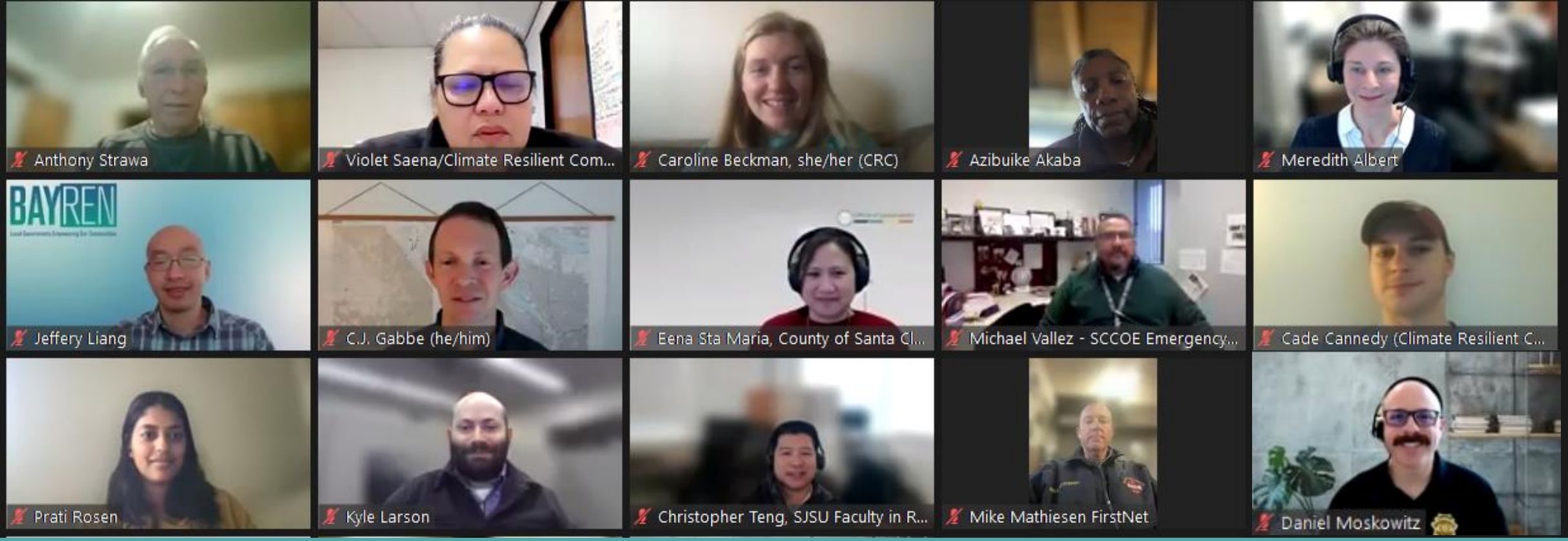


HEAT & AIR QUALITY RESILIENCE (HAQR) WORKING GROUP

Santa Clara County PUBLIC HEALTH

MEETING

May 31, 2023

County of Santa Clara Sustainability Master Plan

Livable. Equitable. Resilient.

Meeting Objectives

Understand the American Lung Association State of the Air report card and programs to address indoor air quality

Learn about how extreme heat is impacting San Jose unhoused residents

Identify potential activities to integrate into HAQR's 3 Year Workplan

Agenda

- Welcome and Meeting Objectives
- Group Information Share
- State of the Air Report and Breathe California's Indoor Air Assessment Program
- Assessing Extreme Heat Vulnerability for the Unhoused in San José by C.J. Gabbe
- HAQR 3 Year Workplan Activity
- Next Steps & Closing

HAQR Year in Review and Looking Ahead

- 87 members, representing 38 organizations
- Finalized Governance Structure
- Looking forward to:
  - Co-chairs
  - 3 Year Workplan



Santa Clara County Climate Collaborative

Membership Commitments:

- Designate at least one representative to attend bi-annual Collaborative meetings
- Allocate staff time to participate in least one Collaborative work group
- Review Collaborative meeting materials to keep current with the Collaborative
- Represent the Collaborative by disseminating information
- Collaborate where individual organization and Collaborative goals converge.

For more info: climatecollaborativescc.org

Email signed Membership Letters to sustainability@ceo.sccgov.org

GROUP INFO SHARE

Take this opportunity to connect with other working group members to share program updates, request feedback, share opportunities, or just ask questions!

Raise Hand or Chat to share

AIR QUALITY IN SANTA CLARA COUNTY

BREATHE® CALIFORNIA

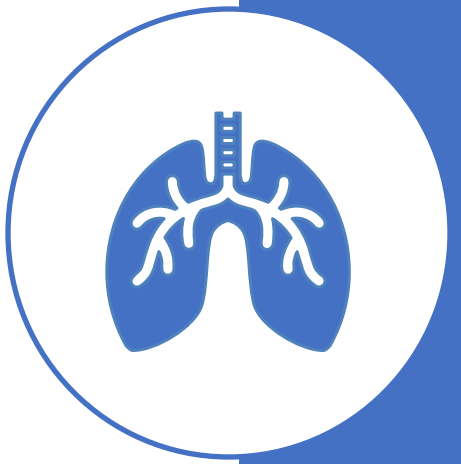


Mission

As the local clean air and healthy lungs leader, Breathe California fights lung disease in all its forms and works with its communities to promote lung health.

Vision

Healthy lungs in healthy environments



Key Roles

Establishing tobacco-free communities

Achieving Healthy Air Quality

Fighting Lung Diseases like asthma, COPD and tuberculosis

BREATHE CALIFORNIA

Introducing Breathe California

Margo Sidener CEO, Breathe California



Sharon Quach Climate Resilience Educator, Breathe California



BREATHE CALIFORNIA

State of the Air Report

FOR 24 YEARS, THE AMERICAN LUNG ASSOCIATION HAS ANALYZED DATA FROM OFFICIAL AIR QUALITY MONITORS TO COMPILE THE STATE OF THE AIR REPORT.

THE MORE YOU LEARN ABOUT THE AIR YOU BREATHE, THE MORE YOU CAN PROTECT YOUR HEALTH AND TAKE STEPS TO MAKE THE AIR CLEANER AND HEALTHIER.



American Lung Association.

State of the Air Report: Santa Clara County

Ozone	Particle Pollution	
	24-Hour	Annual
F	F	Pass

How is my grade calculated?

