

Combined tracts (few cases)

Islandia

Tract 123 DAC

Tract 133 Not DAC

Islandia

Tract 140 Not DAC

Exceptions

Tract 123 DAC

Tract 133 Not DAC

BRENTWOOD

Tract 124 DAC

Tract 144 DAC

Tract 145 Not DAC

BRENTWOOD
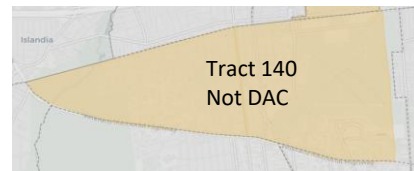
Data Updates – Census Tract Transition

There were 1,736 designated DAC tracts using the old tract shapes. On the new tract shapes, the same areas equate to 1,903 tracts.

	2010 Census Boundaries	2020 Census Boundaries	% increase
Total tracts	4,918	5,411	10%
Total DACs	1,736	1,903	10%
Percent of DACs	35%	35%	-

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Updating the data to 2020 tracts

Most indicators have refreshed data

We refreshed almost all the data from various sources that are already using 2020 tracts

But we're waiting on refreshed data for 10 indicators, and using placeholders for now

Use of Draft Data

- 6 DOH indicators are using draft DOH data
  - We expect 4 to be updated in August (asthma, heart attacks, COPD, and diabetes)
  - 2 are still TBD (low birthweight and premature deaths)
- 4 GIS indicators are being re-analyzed using the updated tracts
  - Inland flooding, coastal flooding, truck traffic, driving time to hospitals

Until we get the updated data, we're using a crosswalk, using the old data but overlayed onto 2020 tracts

Using Crosswalked Data

- Benzene air concentration – we obtained refreshed data, but it was still on the 2010 tracts

- Projected days above 90F – we are continuing to use the same data, but transferred onto 2020 tracts

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Update on Diabetes Data

- Data on diabetes now available

- Diabetes is correlated with

  - asthma

  - low birthweight

  - % black population

  - premature deaths

  - 80% AMI

  - single-parent households

Updated Health Factor

Asthma rate
COPD rate
Households with disabilities
Premature death rate
Heart attack rate
Population without health insurance
Population over age 65
Low birthweight rate
Diabetes rate

Histogram by New York City vs. Rest of State
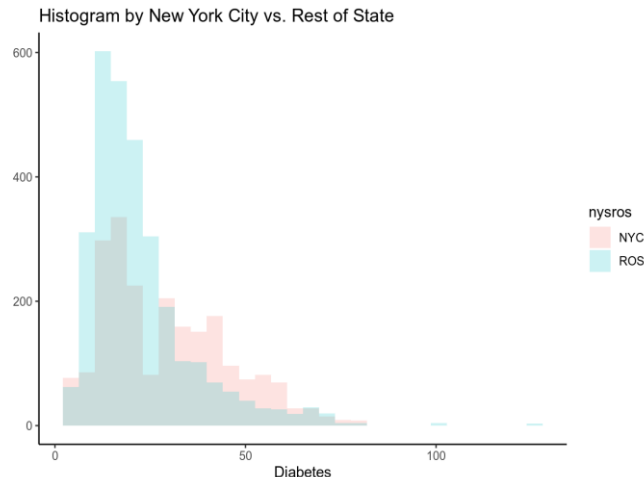
Refining the DAC Criteria

# Response to DAC Criteria: Internal Analysis

- DEC conducted an internal analysis and identified several "inefficiencies" in the DAC criteria methodology.

- DEC recommends the CJWG deliberate on these methodological inconsistencies and if/how they should be addressed.

- These items include:

  - How landfills are mapped

  - How proximity to environmental hazards is measured

Response to DAC Criteria: Landfills

- Currently, landfills are mapped as a single point and the proximate area is determined to be 500m from that point.

- This method can fail to capture the magnitude of such facilities and their impact on the surrounding communities.

- DEC recommends that these sites be mapped as polygons, rather than points, to fully capture their impact.

