

Climate Change & Environmental Justice

2024 May Training



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Overview

Climate Change

- Definition
- Impacts

Environmental Justice

- Definition
- Goals
- Tools
- Project goals
- Community health



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Climate Change Defined

Climate change is a periodic modification of Earth's climate brought about as a result of changes in the atmosphere as well as interactions between the atmosphere and various other geologic, chemical, biological, and geographic factors within the Earth system.

What does climate change look like?



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Climate Change

- The most severe harms from climate change fall disproportionately upon underserved communities who are least able to prepare for, and recover from, heat waves, poor air quality, flooding, and other impacts.



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From: [EPA Report Shows Disproportionate Impacts of Climate Change on Socially Vulnerable Populations in the United States | US EPA](#)



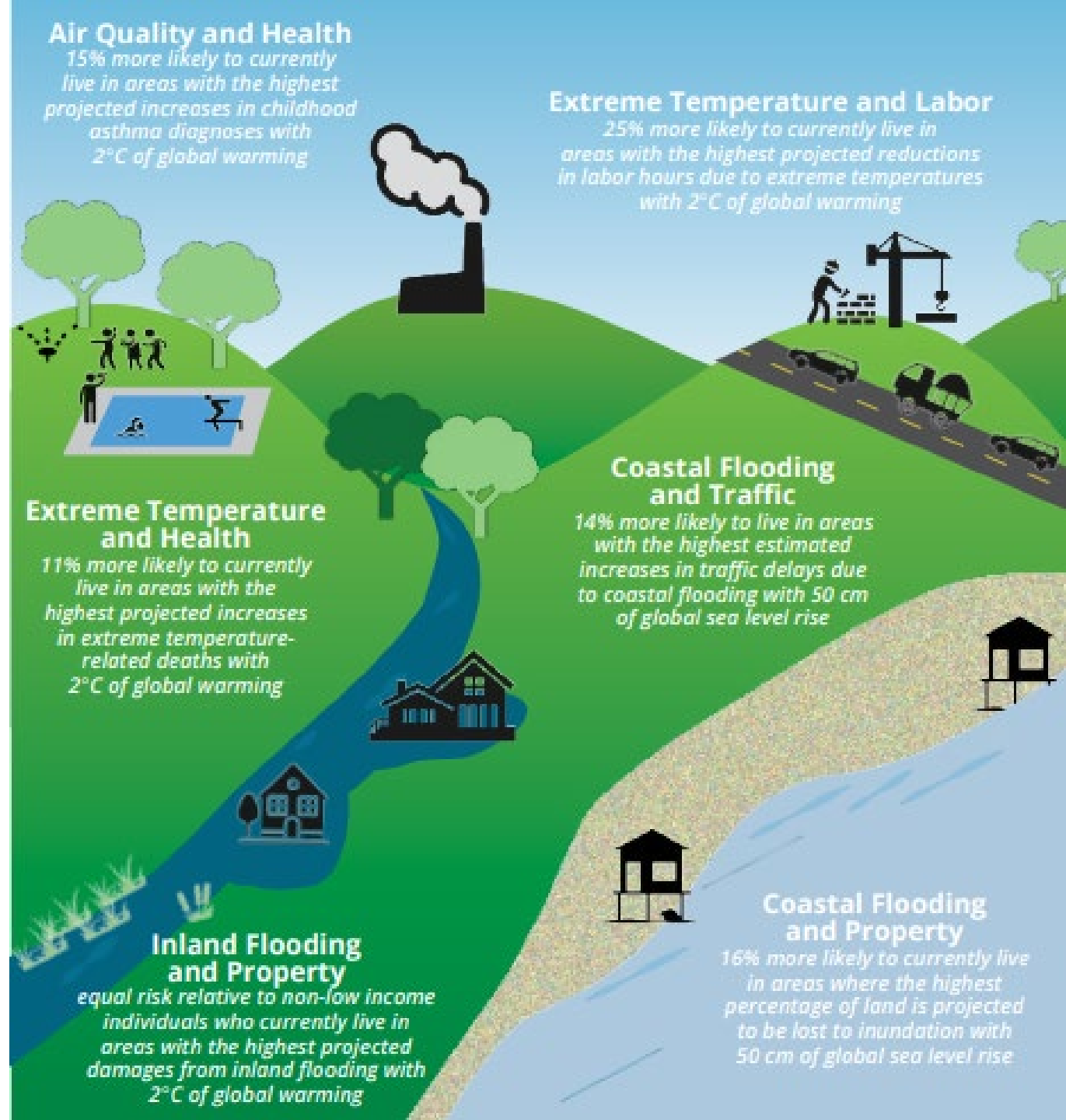
Climate Change

Low Income and 2 degree Celsius change

From Report: [EPA. 2021. Climate Change and Social Vulnerability in the United States: A Focus on Six Impacts. U.S. Environmental Protection Agency, EPA 430-R-21-003.](#)



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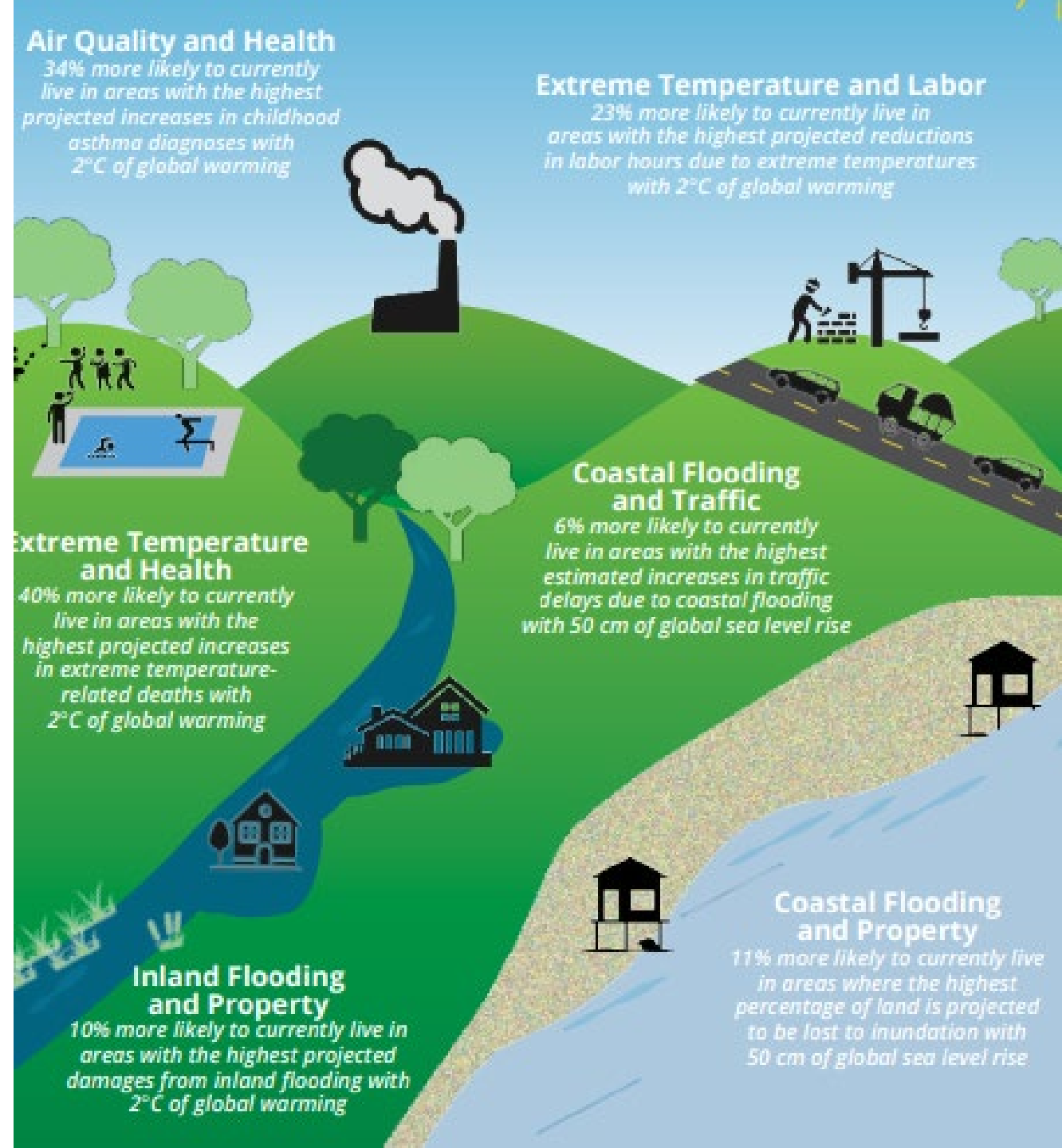
Climate Change

