

Earth Log: Why does drought make Valley's dirty air worse?

By Mark Grossi



A murky winter day in downtown Fresno during the drought.

MARK GROSSI — Fresno Bee

Nobody has dirty-air problems quite like the [San Joaquin Valley does in a drought](#). If you doubt that, read the American Lung Association's latest [report card](#) on air quality.

For 16 years, the Valley's cities have occupied the worst-five list in the nation. The three prime suspects are Fresno-Madera, Bakersfield and Visalia-Porterville-Hanford. Los Angeles-Long Beach is also among the worst five.

This year, Modesto-Merced ranked worse than LA for tiny particle pollution — thanks, in part, to the drought. I will talk briefly about how a drought can set the stage for dirtier air, but first I want to give you a little more perspective the Lung Association's analysis.

If you look at the statistics used [to rank and compare the 220 cities nationally](#), you'll see California is in another universe by itself. No other state is even close, though other states and their problems are prominently mentioned in the report. I'm just saying maybe it's time to analyze California's dirty air separately.

There's little doubt California's problem gets worse in drought, as the [San Joaquin Valley Air Pollution Control District](#) has been saying for a while now. The problem is pretty obvious with specks of soot, dust, chemicals and moisture — microscopic debris called PM-25.

Why? Because drought conditions tend to turn the air stagnant, allowing pollution to build in the atmosphere.

Several hundred thousand acres of barren cropland create more dust when the breezes pick up. The air district also requires landowners to spray water on unpaved roads to keep dust down, but water is pretty scarce. Maybe some folks don't have enough to do this.

The nearby mountains are more susceptible to wildfires after four years of drought. A large wildfire can pour a huge plume of soot into the Valley.

Additional well usage and drilling can result in more gases and particles being emitted to the air by engines that are not powered by electricity. There are still many wells that have not been converted to electrical power.

What will summer look like? Last year, the Valley's air exceeded [the eight-hour federal ozone standard 87 times](#).

The good news: That's the lowest number of Valley exceedances on record. The bad news: It was still the second-worst in the country, behind South Coast Air Basin's 92 exceedances.