THE
**GREENLINING
INSTITUTE**

Making Equity Real in Climate Mapping Tools and Platforms

6/13/23

Our Vision

The Greenlining Institute works towards a future where communities of color can build wealth, live in healthy places filled with economic opportunity, and are ready to meet the challenges posed by climate change.

Agenda

- Introductions
- Overview of Climate Mapping Tools
- Making Equity Real Framework
- Activity
- Wrap-up

Introductions

- Names
- Pronouns
- Organization
- Why is this topic interesting to you?

THE GREENLINING INSTITUTE

Agenda

- Introductions
- Overview of Climate Mapping Tools
- Making Equity Real Framework
- Activity
- Wrap-up

THE
GREENLINING
INSTITUTE

1937
Oakland Redlining Map

2021
CalEnviroScreen

May 17, 2021
Oakland COVID-19 Map

ECONOMIC, ENVIRONMENTAL, AND HEALTH IMPACTS
BASED ON RACE

Source: Alvaro Sanchez

What are mapping tools and how are they used?

Establish eligibility for public funding

Inform research on health, environmental, and socioeconomic factors

Aid community engagement processes

THE GREENLINING INSTITUTE

There are many mapping tools across various scales and geographies

Climate and Economic Justice Screening Tool

- Energy Justice Dashboard (Dept. of Energy)
- Transportation Disadvantaged Census Tracts (Dept. of Transportation)
- Social Vulnerability Index (Center for Disease Control)
- EJ Screen (Environmental Protection Agency)

Federal

CalEnviroScreen

- [Environmental Policy Innovation Center Beta EJ Tools Map](#)
- MDE EJ Screening Tool (Maryland)
- Colorado EnviroScreen (Colorado)
- MiEJScreen Environmental Justice Screening Tool (Michigan)
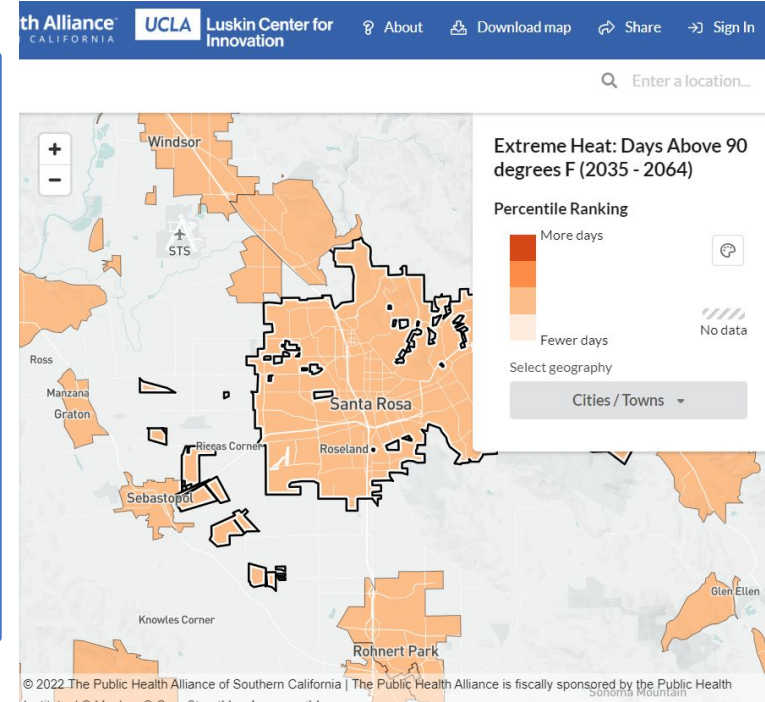- Illinois EPA EJScreen (Illinois)

State

Vulnerable Communities Platform

- Resilience Hotspots (Greenbelt Alliance)
- LA County Climate Vulnderablity Assessment (LA Chief Sustainability Office)
- Cal-Adapt (UC Berkeley, Energy Commission, Strategic Growth Council)

Regional and Local

Gaps in the Mapping Landscape

- According to APEN's report *Mapping Resilience*
  - 42 frameworks addressing climate vulnerability
  - 4 include multiple climate exposures, population sensitivity, and adaptive capacity

Agenda

- Introductions
- Overview of Climate Mapping Tools
- Making Equity Real Framework
- Recommendations
- Activity
- Wrap-up

THE GREENLINING INSTITUTE

How do we make equity real?