Black and African American Individuals and 2 degree Celsius change

From Report: [EPA. 2021. Climate Change and Social Vulnerability in the United States: A Focus on Six Impacts. U.S. Environmental Protection Agency, EPA 430-R-21-003.](#)



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“Environmental justice” means the just treatment and meaningful involvement of all people, regardless of income, race, color, national origin, Tribal affiliation, or disability, in agency decision-making and other Federal activities that affect human health and the environment so that people:

- are fully protected from disproportionate and adverse human health and environmental effects (including risks) and hazards, including those related to climate change, the cumulative impacts of environmental and other burdens, and the legacy of racism or other structural or systemic barriers; and
- have equitable access to a healthy, sustainable, and resilient environment in which to live, play, work, learn, grow, worship, and engage in cultural and subsistence practices



Inequality

Unequal access to opportunities



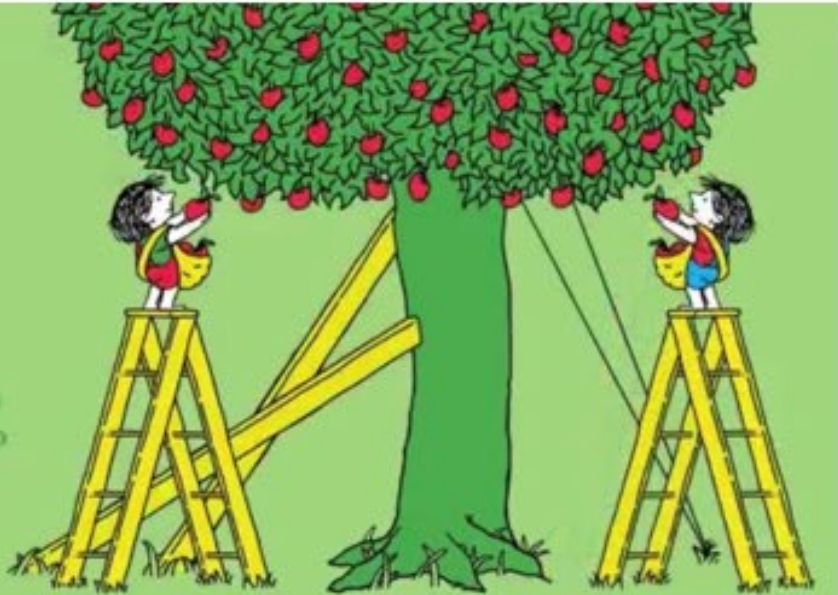
Equality?

Evenly distributed tools and assistance



Justice

Fixing the system to offer equal access to both tools and opportunities



Equity

Custom tools that identify and address inequality





Landmark Legislation

- The Civil Rights Act of 1964 Title VI
- Clean Air Act Amendments of 1990
- Executive Order 12898
- Executive Order 14008



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Where are we now?

- Implementation of Executive Order 14008
- Justice40
 - At least 40% of the overall benefits from certain federal investments to disadvantaged communities that are marginalized, underserved and overburdened by pollution.
- Climate and Economic Justice Screening Tool
- EJ Scorecard
- White House EJ Interagency Council (IAC)
- White House EJ Advisory Council (WHEJAC).





End Goals



- “This goal will be achieved when everyone enjoys the same degree of protection from environmental and health hazards, and equal access to the decision-making process to have a healthy environment in which to live, learn, work.” – EPA
- Efforts to achieve environmental justice require collaboration.

