



**Department of  
Environmental  
Conservation**

# **Climate Justice Working Group**


**Thursday, October 1<sup>st</sup> 2020**

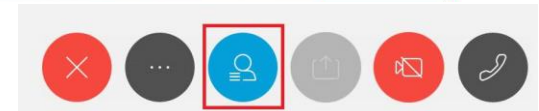
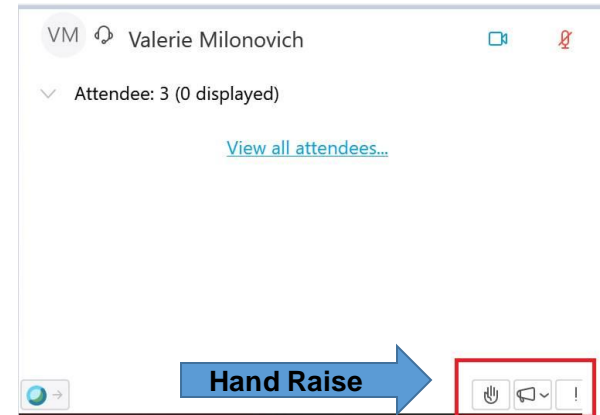
# Meeting Procedures

## Before beginning, a few reminders to ensure a smooth discussion:

- Working Group Members should be on mute if not speaking.
  - If using phone for audio, please tap the phone mute button.
  - If using computer for audio, please click the mute button on the computer screen (1<sup>st</sup> visual).
- Video is encouraged for Working Group members, particularly when speaking.
- In the event of a question or comment, please use the hand raise function (2<sup>nd</sup> visual). Click the participant panel button (3<sup>rd</sup> visual) for the hand raise function. Rosa or Alanah will call on members individually, at which time please unmute.



You'll see  when your microphone is muted



# Agenda

- Welcome and Roll Call
- Finalize Work Plan
- State Updates: Interim Approach to Identifying Communities
- Discussion: Examples of EJ and Disadvantaged Communities Tools
  - EJ and Just Transition Mapping Subgroup
  - CA CalEnviro Screen and EPA EJ Screen
- Agenda Topics for Next Meeting
- Next Steps



# Welcome and Roll Call



# Finalize Work Plan: Review

Establish criteria to identify disadvantaged communities for the purposes of co-pollutant reductions, GHG emissions reductions, regulatory impact statements, and allocation of benefits associated with State investments.

## Criteria:

- Areas burdened by cumulative environmental pollution and other hazards that can lead to negative public health effects;
- Areas with concentrations of people that are low income, high unemployment, high rent burden, low levels of home ownership, low levels of educational attainment, or members of groups that have historically experienced discrimination on the basis of race or ethnicity; and
- Areas vulnerable to the impacts of climate change such as flooding, storm surges, and urban heat island effects.

## Elements:

- Draft Criteria and Draft List of Disadvantaged Communities
- Six Regional Public Hearings
- 120-Day Comment Period
- Meet no less than annually to review the criteria and methods used to identify disadvantaged communities



# Finalize Work Plan: Review

- CAC consult with CJWG on climate justice including development of the draft scoping plan.
- Advisory panels coordinate with CJWG.

## Elements:

- Draft scoping plan January 2022
- Six regional public hearings on the draft scoping plan
- Final submitted January 2023



# Finalize Work Plan: Review

## DEC to consult with CJWG on:

- Report identifying barriers to and opportunities for access to or community ownership of clean energy and climate mitigation services.
- Community air monitoring report (due January 2022).
- Program to deploy community air monitoring in four high priority locations in disadvantaged communities (October 2022).
- Strategy to reduce emissions in disadvantaged communities (June 2024).
- DEC rulemakings to achieve the statewide emission limits

# Finalize Work Plan: Working Slide

Date	Action	Prep Work
November 2020  *Two meetings in November? Can break out discussions into one meeting for indicators and one meeting for data set discussion.	CJWG Meeting - <ul style="list-style-type: none"> <li>• Discuss indicators for criteria</li> </ul>	
December 2020  *Two meetings in December? Include a second meeting to discuss methodology and "operationalizing"	CJWG Meeting - <ul style="list-style-type: none"> <li>• Discuss criteria and relevant data sets</li> </ul>	Members to prepare their "top" or preferred criteria/indicators for discussion  Staff to prepare information on data sets
January 2021	CJWG Meeting - <ul style="list-style-type: none"> <li>• Discuss methodology and operationalizing of criteria</li> </ul>	Staff use criteria to prepare visuals of



# Interim Approach to Program Investments

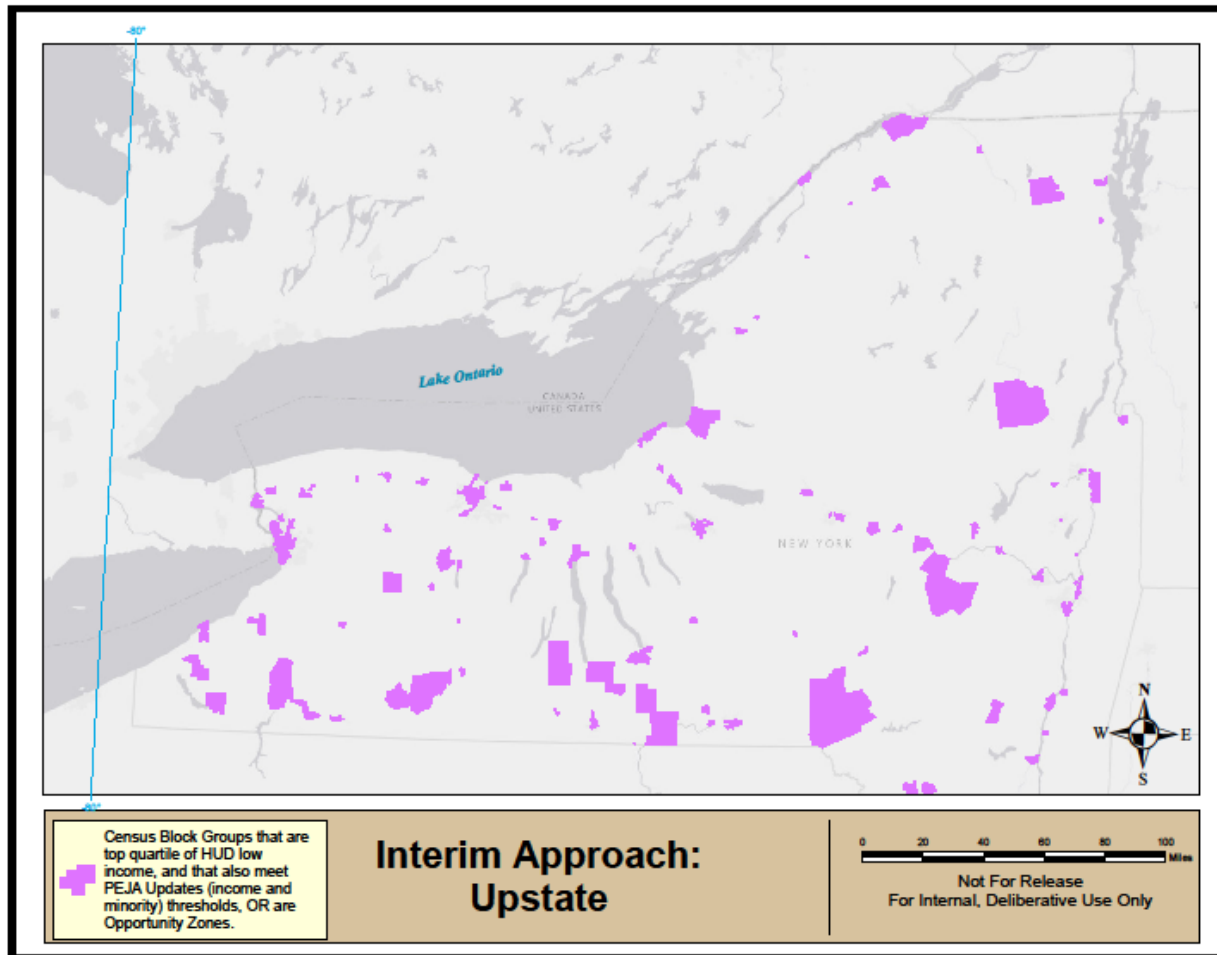
- Geo-based eligibility to be utilized for initiatives and programs that are seeking to address the needs of underserved communities
- Create consistency across NYS programming
- Use criteria that fit into categories provided in Climate Leadership and Community Protection Act
- Use criteria that are familiar among agencies, developers, financiers, contractors, and the public
- Traditional LMI programs to maintain individual income-eligibility
- Long term approach to incorporating geo-based eligibility will depend on final definition of a Disadvantaged Community from Climate Justice Working Group