Particle Pollution - Annual	
Grade	Pass
Design Value	10.3

American Lung Association®

State of the Air Report: California Counties with F Grade

Contra Costa	F	4.3
El Dorado	F	16.7
Fresno	F	54.0
Imperial	F	17.0
Inyo	F	6.3
Kern	F	86.7
Kings	F	19.5
Los Angeles	F	112.0
Madera	F	22.7
Mariposa	F	18.5
Merced	F	16.2
Nevada	F	21.2
Orange	F	19.8
Placer	F	27.0
Riverside	F	128.5
Sacramento	F	17.5
San Bernardino	F	177.3
San Diego	F	24.7
San Joaquin	F	3.7
San Luis Obispo	F	11.3
Santa Clara	F	5.5
Shasta	F	4.0
Stanislaus	F	20.2
Sutter	F	7.8
Tehama	F	10.8
Tulare	F	92.2
Ventura	F	13.2

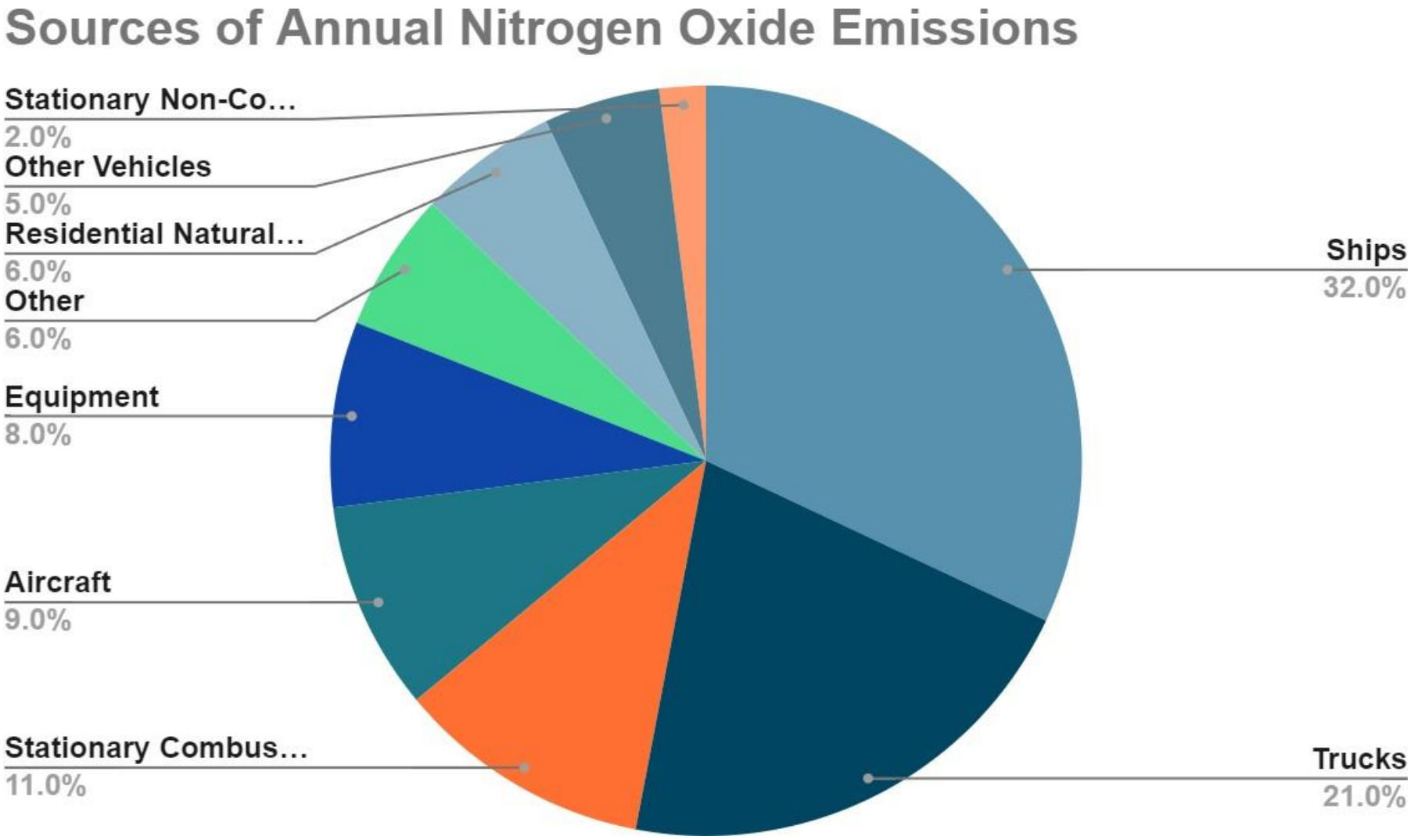
American Lung Association.

State of the Air Report: Santa Clara County High Ozone Days

High Ozone Days	
Grade	F
Weighted Average	5.5
Orange Ozone Days	15
Red Ozone Days	1
Purple Ozone Days	0

American Lung Association.

Bay Area Pollution Sources



Bay Area Air Quality Management District

Sulfur Dioxide (SO2)

Nitrogen Dioxide (NO2)

Lead (Pb)

Carbon Monoxide (CO)

Ground-level Ozone (O3)

Particulate Matter (PM)

The 6 Criteria Air Pollutants

Defined by the Environmental Protection Agency (EPA) as required by the Clean Air Act

Air Quality Index		
AQI Category and Color	**Index Value**	**Description of Air Quality**
Good Green	0 to 50	Air quality is satisfactory, and air pollution poses little or no risk.
Moderate Yellow	51 to 100	Air quality is acceptable. However, there may be a risk for some people, particularly those who are unusually sensitive to air pollution.
Unhealthy for Sensitive Groups Orange	101 to 150	Members of sensitive groups may experience health effects. The general public is less likely to be affected.
Unhealthy Red	151 to 200	Some members of the general public may experience health effects; members of sensitive groups may experience more serious health effects.
Very Unhealthy Purple	201 to 300	Health alert: The risk of health effects is increased for everyone.
Hazardous Maroon	301 and higher	Health warning of emergency conditions: everyone is more likely to be affected.

