

Something in the Air

Mohave County, Arizona

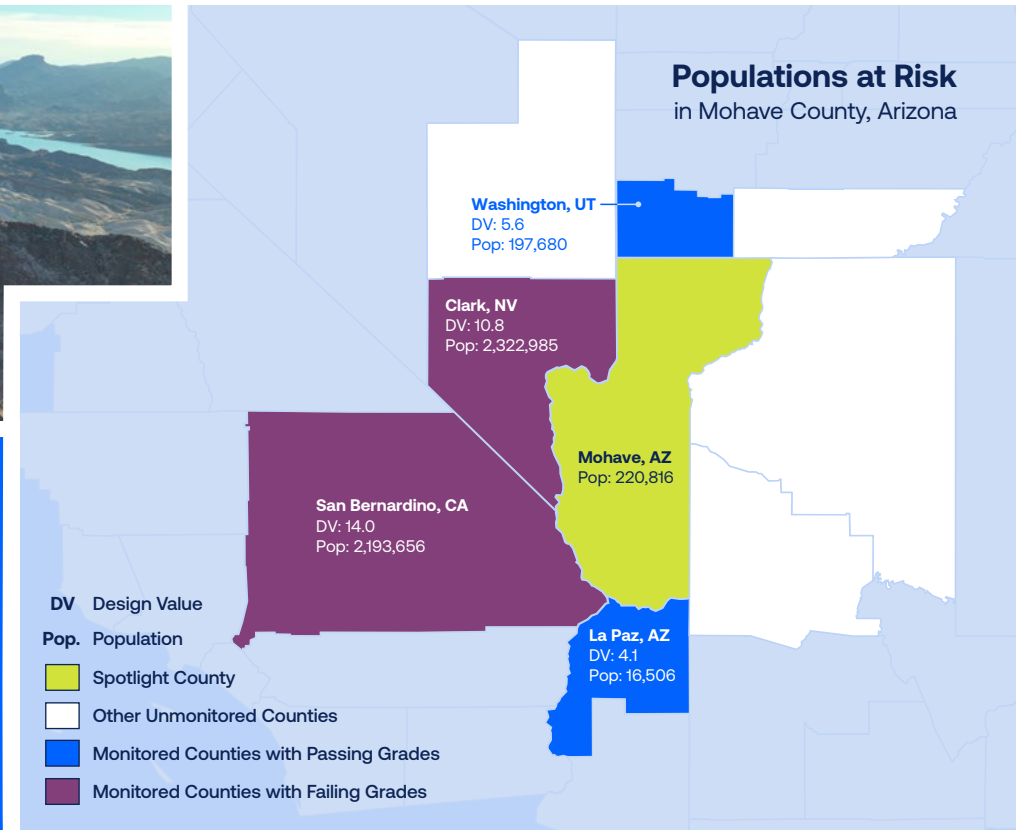


The American Lung Association’s “State of the Air” 2024 found that 39% of people in the U.S.—131.2 million people—live in places with unhealthy levels of ozone or particle pollution. The report relies on data collected at official air quality monitoring sites, which are limited in scope, leaving many counties without a grade for deadly particle pollution.

This new, supplemental report taps into the power of satellite-derived data to spotlight potentially unhealthy levels of air pollution in hundreds of counties without official monitors, including Mohave County, Arizona as one example.



What is a Design Value? A design value (DV) is a statistical measure used to assess air quality relative to the National Ambient Air Quality Standards (NAAQS). It helps designate nonattainment areas and track progress toward meeting these standards. DVs are calculated annually by the EPA, with the PM_{2.5} DV representing a three-year average of fine particulate matter levels. If this value exceeds the NAAQS, it indicates unhealthy air quality, requiring regulatory action to protect public health.



Mohave County is a large, predominantly rural county in the northwest corner of Arizona, bordering southern California and Nevada to the west and southwestern Utah to the north. The roughly 220,000 county residents are mostly concentrated in the population centers of Lake Havasu City, Bullhead City and the county seat of Kingman.

Despite its setting and limited heavy industry, satellite-derived data estimates rank Mohave County among the ten worst unmonitored U.S. counties for annual $PM_{2.5}$ levels. Neighboring areas may help provide insight into the local air quality issues.



Of the seven counties bordering Mohave, four monitor for $PM_{2.5}$. San Bernardino County, CA, and Clark County, NV, located upwind to the west, received failing grades for all three measures of air pollution in “State of the Air” 2024, including annual $PM_{2.5}$. San Bernardino has a DV of $14.0 \mu\text{g}/\text{m}^3$, largely due to its network of warehouses and trucking activity, while Clark, with a DV of $10.8 \mu\text{g}/\text{m}^3$, is home to Las Vegas and significant pollution sources from traffic, industry, and tourism.

Mohave County is home to more than 100,00 residents from groups that are particularly vulnerable to health harm from exposure to unhealthy levels of particle pollution, including large populations of seniors, people of color and people with low incomes.

Despite these demographics and the proximity to areas with known high pollution levels, Mohave County lacks local air quality monitoring, leaving residents underinformed about potential health risks from elevated $PM_{2.5}$, and without the information they need to advocate for cleaner air.

To learn more about the American Lung Association’s work using emerging technology to understand local air quality, visit, [Lung.org/something-in-the-air](https://www.lung.org/something-in-the-air).