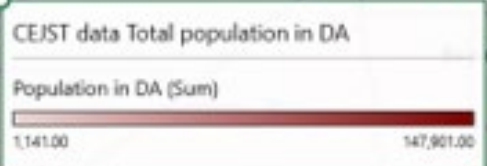
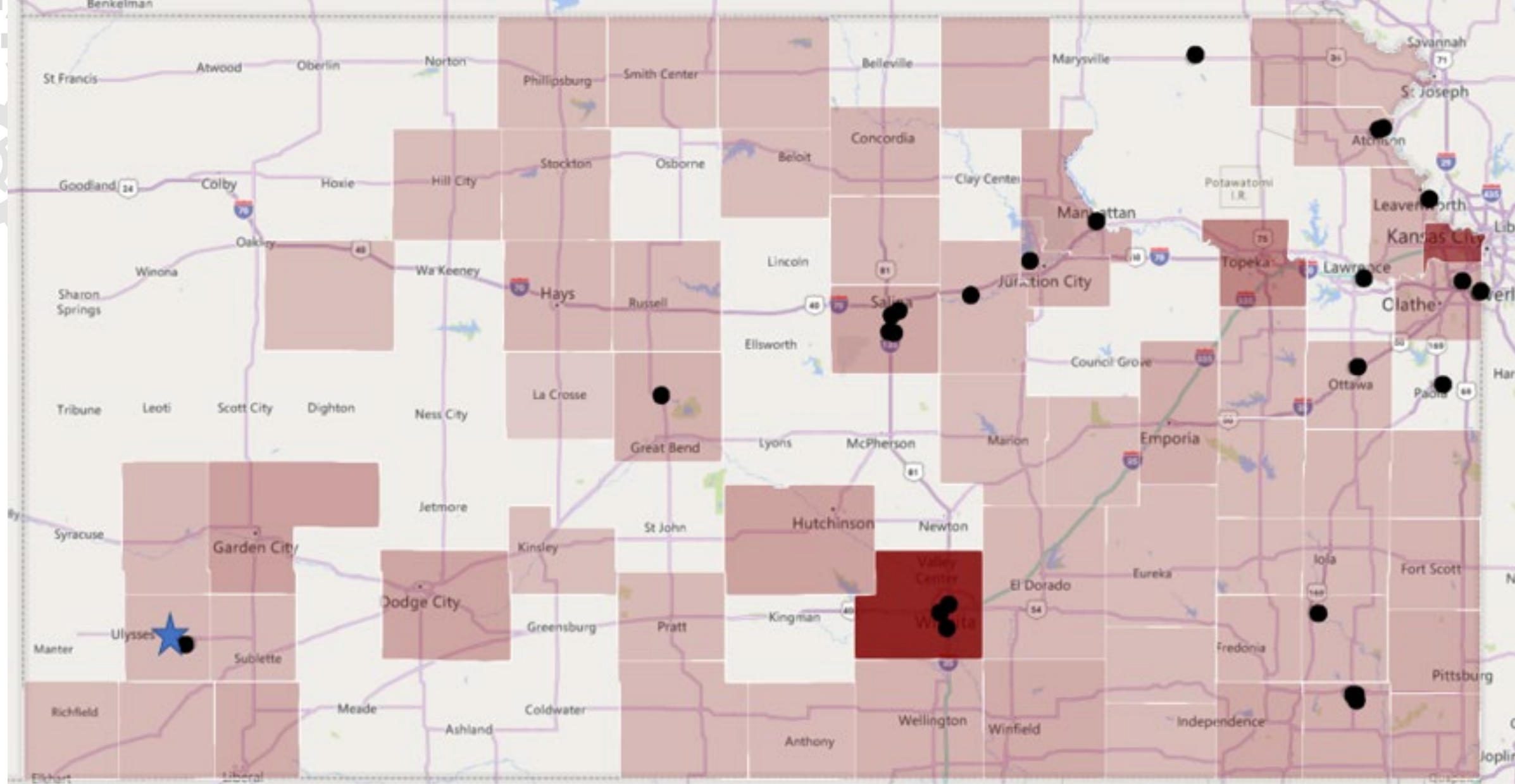




How do we Identify EJ communities?