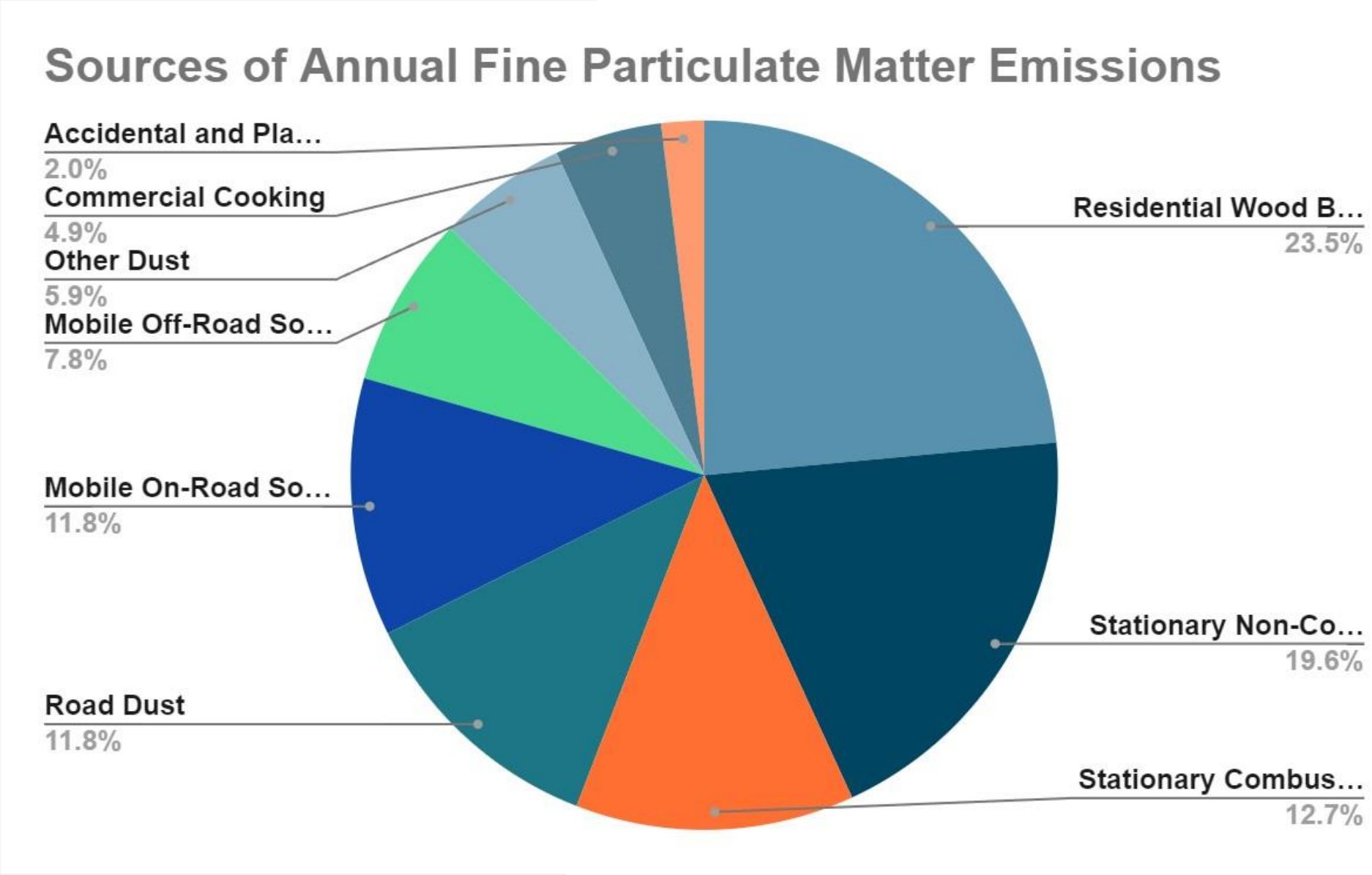
AQI is assessed by measuring amounts of 6 criteria pollutants in the air at a certain point in time

State of the Air Report: Santa Clara County Particle Pollution

Particle Pollution - 24 Hour	
Grade	F
Weighted Average	8.0
Orange Particle Days	12
Red Particle Days	8
Purple Particle Days	0
Maroon Particle Days	0

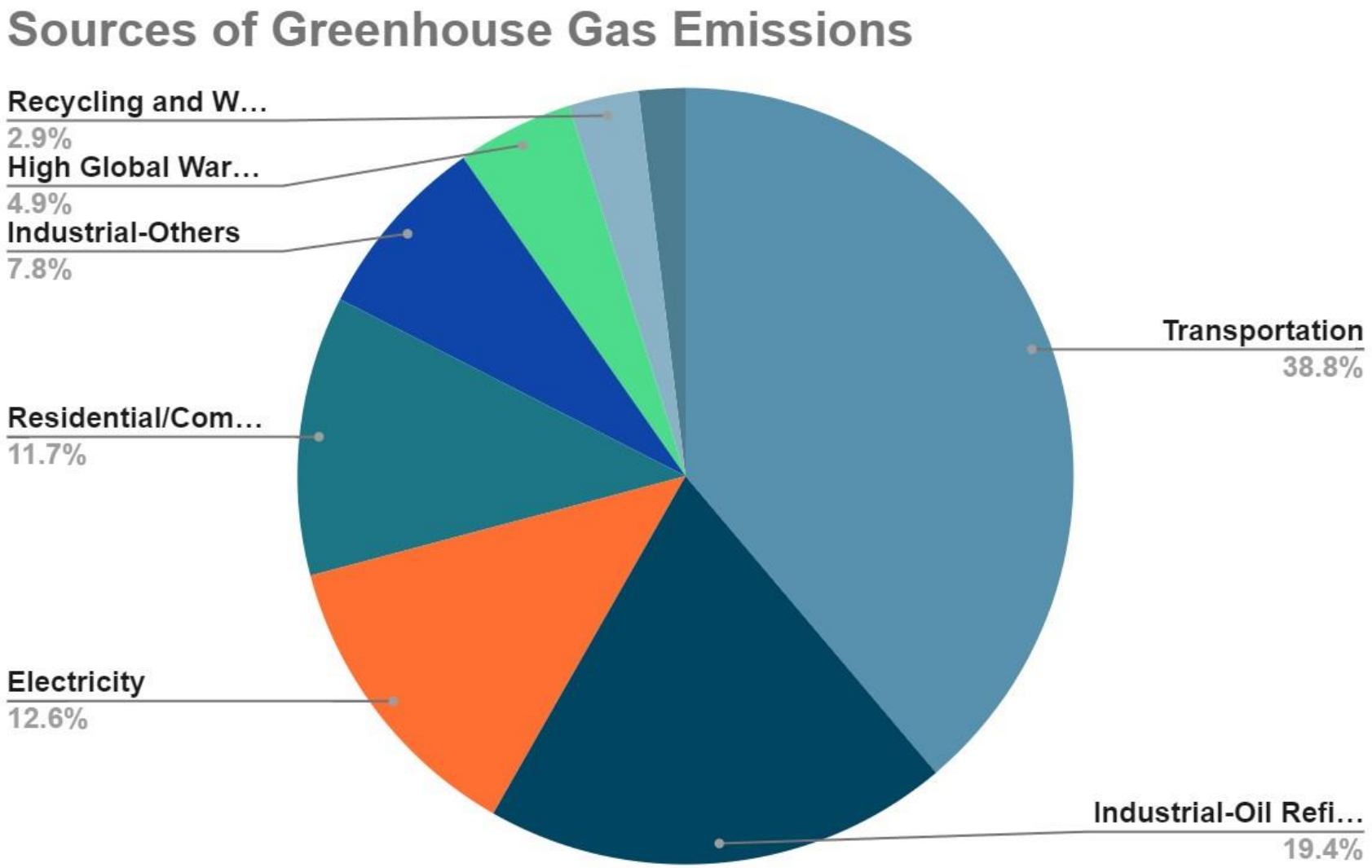
American Lung Association.