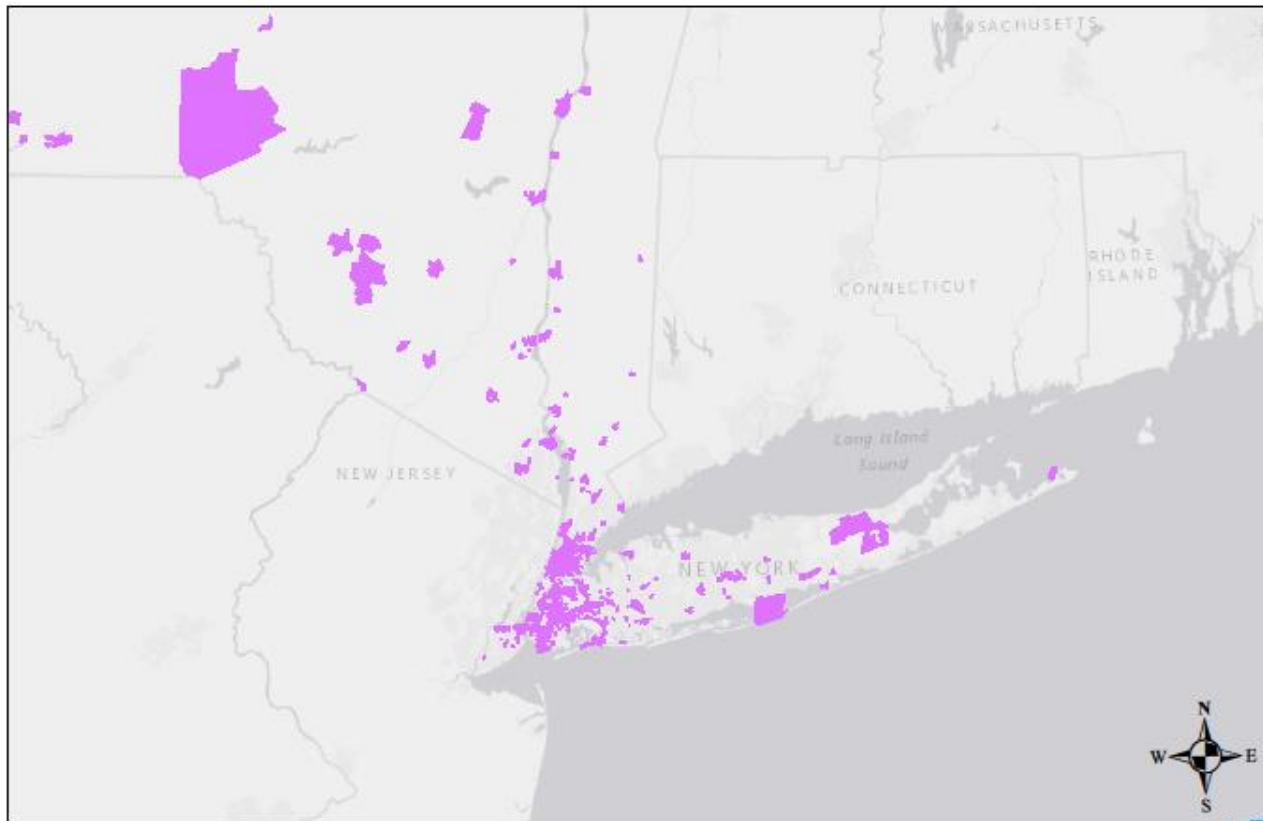


HUD (50% AMI) Census Blocks	NYS Opportunity Zones	Potential Environmental Justice Areas
<ul style="list-style-type: none"> <li>• Top quartile of census blocks where the majority of population has an annual income below 50% of AMI, as defined by HUD.</li> <li>• Top quartile selected to target areas with highest concentrations of poverty.</li> </ul>	<ul style="list-style-type: none"> <li>• Tracts were selected by ESD based on recommendations from the REDCs, local input, prior public investment and the ability to attract private investment</li> </ul> <p>Federal program approved low-income census tract (ind. poverty rate of at least 20%, med. family income no greater than 80% area med.)</p> <p>NY has 2000+ low-income census tracts</p> <p>NY was able to designate 25% (514 tracts) of its low-income census tracts as Opportunity Zones</p>	<ul style="list-style-type: none"> <li>• Established by NYS DEC</li> </ul> <p>U.S. Census block groups of approximately 250 to 500 households each that, had populations that met or exceeded at least one of the following statistical thresholds:</p> <ul style="list-style-type: none"> <li>At least 52.42% of the population in an urban area are members of minority groups; or</li> <li>At least 26.8% of the population in a rural area are members of minority groups; or</li> <li>At least 22.82% of the population in an urban or rural area had household incomes below the federal poverty level.</li> </ul> <ul style="list-style-type: none"> <li>• Include updated income and race/ethnicity metrics</li> </ul>

	Interim Approach: HUD 50% AND PEJA Updates (income and minority) thresholds, OR are Opportunity Zones
Population	5,447,090/ 19,618,453 27.8%
Census Block Groups	4,145/ 15,463 26.8%
Geographic Splits (pop/blocks as % of State Population):	
NYC	19.2%/ 17/1%
Downstate (Excluding NYC)	3.3%/ 2.8%
Upstate	5.3%/ 6.8%
Geographic Splits (pop/blocks as % of Interim Criteria):	
NYC	69.1%/ 63.9%
Downstate (Excluding NYC)	11.8%/ 10.6%
Upstate	19.1%/ 25.5%





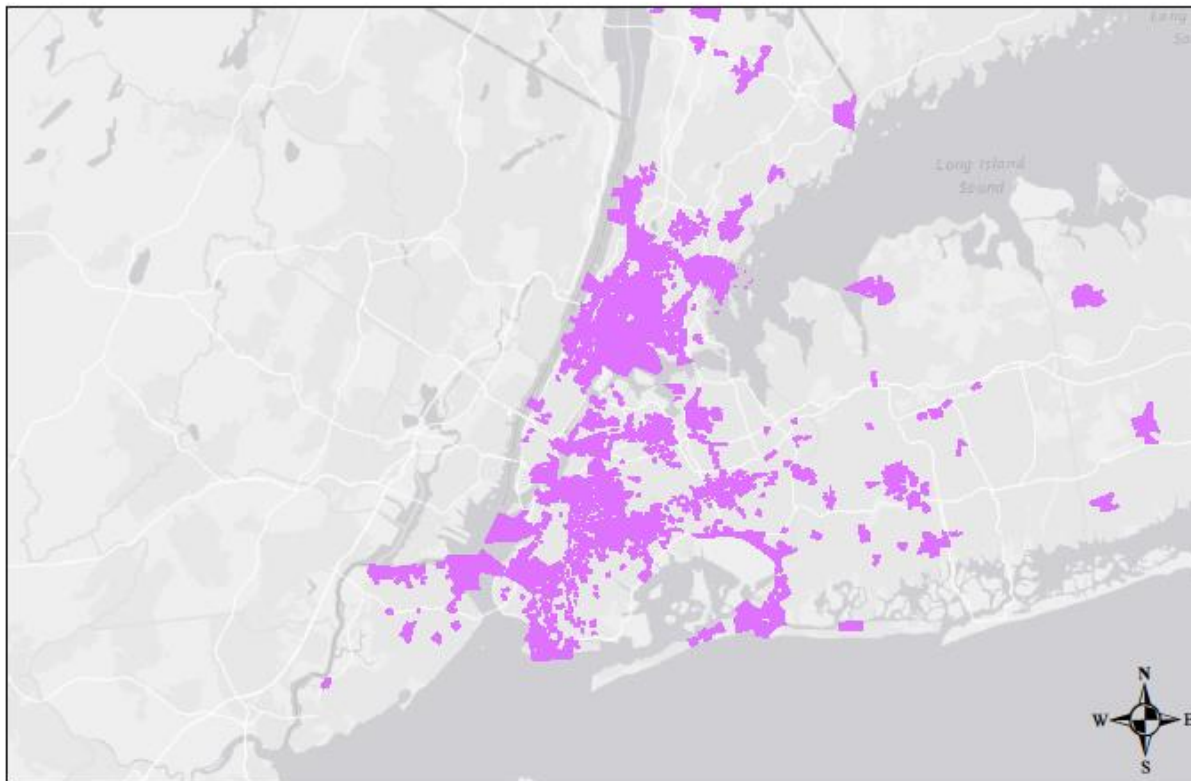



Census Block Groups that are top quartile of HUD low income, and that also meet PEJA Updates (income and minority) thresholds, OR are Opportunity Zones.

