

From the Ground Up- An Environmental Justice Approach to Community Science and Air Monitoring. CCEJN's monitoring experience in Kern County

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CENTRAL CALIFORNIA

ONMENTAL JUSTICE NETWORK



CCEJN Mission Statement...

Our goals are to preserve our natural resources now and in the future, by seeking better ways to minimize or eliminate environmental degradation in Central Valley communities...

- 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 Bakersfield area is the most polluted basin in the US
- Bakersfield ranks first for PM2.5
- and second for ozone

CCEJN Background



Arvin Air Quality Project.

•* Oil Field & Industrial Operations ARVIN, CA – Among the Worst Air Pollution in the USA * Pipeline & Storage Tank Leaks **SOURCES OF AIR POLLUTION:** Pesticides, Herbicides, * Vehicle Emissions: Passenger & Diesel Pollution



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

Source: http://bakersfieldnow.com/news/local/state-fines-bakersfield-company-75k-for-gas-leak-that-displaced-arvin-families; http://siteportal.calepa.ca.gov/nsite/; http://siteportal.calepa.ca.gov/nsite/; http://siteportal.calepa.ca.gov/nsite/; http://siteportal.calepa.ca.gov/nsite/; http://siteportal.calepa.ca.gov/nsite/; http://siteportal.calepa.ca.gov/nsite/; https://siteportal.calepa.ca.gov/nsite/; https://siteportal.ca.gov/nsite/; https://siteportal.ca.gov/nsite/; https://siteportal.ca.gov/nsite/; https://siteportal.ca.gov/nsite/; <a href="https://siteportal.ca.gov/nsiteportal.ca.gov/nsiteportal.ca.gov/nsiteportal.ca.gov/nsiteportal.ca.gov/nsiteportal.ca.gov/nsiteportal.ca.gov/nsiteportal.ca.gov/nsiteportal.ca.gov/nsiteportal.ca.gov/nsitep

Partners in Action:

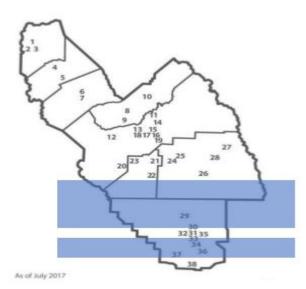
•Using the lens of
Environmental Justice &
through a collaborative
approach to community
empowerment, these partners
came together to bring
resource to the community to
shed light on the needs of
regulatory gaps at the
community level.

•This was not a Top Down approach for community participation but rather a true grassroots community led effort.



Why Community Science & Air Monitoring

PM2.5 Monitoring Needs in the San Joaquin Valley



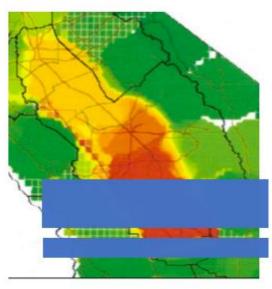
Blue boxes represent areas where there are no PM2.5 monitors

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



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

Source: CARB Pollution Mapping Tool (ver 1.1)



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



Location of PM2.5 Monitors
Sources: SJVUAPCD Draft 2017 Air Monitoring
Network Plan and Google Maps

•Source:

nttp://www.conservation.ca.gov/dog/Pages/WellFinder.aspx

Community Perspectives

San Joaquin Valley

CalEnviroScreen 3.0 CalEnviroScreen Top 20% pollution, no CalEnviroScreen score Version 3.0 **Final Results** scores scores Each color represents 10% of scores Sources: Esn. 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 C OpenStreetMap contributors and the GI

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Who represents us?



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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 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.

Source: https://ccejn.wordpress.com/