Bay Area Pollution Sources



Bay Area Air Quality Management District

Bay Area Pollution Sources



Bay Area Air Quality Management District

State of the Air Report: Santa Clara County Populations at Risk

Populations At Risk	Learn More
Total Population:	**1,885,508**
Children Under 18:	399,419
Adults 65 & Over:	272,913
Pediatric Asthma:	19,923
Adult Asthma:	131,500
COPD:	66,599
Lung Cancer:	710
Cardiovascular Disease:	91,842
Pregnancy:	20,111
Poverty Estimate:	128,955
People of Color:	1,340,823

American Lung Association.



Health Effects of Air Pollution

Environmental health

- Acid rain
- Global climate change

Human health

- Asthma
- Lung cancer
- Heart disease
- Premature death

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Root Causes of Air Pollution in Santa Clara County

- Proximity of large highways and freeways with consistent traffic
- High density housing located within East San José
- Winds blow inland from the coast, potentially trapping pollution in the valley
- Agricultural and heat challenges in South County



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BREATHE CALIFORNIA

Franklin-McKinley School District

PREPARING ALL CHILDREN AS GLOBAL LEARNERS

Franklin McKinley Project 2023

- The goal of the project's community engagement strategy is to directly involve local-residents to insure wide acceptance and maximal health and environmental benefits of the project
- Development of a resilience hub
- Engage with organizations that are active in the local community

Franklin McKinley Project Outline (Community Focused)

- Collect community surveys
- Hold focus groups
- Conduct physical observations of issues raised by neighborhood
- Participate in Community Events
- Campaigns
- Host neighborhood gatherings
- Work with groups such as neighborhood associations and service clubs





Frankling McKinley Project Outline (Energy Focused)

- Assist with applications for discounted utility rates/energy audits
- Assist residents/businesses/multi-unit housing owners to apply for funding and rebates for EVs, installing EVs, and hydrogen vehicles
- Reach residents with information on opportunities in green technologies such as solar energy, advanced vehicle repair, etc.
- Reach individuals with presentations on air quality, electric buses, climate resilience







Overview of Asthma Services



Asthma Education for Children, Parents, Caregivers, School personnel

Live Sessions OR Pre-recorded



Asthma Home Visiting Services



Environmental Trigger Assessments for homes, childcare centers, and schools.

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Asthma Education for Children

- **Asthma Education for Children**
  - Live Sessions (Asthma 101)
  - Pre-recorded Sessions

- **Separated by age groups:**
  - (6-8) and (9-12)



Asthma Education for Adults

- **Asthma Education Classes for:**
  - Parents
  - Care providers
  - School Staff/Faculty
  - Health Clerks & School Nurses
- **Live Sessions** ----Include Q/A with an
  -Asthma Specialist Physician
- **Pre-recorded Sessions**



Asthma Home Visiting Services

- **Asthma Home Visit includes:**
  1. Asthma Education/Training
  2. Indoor Air Quality Assessment
  3. Asthma Remediation Equipment
  4. Senior Services



Free Indoor Air Quality Assessment

- Breathe California's Air Quality Assessment Program helps clients learn how they can reduce their asthma symptoms and maintain overall safe and healthy indoor environments for our communities
- We offer help with analyzing facilities, identifying triggers & irritants, providing recommendations, and reducing symptoms
- Breathe California also offering free air filters for those who qualify



Asthma Remediation Equipment

- HEPA air filters
- Vacuum Cleaners
- Hypoallergenic mattress covers/pillowcases
- Pest control
- Fans
- Minor home Repairs
- Referrals to appropriate resources that may needed to correct/eliminate certain environmental hazards that may be resulting in asthma flare ups



Programs to Mitigate Air Pollution

CLEAN CARS FOR ALL

BCBA Programs

- Air Quality Assessment Program
- Youth for a Cool Earth (YCE)
- Respiratory equipment provision (CPAP)
- Clean Air Programs

BAAQMD Programs

- Community Air Risk Evaluation (CARE) Program
- Community Health Protection Grant Program
- Community Grants Program
- Clean Cars for All
- The Lawn Mower Exchange Program
- Vehicle Buy Back Program



How To Improve Air Quality



Promote electric vehicles for public transportation



Reduce automobile traffic by carpooling, biking, walking



Use green fuel alternatives



Enforce regulations on large industry



Reduce wood burning



Be willing to stay informed and make changes in daily life

Questions?



Reducing Heat Risk for People Experiencing Unsheltered Homelessness

C.J. Gabbe, Jamie Chang, Morayo Kamson, and David Seo

Santa Clara County HAQR Work Group | May 31, 2023



Santa Clara University

Research questions

- What are the characteristics of the neighborhoods where unsheltered people reside? Where do unsheltered people face the greatest heat exposure?

- How do unsheltered people describe their experiences with, and adaptation to, extreme heat?

