

# Health and Racial Equity Frameworks to Guide Climate Change Investments in California



Photo: Orange County Register

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*Network for Public Health Law  
Climate Change and Health Equity Summit  
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Climate Change & Health Equity Section  
California Department of Public Health

# Agenda

- Review current state of climate crisis and health equity impacts
- Present the equity framework of the California Department of Public Health's Climate Change and Health Equity Section
- Discuss barriers to pursuing racial equity through climate-related funding in California
- Demonstrate tools and guidance for climate change resource allocation with an equity frame

## Air Pollution & Increasing Allergens

Asthma, allergies, cardiovascular and respiratory diseases

## Extreme Heat

Heat-related illness and death, cardiovascular failure

## Drought

Water supply impacts, dust storms, Valley Fever

## Environmental Degradation

Forced migration, civil conflict, loss of jobs and income

## Wildfires & Wildfire Smoke

Injuries, fatalities, loss of homes, cardiovascular and respiratory diseases

## Degraded Living Conditions & Social Inequities

Exacerbation of racial and health inequities and vulnerabilities, loss of employment

## Changes In Vector Ecology

Lyme disease, West Nile Virus, hantavirus, malaria, encephalitis

## Food System Impacts

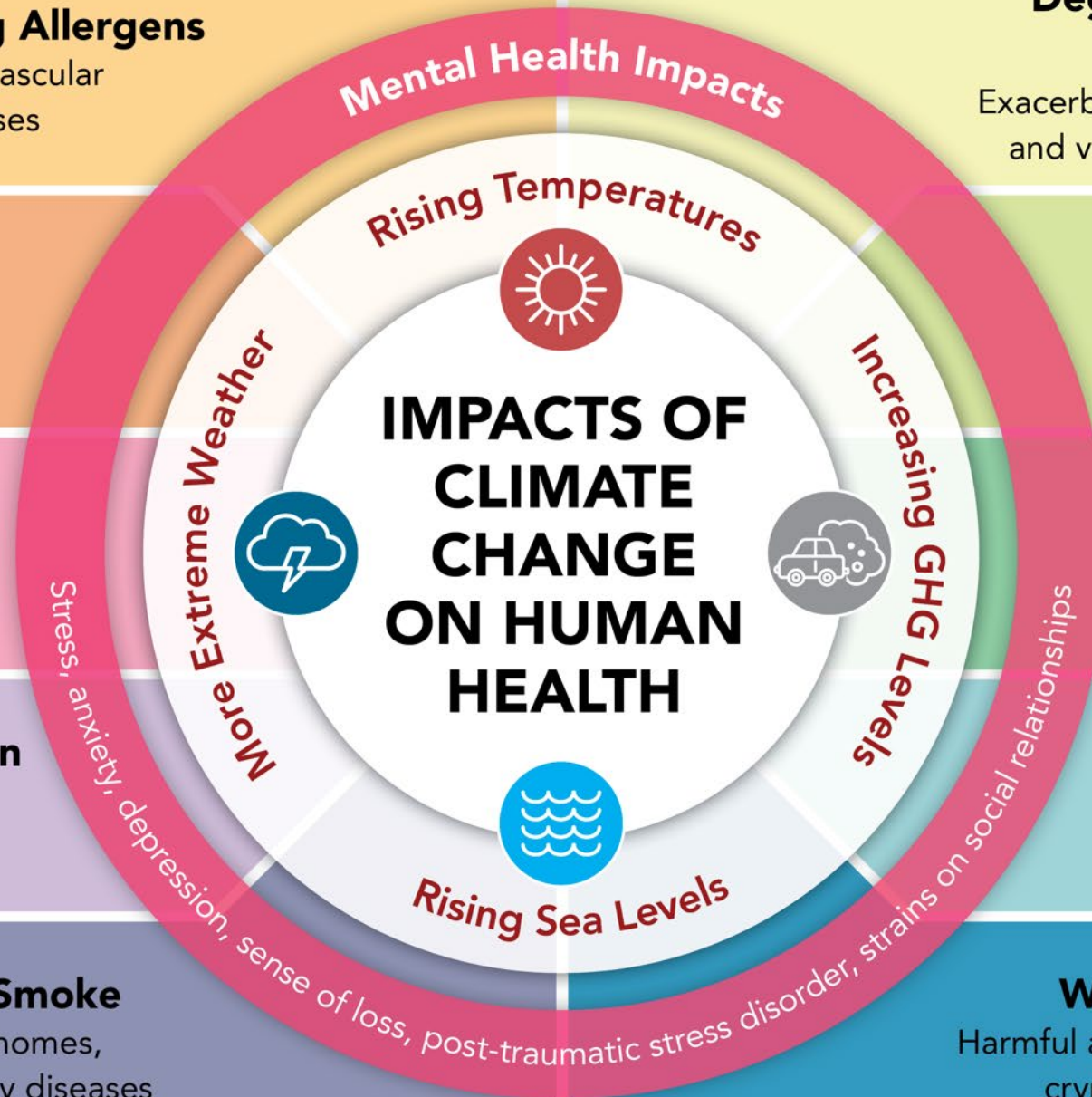
Malnutrition, food insecurity, higher food prices, foodborne illness