Response to DAC Criteria: Landfills
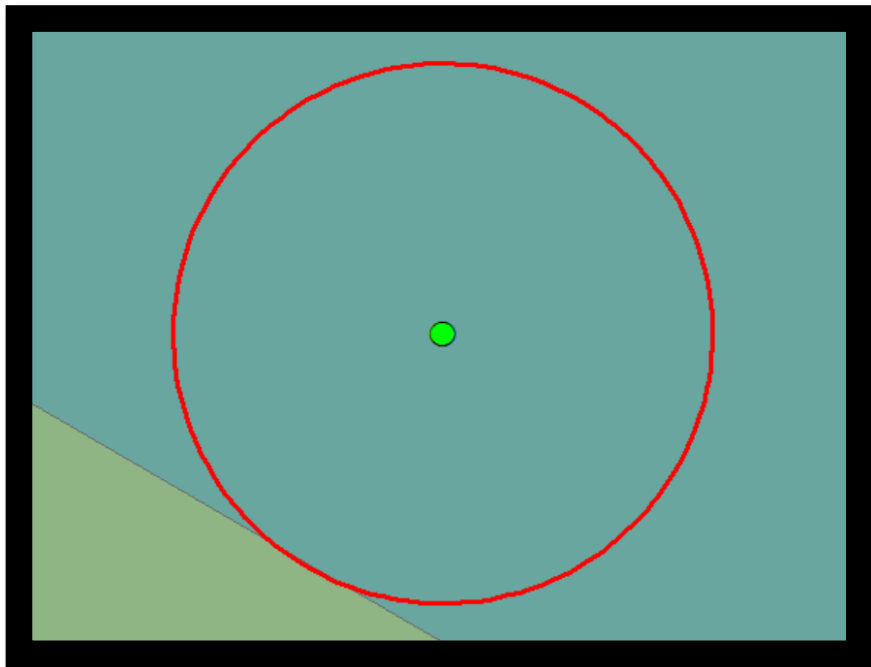
- Here is an example of a landfill.
- The green dot represents the location mapped using current methodology.
- The red circle is the 500m proximate area.
- The proximate area occurs in one census tract and is near a second.

Response to DAC Criteria: Landfills
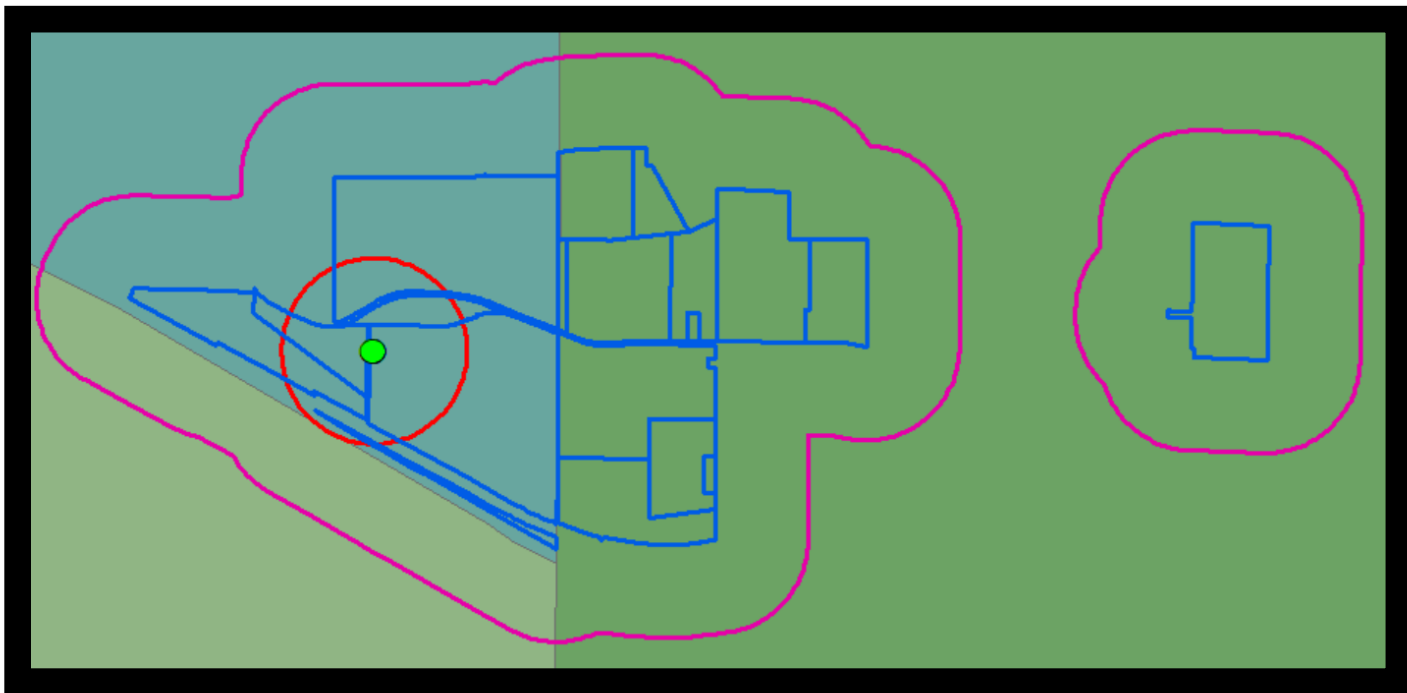
Here is the size of the landfill's operation in the area, highlighted in blue.