①

Descriptive and spatial analysis

Descriptive statistics

Spatial cluster and hot spot analysis

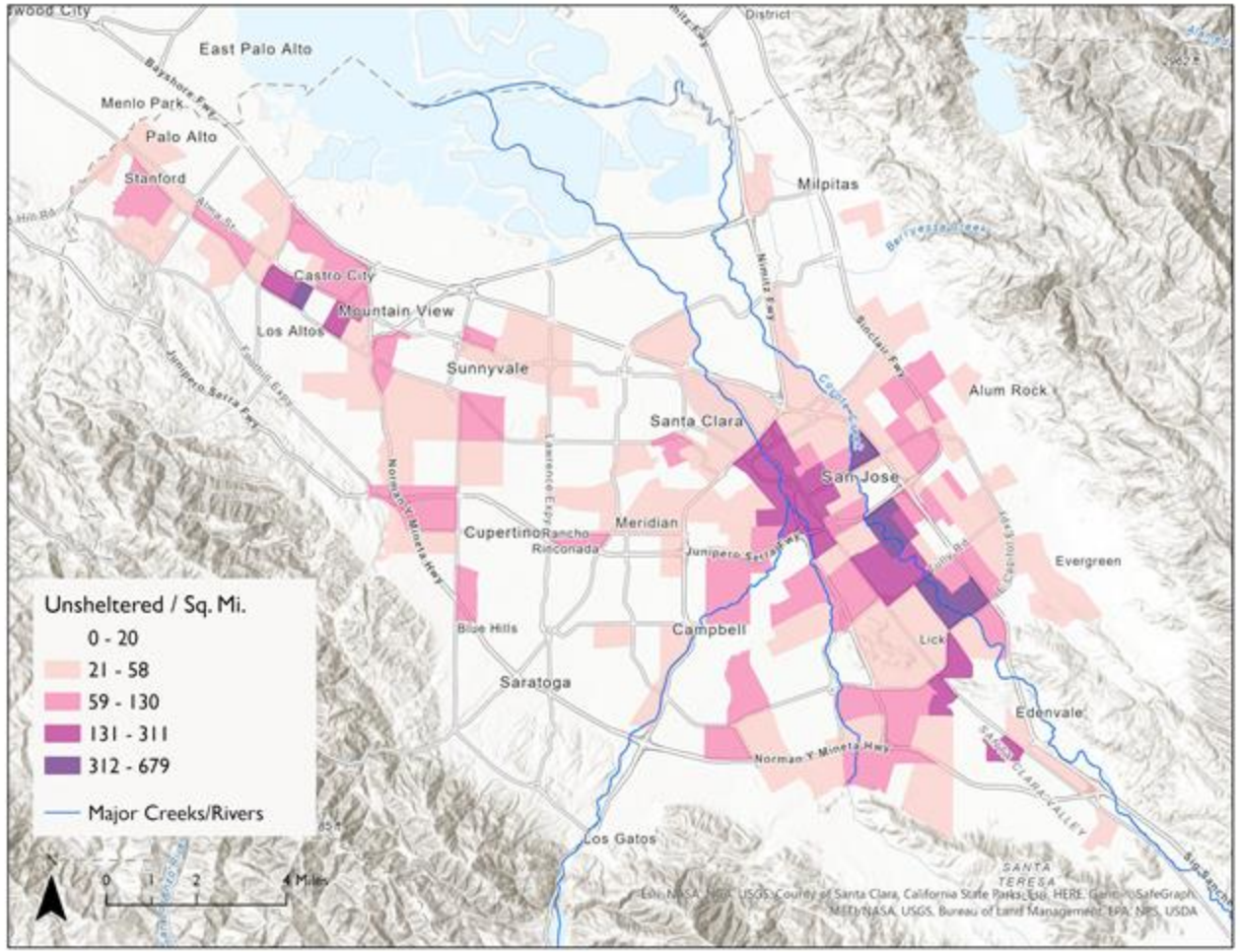
②

Interviews (n = 82)

Semi-structured interviews with Downtown Streets Team San José (n = 10)

Encampment interviews in Columbus Park area (n = 72)

