

Voices of the Community



Building Community-Academic Partnerships for
Environmental Justice in the northern San Joaquin
Valley

October 15, 2020 11:00 am – 1:00 pm

Climate Change Planning - Air Pollution -
Food Justice

Welcome and Goals and Agenda



- Learn about community concerns and academic work
- Provide opportunities for creating partnerships for positive change
- Deepening our networking and developing meaningful collaborations following principles of community-based research

Agenda:

11:00 Welcome and Goals (Iris Stewart-Frey, SCU)

11:10: Panel Presentations (Martha Armas-Kelly, CC) + **Q&A**

12:05: Break

12:10 - 12:50 pm Breakout groups (Alec Castellano, CC)

12:50: Report back and closing (Edgar Garibay, TRT)



1. Planning for Climate Change in the Northern SJV

Charles (C.J.) Gabbe, Santa Clara University

C.J. Gabbe is an assistant professor in Santa Clara University's Department of Environmental Studies and Sciences. C.J.'s research is organized around three foundational issues in urban planning: (1) land use regulatory effectiveness and design; (2) housing and environmental quality; and (3) climate change vulnerability. He teaches courses related to sustainable urban planning, environmental policy, and geographic information systems (GIS).

C.J. has a Ph.D. in Urban Planning from UCLA and a Master of Urban Planning degree from the University of Washington. He is also a member of the American Institute of Certified Planners (AICP) and has more than 10 years of professional experience in planning and public policy.





Planning for Climate Change in the Northern San Joaquin Valley

C.J. Gabbe

Voices of the Community workshop | October 15, 2020

cgabbe@scu.edu |  @CJGabbe

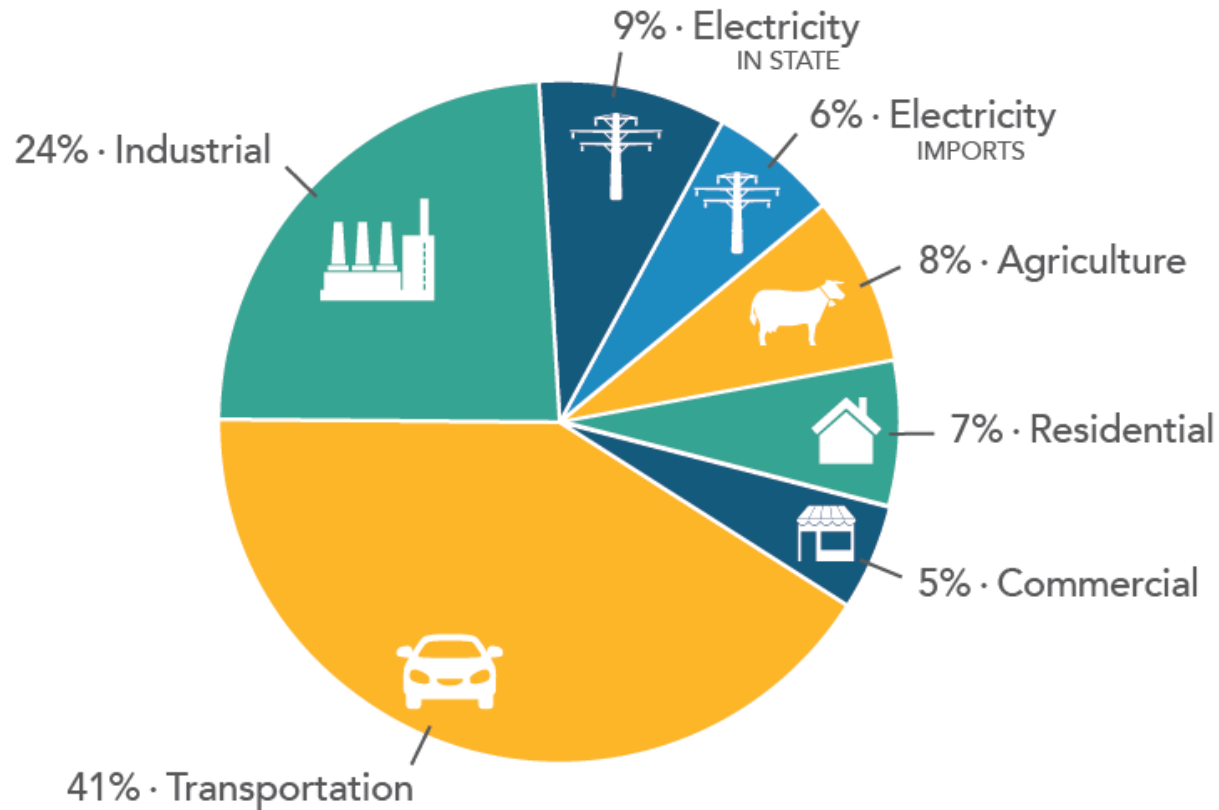


Santa Clara University

Overview

1. Reducing greenhouse gas emissions
2. Adapting to climate change
3. Opportunities for advocacy & research

GHGs (California)

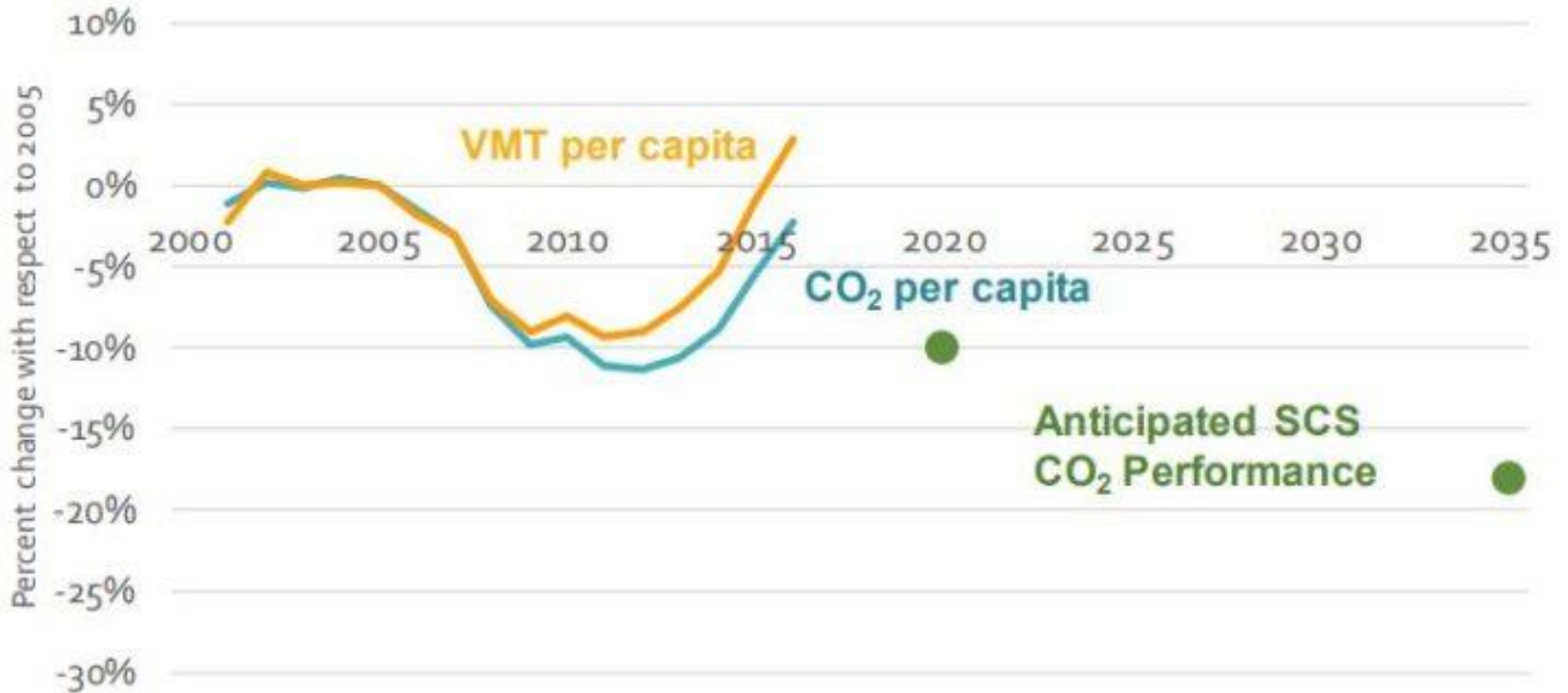


424.1 MMTCO₂e
2017 TOTAL CA EMISSIONS

Reducing emissions from transportation

1. Fuel switching
2. Fuel efficiency
3. Operating practices
4. Reducing travel demand (vehicle miles traveled)

Statewide CO₂ and Vehicle Miles Traveled (VMT) Per Capita Trend with Respect to Anticipated Performance of Current SB 375 SCSs²