## Interim Approach: Downstate



Not For Release  
For Internal, Deliberative Use Only



 Census Block Groups that are top quartile of HUD low income, and that also meet PEJA Updates (income and minority) thresholds, OR are Opportunity Zones.

## Interim Approach: New York City

0 3 6 9 12 15  
Miles

Not For Release  
For Internal, Deliberative Use Only

# EJ & Just Transition Working Group: Mapping Subgroup

## Tasked with:

- Identifying and discussing datasets as environmental justice indicators
- Discussing elements/functionalities a NY-centric online mapping application should have



# EJ & Just Transition Working Group: Mapping Subgroup

## Subgroup members:

- New York City – Environmental Justice Alliance
- Buffalo-Niagara Waterkeeper
- UPROSE
- PUSH Buffalo
- DOS
- DEC
- NYSERDA
- DPS
- Health

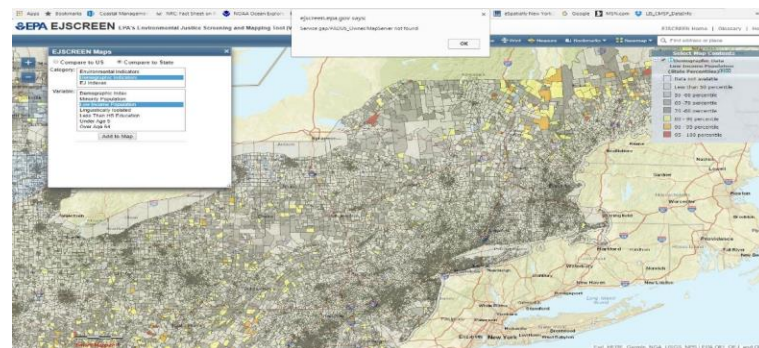
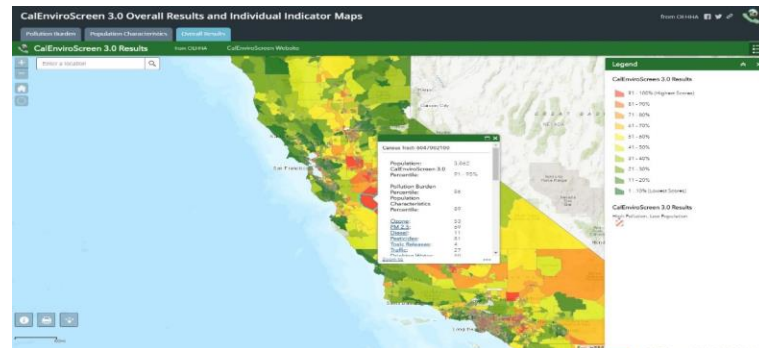




# EJ & Just Transition Working Group: Mapping Subgroup

## Considered existing EJ Online mapping applications :

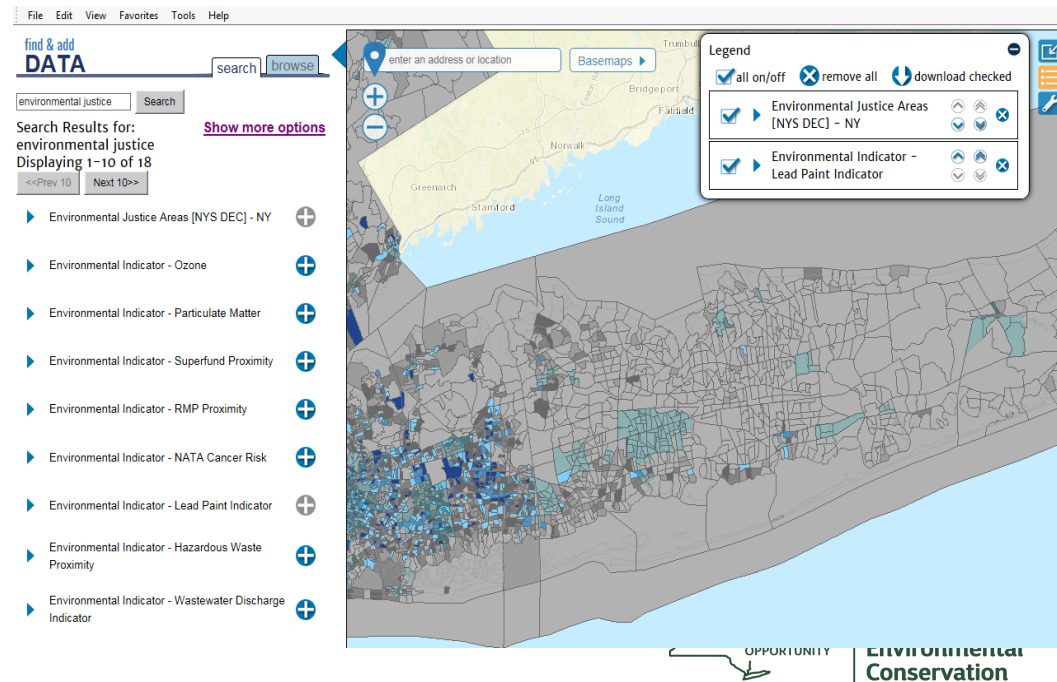
- California's CalEnviro
  - Uses 10 environmental indicators and 8 demographic
  - Complicated algorithm, w weighting indicators in comparison to each other, very subjective...6 yrs in the making!
  - Created a rating system that could lead to property devaluation
  
- EPA's EJScreen
  - Uses 11 environmental indicators and 7 demographic
  - Excellent documentation & data available for download
  - Nice reporting function
  - Interface difficult to use, not intuitive/user-friendly
  - Only view and query one indicator dataset at a time
  - National focus



# EJ & Just Transition Working Group: Mapping Subgroup

## Discussed Datasets:

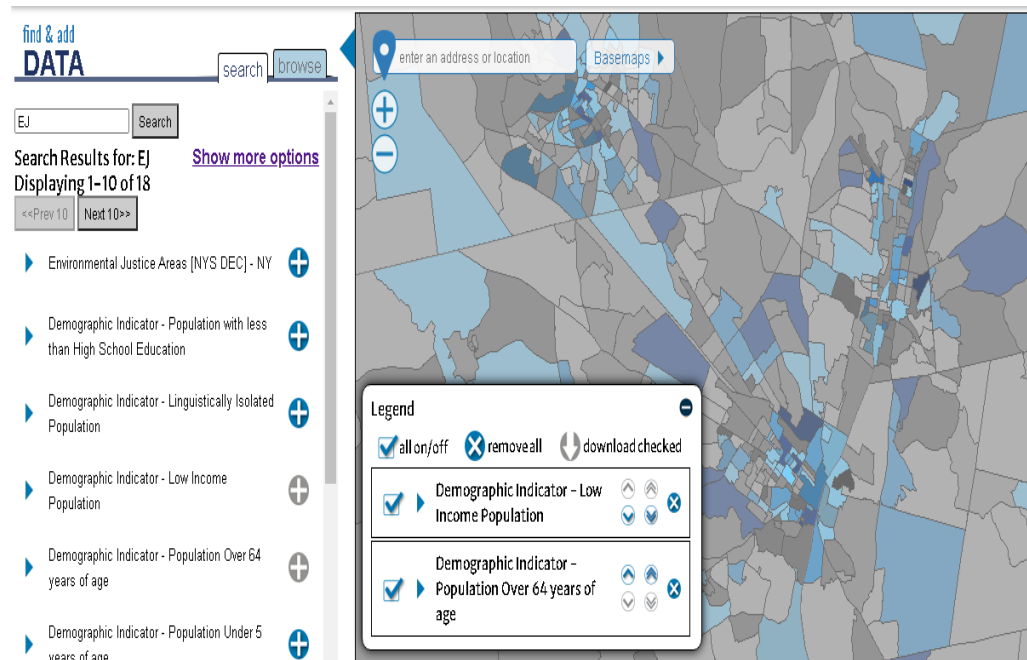
- EPA Environmental Indicators from EJ Screen & CalEnviro
  - Ozone
  - Particulate Matter
  - Superfund Proximity
  - RMP Proximity
  - NATA Cancer Risk
  - NATA Diesel Particulate Matter
  - Lead Paint Indicator
  - Traffic Proximity and Volume
  - Hazardous Waste Proximity
  - Wastewater Discharge
  - NATA Respiratory HI
- NYS DEC Environmental Justice Areas