Unsheltered residents

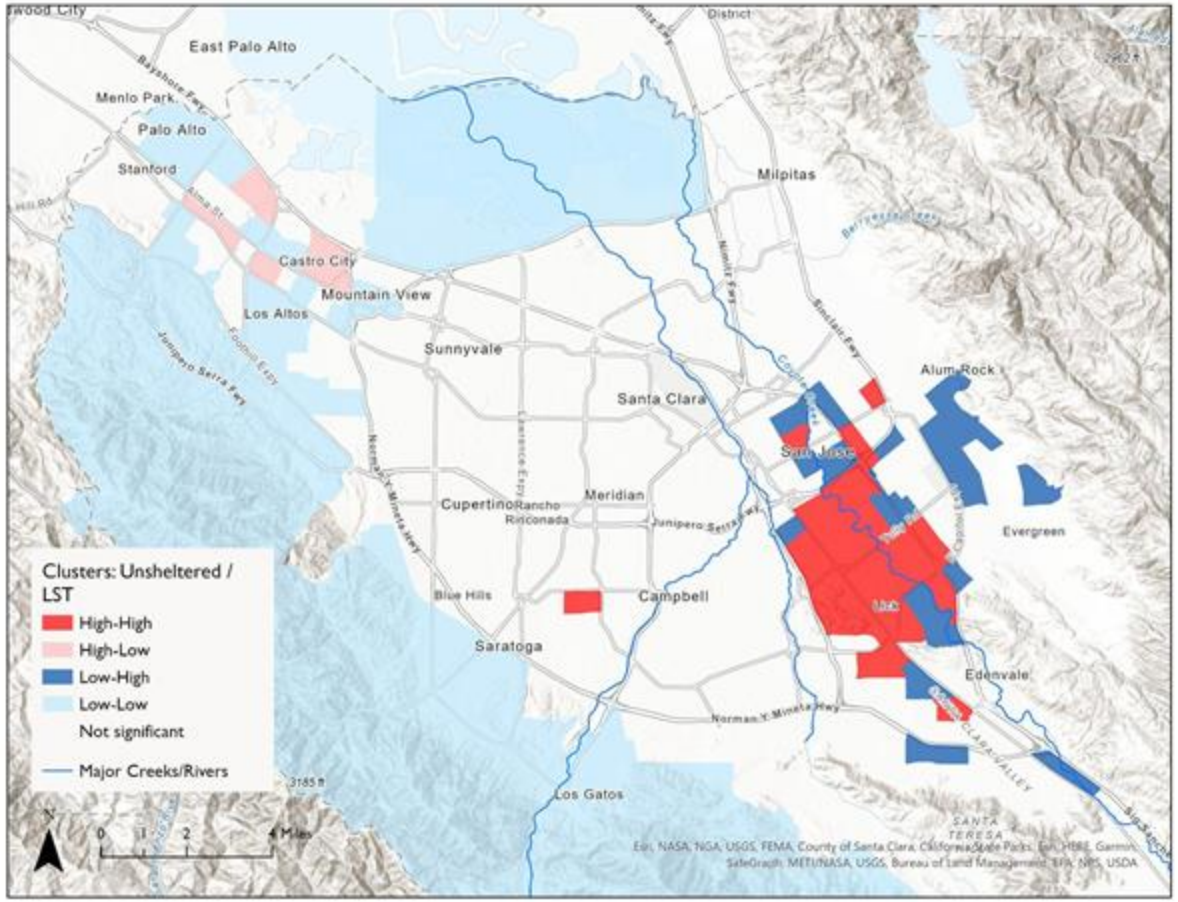


Tracts in the top quartile of unsheltered residents vs. other tracts

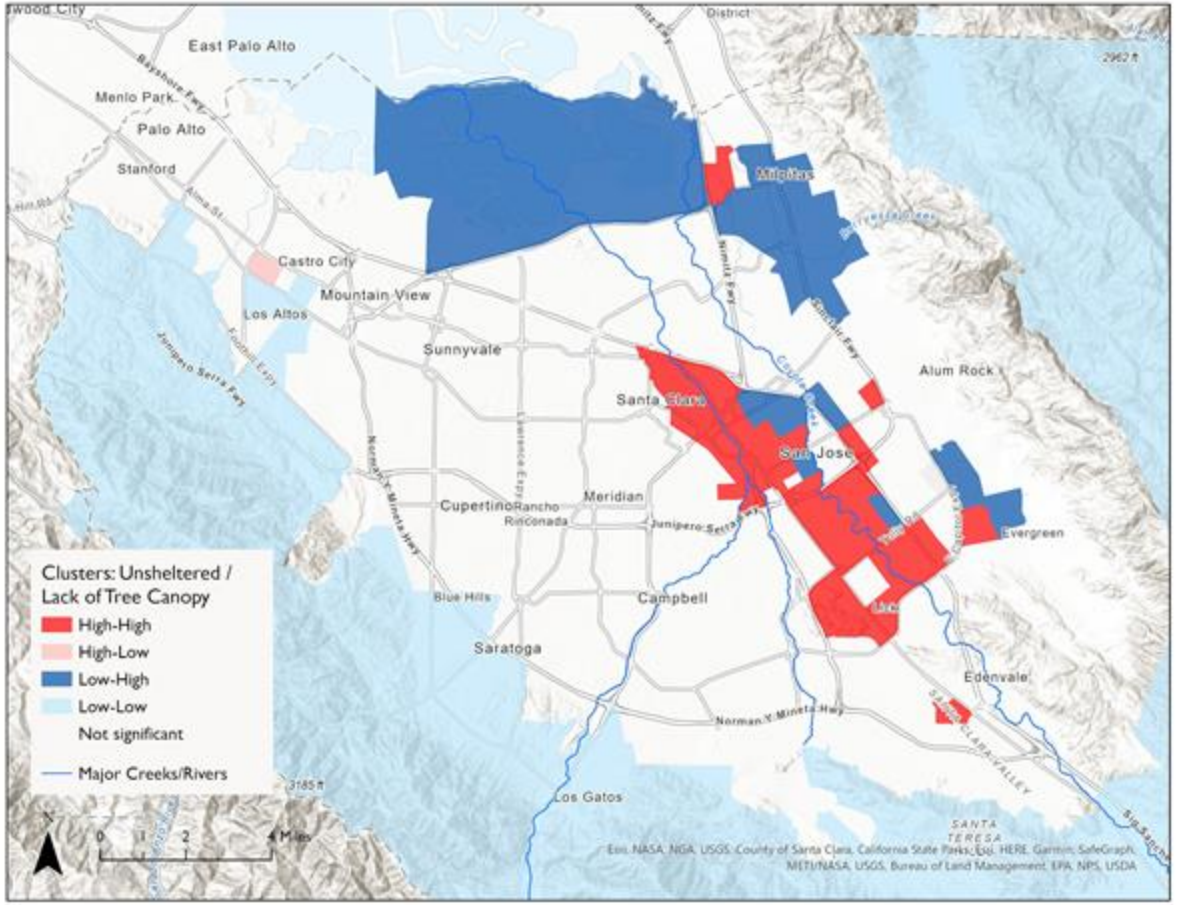
+2%	Land surface temperature
-4%	Tree canopy
-29%	Median household income
+74%	Poverty rate
+56%	Renter share
-32%	White share of residents
+64%	Hispanic share of residents

Unsheltered people and heat risk

High land surface temperatures



Lack of tree shade



Heat causes and amplifies health issues

“[I was] feeling weak and fatigued, and basically malnourished, too. Once I had dehydration to the point where I actually had to go to the hospital, and they gave me an IV.”