Source: CDTFA, U.S.EIA, U.S.EPA, CARB

Plans to coordinate land use, transportation, and housing



2035 reduction targets*

San Joaquin	-
16%	
Stanislaus	-
16%	

Co-benefits beyond reducing VMT

Environment

- Lower building energy and water use
- Smaller urban footprint/reduce farmland loss
- Less impervious surface

Social equity

- Housing choices and affordability
- Better access to economic opportunities
- Decreased segregation and inequality
- Improved health outcomes



ELSEVIER

Contents lists available at ScienceDirect

Land Use Policy

journal homepage: www.elsevier.com/locate/landusep

Research-Based Article

Why Are Regulations Changed? A Parcel Analysis of Upzoning in Los Angeles

C. J. Gabbe¹

Journal of Planning Education and Research
1–12
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sagepub.com/journalsPermissions.nav
DOI: 10.1177/0739456X17696034
jpe.sagepub.com

Local regulatory responses during a regional housing shortage: An analysis of rezonings in Silicon Valley

C.J. Gabbe

Department of Environmental Studies and Sciences, Santa Clara University, S



HOUSING POLICY DEBATE, 2017
<https://doi.org/10.1080/10511482.2017.1368031>



How Do Developers Respond to Land Use Regulations? An Analysis of New Housing in Los Angeles

C. J. Gabbe

Department of Environmental Studies and Sciences, Santa Clara University, CA, USA



Journal of the American Planning Association

ISSN: 0194-4363 (Print) 1939-0130 (Online) Journal homepage: <https://www.tandfo>

Changing Residential Land Use Regulation to Address High Housing Prices

C. J. Gabbe



Housing Policy Debate

ISSN: 1051-1482 (Print) 2152-050X (Online) Journal homepage: <http://www.tandfonline.com/loi/rhpd20>



Hidden Costs and Deadweight Losses: Bundled Parking and Residential Rents in the Metropolitan United States

C. J. Gabbe & Gregory Pierce

The need for climate adaptation

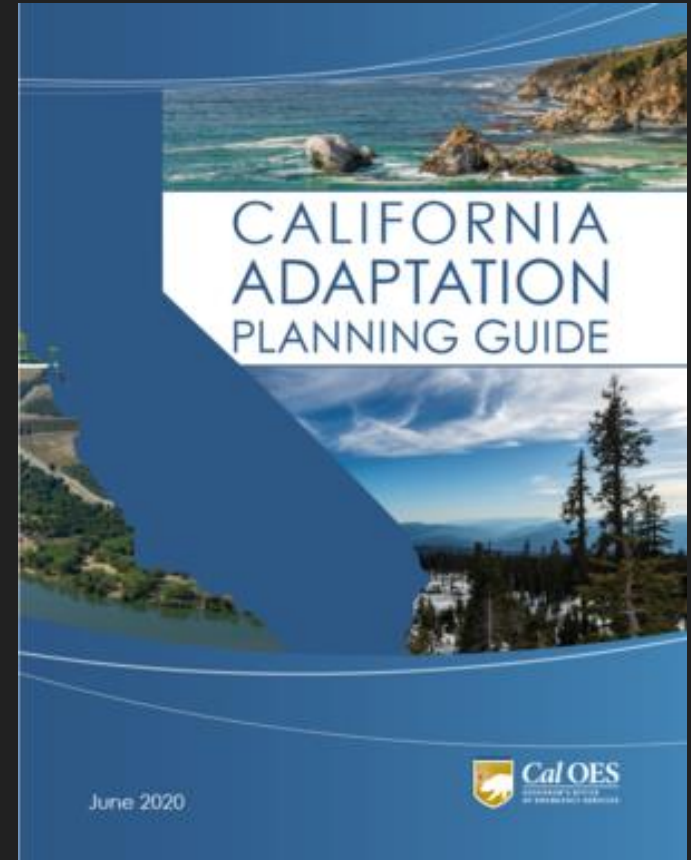


Image: <https://www.recordnet.com/news/20180730/thick-smoke-blanketing-stockton-san-joaquin-county>

Adaptation in California

Key issues

- Water supply and drought
- Extreme heat
- Sea level rise
- Flooding
- Wildfires



Extreme heat

HOUSING POLICY DEBATE
<https://doi.org/10.1080/10511482.2020.1768574>

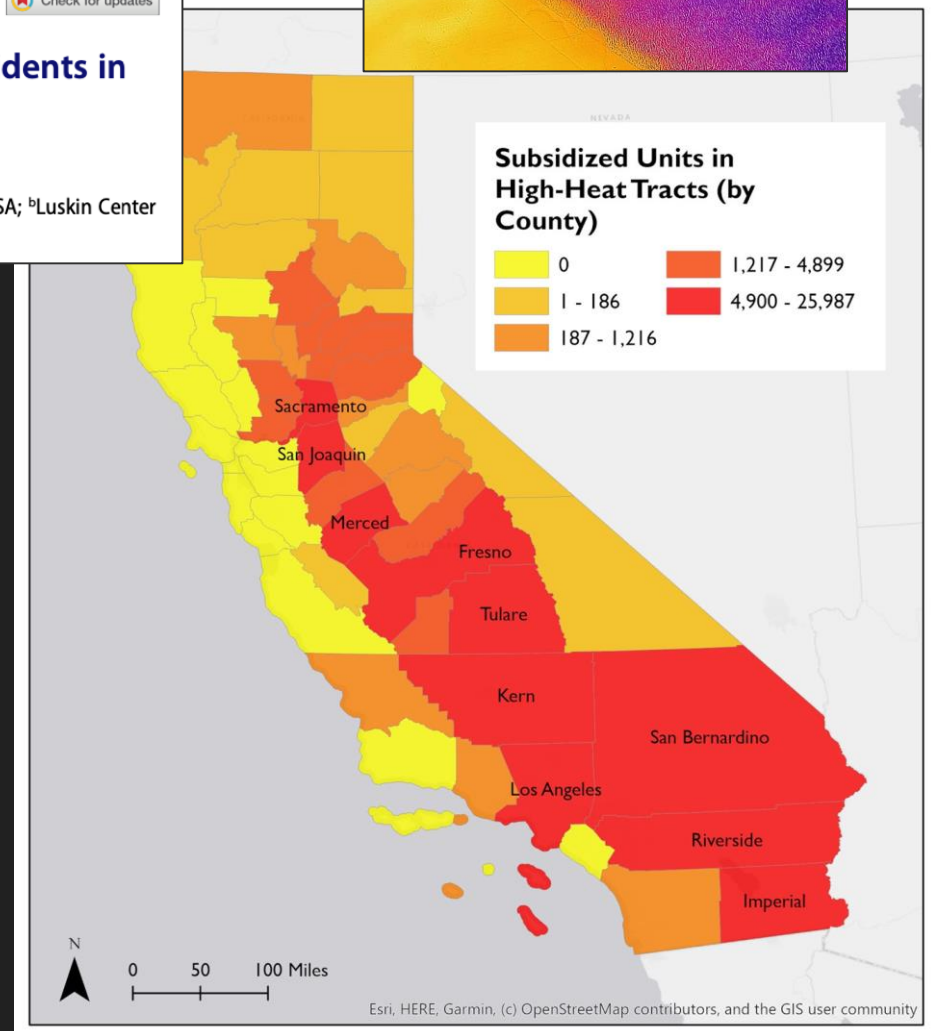
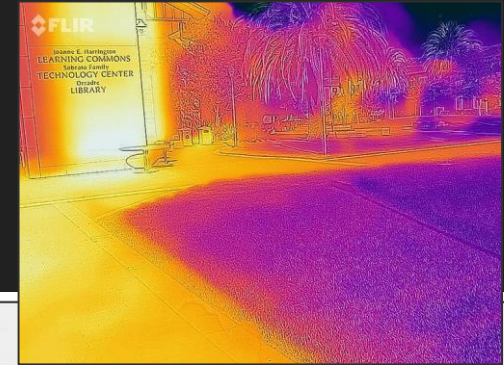
 **Routledge**
Taylor & Francis Group