01 GOALS, VALUES, MISSION
How is equity described in the context of the overall goal of the policy, program or funding approach? Is equity a core component? Is it missing?

02 PROCESS
How does the policy, program or funding approach propose to deliver outcomes with equity as a focus? How are decisions made or influenced by communities with less political power or voice?

03 IMPLEMENTATION
How does implementation lead to equity outcomes? What are the explicit equity outcomes described in the policy, program or funding approach?

04 ANALYSIS, MEASUREMENT
How is equity progress measured? How do we know that equity goals were achieved?

Credit: Sona Mohnot, Jordyn Bishop, Alvaro Sanchez

THE GREENLINING INSTITUTE

Summary of Recommendations

THE GREENLINING INSTITUTE

01 GOALS, VALUES, MISSION
- Coordinate local, state, and federal tools
- Ensure transparency and accountability

02 PROCESS
- Partner with frontline communities to design and implement the tool
- Provide technical assistance and capacity building

03 IMPLEMENTATION
- Address data gaps
- Include cumulative impacts

04 ANALYSIS, MEASUREMENT
- Incorporate community ground-truthing
- Measure outcomes of how funding was allocated - maps are only tools, the outcomes are what really count!

Live Poll

How do you engage with mapping in your work?

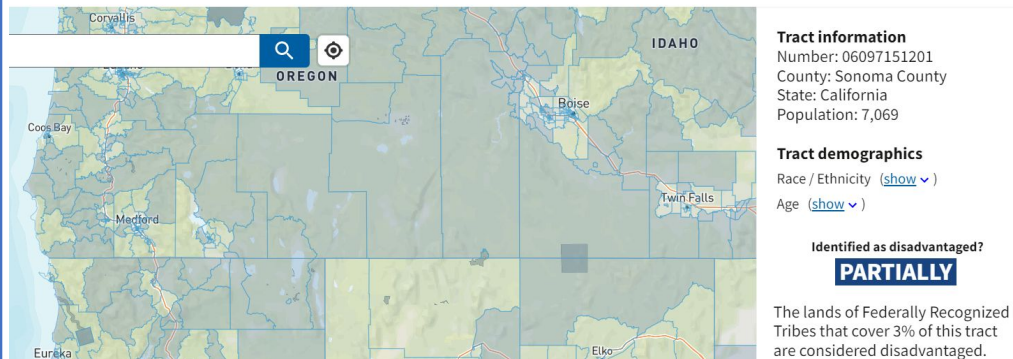

THE
GREENLINING
INSTITUTE

Example 1: Climate and Economic Justice Screening Tool

Purpose:
- Identify disadvantaged communities for J40 investments

Criteria:
- Based on 32 metrics in 8 categories
- Income one of the most important factors

Example 1: Climate and Economic Justice Screening Tool

01	GOALS, VALUES, MISSION	Clearly defined goal	Provide more clarity about coordination across federal tools
02	PROCESS	Worked with EJ advisory committee	Eliminate barriers to access and engagement
03	IMPLEMENTATION	Added data on climate vulnerability	Include cumulative impacts and proxy analysis for race
04	ANALYSIS, MEASUREMENT	Option for census tract level feedback	Timeline for upcoming iterations is unclear

THE GREENLINING INSTITUTE
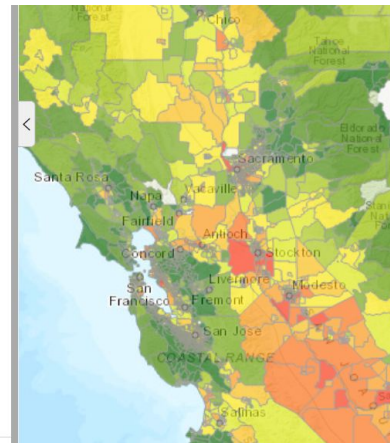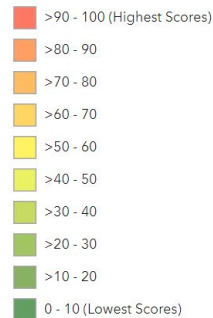
Example 2: CalEnviroScreen

Purpose:
- Identify disadvantaged communities for CalEPA and other California state agency funding programs