# EJ & Just Transition Working Group: Mapping Subgroup

## Discussed Datasets:

- EPA Socio-Economic Indicators from EJ Screen & CalEnviro:
  - Low income Population
  - Linguistic Isolation
  - Level High School Education
  - Population under 5 years of age
  - Population over 64 years of age
  - Demographic Index
  - People of Color Population



# EJ & Just Transition Working Group: Mapping Subgroup

## Datasets added to DOS Geographic Information Gateway

Datasets downloaded from EJScreen and loaded up to Gateway AWS cloud servers for public access, viewing, and download

The screenshot displays the New York Geographic Information Gateway interface. The main navigation bar includes 'HOME', 'ABOUT', 'DOWNLOAD', 'VIEW', 'FOCUS', 'FEEDBACK', and the 'NYS GIS' logo. The search results for 'EJ' are displayed on the left, showing a list of datasets with expandable options. A map on the right shows the geographic distribution of these datasets, with a legend overlay providing details on the 'Demographic Indicator - Low Income Population' and 'Demographic Indicator - Population Over 64 years of age'.

**Search Results for: EJ**  
Displaying 1-10 of 18

- Environmental Justice Areas (NYS DEC) - NY
- Demographic Indicator - Population with less than High School Education
- Demographic Indicator - Linguistically Isolated Population
- Demographic Indicator - Low Income Population
- Demographic Indicator - Population Over 64 years of age
- Demographic Indicator - Population Under 5 years of age

**Legend**

Demographic Indicator - Low Income Population

Legend:

- 0.000000 - 50.000000
- 50.000001 - 60.000000
- 60.000001 - 70.000000
- 70.000001 - 80.000000
- 80.000001 - 90.000000
- 90.000001 - 95.000000
- 95.000001 - 100.000000

Demographic Indicator - Population Over 64 years of age

New York Department of State | Powered by Esri

# EJ & Just Transition Working Group: Mapping Subgroup

## An Additional 37 Datasets Discussed and Recommended:

- 20 Environmental indicator datasets
- 17 Socio-economic indicator datasets

These datasets are not available consistently across the nation, but are available for New York. However, data needs additional GIS work to get to consistent state-wide coverage, such as:

- Aggregating to census tract (e.g. Impaired waterbodies, Toxic release)
- Synthesis to create proximity buffers (e.g. Environmental remediation sites, “Peakers”)
- Aggregate across years, determine significant rate (e.g. Asthma hospitalization)



# EJ & Just Transition Working Group: Mapping Subgroup Recommendations

## Recommendations:

- Additional indicators should include State program implementation and funding, to ensure State resources are justly distributed based on legacies of disproportionate environmental, health, and economic burdens.
- Mapping tool should be user-friendly and include multiple indicators that encompass environmental, climate, health, and socioeconomic burdens while accounting for cumulative impacts from diverse polluting sources, exposure pathways, and vulnerability indicators.



# EJ & Just Transition Working Group: Mapping Subgroup Recommendations

## Recommendations:

- EJ Communities and stakeholder groups **must** be involved in guiding development and testing the outcomes of the mapping tool. The finalized data structures, metrics, methods, and analyses that the State utilizes to identify EJ communities should be developed in partnership with the environmental justice parties of the EJ & JT Working Group, and in consultation with other relevant stakeholders and experts identified by the Working Group.
- Indicator data deemed not feasible for use in the mapping tool should still be available to the public for viewing and access.



# EJ & Just Transition Working Group: Mapping Subgroup Recommendations

## Next Step toward an NY EJMapper:

- Establish a Knowledge Expert group familiar with each recommended dataset to identify significant thresholds for each dataset





ILLUME



# New York Climate Justice Working Group

Overview of California's approach to  
Disadvantaged Communities definition,  
and EPA EJScreen

Amanda Dwelley  
Director, ILLUME Advising LLC

October 1, 2020

# About ILLUME



Ethnographic research, market research and analytics around energy needs and barriers

People and households historically underserved by energy programs and services

Human-centered research as a platform for policy engagement

National scale, including Massachusetts, California, Arizona, Minnesota, Oregon, New York and EPA/DOE

# Objectives



Understand how other states have identified disadvantaged communities



Start with California – Multi-year public process

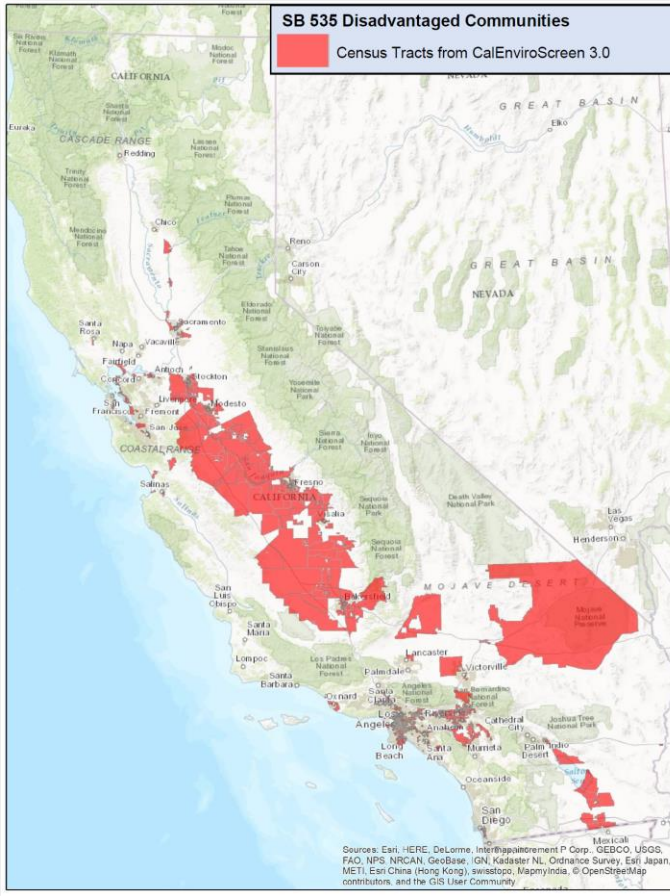


Develop shared references for screening, scoring and classification process



Quick snapshot – Ideas to explore

California's Approach  
to Identifying  
Disadvantaged Communities



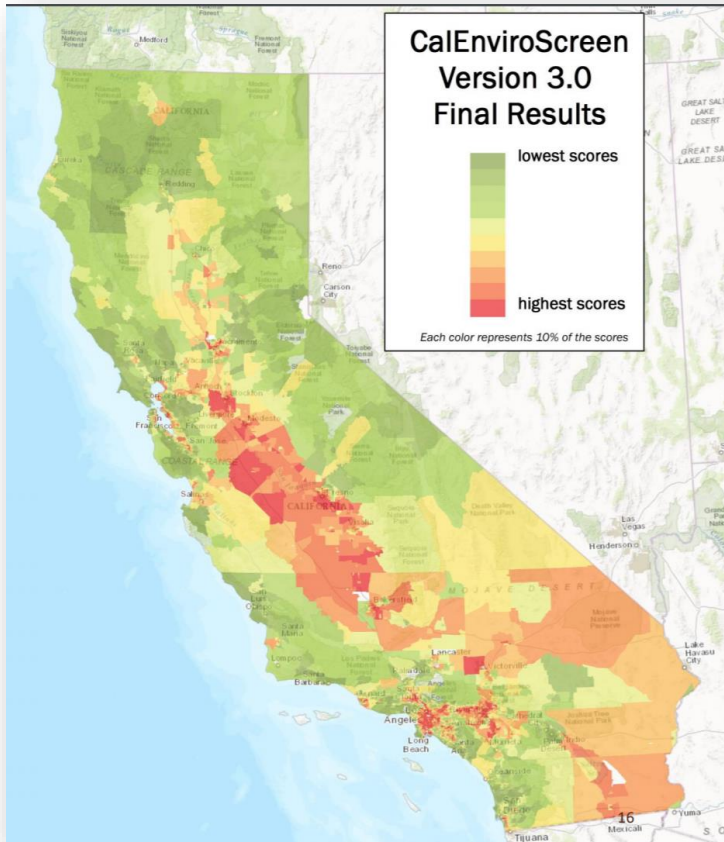
# Why start here?