 Check for updates

Extreme Heat Vulnerability of Subsidized Housing Residents in California

C. J. Gabbe^a and Gregory Pierce^b

^aDepartment of Environmental Studies and Sciences, Santa Clara University, Santa Clara, CA, USA; ^bLuskin Center for Innovation, Luskin School of Public Affairs, University of California, Los Angeles, CA, USA



Extreme heat in Modesto

Settings

THRESHOLD TEMPERATURE (°F) ⓘ

102.9

98TH PERCENTILE

NUMBER OF DAYS IN A HEAT WAVE ⓘ

4

SCENARIO ⓘ

RCP 4.5

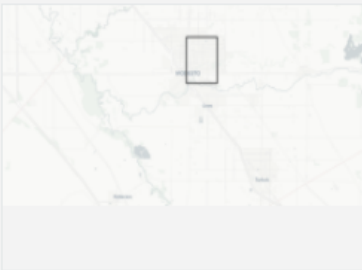
Emissions peak around 2040, then decline

RCP 8.5

Emissions continue to rise strongly through 2050 and plateau around 2100

LOCATION ⓘ

CHANGE



MODELS ⓘ

GCM

Display

HadGEM2-ES * (Warm/Drier)



CNRM-CM5 * (Cooler/Wetter)



Number of Extreme Heat Days by Year

This chart shows number of days in a year when daily maximum temperature is above the extreme heat threshold of 102.9 °F. Data is shown for Grid Cell (37.65625, -120.96875) under the RCP 8.5 scenario in which emissions continue to rise strongly through 2050 and plateau around 2100.

Average number of Extreme Heat Days. ⓘ

OBSERVED HISTORICAL

1961–1990

4

1961

1990

MODEL HISTORICAL

1961–1990

5

1961

1990

MODEL PROJECTIONS

2050–2060

25

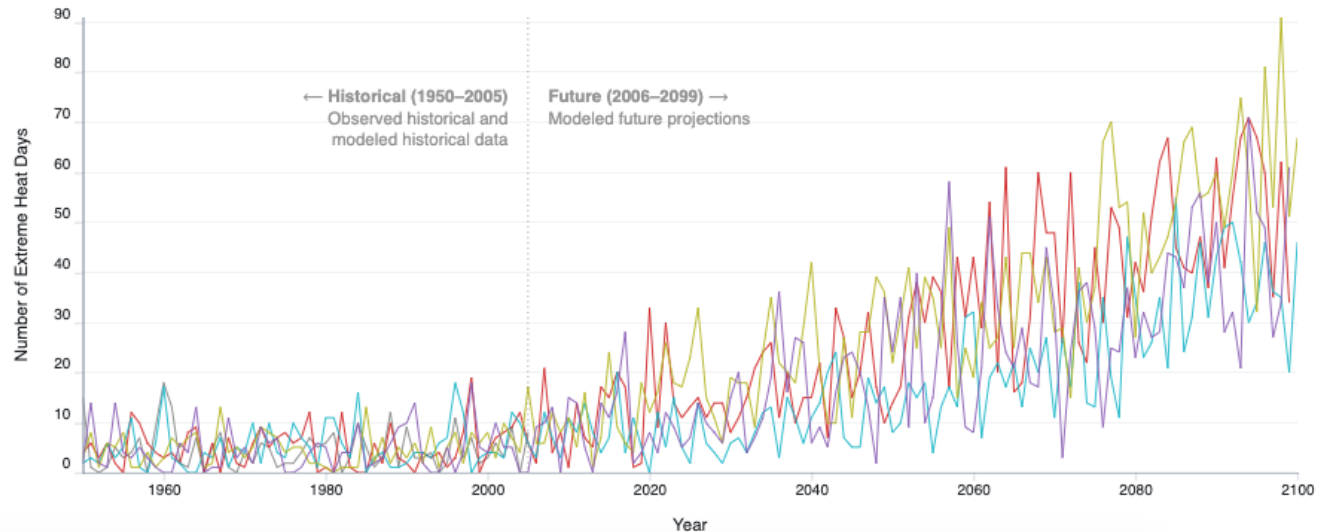
2050 2060

How to use? ⓘ

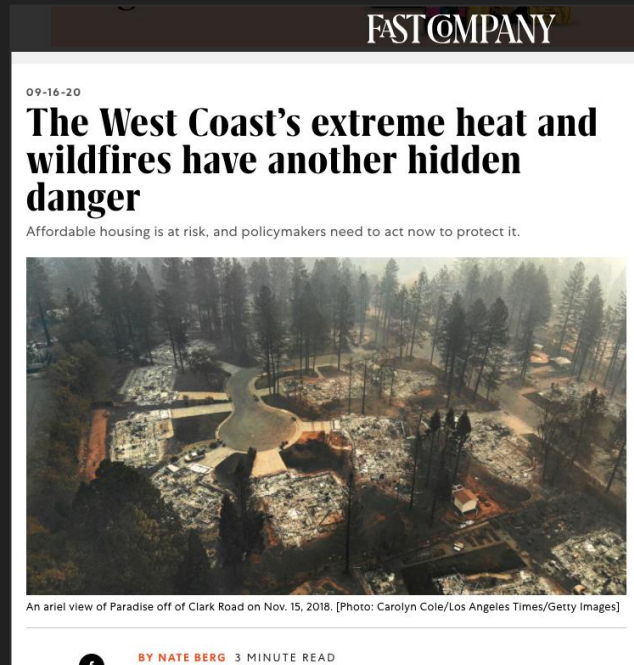
Get Data

Save Chart

■ Observed (1950–2005) ■ HadGEM2-ES (Warm/Drier) ■ CNRM-CM5 (Cooler/Wetter) ■ CanESM2 (Average) ■ MIROC5 (Complement)



Wildfires



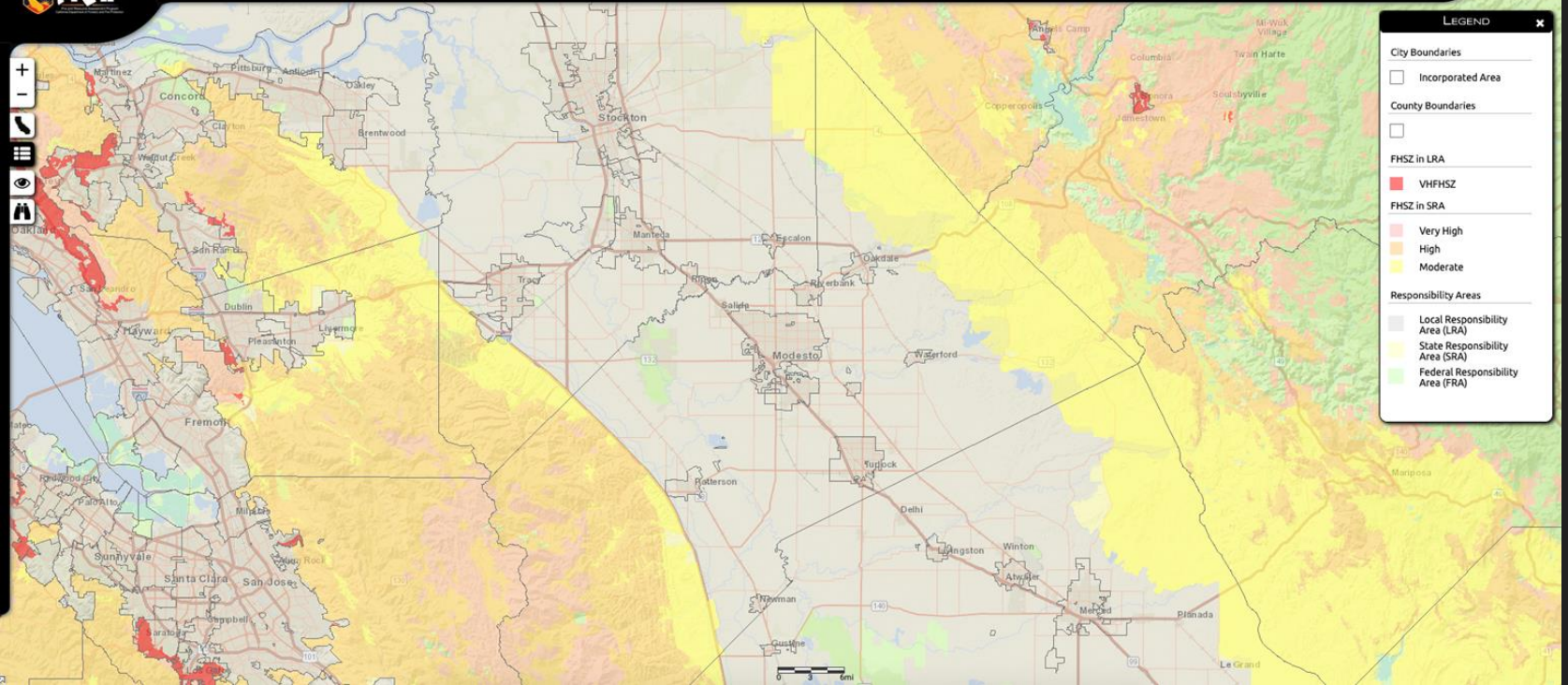
Environmental Management
<https://doi.org/10.1007/s00267-020-01340-2>