Criteria:
- Based on 21 metrics in 4 categories
- Includes cumulative impacts

Overall Percentile

CalEnviroScreen 4.0 Results

- >90 - 100 (Highest Scores)
- >80 - 90
- >70 - 80
- >60 - 70
- >50 - 60
- >40 - 50
- >30 - 40
- >20 - 30
- >10 - 20
- 0 - 10 (Lowest Scores)

THE GREENLINING INSTITUTE

Example 2: CalEnviroScreen

01	GOALS, VALUES, MISSION	Rooted in passage of SB 535, equity focused bill	Could have specified more guidelines for an equitable process
02	PROCESS	Several workshops across state for initial tool design	Lack of transparency in process for iterations
03	IMPLEMENTATION	Inclusion of qualitative information / groundtruthing	Threshold is at discretion of CalEPA without a clear process
04	ANALYSIS, MEASUREMENT	Analysis on correlation with race	Deeper analysis of success of tool

THE GREENLINING INSTITUTE

Example 3: Vulnerable Communities Mapping Platform

Purpose:
- Identify communities most vulnerable to the impacts of climate change

Criteria:
- Combination of climate and social / economic data
- Capture regional variation and community input

Vulnerable Communities Platform

Guided by the ICARP TAC definition and strong research and advocacy from a host of environmental justice and equity organizations, OPR is currently developing a Vulnerable Communities platform in partnership with a wide range of stakeholders focused on frontline communities. This platform will serve as an open, accessible, and community-grounded resource to deliver information and data to help decisionmakers understand and visualize underlying factors that drive vulnerability and future risk to climate impacts.

THE GREENLINING INSTITUTE

Example 3: Vulnerable Communities Mapping Platform

01	GOALS, VALUES, MISSION	Community-grounded platform; identifies vulnerable communities	N/A
02	PROCESS	Iteratively seeks feedback from community-led working group	Break down highly technical topics when soliciting feedback
03	IMPLEMENTATION	Still in progress	Still in progress
04	ANALYSIS, MEASUREMENT	To be determined	To be determined

THE GREENLINING INSTITUTE

Summary of Recommendations

01 GOALS, VALUES, MISSION
- Coordinate local, state, and federal tools
- Ensure transparency and accountability

02 PROCESS
- Partner with frontline communities to design and implement the tool
- Provide technical assistance and capacity building

03 IMPLEMENTATION
- Address data gaps
- Include cumulative impacts

04 ANALYSIS, MEASUREMENT
- Incorporate community groundtruthing
- Measure outcomes of how funding was allocated

THE GREENLINING INSTITUTE

Agenda

- Introductions
- Overview of Climate Mapping Tools
- Making Equity Real Framework
- Activity
- Wrap-up

Discussion Instructions

- Choose from 4 topics
- Move to your preferred corner of the room
- Take 5 minutes to write reflections on the question
- Discuss for 15 minutes with your group
- Synthesize and be ready to report back to the large group