The 500m proximate area is highlighted in pink.

This takes the proximate area from ~.75 square miles to ~5 square miles.

The proximate area now occurs in three census tracts rather than one.

Response to DAC Criteria: Landfills

- There is no automatic way to determine the actual size of a landfill

  - The facilities are often composed of many tax parcels which are owned by a variety of entities

- There are 50 landfills in the state

- Work is underway to manually check each landfill using tax parcel data and orthoimagery

- Deliverables are expected by the next CJWG meeting

- DEC recommends the CJWG deliberate on this

Potential Indicators to Add

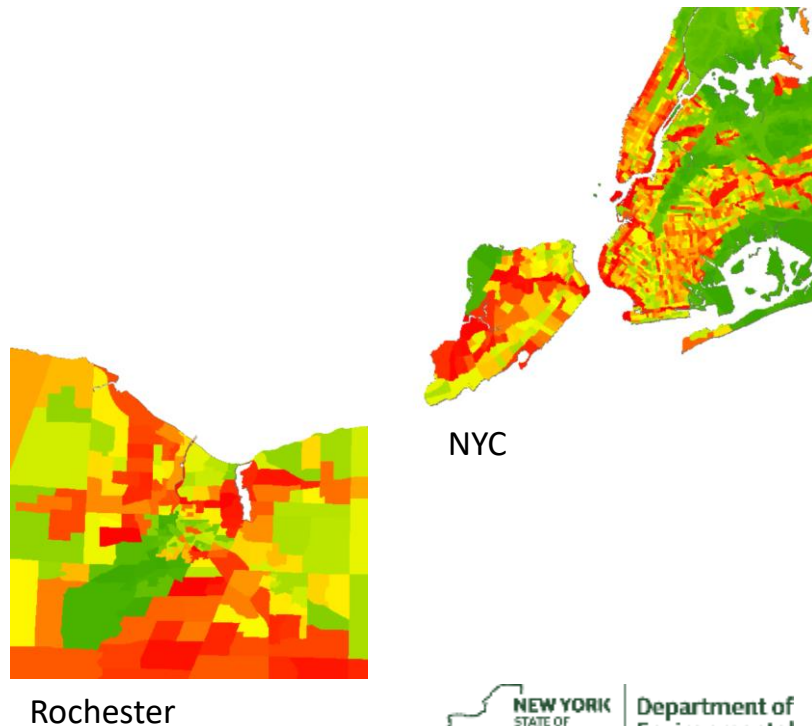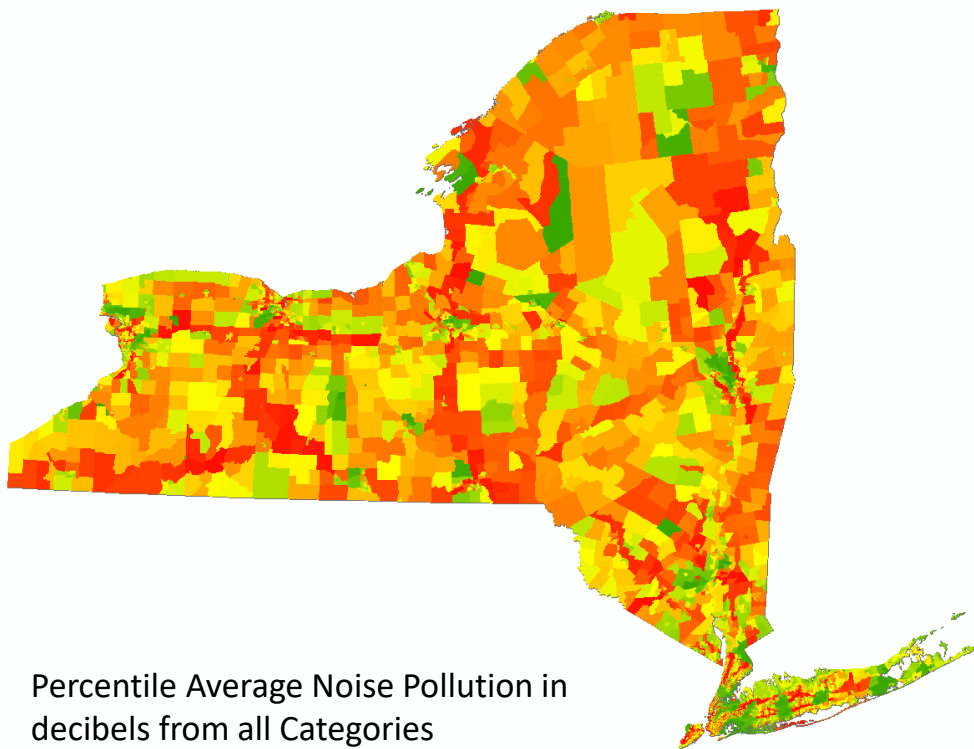**Noise pollution, food deserts, and proximity to airports**