## Severe Weather & Floods

Injuries, fatalities, loss of homes, indoor fungi and mold

## Water Quality Impacts

Harmful algal blooms, campylobacteriosis, cryptosporidiosis, leptospirosis





**CLIMATE CHANGE IS  
ALREADY HARMING  
HUMAN HEALTH.**

**PEOPLE FACING  
INEQUITIES HURT  
FIRST AND WORST.**

*Image: Public News Service*



*Image: UC Davis*



*Image: CBS SF/Local*



*Image: US News*



*©Depositphotos.com/zenpi*



# A Low-Carbon, Climate-Resilient Community is...

Healthy, energy efficient, & affordable housing!



Clean air, green spaces for recreation!



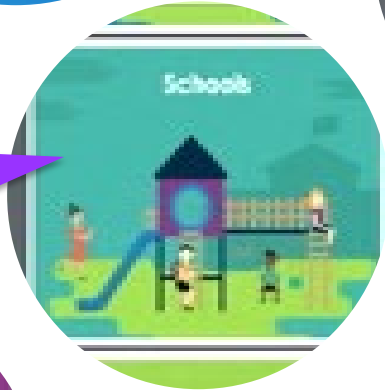
Urban and community greening to keep cities cool.



Where there are good jobs, and safe neighborhoods.



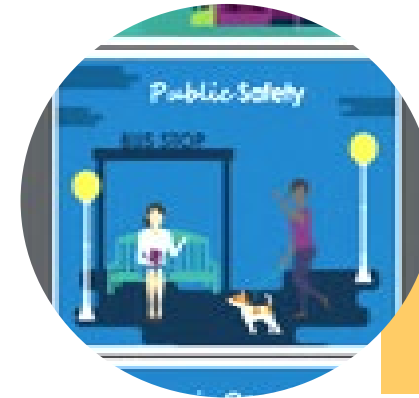
Kids have safe places to play and learn.



Healthy built environment including walkable & bikeable communities!



Access to affordable, healthy foods.



Where people know and care for one another.

## A Healthy, Equitable Community

# Racial Equity Lens



Photo: Istock JuanMorino

# Operationalizing Equity in Resource Distribution

**Equity = Fair distribution of power and resources**

## **Equity mechanisms:**

- Prioritized financial incentives, investments, or resources
- Higher levels of service
- Facilities
- Capacity building or training
- Jobs
- Decision-making power

**“Cash, capacity, control”**



# 2020: Uprising for Racial Justice



- Increased participation in GARE (Government Alliance on Race and Equity)
- Equity Officer positions in State agencies
- Offices of Racial Equity in State agencies
- Racial Equity Action Plans in State agencies
- Increased data collection on race, ethnicity, gender
- A Task Force to study reparations for descendants of enslaved people
- A desire to enact racial equity through prioritized resource allocation to BIPOC communities still suffering injustice and worse living conditions



# Barrier to Racial Equity: Anti-Affirmative Action Proposition 209

## Prop 209: The Language

- (a) The state shall not discriminate against, or grant preferential treatment to, any individual or group on the basis of race, sex, color, ethnicity, or national origin in the operation of public employment, public education, or public contracting.
- (f) For the purposes of this section, “state” shall include, but not necessarily be limited to, the state itself, any city, county, city and county, public university system, including the University of California, community college district, school district, special district, or any other political subdivision or governmental instrumentality of or within the state.

# What Prop 209 Does

- Prohibits using race or ethnicity (or gender) to allocate resources such as funds
- Allows policies to encourage diversity through policies that are “race-conscious” but do not involve numeric targets or quotas:
  - Using indicators that track closely with race and ethnicity (due to structural racism) such as poverty or socioeconomic status, or geography (due to racial segregation in housing)
  - Have the effect of prioritizing BIPOC communities if there are no numeric targets
  - Track data on distribution of resources by race and ethnicity
  - Local hire or enrollment quota (if have “rational basis”)
  - Outreach to BIPOC communities