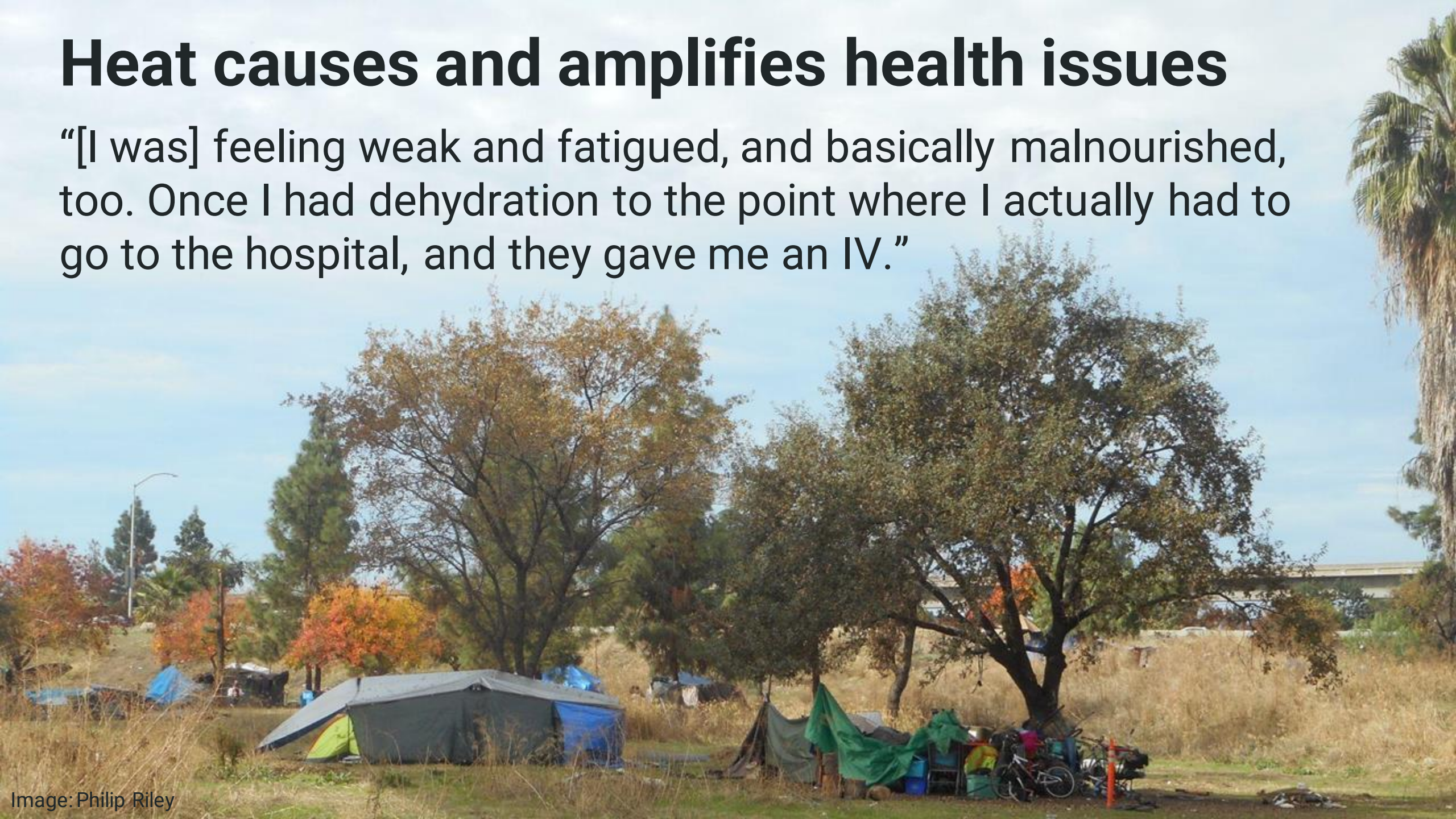


Image: Philip Riley

Dilemmas with accessing water and shade

“It’s not just because of the heat, it’s the whole circumstance … Not having adequate clothes or shade [...] It’s hard to find shaded areas. If you’re in a vehicle, it’s hard to find a place to park even - you just get run off [i.e. told to leave]. You just have to take what you can get.”

