



**CENTRAL CALIFORNIA**  
**ENVIRONMENTAL JUSTICE NETWORK**

From the Ground Up-  
*An Environmental Justice Approach  
to Community Science and Air  
Monitoring.*

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# Outline:

- Overview of CCEJN and Geolocation
- Background of local environmental justice projects
- Why Community Science & Air Monitoring
- Communities perspective
- Questions?

## CCEJN Mission Statement

To empower our communities and secure our children's future by eliminating negative environmental impacts in low-income and communities of color.

### Kern County:

- Is located in the Southern end of the San Joaquin Valley
- The county's economy is heavily linked to agriculture and to petroleum extraction
- Suffers from poor air quality. The Southern SJV area is one of the most polluted basin in the US
- Bakersfield ranks first for PM<sub>2.5</sub> \*next to LA & Fresno
- and second for ozone \*next to LA & Fresno

## CCEJN Background



# 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

BT01 - Bear Mountain

BT02 - King Street

BT03 - Shane Court

BT04 - Di Giorgio

BT05 - Arvin High

BT06 - El Camino Real



Source: <http://www.arvinairquality.com/>

SOURCE: <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.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](http://www.lung.org/local-content/california/documents/state-of-the-air/2017/sota-2017_ca_san-joaquin-fact.pdf);

# Partners in Action:

- Using the lens of Environmental Justice & through a collaborative approach to community empowerment, these partners came together to bring resource to the community to shed light on the needs of regulatory gaps at the community level.
- This was not a Top Down approach for community participation but rather a true grassroots community led effort.

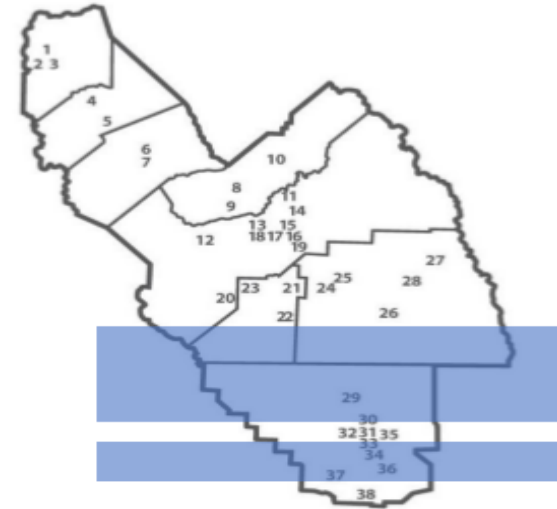


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# Why Community Science & Air Monitoring

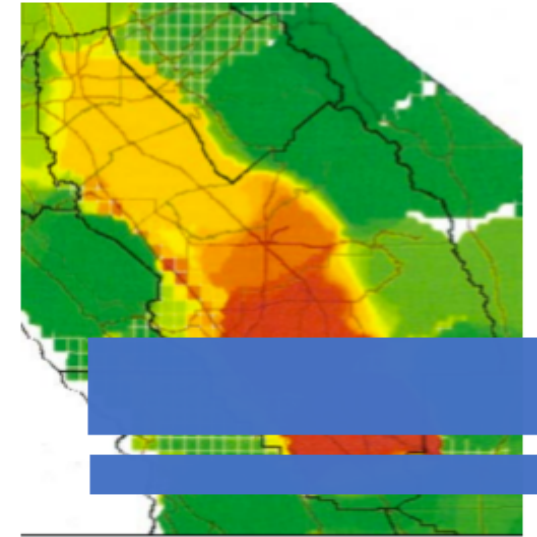
## PM2.5 Monitoring Needs in the San Joaquin Valley