Legislative goal of allocating 25% of Climate Change Investments (carbon auction proceeds) to Disadvantaged Communities

To meet legislation, CalEPA had to designate DACs on “yes” / “no” basis

California includes many of the criteria (risks, vulnerabilities) listed in CLCPA

Long, robust and iterative stakeholder process



# CalEnviroScreen 3.0

Screening tool to identify California communities that are disproportionately burdened by, and vulnerable to, multiple sources of pollution

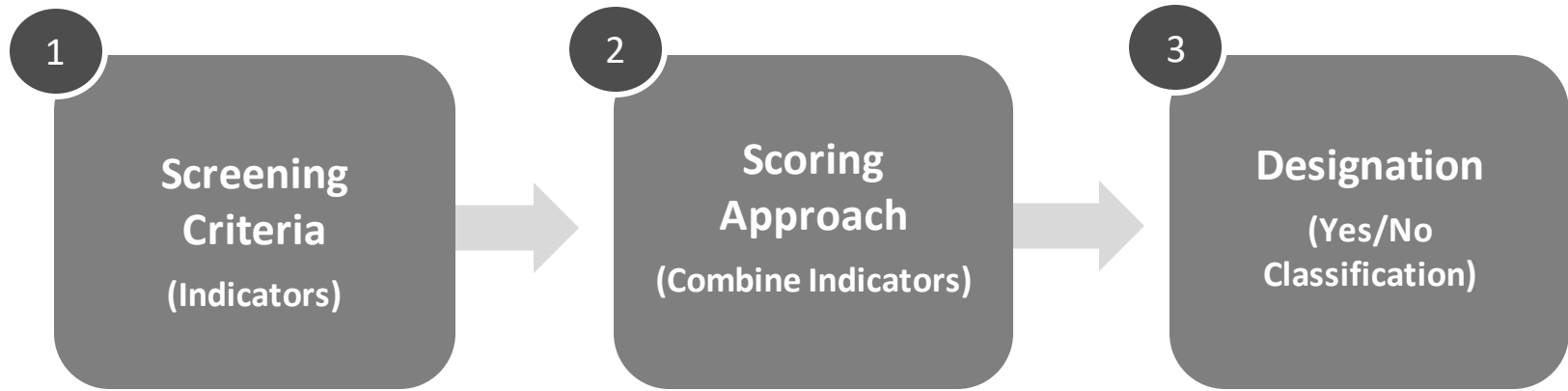
Developed by Office of Environmental Health Hazard Assessment (OEHHHA)

Uses 20 indicators of environmental, health, and socioeconomic conditions

CalEnviroScreen does not designate DACs; CalEPA is responsible for designation

Top 25% highest-scoring census tracts designated as “Disadvantaged Communities”

# Generalized Steps Toward DAC Designation





## Indicators

Pollution Burden	Population Characteristics
<b>Exposures</b> <ul style="list-style-type: none"> <li>Ozone</li> <li>PM2.5</li> <li>Diesel PM</li> <li>Pesticide Use</li> <li>Traffic</li> <li>Drinking Water Contaminants</li> <li>Toxic Releases from Facilities</li> </ul>	<b>Sensitive Populations</b> <ul style="list-style-type: none"> <li>Asthma</li> <li>Cardiovascular Disease</li> <li>Low Birth-Weight Infants</li> </ul>
<b>Environmental Effects</b> <ul style="list-style-type: none"> <li>Solid Waste Sites and Facilities</li> <li>Cleanup Sites</li> <li>Groundwater Threats</li> <li>Impaired Water Bodies</li> <li>Hazardous Waste Generators and Facilities</li> </ul>	<b>Socioeconomic Factors</b> <ul style="list-style-type: none"> <li>Poverty</li> <li>Unemployment</li> <li>Educational Attainment</li> <li>Linguistic Isolation</li> <li>Housing Burdened</li> <li>Low Income Households</li> </ul>

# CalEnviroScreen

## Screening Criteria (Indicators)

### Pollution Burden

Exposures: Contact with pollution

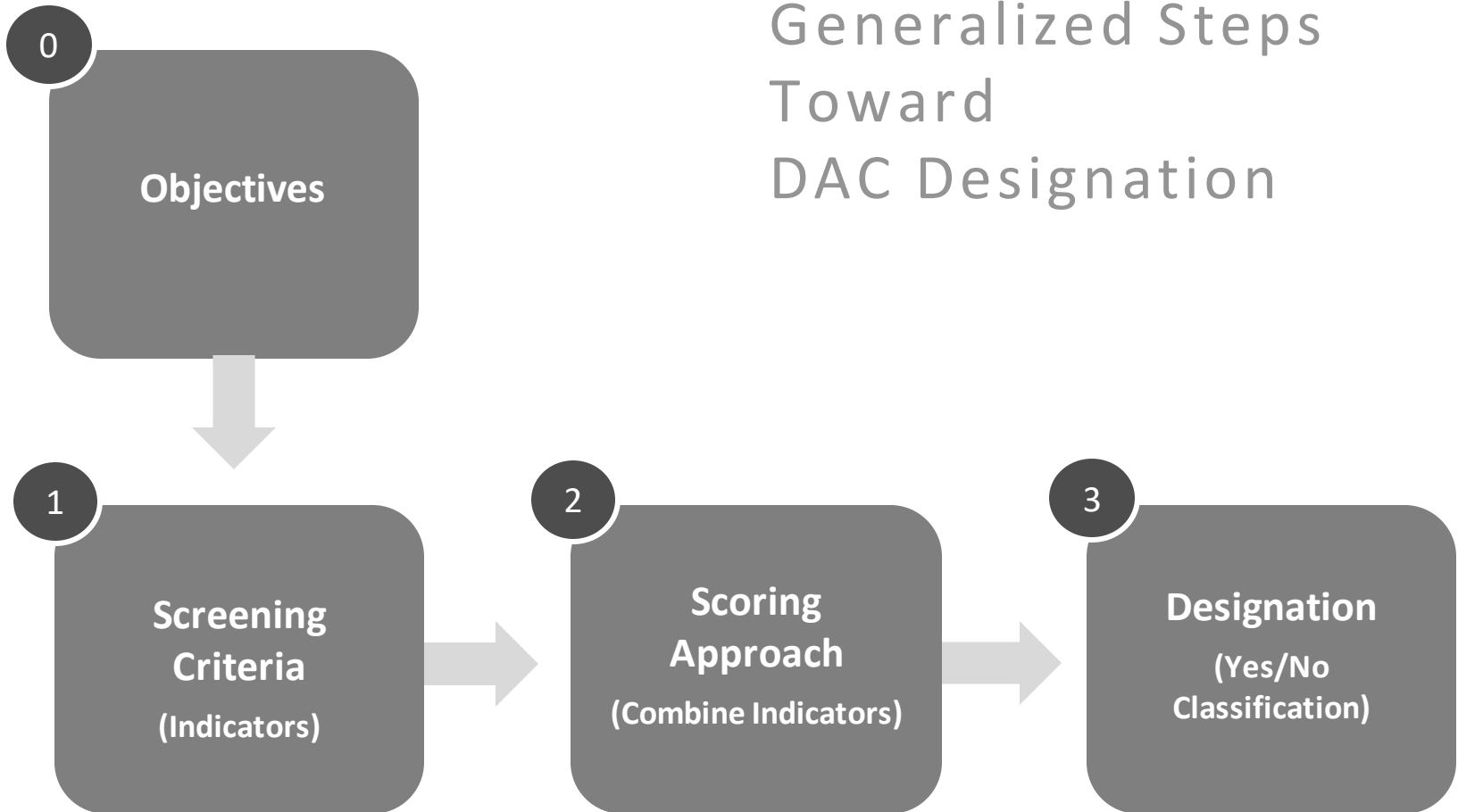
Environmental Effects: Adverse environmental conditions caused by pollution

### Population Characteristics

Sensitive populations (traits that may magnify effects of pollution)

Socioeconomic factors: Community characteristics that result in increased vulnerability to pollution