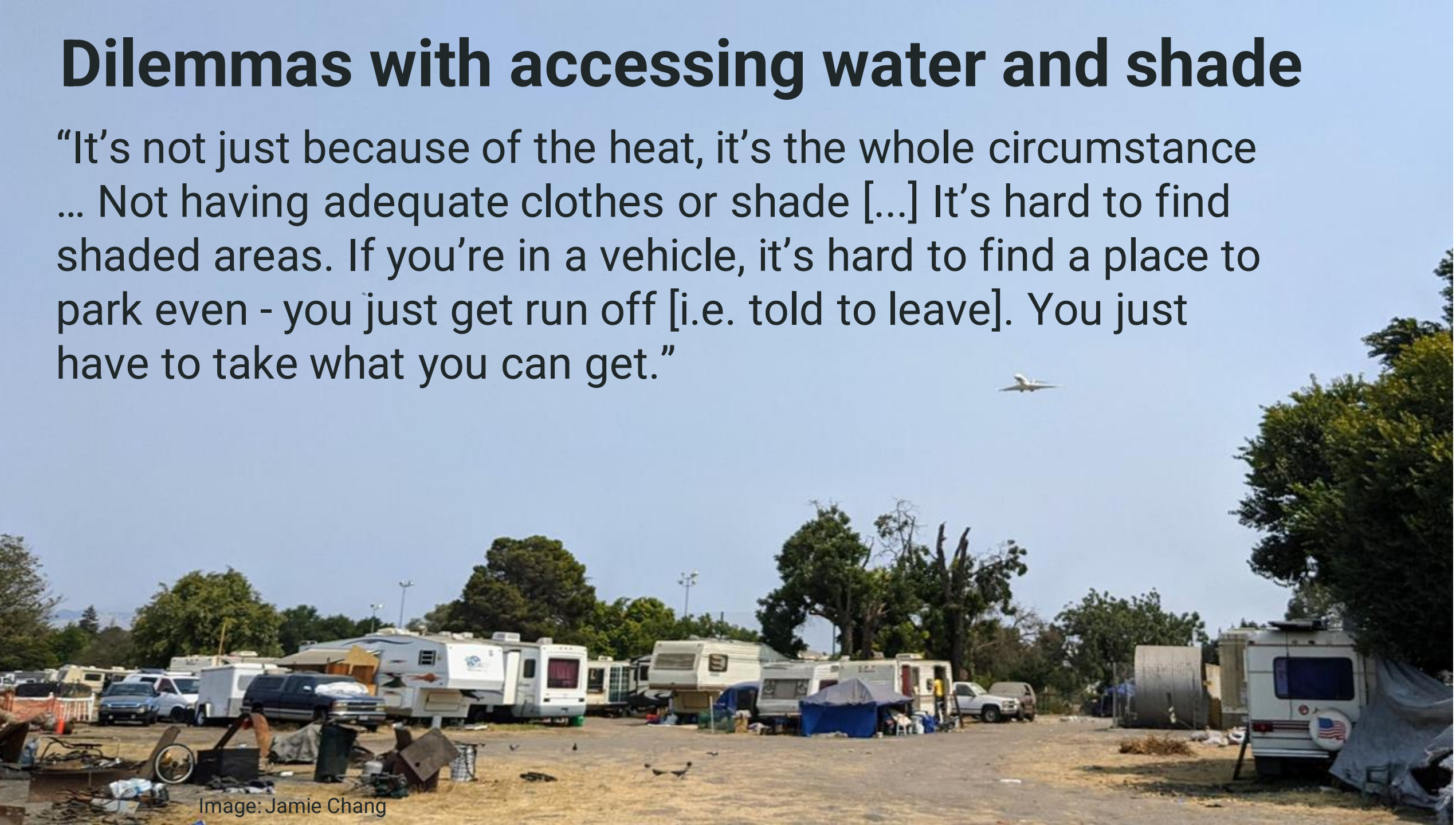


Image: Jamie Chang

Barriers to utilizing cooling centers

"[...] they put [the cooling centers] in the most oddball places. They are hard to get to, they aren't conveniently located. And they make the most ridiculous policies. They should just have an open door policy."



Image: City of San Jose

Key findings

- Unsheltered people experience “thermal inequity.”
- Unsheltered locations driven by access to basic services and perceived stability.



Image: Philip Riley



Image: Philip Riley

Policy implications

- Importance of housing.
- Safe places with shade, water, and other heat management.
- Cooling centers should be inclusive, near unhoused residents, and meet their needs.

Lessons from community-based research

- Importance of relationships
- Benefits of collaborative approaches
- Role of student researchers



Image: Philip Riley

THANK YOU!

C.J. Gabbe, Jamie Chang, Morayo Kamson, and David Seo

Santa Clara County HAQR Work Group | May 31, 2023



Santa Clara University

Questions?



HAQR 3 Year Workplan Activity

What heat and air quality projects is your organization working on that HAQR can support over the next 3 years?

Previously identified project topic areas:

1. Communications
2. Policies and Programs
3. Community Engagment
4. Networking and Collaboration

Examples of how HAQR can support projects:

1. Connecting with related projects in the County
2. Forming a HAQR subgroup
3. Pursing project funding
4. Communicating project activites and logisitics to HAQR members

Activity Overview

- Individual time for group walk around posters
- Come back as a big group for poster highlights
- Gallery walk with stickers to prioritize
- Identify the top 3 projects based on sticker votes
- In-person and virtual report outs

Extreme Heat Social Media Campaign

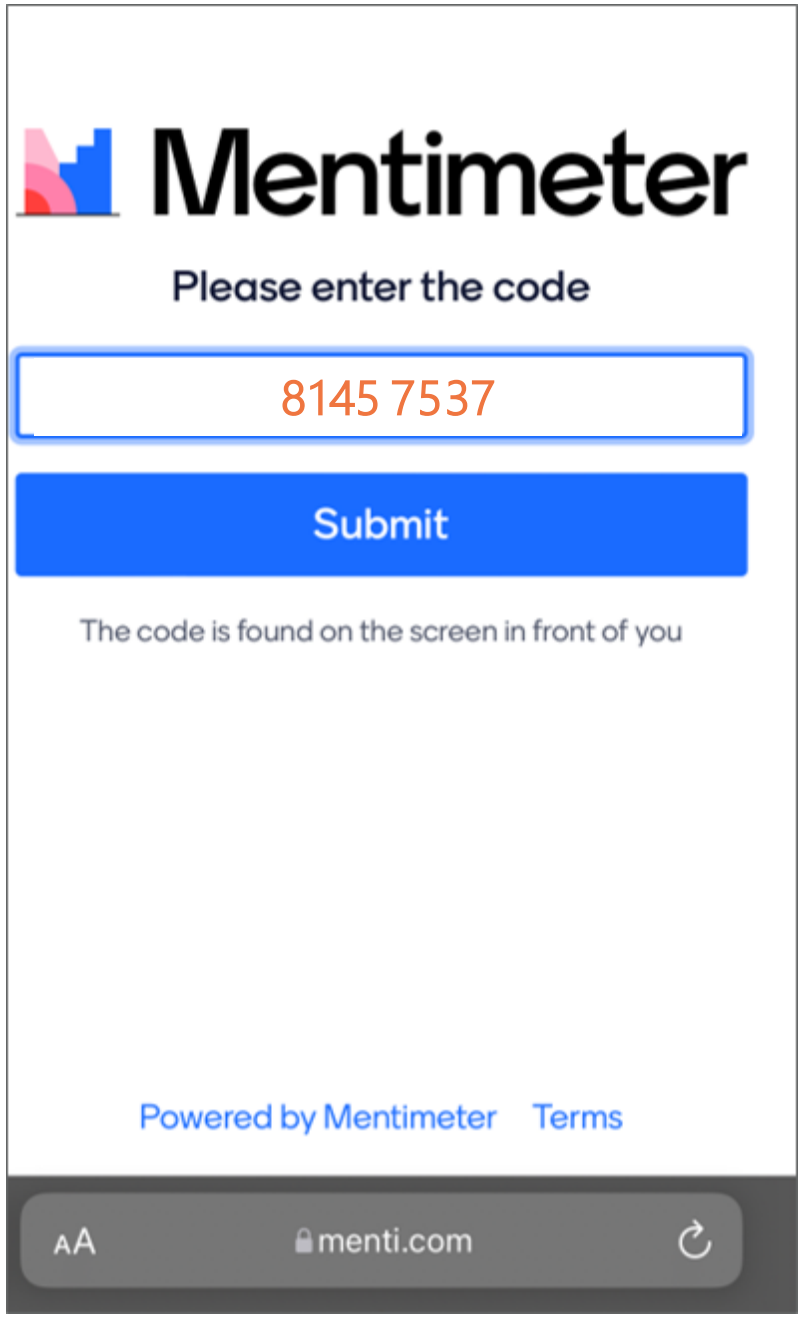
- Recruiting Heat Ambassadors
- Sign up today!





Sign Up Here

bit.ly/heat_ambassador



Feedback Survey

- Visit Menti.com
- Enter Code: 8145 7537 to provide your input

Thank you!

Tonya Veitch
Office of Sustainability
tonya.veitch@ceo.sccgov.org

Erin Xavier
Public Health Department
erin.xavier@phd.sccgov.org

Next Quarterly Meeting

August 23rd
10:30am – 12pm

Questions?