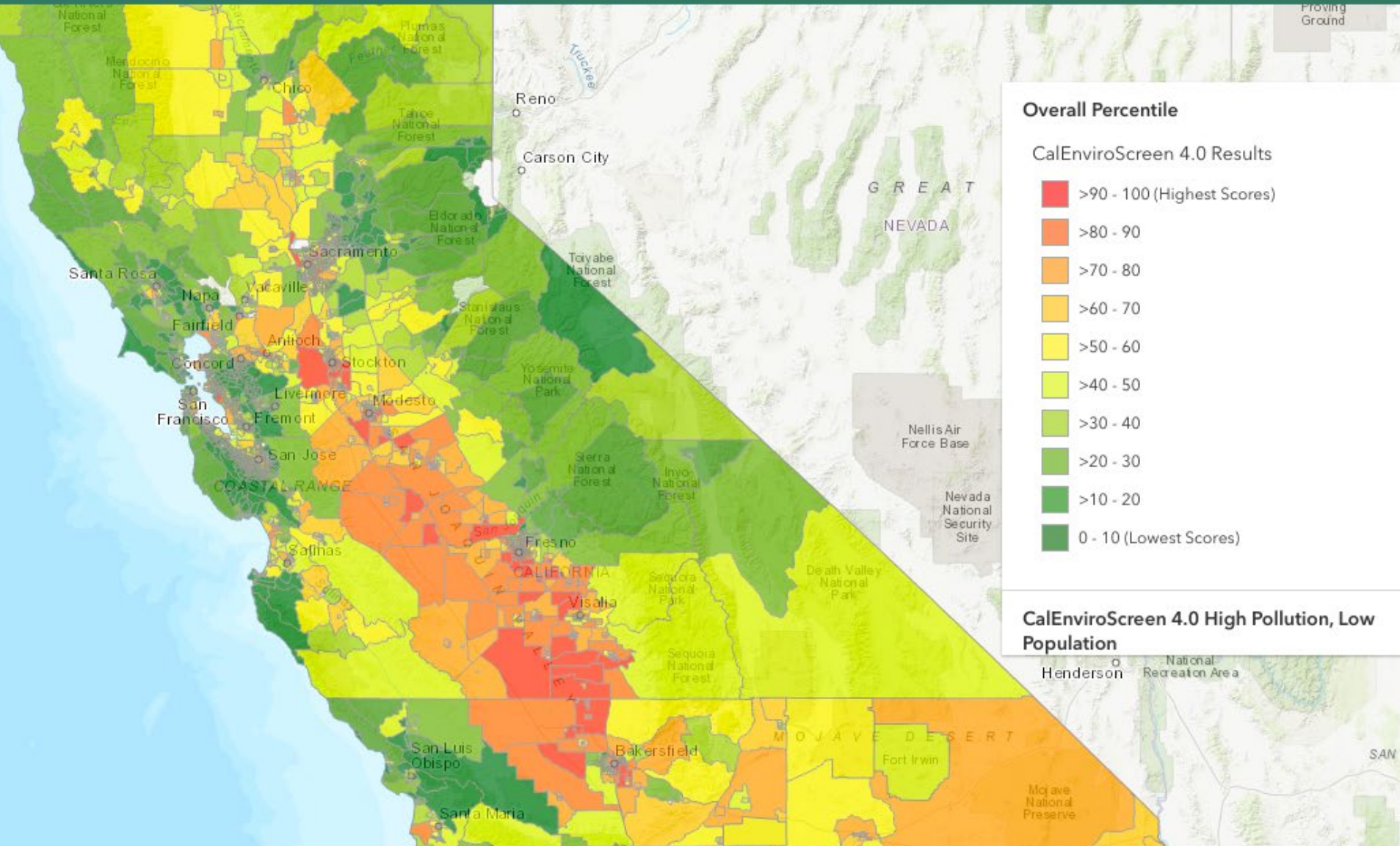


# Tools to apply an equity frame for resource allocation

- **CalEnviroScreen** by CalEPA
- **Climate Change & Health Vulnerability Indicators** for California (CCHVIZ)
- **California Healthy Places Index** by the Public Health Alliance of Southern CA
- **Planning and Investing for a Resilient California** guide for State agencies

# CalEnviroScreen 4.0

<https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40>





# CalEnviroScreen 4.0

<https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40>



## CalEnviroScreen 4.0 Indicator Maps

## Results Map



### Pollution Burden

- Children's Lead Risk from Housing
- Pesticide Use
- Toxic Releases from Facilities
- Traffic Impacts

### Cleanup Sites

- Groundwater Threats
- Hazardous Waste
- Impaired Waters
- Solid Waste Sites

### Population Characteristics

- Asthma
- Cardiovascular Disease
- Low Birth Weight
- Education
- Housing Burden
- Linguistic Isolation
- Poverty