Subsidized Households and Wildfire Hazards in California

C. J. Gabbe¹ · Gregory Pierce² · Efren Oxlaj¹

Received: 20 November 2019 / Accepted: 17 July 2020
© Springer Science+Business Media, LLC, part of Springer Nature 2020





The Fresno Bee

Air quality in San Joaquin Valley is 'worst we've ever had,' officials say

BY MANUELA TOBIAS

SEPTEMBER 29, 2020 11:50 AM, UPDATED SEPTEMBER 29, 2020 12:21 PM



How bad is the air quality? Here's how to tell

Daily AQI Color	Levels of Concern	Values of Index	Description of Air Quality
Green	Good	0 to 50	Air quality is satisfactory, and air pollution poses little or no risk.
Yellow	Moderate	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.

Opportunities for advocacy & research

- Effects of land use & housing policies
- Disparities in vulnerability to climate hazards
- Efficacy of potential solutions

A silhouette of a city skyline with various skyscrapers and buildings, set against a warm, golden-yellow background that suggests a sunset or sunrise. The skyline is centered horizontally and occupies the top third of the image.

THANK YOU!

C.J. Gabbe

Voices of the Community workshop | October 15, 2020

cgabbe@scu.edu |  @CJGabbe



Santa Clara University

2. Organizing for air quality in the San Joaquin Valley

Nayamin Martinez, Director Central California Environmental Justice Network (CCEJN)

Prior to joining CCEJN, Ms. Martinez worked for the Madera County Public Health Department as a Health Education Coordinator and for ten years was the Health Projects Coordinator for the Binational Center for the Development of the Oaxacan Indigenous Communities.

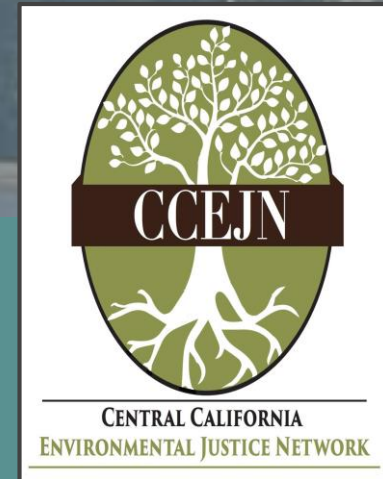
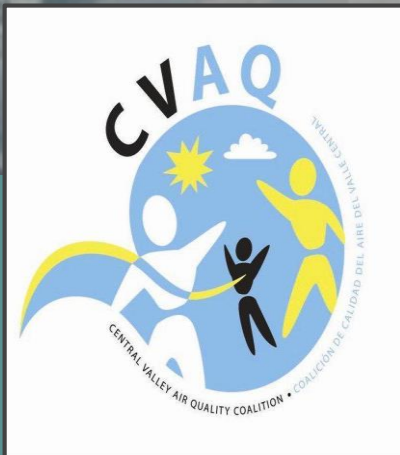
Ms. Martinez has vast experience working with immigrants and residents of disadvantaged communities across the San Joaquin Valley managing public health programs; conducting participatory research and launching leadership and civic engagement programs.

Ms. Martinez serves in various advisory groups including the “Environmental Justice Advisory Group of the San Joaquin Valley Air Pollution Control District”; the “Community Stakeholders Advisory Committee” of the UCD Environmental Health Science Core Center. Recently she was invited to join the working group for the cancellation of Chlorpyrifos. Ms. Martinez holds a Master’s Degree in both Public Health and Sociology.



Organizing for air quality in the San Joaquin Valley

By Nayamin Martinez, MPH

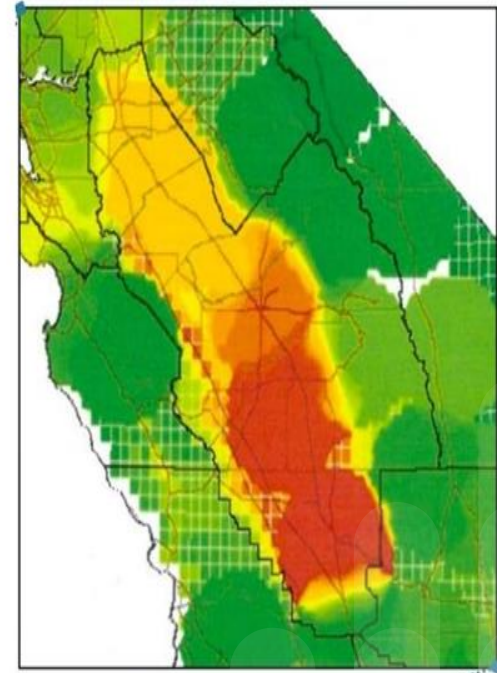


STATE OF THE AIR 2016



PEOPLE AT RISK IN CITIES MOST POLLUTED BY PM_{2.5}

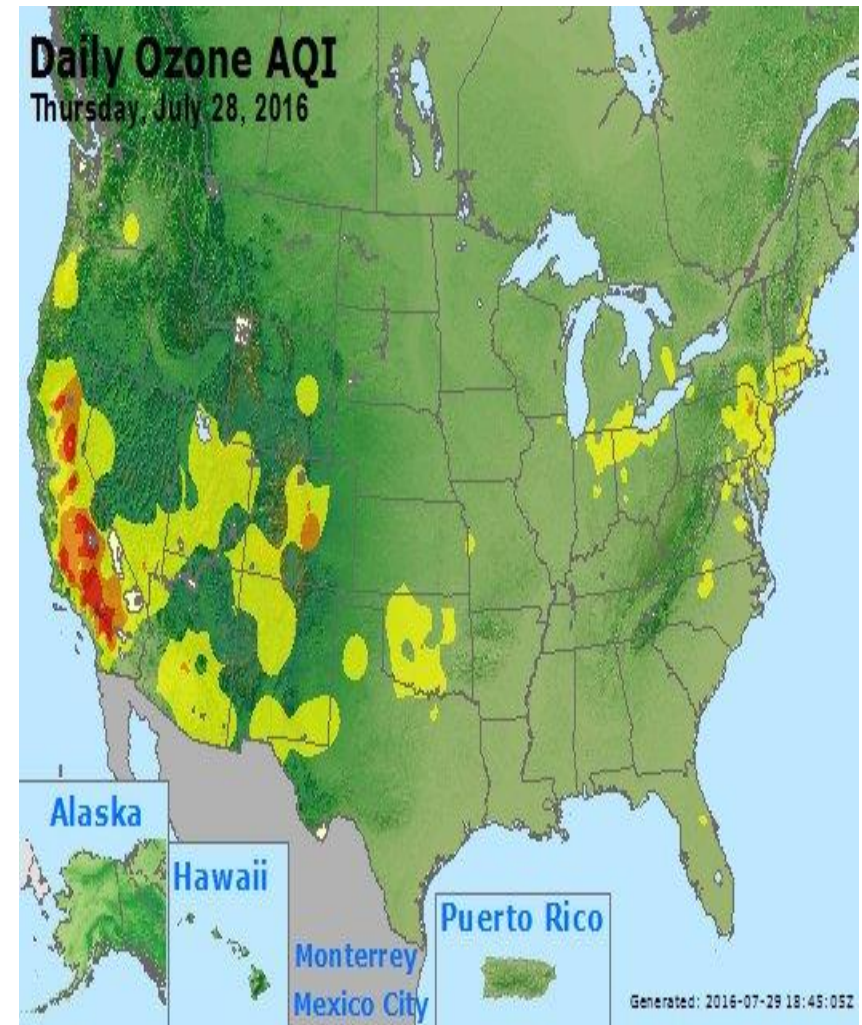
- #1: [Bakersfield, CA](#)
- #2: [Fresno-Madera, CA](#)
- #2: [Visalia-Porterville-Hanford, CA](#)
- #4: [Modesto-Merced, CA](#)
- #5: [Fairbanks, AK](#)