As of July 2017

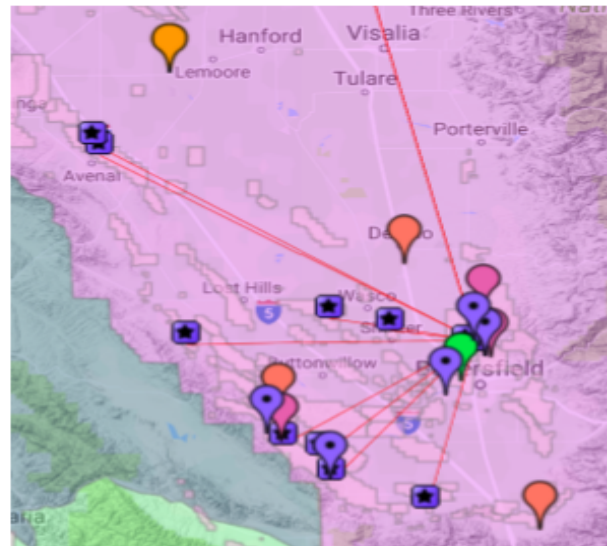
**Blue boxes represent areas where there are no PM2.5 monitors**

*Source of underlying map: SJVUAPCD Draft 2017 Air Monitoring Network Plan*



**Map of highest concentrations of PM2.5**

*Source of underlying map: CARB Workshop, Meeting PM2.5 Standards in the San Joaquin Valley, Fresno, California, December 1, 2016*



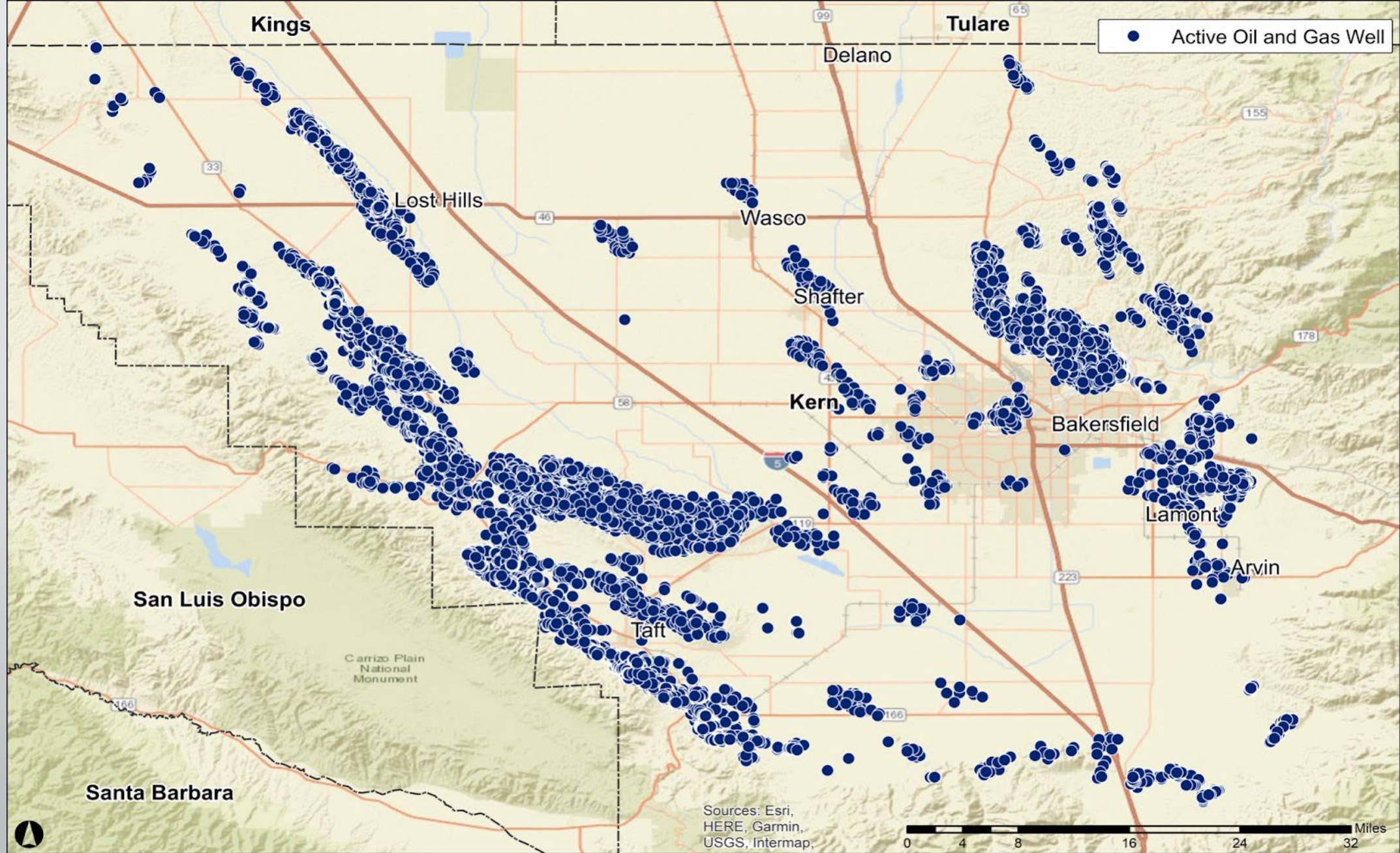
**Largest stationary sources of PM2.5 pollution**  
(purple markers represent oil and gas facilities)