- CEQ's Climate and Economic Justice Screening Tool (CEJST)
 - [Explore the map - Climate & Economic Justice Screening Tool \(geoplatform.gov\)](https://geoplatform.gov)
- EPA's EJ Screen
 - [EJScreen \(epa.gov\)](https://epa.gov)
- EPA's EJ P2 Mapping Tool
 - [P2 EJ \(epa.gov\)](https://epa.gov)
- CDC's Environmental Justice Index (EJI)
 - [EJI Explorer \(cdc.gov\)](https://cdc.gov)
- EPA's Enforcement and Compliance History Online (ECHO)
 - [Enforcement and Compliance History Online | US EPA](https://epa.gov)
- These tools can be found in Intern Files in Teams under Calculators and Tools





Dark data points are intern project locations

Pink shaded counties are shaded based off of CEJST disadvantaged community data by **total population** – The darker the shading the more population lives in a DA community.

The blue star represents Birla Carbon





How do your projects play a role in environmental justice?

- Pollution prevention can directly influence the disproportional burden of environmental and health hazards experienced by disadvantaged communities.
- High emitters
- Hazardous solvent reduction
- Water and energy usage



Let's take a look

How would decreasing an industry's energy usage affect disadvantaged communities?

Producing and using electricity more efficiently reduces both the amount of fuel needed to generate electricity and the amount of greenhouse gases and other air pollution emitted as a result.



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Let's take a look

How does water usage impact disadvantaged communities?

- Higher water prices, seasonal loss of recreational areas (lakes, rivers), expensive water treatment projects to transport and store freshwater
- Industrial water usage: 14.8 Bgal/day in 2015
- 40 states are anticipating water shortages by 2024, conservation is critical.



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Sources: [Total Water Use in the United States | U.S. Geological Survey \(usgs.gov\)](#)
[Water Conservation at EPA | US EPA](#)
[How We Use Water | US EPA](#)



Public and Community Health

- Air pollution and health
 - Particle Pollution (PM10 & PM2.5)
 - Ozone
- Proximity to industrial sources of air pollution, underlying health problems, poor nutrition, stress, and other factors can contribute to increased health impacts in these communities.



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Sources: - [Particle Pollution | Air | CDC](#)
- [Air pollution: How to reduce harm to your health - Harvard Health](#)
- [Ozone and Your Health | Air | CDC](#)
- [Research on Health Effects from Air Pollution | US EPA](#)

Activity

<https://ejscreen.epa.gov/mapper/>

- Look up the address of your host company
- Enter address into EJ Screen
- Click on Threshold Map and apply selection
- **Is your address in a highlighted area?**
- Click on the mark indicating host company location > EJScreen community report
- **What EJ indexes are over the 80th percentile?**



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Indexes Threshold Map Widget

Step 1. Select type of Index:

EJ Indexes Supplemental Indexes

Step 2. Select location:

Compare to US Compare to State

Step 3. Select Index percentile range:

Lower bound: Upper bound:

Step 4. Select number of indexes or individual Indexes (maximum 13) within percentile range:

At least 1 of the indexes is within the percentile range

Or

<input type="checkbox"/> Select All	<input type="checkbox"/> Traffic Proximity
<input type="checkbox"/> Particulate Matter 2.5	<input type="checkbox"/> Lead Paint
<input type="checkbox"/> Ozone	<input type="checkbox"/> Superfund Proximity
<input type="checkbox"/> Diesel Particulate Matter	<input type="checkbox"/> RMP Facility Proximity
<input type="checkbox"/> Air Toxics Cancer Risk	<input type="checkbox"/> Hazardous Waste Proximity
<input type="checkbox"/> Air Toxics Respiratory HI	<input type="checkbox"/> Underground Storage Tanks
<input type="checkbox"/> Toxic Releases to Air	<input type="checkbox"/> Wastewater Discharge

CEJST & EJ Screen

- Under 'Places' tab select Justice40 and add layer to the map
- Is your address disadvantaged under CEJST?
- If so, what categories of criteria does it meet?



EJ P2 Facility Mapping / ECHO

- [Detailed Facility Report | ECHO | US EPA](#)
- If your facility is not listed under the EJ P2 mapping tool, go straight to EPA's ECHO site: Look up facility by ZIP CODE
- What is your host company's NAICS Code?
- What is your host company's SIC Code?
- What types of permits do they have?
- Do they report to TRI?
 - If so what are they reporting?





Questions



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