OZONE POLLUTION 2016



- #1: [Los Angeles-Long Beach, CA](#)
- #2: [Bakersfield, CA](#)
- #3: [Fresno-Madera, CA](#)
- #4: [Visalia-Porterville-Hanford, CA](#)
- #5: [Phoenix-Mesa-Scottsdale, AZ](#)



Central Valley of California

- **Main sources of pollution:**
 - *Pesticides & fertilizers*
 - *Oil & Gas*
 - *Dairies*
 - *Waste disposal facilities*
 - *Biomass Facilities*
 - *Highways (99 & 5)*
 - *Warehouses*



PM2.5



OZONE



METHANE



Most pollution is **homegrown**



Environmental Justice

MSN | Outlook, Office, Skype, | x | New Tab x | PowerPoint - nayamin.martine: x | Air Quality, Wildfires, Public He x | CalEnviroScreen 3.0 | OEHA x

oehha.ca.gov/calenviroscreen/report/calenviroscreen-30

CA.gov f t in e Contact Us Settings

OEHA Environmental Topics About Proposition 65 News and Events Library Search

Note: The map of S8535 disadvantaged communities (updated June 2018) can be found here.

CalEnviroScreen 3.0 Results (June 2018 Update) from OEHA CalEnviroScreen Website

Fresno, CA, USA x

Show search results for Fresno,...

Legend

CalEnviroScreen 3.0 Results (June 2018 Update)

- 91 - 100% (Highest Scores)
- 81 - 90%
- 71 - 80%
- 61 - 70%
- 51 - 60%
- 41 - 50%
- 31 - 40%
- 21 - 30%
- 11 - 20%
- 1 - 10% (Lowest Scores)

High Pollution, Low Population

Air Quality, Wildfi...pptx | Air Quality, Wildfir...pdf | Climate Central Inv...p... | Air Quality, Wildfir...pdf | Escena General p...docx | Show all x