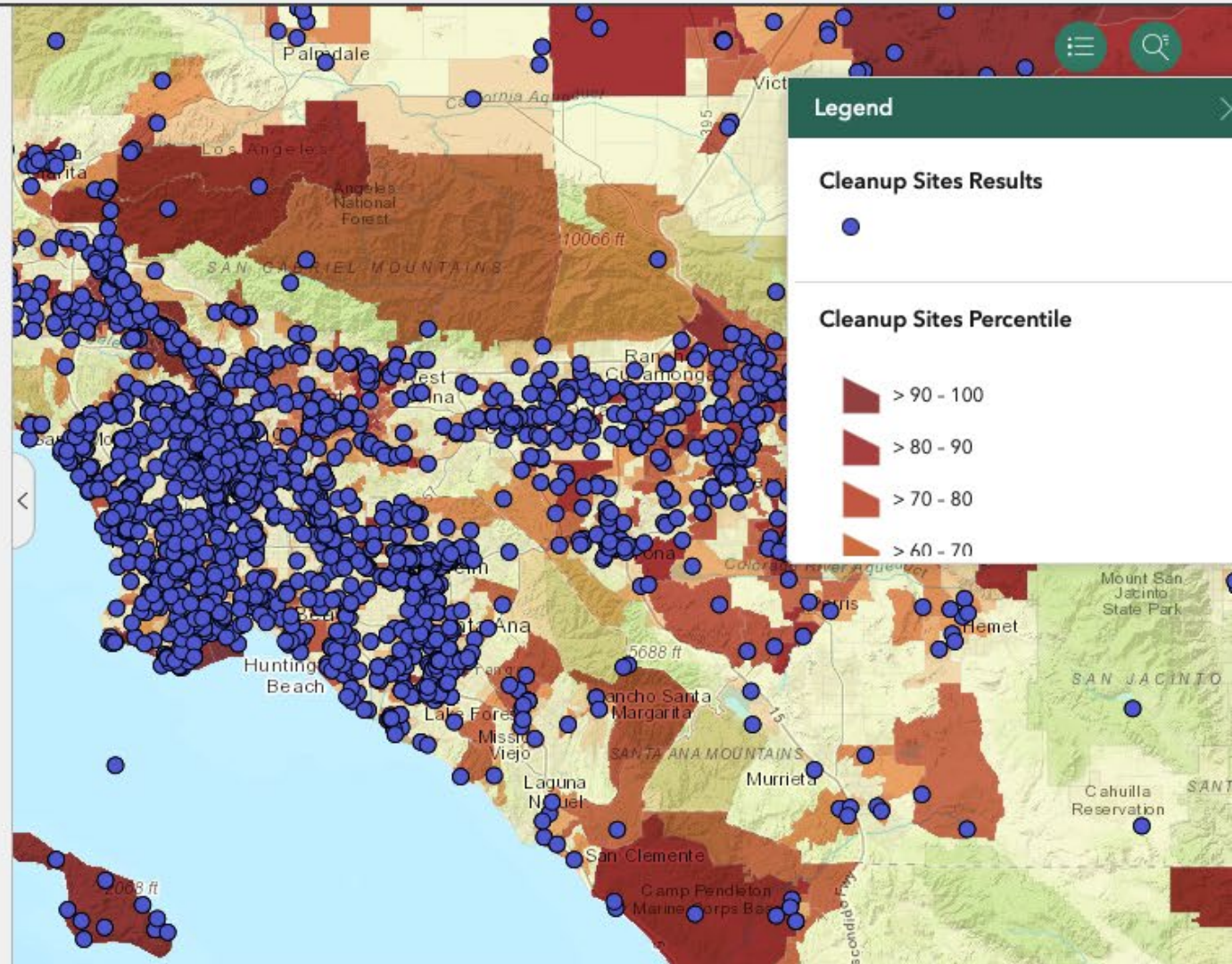


### What are Cleanup Sites?

Cleanup sites are places that are contaminated with hazardous chemicals and require clean up by the property owners or government. Chemicals at cleanup sites can move through the air or groundwater. People living near these sites have a greater potential to be exposed to chemicals from the sites than people living further away.

Some studies have shown that neighborhoods with cleanup sites are generally poorer and have more people of color than other neighborhoods. The land may take many years or decades to clean up, reducing possible benefits to the community.

More information can be found in the [Cleanups chapter](#) in the CalEnviroScreen 4.0 report and the [Cleanups indicator page](#).



# Climate Change & Health Vulnerability Indicators for California

## Environmental Exposures:

Heat

Air Quality (ozone and PM 2.5)

Drought

Wildfires

Sea Level Rise

## Adaptive Capacity:

Air Conditioning Ownership

Tree Canopy

Impervious Surfaces

Public Transit Access

## Population Sensitivity:

Children and Elderly

Poverty

Education

Race and Ethnicity

Outdoor Workers

Vehicle Ownership

Linguistic Isolation

Disability (mental and physical)