*Source: CARB Pollution Mapping Tool (ver 1.1)*



**Location of PM2.5 Monitors**

*Sources: SJVUAPCD Draft 2017 Air Monitoring Network Plan and Google Maps*



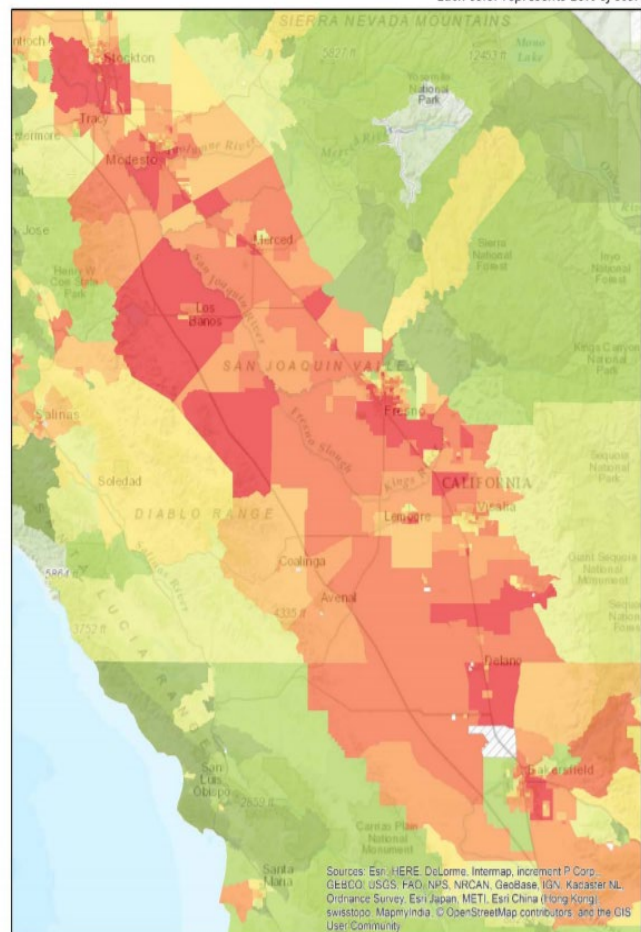
● Source: Custom map made by Tracking California TEAM

# Community Perspectives

Who represents us?

CalEnviroScreen 3.0

## CalEnviroScreen Version 3.0 Final Results



San Joaquin Valley

0 10 20 40 Miles

Sources: Esri, HERE, DeLorme, Intermap, increment P Corp, GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), Swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community



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“At the end of the day, people and communities need to take back the science. Can we really trust special interest to model or forecast our air quality? We know government knows our air quality, we know the polluters know the pollution, we know the researchers know the science- the only ones left out are the people being affected by the actual pollution. We need to decolonize and democratize data and science in communities most effected. That is why community air monitoring is so important.



- After passing a 300ft setback in Arvin, CA using local data from air sensors.

-South Kern Community member

# Questions or Comments?



# Thank you.

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