1. Developing and Designing Tools

2. Implementing and Applying Tools

3. Shaping Mapping Tools via Advocacy and Community Engagement

4. Building Awareness of Mapping Tools

Agenda

- Introductions
- Overview of Climate Mapping Tools
- Making Equity Real Framework
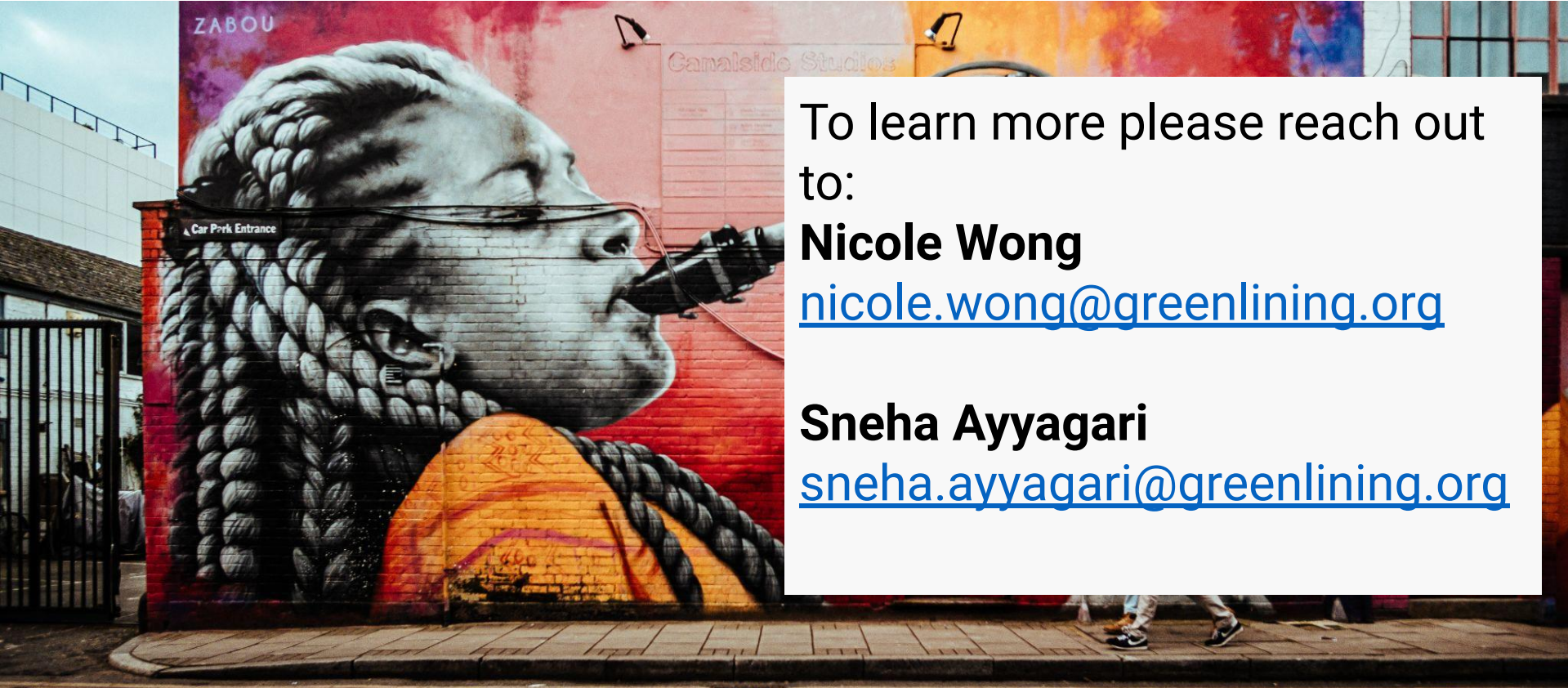- Activity
- Wrap-up

Wrap-up

- What are some of the major takeaways from your discussion?
- What is one thing that you will follow up on as a result of this discussion?

THE GREENLINING INSTITUTE

Thank You

To learn more please reach out to:
Nicole Wong
nicole.wong@greenlining.org

Sneha Ayyagari
sneha.ayyagari@greenlining.org

Appendix

6/13/23

What tools are used at the federal level?

Energy Justice Dashboard (BETA)
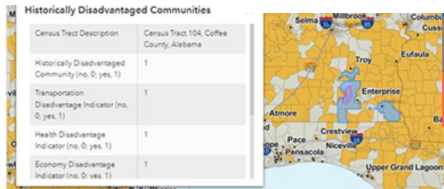
Office of Economic Impact and Diversity

⊕EPA EJScreen EPA's Environmental Justice Screening and Mapping Tool (Version 2.11)