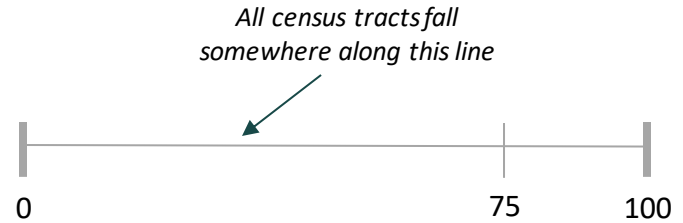
# Generalized Steps Toward DAC Designation



# CalEnviroScreen

## Simplified Scoring Approach

Assign a **percentile score** to each census tract for each indicator (0-100):



Calculate **average of indicator scores** *within*

- (1) Pollution Burden<sup>a</sup> and
- (2) Population Characteristics

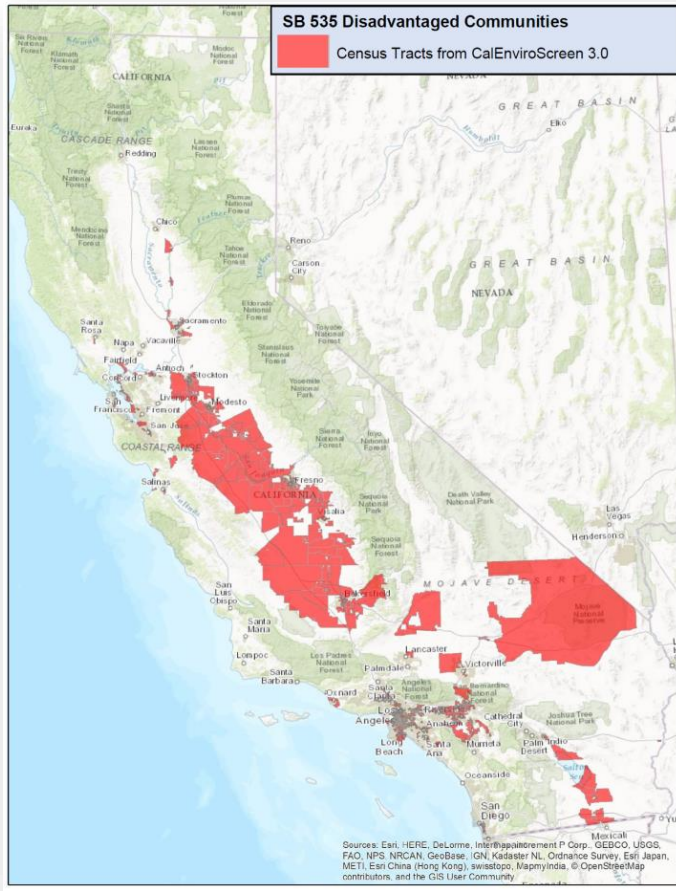
**Multiply** component<sup>b</sup> scores:



Source: <https://oehha.ca.gov/calenviroscreen/scoring-model>

<sup>a</sup> The Environmental Effects component is weighted one-half because authors consider Environmental Effects to make a smaller contribution to Pollution Burden than Exposures

<sup>b</sup> Component scores were re-scaled to 0-10 scale before multiplying so final index scale is 0-100



# DAC Definition

## Designating DACs

Order census tracts by overall EnviroScreen score

Designate top 25% as Disadvantaged Communities\*

This threshold went through considerable discussion and review

Map source: <https://calepa.ca.gov/wp-content/uploads/sites/6/2017/04/SB-535-Designation-Final.pdf>

Snapshot of scoring approach: [https://apps.cce.csus.edu/sites/CalRecycle/usedoil16/speakers/uploads/Fl-3-Walker\\_Weiland\\_PP.pdf](https://apps.cce.csus.edu/sites/CalRecycle/usedoil16/speakers/uploads/Fl-3-Walker_Weiland_PP.pdf)

\*Census tracts in top 5% of Pollution Burden without a Population Characteristics score (due to unreliable data) are also designated

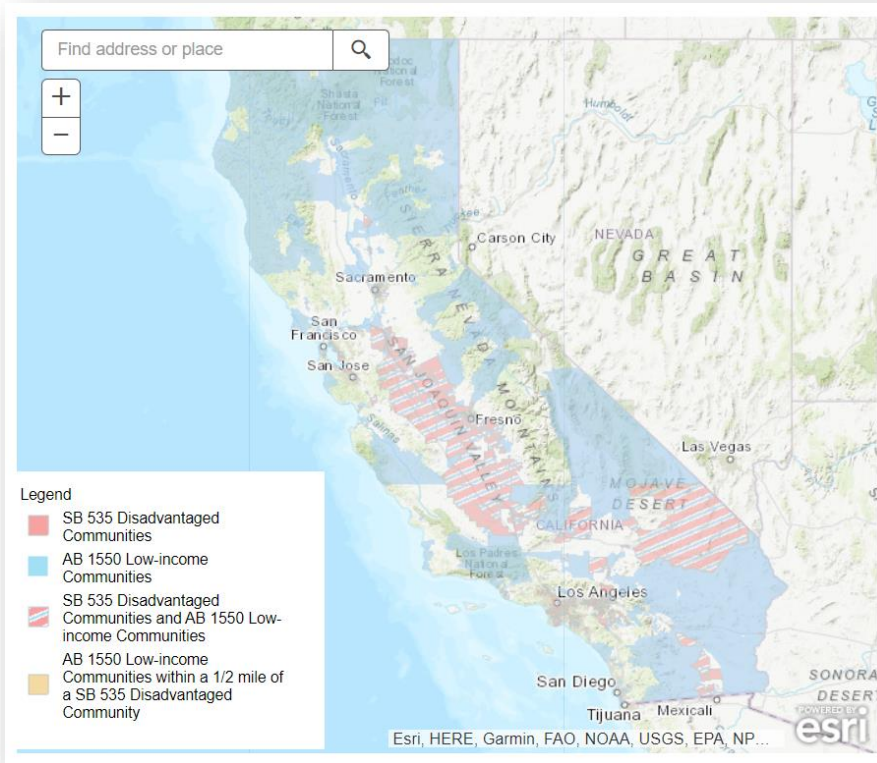
# Priority Populations

## Evolution of DACs

Concerns that SB 535's definition of a Disadvantaged Community did not reach enough low-income Californians

AB 1550 amended SB 535 to include a **10 percent set-aside** of California Climate Investments for low-income communities and households

Now, California Climate Investments must direct at least 35% of investments to benefit priority populations



Source: <https://ww3.arb.ca.gov/cc/capandtrade/auctionproceeds/communityinvestments.htm>

Identification of low-income communities:

[https://ww2.arb.ca.gov/sites/default/files/classic/cc/capandtrade/auctionproceeds/kml/ab1550\\_maps\\_documentation.pdf](https://ww2.arb.ca.gov/sites/default/files/classic/cc/capandtrade/auctionproceeds/kml/ab1550_maps_documentation.pdf)

# CalEnviroScreen

## Stakeholder Process

Work on an Environmental Justice screening tool started ~10 years before first public version released

Scientific and academic experts from OEHHA, CalEPA other agencies and universities

12 regional public workshops about criteria and thresholds for definition

Written comment period (1,000 written comments)



Workshop attendees discuss what makes a project eligible for cap-and-trade funds.  
Photo: Melanie Curry/Streetsblog

# California Approach

## References

Two-page fact sheet:

<https://oehha.ca.gov/media/downloads/calenviroscreen/fact-sheet/ces30factsheetfinal.pdf>

OEHHA training presentation (including scoring approach):

[https://apps.cce.csus.edu/sites/CalRecycle/useoel16/speakers/uploads/EI-3-Walker\\_Weiland\\_PP.pdf](https://apps.cce.csus.edu/sites/CalRecycle/useoel16/speakers/uploads/EI-3-Walker_Weiland_PP.pdf)

Designation of Disadvantaged Communities:

<https://calepa.ca.gov/wp-content/uploads/sites/6/2017/04/SB-535-Designation-Final.pdf>

Designation of Priority Populations:

<http://www.caclimateinvestments.ca.gov/priority-populations>

Methodological considerations and rationale:

[https://caleja.org/wp-content/uploads/2018/08/CEJA-CES-Report-2018\\_web.pdf](https://caleja.org/wp-content/uploads/2018/08/CEJA-CES-Report-2018_web.pdf)