Response to DAC Criteria:

- The 2024 New York City Environmental Justice Report includes a technical supplement entitled "Potential Improvements to the NYS Disadvantaged Communities Criteria."

- This critique recommends several changes to the DAC criteria.

- Of the changes noted, DEC recommends the CJWG consider:

  - Including noise pollution as an indicator

  - Including proximity to airports to help ID the impact of non-residential census tracts (i.e., parks, airports) on neighboring census tracts

Noise Pollution

- Indicator originally considered by CJWG, not pursued due to lack of data

- NYC EJ Report recommends including noise pollution

- Data now exists via USDOT

- Data is based on decibel modeling on a 30m grid

- Data is broken out by category: Aviation, Rail, Road

- Data has been spatially joined to 2020 Census Map

Noise Pollution

NYC

Percentile Average Noise Pollution in decibels from all Categories

Rochester

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Proximity to Airports

- The NYC EJ Report recommended that the DAC criteria include proximity to airports as an indicator.

- By isolating noise pollution from aircraft, we have captured a specific analog for proximity to airports.

NYC

Rochester

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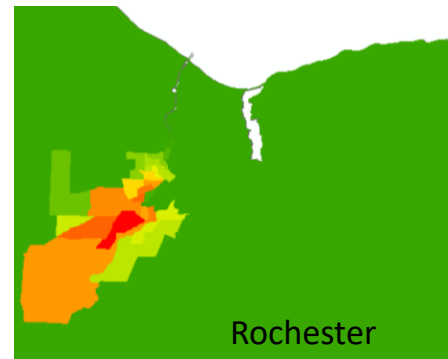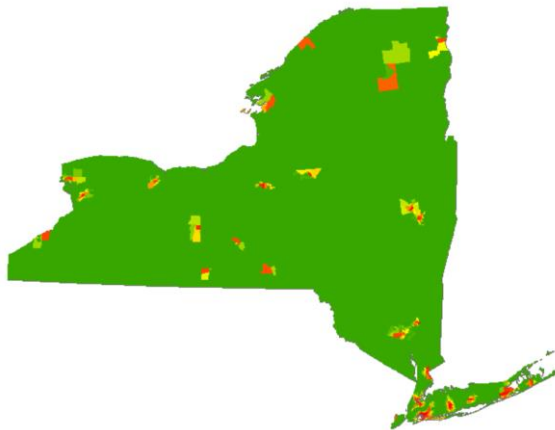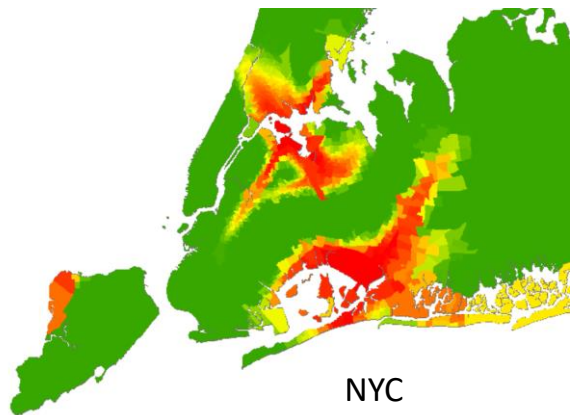
Food Deserts

- Indicator originally considered by CJWG, not pursued due to lack of data

- Data now exists via USDA Economic Research Service

- Data is based on 2010 Census, needs updating

- What the USDA considers a "food store" is inconsistent with lived experiences

  - Includes facilities such as pet food manufacturers, slaughterhouses, wineries, etc.

  - Methodology requires deliberation of CJWG

Is there anything you want to add?

CJWG Suggestions

Public Input

- Accepting input until August 20, 2024
- Submit input to DACComments@dec.ny.gov
- Use DAC Annual Review in the subject line

Next Steps

Next steps

- Update data we're waiting on
- Compile all data into a complete report
- Bring CJWG back to deliberate on report

Thank you