Health Insurance

Violent Crime Rate



# Alameda County

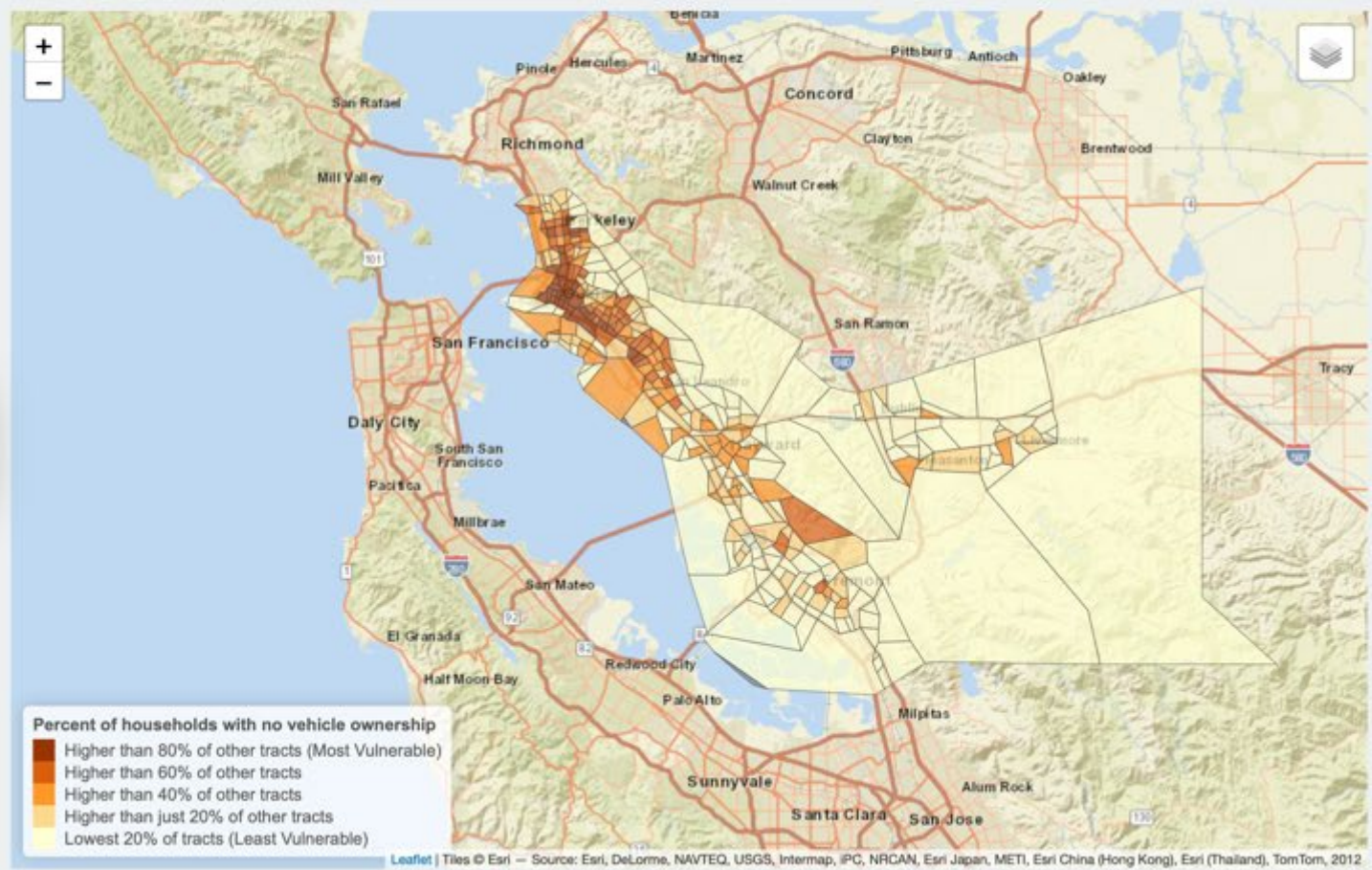
Select an Indicator  
 Percent of households with no vehicle ownership

Strata  
 none

Transportation improves access to evacuation and shelter from climate hazards, such as wildfire, air pollution, heat waves, and flooding.

[Download the Narrative for this Indicator](#)

## County Map



[Download the data in this Map](#)

## What is the climate change challenge?

Vehicle ownership is a measure of mobility and access to transportation. Transportation is a critical resource for evacuation and survival during heat waves and other extreme weather events. For example, access to a vehicle is important during flooding which may require emergency evacuation of populations living in coastal and low-lying areas, and may also require adequate sheltering for displaced populations.

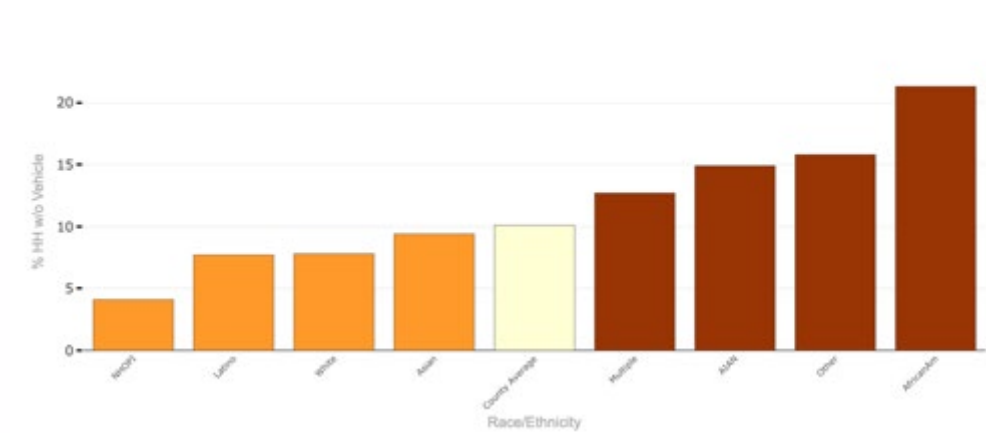
## Why is this climate change impact important to health?