Climate and Economic Justice Screening Tool

CDC/ATSDR Social Vulnerability Index

Transportation Disadvantaged Census Tracts ⊡ is the most commonly used tool in USDOT discretionary grant programs to determine disadvantaged community status. The tool allows the mapping of project areas to determine level of disadvantage according to DOT's Justice40 definition.
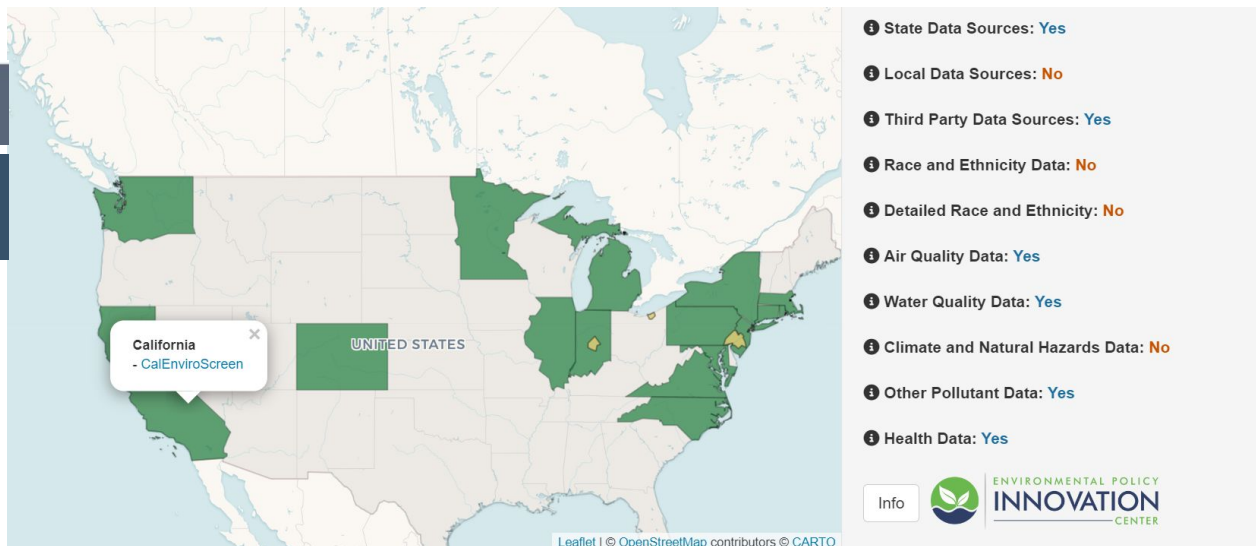
THE GREENLINING INSTITUTE

What tools are used at the state level?

MDE EJ Screening Tool

Washington Tracking Network
A Source for Environmental Public Health Data

COLORADO
EnviroScreen
Environmental Justice Mapping Tool

MINNESOTA POLLUTION CONTROL AGENCY

Illinois EPA EJ Start

MiEJScreen:
Environmental Justice
Screening Tool (DRAFT)

State Data Sources: Yes
Local Data Sources: No
Third Party Data Sources: Yes
Race and Ethnicity Data: No
Detailed Race and Ethnicity: No
Air Quality Data: Yes
Water Quality Data: Yes
Climate and Natural Hazards Data: No
Other Pollutant Data: Yes
Health Data: Yes

California
- CalEnviroScreen

Info

ENVIRONMENTAL POLICY
INNOVATION
CENTER

Leaflet | © OpenStreetMap contributors © CARTO

Environmental Policy Innovation Center Beta EJ Tools Map

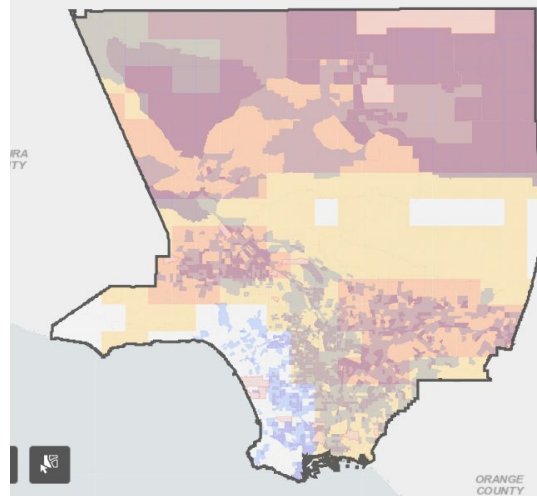CalEnviroScreen

THE GREENLINING INSTITUTE

What tools are used at the local or regional level?

Resilience Hotspots (Greenbelt Alliance)

LA County Climate Vulnerability Assessment (LA Chief Sustainability Office)

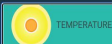Los Angeles County Climate Vulnerability Assessment - Web Tool

Cal-Adapt (UC Berkeley, Energy Commission, Strategic Growth Council)

SELECT A NEW LOCATION   GENERATE REPORT

Local Climate Change Snapshot for Sonoma
California, United States

TEMPERATURE   PRECIPITATION   WILDFIRE

THE GREENLINING INSTITUTE

Healthy Places Index

Uses 25 indicators to visualize the factors influencing health and resilience