Type here to search | 10:02 PM 10/27/2019

Environmental Justice



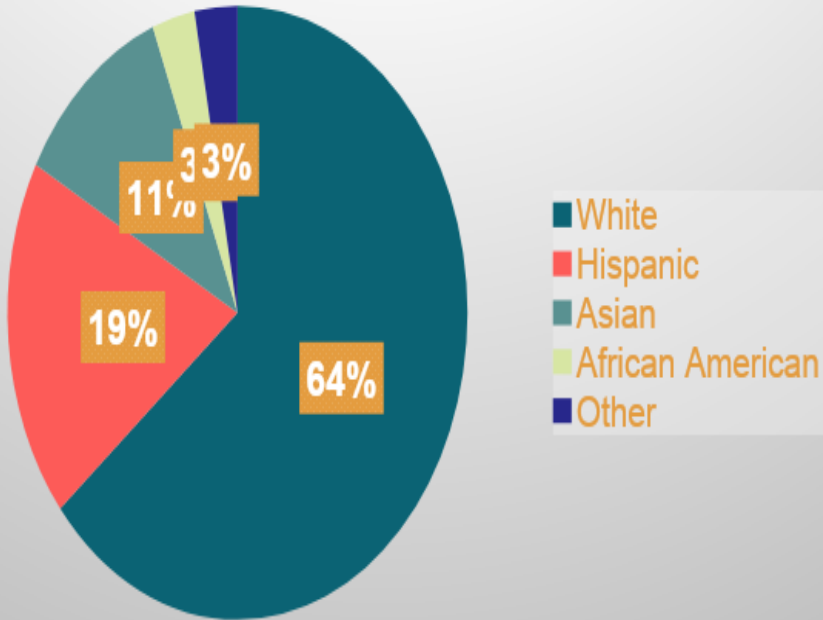
North Fresno

Ozone: 98 PM2.5: 97 Diesel: 58
 Asthma: 34 Poverty: 24

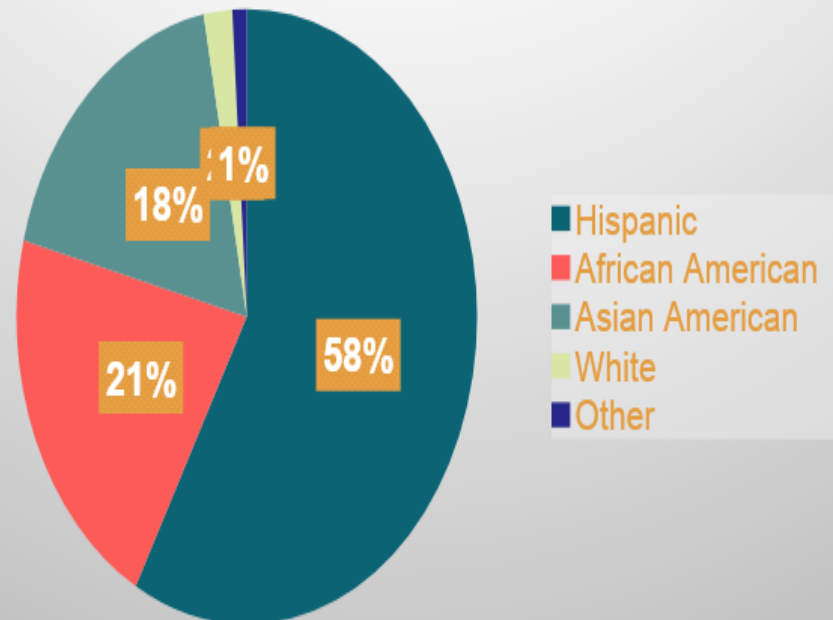
South Fresno

Ozone: 98 PM2.5: 97 Diesel: 95
 Asthma: 98 Poverty: 98

Race & Ethnicity



Race & Ethnicity





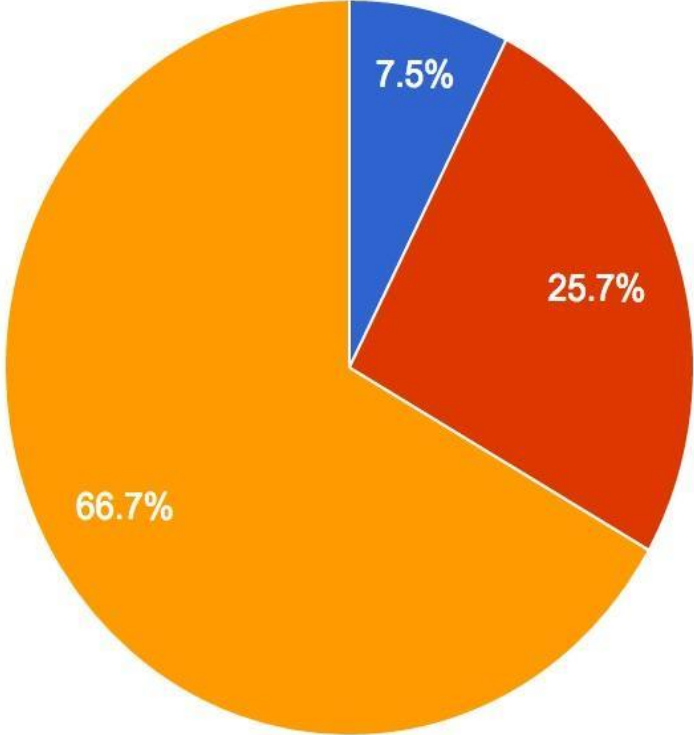
Biomass Incinerator

Glass Factory

Distribution
Center



PM2.5 Emissions (ton) by Facility

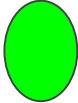


- Malaga Power, LLC
- PPG Industries Inc.
- Rio Bravo Fresno

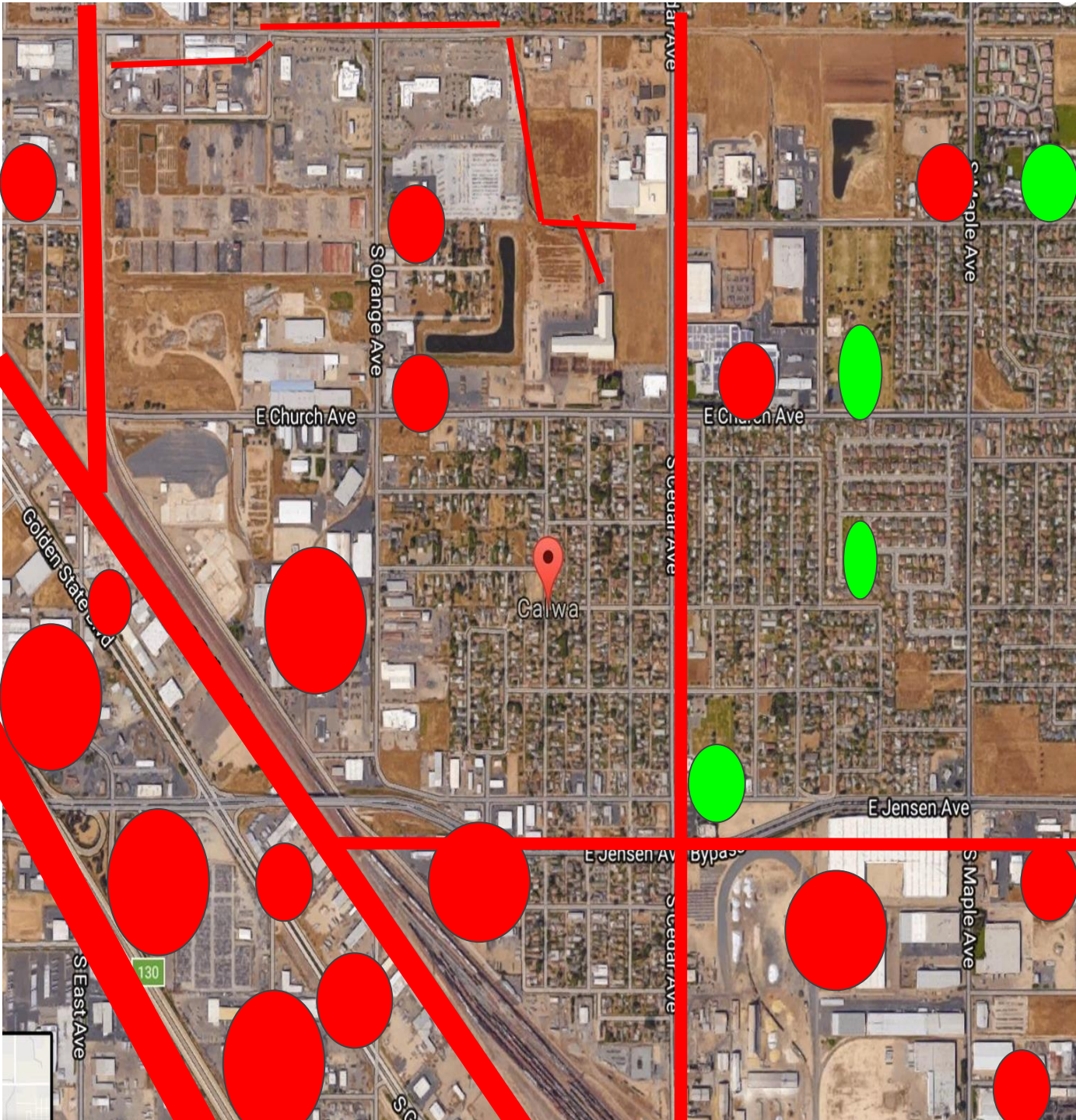
BIOMASS INCINERATOR



AIR POLLUTION

 Parks/
Schools

 Distribution
Center



Community Air Monitoring Work



Arvin Air Quality Project.

ARVIN, CA – Among the Worst Air Pollution in the USA

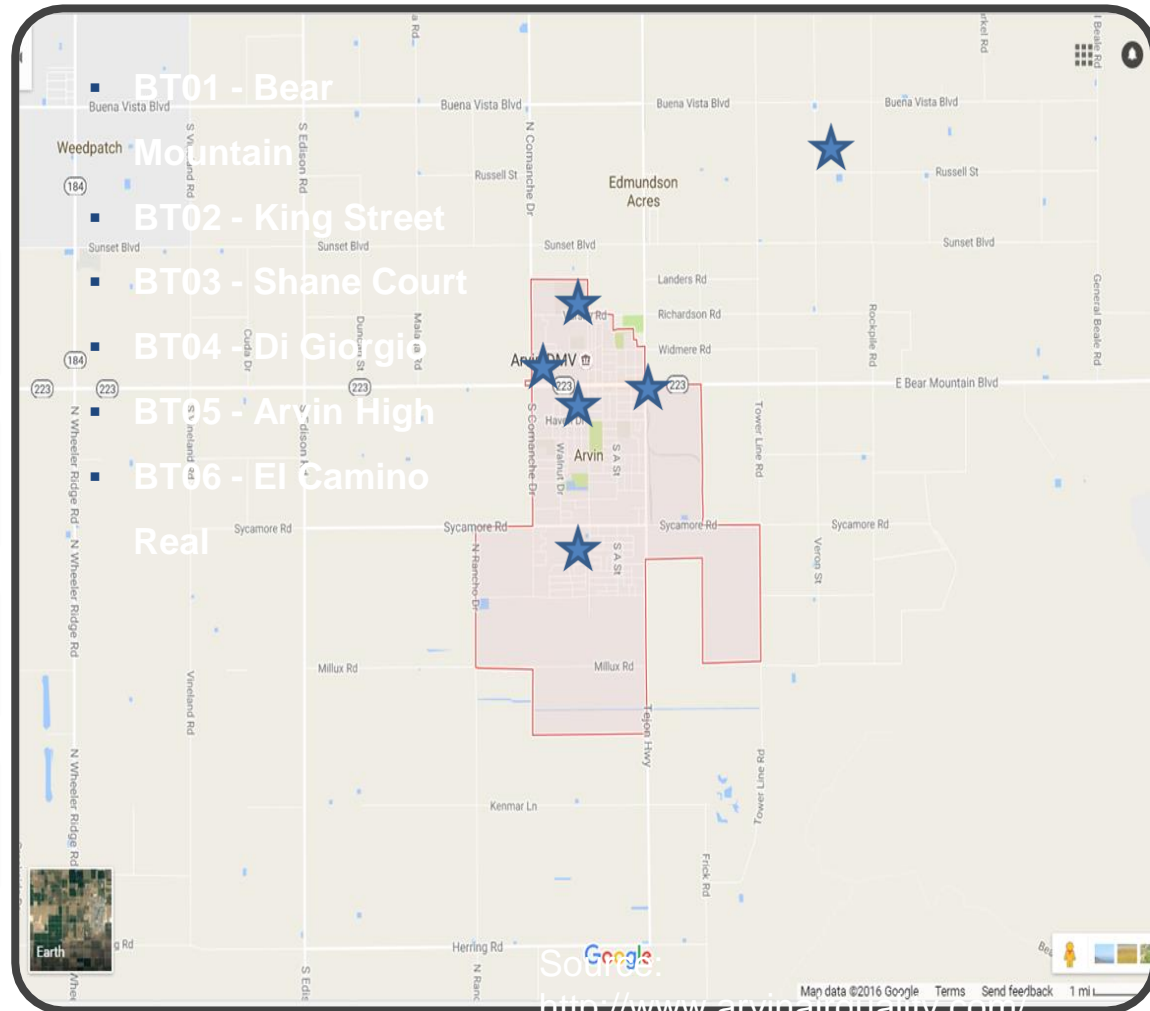
SOURCES OF AIR POLLUTION:

* Oil Field & Industrial Operations

* Pipeline & Storage Tank Leaks

* Agricultural Pollutants
Pesticides, Herbicides, Fungicides, etc.

