ENVIRONMENTAL JUSTICE I.H.H.E.E.L.

INTRODUCTION

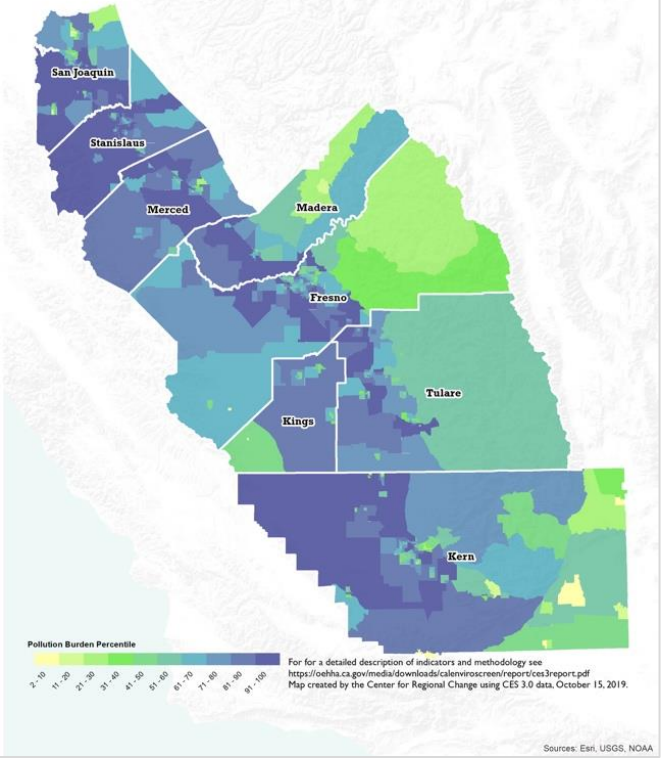
The San Joaquin Valley faces significant environmental pollution challenges that threaten the health and well-being of its residents. The economic model of the valley is dependent on agriculture, transportation, heavy industry, and oil and gas development. This creates a landscape in which certain people and places are disproportionately affected by poor air quality, pesticide use, and drinking water contamination. This disparity is compounded by demographic and economic factors that place residents of color and low-income residents at elevated risk, and present barriers to mitigating these hazards.

REGIONAL OVERVIEW

- Pollution in each of the eight San Joaquin Valley counties is higher than the statewide level, which indicates that valley residents face elevated environmental risks.
- San Joaquin Valley counties are disproportionately affected by poor air quality, high levels of pesticide exposure, and drinking water contamination compared to the state as a whole.
- Communities in the San Joaquin Valley experience a higher level of social vulnerability than communities statewide. Poor environmental conditions in the valley pose the greatest threat to low-income communities and communities of color.

ENVIRONMENTAL AND SOCIAL HAZARDS

Cumulative Pollution Burden in the San Joaquin Valley (2018)



Pollution Burden and Social Vulnerability

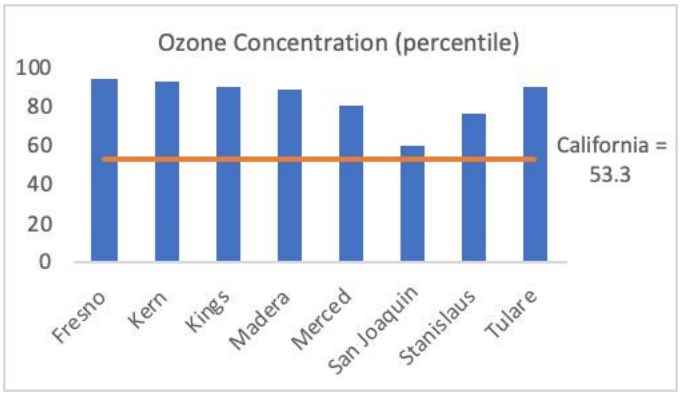
Based on the CalEnviroScreen statewide assessment tool, residents in the San Joaquin Valley are overburdened by high levels of pollution compared to the residents of the state as a whole.[i] Pollution burden includes a combination of adverse environmental exposures and effects, as measured by air quality, drinking water contamination, traffic density, and by the presence of cleanup sites, and hazardous waste.