Final report and technical documentation:

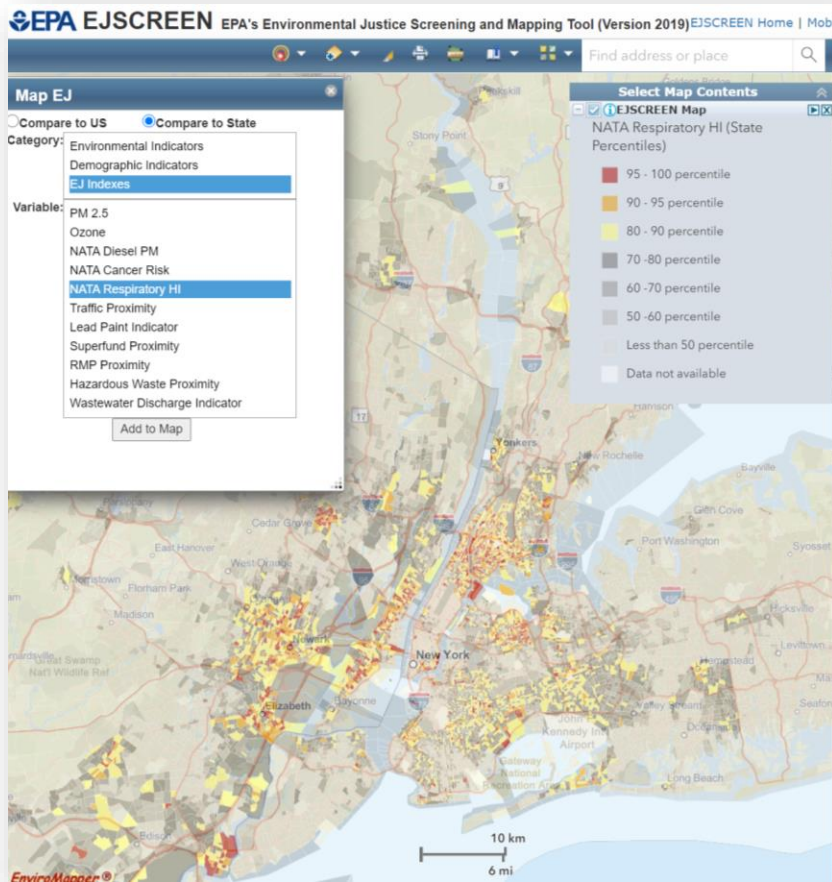
<https://oehha.ca.gov/media/downloads/calenviroscreen/report/ces3report.pdf>

Major public comments received:

<https://oehha.ca.gov/media/downloads/calenviroscreen/comment/ces3responsetocomments.pdf>

E P A E J S c r e e n





# EPA EJScreen

Pre-screening tool for locations that may be of interest from EJ Perspective

*Not combined into an index*

Set of environmental and demographic indicators related to environmental justice

11 environmental indicators - Including air– Air toxics, traffic, proximity to hazardous waste/water

New York statewide data available to download

Questions?

# A P P E N D I X

# CLCPA Criteria for Disadvantaged Communities

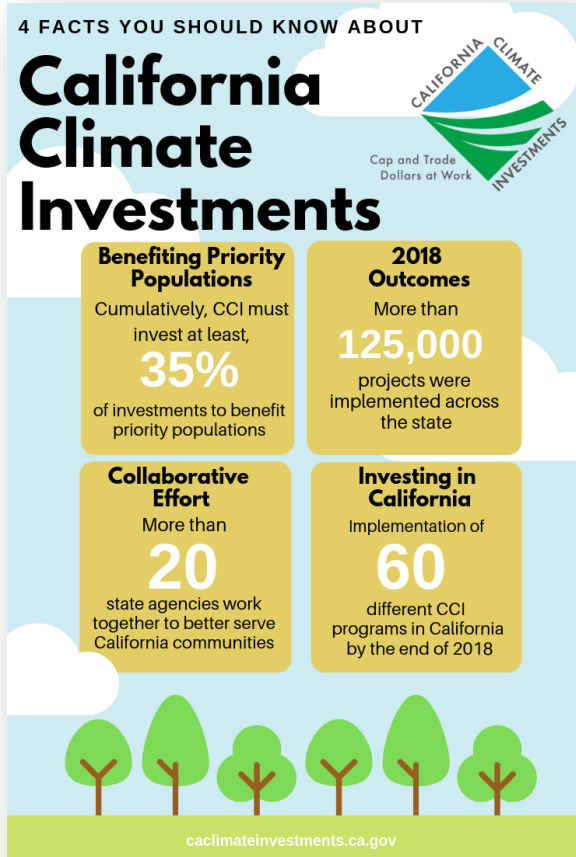
*“Communities that bear burdens of negative public health effects, environmental pollution, impacts of climate change, and possess certain socioeconomic criteria, or comprise high-concentrations of low- and moderate-income households.”*

*“Disadvantaged communities shall be identified based on geographic, public health, environmental hazard, and socioeconomic criteria, which shall include but are not limited to:*

*Areas burdened by cumulative environmental pollution and other hazards that can lead to negative public health effects.*

*Areas with concentrations of people that are of low income, high unemployment, high rent burden, low levels of home ownership, low level of educational attainment, or members of groups that have historically experienced discrimination on the basis of race or ethnicity.*

*Areas vulnerable to the impacts of climate change such as flooding, storm surges, and urban heat island effect.”*



# CalEnviroScreen

## Applications

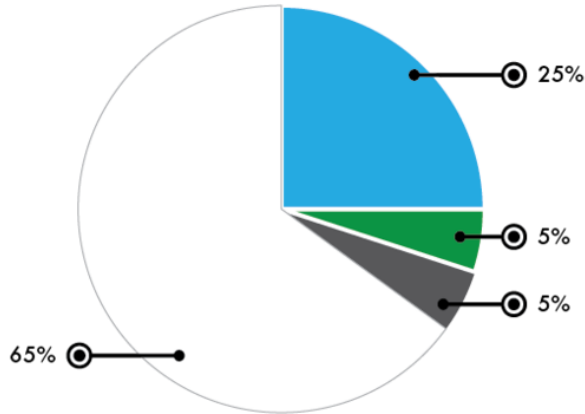
Agencies using Greenhouse Gas Reduction Funds must use DAC designation to allocate funds

Numerous agencies administer California Climate Investments (cap-and-trade) funds:

- Transportation and Sustainable Communities
- Clean Energy and Energy Efficiency
- Natural Resources and Waste
- Cross-Sectoral Projects

# California Climate Investments

At least 25 percent of carbon auction proceeds must be used directly in disadvantaged communities identified by CalEPA, and a further 10% to low-income communities or households



65 percent of funds can be spent anywhere in the state, including in disadvantaged and low-income communities.

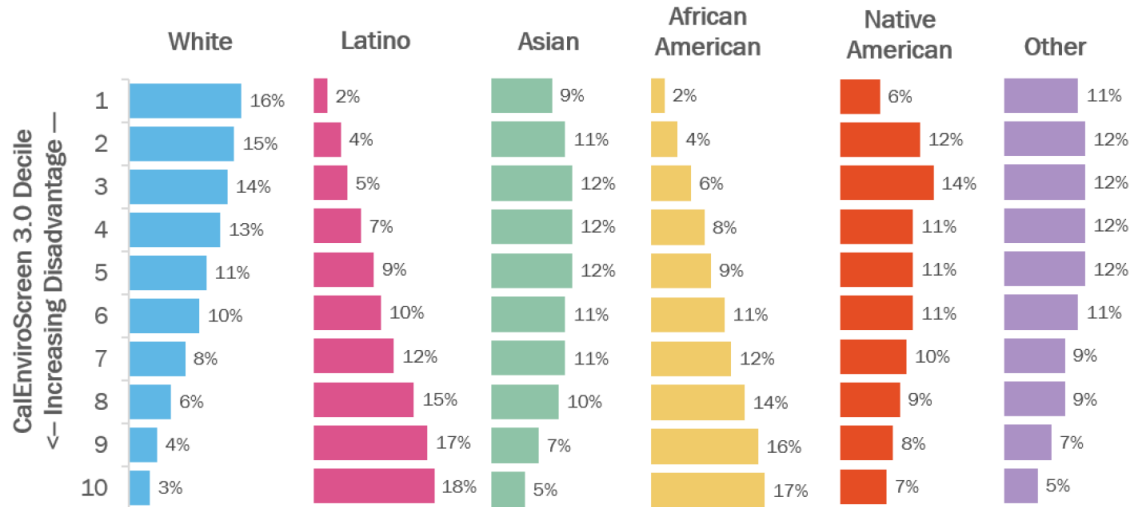
A minimum of 25 percent of the proceeds be invested in projects that are located within and benefiting individuals living in disadvantaged communities;

An additional minimum of 5 percent be invested in projects that are located within and benefiting individuals living in low-income communities or benefiting low-income households statewide; and

An additional minimum of 5 percent that are located within and benefiting individuals living in low-income communities, or benefiting low-income households, that are within a ½ mile of a disadvantaged community.