* Vehicle Emissions:
Passenger & Diesel Pollution



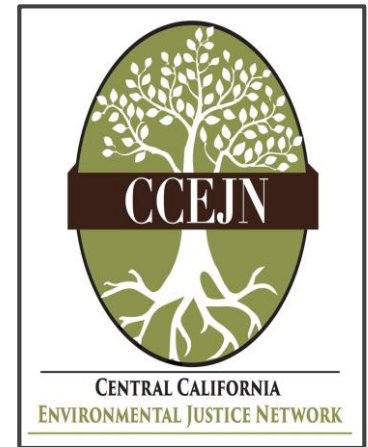
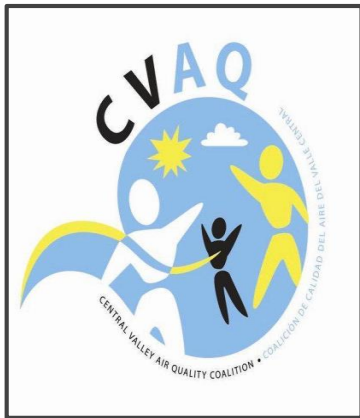
<https://siteportal.calepa.ca.gov/nsite/> <http://bakersfieldnow.com/news/local/state-fines-bakersfield-company-75k-for-gas-leak-that-displaced-arvin-families> http://www.cdpr.ca.gov/docs/emon/airinit/op_recommendation_final.pdf http://www.lung.org/local-content/california/documents/state-of-the-air/2017/sota-2017_ca_san-joaquin-fact.pdf

Why Community Air Monitoring?

- We have very few Regulatory Monitors because they are very expensive
- Air quality can change from one hour to the next depend on wind, weather conditions, pollution emissions
- To identify Hot Spots where pollution is emitted
- To give more information to community:
 - Alert when air quality is poor to protect health
 - Advocate for policies and programs to clean the air



San Joaquin Valley Community Air Monitoring Network (SJVAIR)



<https://www.sjvair.com/>

Background

- Program was created as a result of the approval in July of a new law: **AB617**
- AB617 recognizes that although progress has been made in improving air quality in California, **there are still severe pollution problems in some communities** due to their proximity to ...

***Industrial Zones**

***Railway Tracks**

***Highways**

***Oil Industry**

***Distribution Centers**



GOAL OF THE AIR PROTECTION PROGRAM

- Creation of new measures focused on reducing air pollution and improving public health in the most affected communities with pollution.
- An innovative aspect of this program is that it recognizes that community residents must actively participate in planning, developing and implementing new measures that will clean up pollution.





Bay Area

- Richmond
- West Oakland

South Sacramento

- Barrio Logan
- West National City
- Logan Heights
- Sherman Heights

San Joaquin Valley

- Stockton
- South Central Fresno
- Shafter

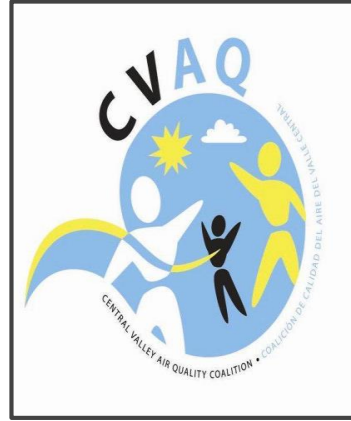
South Coast

- East LA/Boyle Heights
- Muscogy/San Bernardino
- Wilmington

Imperial Valley

- El Centro
- Calexico
- Herber

Advocacy Work



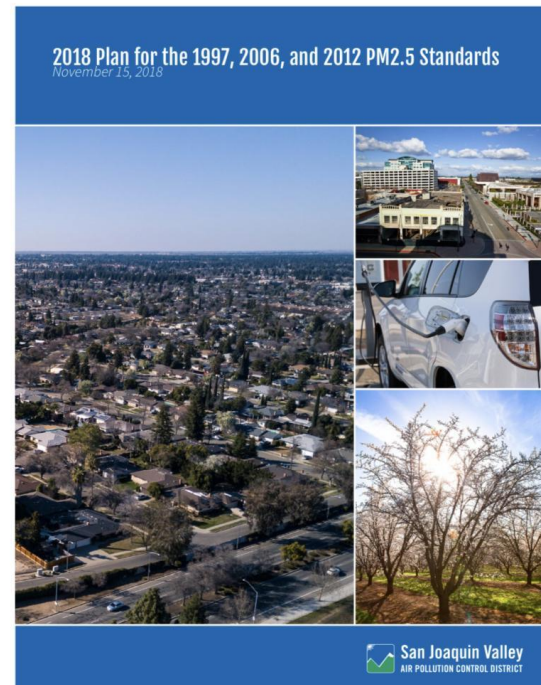


TWO EJ SEATS



2018 PM 2.5 Plan for the San Joaquin Valley

- Plan to meet Federal PM 2.5 Standards for 1997, 2006, and 2012
 - 1997: Annual Standard of $15 \mu\text{g}/\text{m}^3$ and 24-hour standard of $65 \mu\text{g}/\text{m}^3$
 - 2006: 24 hour standard of $35 \mu\text{g}/\text{m}^3$
 - 2012: Annual Standard of $12 \mu\text{g}/\text{m}^3$



A Big Win!

- **Emission Reduction Credits (ERCs) Program Review**
 - Earthworks “Undeserved Credit” report: November 2018
 - CARB Findings: June 2020
 - September 2020: Air District provisional withdrawal of credits from agricultural engine electrification projects associated with the AG-ICE incentive program and unbanked facility shutdowns (“orphan shutdowns”)

The work continues! Public working group meets monthly. To join contact CVAQ’s Director, Dr. Catherine Garoupa catherine@calcleanair.org



A blurred, golden-hued city skyline at sunset or sunrise, with the text "THANK YOU!" centered in white.

THANK YOU!

Food Security and Community-Engaged Scholarship

Stergios (Steve) Roussos (Community Initiatives for Collective Impact, CI4CI)

Steve Roussos, PhD, MPH is the Director and Community Scientists with CI4CI, serving the priorities of the San Joaquin Valley. CI4CI drives social and environmental justice efforts as a backbone organization for grassroots groups and as a mediating agency for community-academic partnerships.

Dr. Roussos has over 25 years of experience as a researcher and educator in community health and development with underserved and vulnerable populations. Based in Merced, he leads teams to use participatory research to understand and improve social justice outcomes through community-academic initiatives.

At UC Merced Dr. Roussos has shaped community-engaged scholarship since 2002, including through developing the Resource Center for Community-Engaged Scholarship (ReCCES). In 2017, Dr. Roussos led university and community stakeholders to establish CI4CI as a regional catalyst for social and environmental justice.



Food Security and Community- Engaged Scholarship



Stergios (Steve) Roussos, PhD, MPH
Community Initiatives for Collective Impact
(CI4CI), Merced, CA

*Voices of the Community:
Building Community-Academic Partnerships
for Environmental Justice in the
Northern San Joaquin Valley
A Virtual Meeting, October 15, 2020*



A Tribute to Dang Moua

Passed Away in October 2020

Pioneer and founder of the Hmong community in Merced, CA leading to California becoming the most populous Hmong state in the USA

Helped to establish Hmong farming throughout the region

Leader in development of the UC Merced Community Pledge, a community-benefit agreement guiding the launch of the 10th UC campus as an engaged research university in the San Joaquin Valley

Rest in Power Yawg....

Peb sawv daws yuav nco koj txoj kev hlub rau peb txhuas leej txhaus tus. Mus zoo koj os mog.



Community Engaged Scholarship (CES)

The approach of academic stakeholders (e.g., faculty, students) and “community” members (e.g., lay, professional, legislative) PARTNERING toward mutually beneficial means and ends through teaching, discovery, integration, application, and engagement.¹

University of California San Francisco UCSF School of Medicine | Department of Medicine UCSF Medical Center

UCSF Center for Vulnerable Populations Department of Medicine

Search...