Vehicle ownership is important during extreme weather events because it improves access to evacuation or access to cooling centers or shelter from environmental exposures such as wildfire, air pollution, heat waves, or flooding. A survey among predominantly poor and African American Hurricane Katrina evacuees revealed that 34% reported lack of a car or other means of transportation as the main reason for not evacuating the storm's danger. In the Los Angeles-Long Beach Metropolitan Area, higher proportions of African Americans (20%), Latino (17%), and Asian (10%) households do not have access to a car compared to White households (8%).

## Who is most impacted?

- Urban areas generally have lower rates of automobile ownership, particularly in inner city populations with low income.
- Some communities of color are more likely to have limited or no car ownership, which increases their risk of being impacted during heat and other extreme weather events. Populations with higher rates of people of color and poverty are less likely to own cars.

## Differences by race



# Vulnerability

Visualize California Counties based on levels of both an exposure variable and a population sensitivity variable.

The plot illustrates the intersection of hazard (from an aspect of climate change) and sensitivity (from circumstances of the population or place that tend to increase susceptibility to the hazards of climate change). Counties are assigned to the bottom (least), middle, or top (most) third for both exposure and sensitivity. The most vulnerable counties appear in top and right-most portions of the figure. Points are sized according to the population living in that county. Hover over points for the county name, population, and indicator values.

Some examples of important combinations to consider are

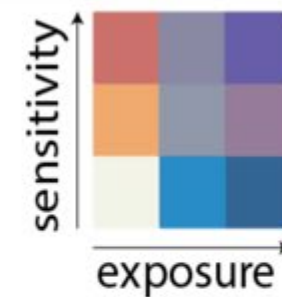
- Heat + elderly / outdoor workers / health insurance / air conditioning / tree canopy / impervious surfaces
- Ozone + children
- PM2.5 + children
- Wildfire + elderly / disability

Exposure Indicator

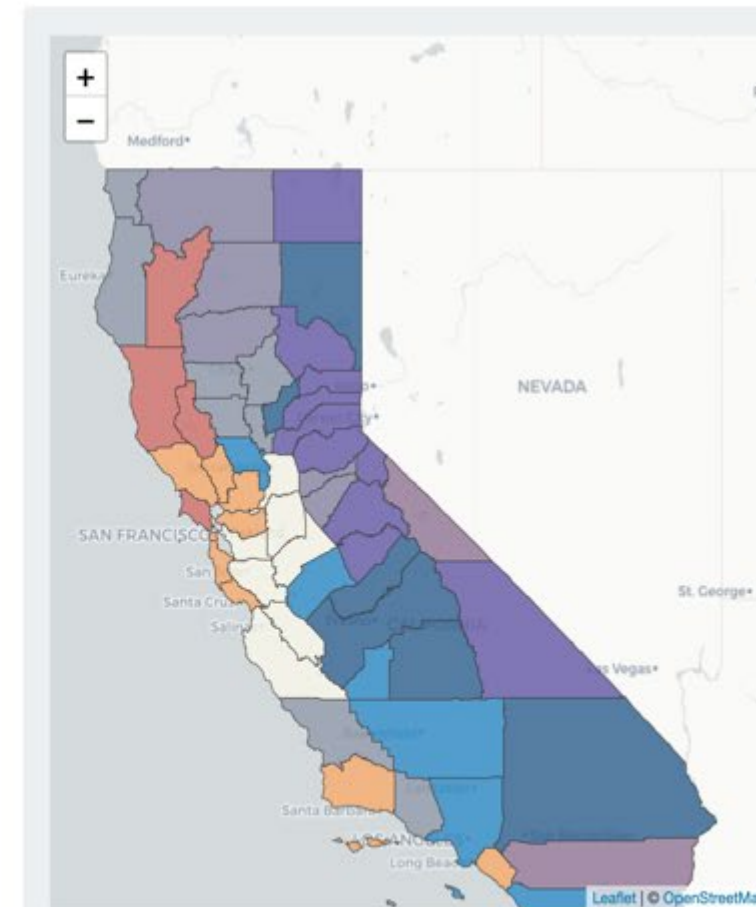
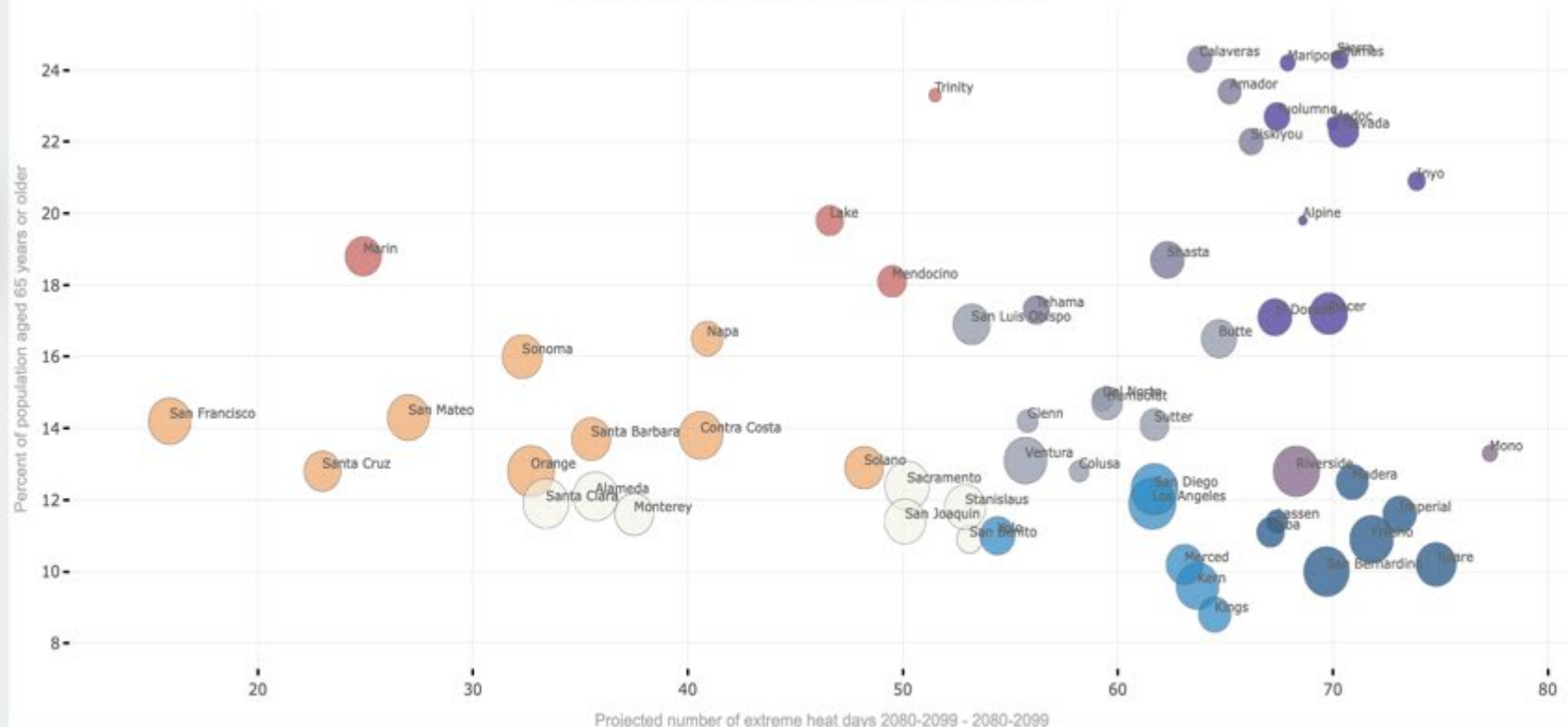
Projected number of extreme heat days 2080-2099