The San Joaquin Valley's average CalEnviroScreen score (40.83) reflects these conditions.[ii] Scores for each of the eight San Joaquin Valley counties are higher than the state's average CalEnviroScreen score (27.93), which indicates elevated environmental risk for residents in the valley.[iii]

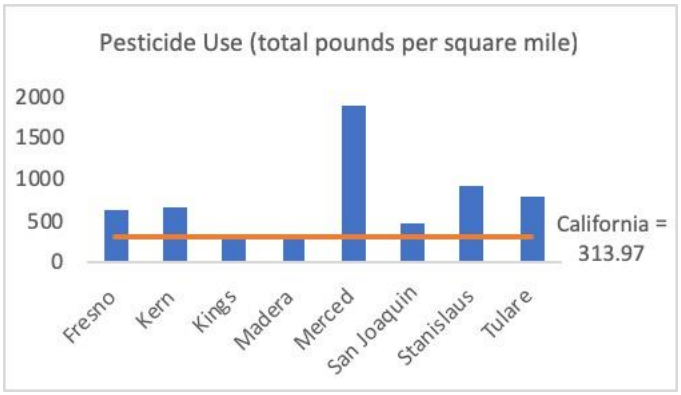
Residents also face higher social vulnerability than residents statewide, making them more susceptible to environmental hazards.[iv] CalEnviroScreen identifies a range of indicators that contribute to this vulnerability, measuring poverty, unemployment, formal education level, English language fluency, age, pre-existing health conditions, and racial and ethnic segregation.

Air Quality

The levels of ozone and fine particulate matter (PM2.5) in the San Joaquin Valley are higher than the state average. CalEnviroScreen uses percentiles to assign scores for specific indicators, representing a relative score for a given geographic area. Higher scores indicate higher risk or exposure. The level of ozone concentration in the San Joaquin Valley poses a threat to residents, with Fresno, Kern, Kings, and Tulare Counties ranking in the 90th percentile for the state. PM2.5 concentration also places communities at risk, with all eight counties ranking above the 70th percentile, and Fresno, Kings, Merced, Stanislaus, and Tulare Counties ranking at or above the 90th percentile.[v] According to the American Lung Association's 2019 annual national air quality report, three of the top five most polluted metropolitan areas in the United States (ranked by ozone and year-round PM2.5 concentration) are in the San Joaquin Valley, including Visalia, Bakersfield, and Fresno-Madera-Hanford.[vi]



Source: California Communities Environmental Health Screening Tool (CalEnviroScreen 3.0, updated June 2018).



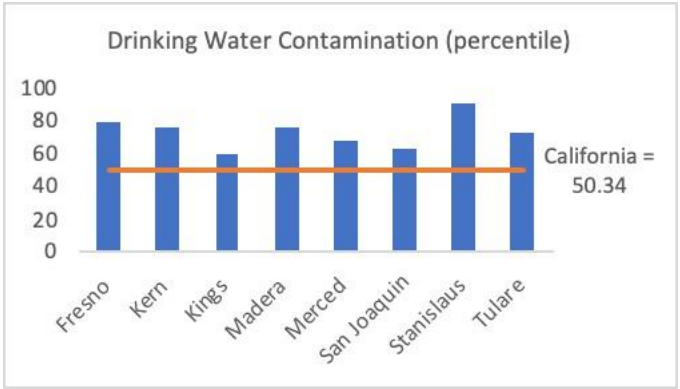
Source: California Communities Environmental Health Screening Tool (CalEnviroScreen 3.0, updated June 2018).

Pesticide Use

The total pounds of active ingredient pesticides used per square mile in the San Joaquin Valley is at or above the state average of 314 pounds. The population in Merced County experiences disproportionate exposure to pesticides, with approximately 1,888 pounds of active ingredient pesticides used per square mile. The pesticide use in Fresno, Kern, Stanislaus, and Tulare Counties is also more than double the state average.

Drinking Water Contamination

All eight San Joaquin Valley counties rank at or above the 60th percentile for drinking water contaminants statewide, indicating a higher level of exposure in the valley than the state overall. Stanislaus County is particularly affected, ranking in the 90th percentile. At a smaller scale, many census tracts are also in the 95-100th percentile for drinking water contamination, reflecting the high risk faced by many valley communities.



Source: California Communities Environmental Health Screening Tool (CalEnviroScreen 3.0, updated June 2018).

Citations are available at The Center web site.