# Race and Ethnicity by CalEnviroScreen Score

Fraction of Each Ethnic Group's Population in Each Decile of CalEnviroScreen 3.0 Score



Air	Air Toxics Cancer Risk
	Air Toxics Respiratory Hazard Index
	Particulate Matter in air (PM2.5)
	Diesel Particulate Matter in air (DPM)
	Ozone (summer)
Air/Other	Traffic Proximity and Volume
Housing	Lead Paint Indicator
Waste/ Water	Proximity to Risk Management Plan Sites
	Proximity to Treatment Storage and Disposal Facilities
	Proximity to National Priorities List Sites
	Wastewater Discharge Indicator

# EPA EJScreen

## Environmental Indicators

Risks/hazards, potential exposures and proximity

Does not contain climate change indicators

Results published at block group level

But, all air quality estimates are tract resolution: Same for all block groups within a census tract

EPA warns about measurement error and uncertainty at small geographic levels

Snapshot of indicators: <https://www.epa.gov/ejscreen/overview-environmental-indicators-ejscreen>

Detailed documentation: [https://www.epa.gov/sites/production/files/2015-05/documents/ejscreen\\_technical\\_document\\_20150505.pdf](https://www.epa.gov/sites/production/files/2015-05/documents/ejscreen_technical_document_20150505.pdf)



# Other Tools, Maps and Indices to Explore

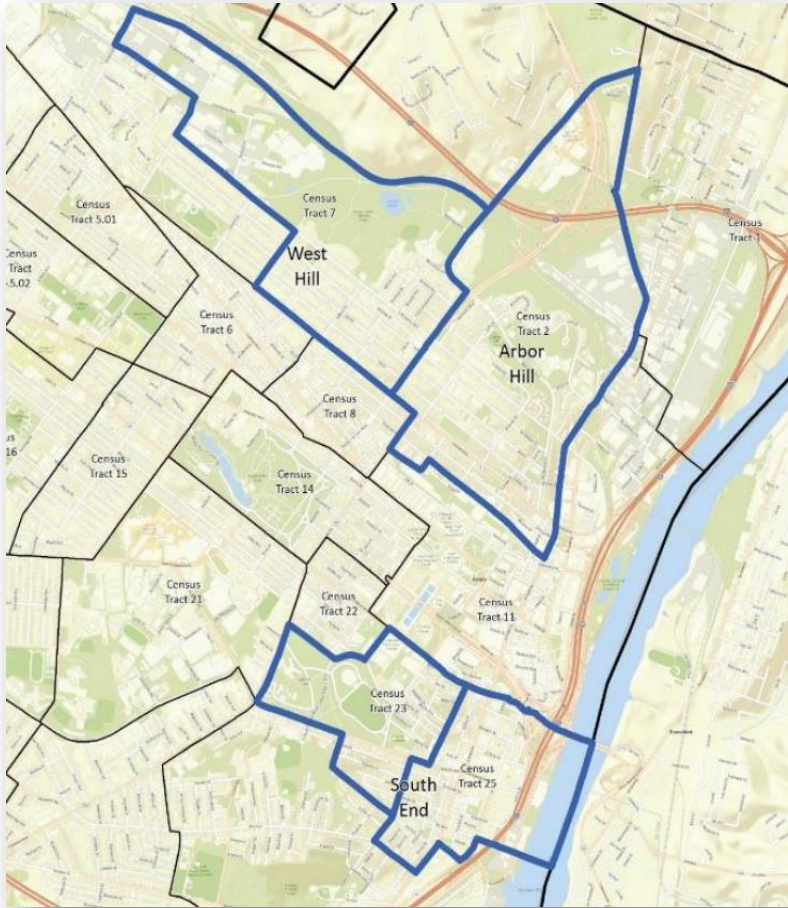
- NREL Solar for All: Map climate and environment, low-to-moderate income and health dimensions - <https://maps.nrel.gov/solar-for-all/>
- Washington State [Environmental Health Disparities Map](#)
- Notre Dame Global Adaptation Initiative [Urban Adaptation Assessment](#)
- FEMA Community Resilience Analysis Tool – <https://www.fema.gov/emergency-managers/practitioners/resilience-analysis-and-planning-tool>

# C e n s u s   G e o g r a p h i e s

# Census Tracts in New York

4,918 census tracts in New York State

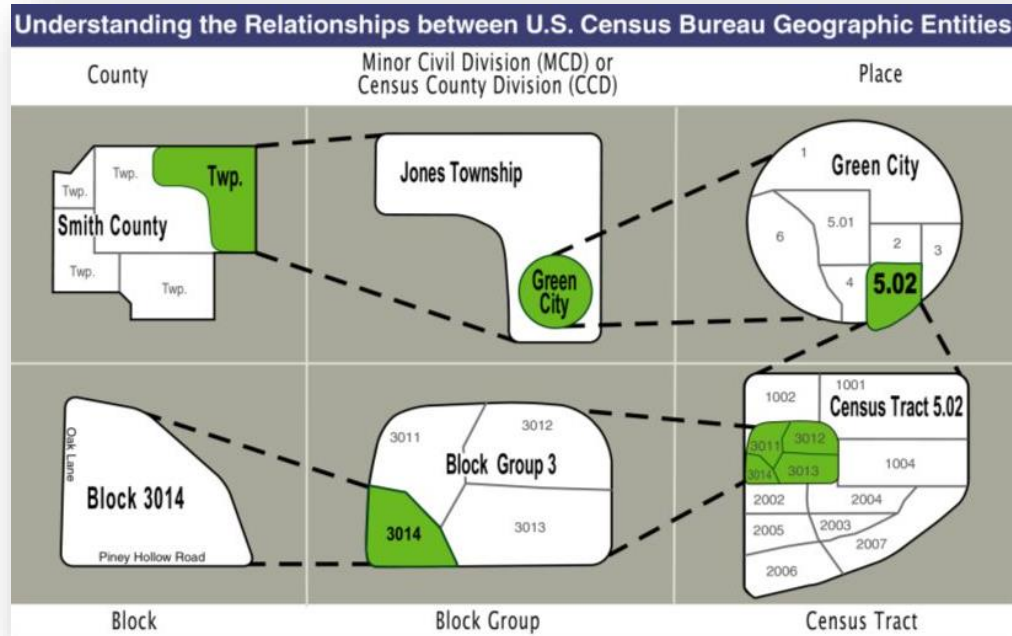
Average of 3,989 people and 1,488 households per  
census tract.



Example Census Tracts  
(Albany)

# Census Geographies

- Census tracts common for community-level analysis and EJ and DAC screening tools
- About 4,000 households per census tract
- Block groups are smaller – About 1/3 size of tracts
- Trade-offs in data availability and reliability



# Considerations

## EPA EJScreen:

*“Demographic estimates for a single block group are often based on a small sample of the local population, and are uncertain. Similarly, some environmental indicator estimates are derived from lower-resolution data, and all involve uncertainty. Therefore, it is typically very useful and advisable to summarize EJSCREEN data within a larger area that covers several block groups”*

*“The demographic uncertainty combined with uncertainty in environmental data means EJ index values are **often quite uncertain for a single block group.**”*

*“We do not have a high degree of confidence when comparing or ranking places with only modest differences in estimated percentile. For this reason, **it is critical that EJSCREEN results be interpreted carefully, particularly for individual block groups.**”*

## California OEHHA:

*“We believe census tracts are currently the most useful scale of analysis for the CalEnviroScreen tool. Using census blocks groups, which are smaller than census tracts, and census designated places would be difficult since comparison would have to be made with census blocks groups statewide.”*

*“Further, some of the data used in CalEnviroScreen is either **unavailable or statistically unreliable** at the census block group scale.”*

# Next Steps