Sensitivity Indicator

Percent of population aged 65 years or older



Combined Vulnerability from Exposure ( Projected number of extreme heat days 2080-2099 - 2080-2099 ) and Sensitivity ( Percent of population aged 65 years or older )





# California Healthy Places Index <https://www.healthyplacesindex.org>

Tools

Enter a location

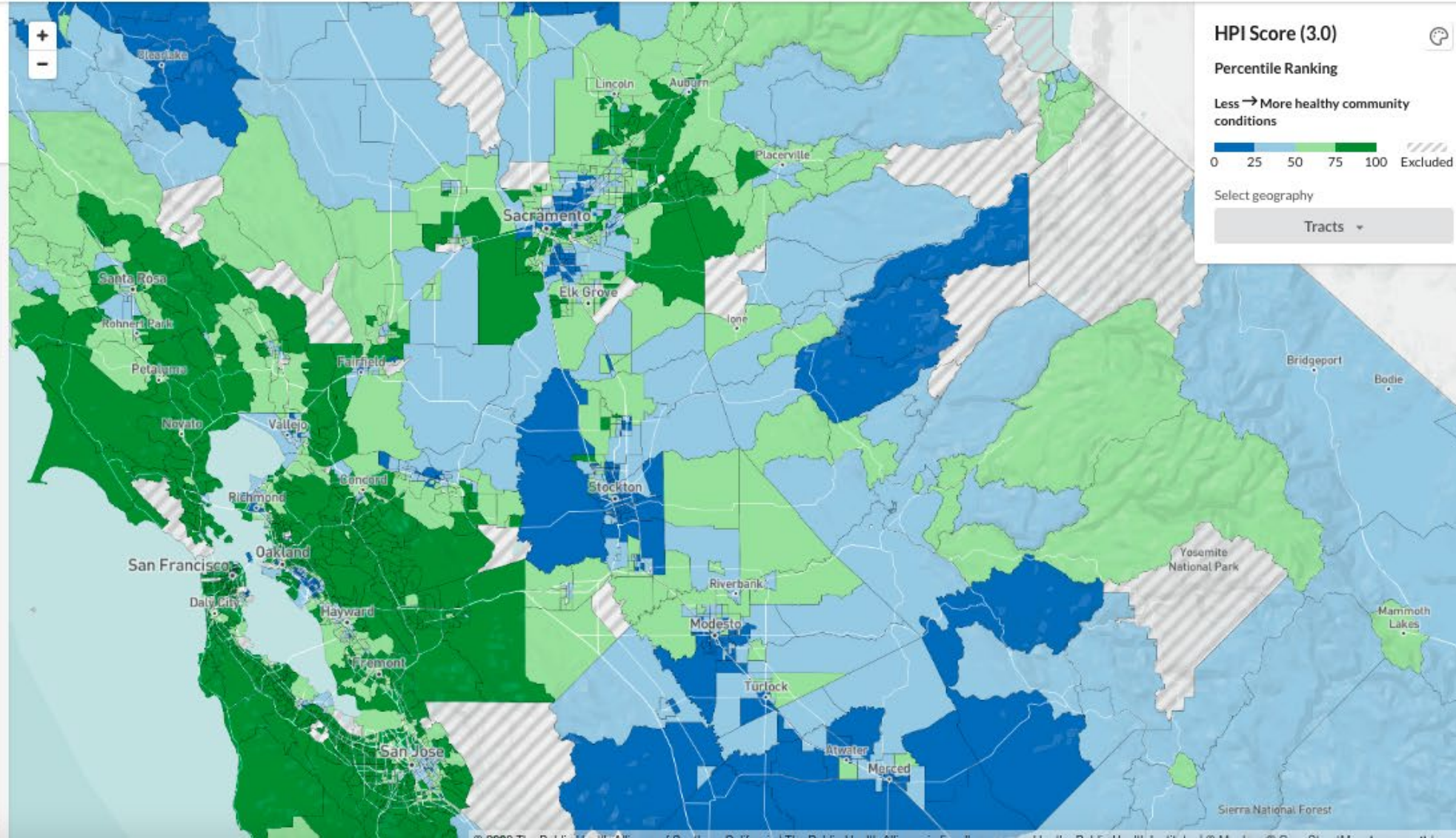
### Filter by Indicator

Filter the map to find communities that meet your criteria. The map can be filtered by HPI score, HPI indicator, and most decision support layers.

[Learn more](#)

Filter by:  Percentile  Value

- ### HPI Indicators
- Economic
  - Education
  - Social
  - Transportation
  - Neighborhood
  - Healthcare Access
  - Housing
  - Clean Environment
  - Decision Support





# Guide State Investment & Resource Distribution to Prioritize Health Equity



## Provide Health Equity Input to State Grants to CA Communities

- Regional Climate Communities (Strategic Growth Council [SGC])
- Affordable Housing & Sustainable Communities Program (SGC)
- Transformative Climate Communities (SGC)
- CA Climate Investments Technical Assistance Program (SGC)
- Climate Change Research Grant Program (SGC)
- Triennial Strategic Research Plan and Annual Research Plans (CA Air Res. Board)
- SB 1 (Transportation) Adaptation Planning Grants (CalTrans)
- SB 1 (Transportation) Sustainable Communities Grants Program (CalTrans)
- Active Transportation Program (CalTrans)
- Solutions for Congested Corridors, Local Partnership Program, Transit and Intercity Rail Operations & Capital (CalTrans)
- Urban Greening Grant Program (CAL FIRE)

## Features Incorporated:

- Equity framework
- Prioritizing based on CCHVIs & HPI
- Community engagement & capacity building
- Local hiring, jobs creation & training
- Preventing displacement
- Partnering with health departments
- Reducing VMT, facilitating active transport

# Planning and Investing for a Resilient California



## Appendix C Equity Checklist

The following checklist is intended to assist State agencies to ensure that plans and investments identify and protect the State's most vulnerable populations, as explained in Principle 2.

- » Which vulnerable populations may be impacted by or could benefit from your policy, initiative, program or budget?
  - › Have you identified these populations based on population characteristics, location, or both?
- » Have you designed a process to collaborate with vulnerable populations?
  - › Which best practices for meaningful engagement are you implementing (see [Community Engagement Best Practices](#))?
  - › Are you sharing as much decision-making power as feasible (see [Spectrum of Public Participation](#))?
  - › Is there a need for formal agreements to define collaboration, and if so how will you develop them (see an [example partnering agreement](#))?
- » How may the policy, initiative, program or budget increase racial equity?
- » How may the policy, initiative, program or budget decrease inequality in income or wealth?





# Equity Checklist for State Agencies

- Which vulnerable populations may be impacted or could benefit?
- **Increase racial equity?**
- Decrease inequality in income or wealth?
- Ensure safety and improve health outcomes?
- Prioritize vulnerable communities for employment and job training?
- Dedicated set-asides?
- Unintended consequences?

<http://opr.ca.gov/planning/icarp/resilient-ca.html>



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**Thank you!**



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