About ▾ Programs ▾ Partners Resources ▾

CENTER FOR VULNERABLE POPULATIONS > PROGRAMS > THE FOOD POLICY, HEALTH, AND HUNGER RESEARCH PROGRAM

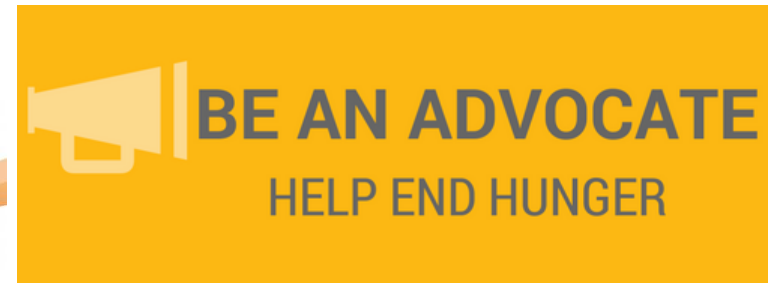
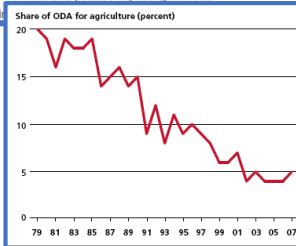
The Food Policy, Health, and Hunger Research Program

The UCSF Center for Vulnerable Populations' Food Policy, Health, and Hunger Research Program, led by Dr. Hilary Seligman and managed by Melissa Akers, is committed to creating communities where healthy food is affordable and easily accessible for everyone. Our research focuses on community-based interventions and policies impacting the food environment and food affordability, leveraging...

Health & Healthcare Disparities

Health Communications Program

Health Information Technology and the



Community Engaged Scholarship (CES)

How can community and academic partners balance our drive to understand with action to improve solutions to society's toughest problems?



Community Engaged Scholarship (CES)

People Most Affected
By a Problem
(Live Experience)

&

People Trained to Solve
a Problem
(Expertise/Professionalism)

3 Core Values

1. Mutual Value of Wisdom
2. Mutual Engagement in Decisions
3. Mutual Benefit

Community Initiatives for Collective Impact (CI4CI) in Merced, CA

- Mediator for community-academic collaborative partnerships
- Backbone for grassroots & community-driven efforts
- Facilitator for translating research to action

Guiding Question:

How do we create community-owned organizations that function to articulate, negotiate and advance joint goals and action between academic and community partners?



What led us here?

Early drivers in Merced and SJV

UC MERCED'S COMMUNITY PLEDGE A COMMITMENT TO THE COMMUNITIES OF MERCED COUNTY AND THE GREATER SAN JOAQUIN VALLEY

University of California, Merced
September 2003

Commitment:

UC Merced, as the first University of California of the 21st century, is committed to becoming a premier institution of higher learning that benefits all Californians. We recognize that the success of UC Merced depends, in part, on the communities that surround and support it. Further, we recognize the need to form a partnership with community leaders to realize the opportunities ahead and to shoulder the responsibilities that attend such opportunities. As such, UC Merced will continue to work with the many facets of the community to ensure that the academic, cultural, and economic benefits of the campus reach all segments of the population.



FOR THE UNIVERSITY OF CALIFORNIA AT MERCED

Caree Pomlinson-Keasey 9/05/03
Caree Pomlinson-Keasey Date
Chancellor



2009 First Lady Michelle Obama Keynote Speaker
at UC Merced's "1st Class" Commencement



2015 Carnegie
Classification as
Community Engagement

UC MERCED

ReCCES

RESOURCE CENTER FOR
Community Engaged Scholarship

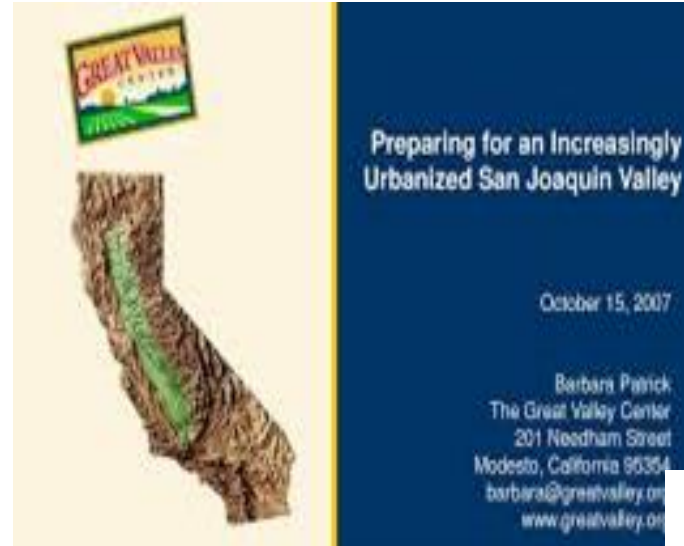
What led us here? Drivers in Merced and SJV

Great Valley Center

Carol Whiteside, Challenges & Choices for California's Great Central Valley President

Keynote Address, The New Face of California: The Great Central Valley Symposium, UC Berkeley, Nov. 2005

Community University Research and Action for Justice (2006 -)



San Joaquin Valley Health Fund (2015 -)

Place Matters for Health in the San Joaquin Valley: Ensuring Opportunities for Good Health for All

Central Valley Health Policy Institute, CSU Fresno (2012)

The State of the Great Central Valley: Assessing the Region via Indicators – The Environment 2006-2011

Great Valley Center (2012)



Why Food Security and Community-Engaged Scholarship in the San Joaquin Valley?



- SJV counties consistently rank higher in the rate of childhood food insecurity than the state (estimated 1 in 4 children)¹
- SJV counties' higher birth rate and higher proportion of youth lead to greater youth and population-level collateral damage from malnutrition (on physical and social development, health, lifetime contributions, quality of life, etc.)
- Unethical paradox of “breadbasket of the world” maintained by food insecure families



Early Examples: Food Security and Community-Engaged Scholarship



- Participatory budgeting & grant writing
- Student and community member training in participatory governance
- Community-academic garden planning and maintenance
- Demonstration site for food security data collection and pilot study



Early Examples: Food Security and Community-Engaged Scholarship



- Food security assessment, referral and systems change
- Driven by pre-Covid demands, escalated post-Covid
- Participatory ideation, grant-writing, and implementation
- Participatory dissemination of results to community and academic stakeholders
- Translation of research to action

FREE TAKE HOME GARDEN (easy to move):

- Be Medi-Cal Recipient
- Complete a 2-minute paper survey

At the Pop-Up People's Pantry
936 18th Street Merced, CA
Every Saturday @ 1:00pm
209-769-3231
projectgrow@ci4ci.org


Free Transportation on
THE BUS Route M1 and M2
(Tell Bus Driver Between Q and P Streets on 18th)



725 people with Medi-Cal screened:

80% Worried that their food would run out before getting money to buy more in past 12 months)

81% Bought food that did not last and did not have money to get more (in past 12 months)



P-EBT Deadline Extended: Apply for Up to \$365 for Food by July 15

Two \$20 Target e-Gift Card Give-Away, Available thru 7/15
Complete brief survey AFTER video:
<https://tinyurl.com/growmerced>

Some CA families to start receiving up to \$365 per child



Early Examples: Food Security and Community-Engaged Scholarship

- Evolved and maintained with community-academic partnership
- Designed as a pilot for replication in local food desserts
- Data-driven evaluation, refinement, and sustainability



Early Examples: Food Security and Community-Engaged Scholarship

- Evolved and maintained with community-academic partnership
- Designed as a pilot for replication in local food desserts
- Part of nationwide “Fridge” movement
- Live data monitoring for implementation and research



People's Fridge

Open Every Day, 9 AM- 5 PM

Take what you need! Leave what you don't!

Please place any donations in the donation drop-off station!



Thank You!

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936 W. 18th St, Merced, 95340
209-769-3231

<https://www.facebook.com/MercedPeoplesGarden/>

<https://www.facebook.com/projectgrowmerced/>

<https://www.facebook.com/popuppeoplespantry/>

<https://www.facebook.com/PeoplesFridge/>



“If you have come here to help me, you are wasting your time.
But if you have come because your liberation is bound up with
mine, then let us work together.”

Lilla Watson, indigenous Australian/Murri artist, activist & academic