

**Kern Council of Governments  
Executive Director Ahron Hakimi**

**Testimony**

**Before the U.S. Senate  
Committee on Environment and Public Works  
Subcommittee on Clean Air and Nuclear Safety  
Tuesday, May 23, 2017**

Madam Chairman Capito, Ranking Member Whitehouse and esteemed Senators, my name is Ahron Hakimi and I am the Executive Director for Kern Council of Governments, a metropolitan planning organization in California's San Joaquin Valley.

I am also an active colonel in the U.S. Army Reserve's Logistics Corp, so it is my honor and privilege to sit before you today offering testimony and answering your questions. For more than 30 years, I have worked as an engineer and manager in the transportation industry, including 25 years with the California Department of Transportation and 31 years in the Army Reserve.

To begin, thanks to your subcommittee for providing an opportunity to thoughtfully consider the federal mandates under the Clean Air Act and potential improvements that may be warranted. Given the tremendous air quality challenges that we face in the San Joaquin Valley and the wealth of real-life experience that we have with conducting air quality conformity studies for capital transportation projects, I firmly believe we can be helpful to this process.

Allow me first to paint you a picture of my part of the nation. The San Joaquin Valley, at 25,000 square miles, has an area larger than 20 percent of the 50 states, with a population greater than half the states at 4.1 million. Unfortunately, our region suffers from chronic double digit unemployment and higher rates of poverty than the Appalachian region.

In fact, CalEnviroScreen – a modeling tool prepared by the California Environmental Protection Agency to identify communities that are disproportionately burdened – places 20 out of California's top 30 most disadvantaged communities in the San Joaquin Valley.

As an added burden, due to the Valley's geography, topography and meteorological conditions that trap air pollutants, the Valley continues to exceed the latest federal ambient air quality standards for ozone and particulate matter (PM) 2.5 even after imposing some of the toughest air regulations in the nation and having reduced emissions by over 80 percent from Valley businesses.

Since the 1970s, EPA has established numerous ambient air quality standards for individual pollutants. We have now reached a point where various regions throughout

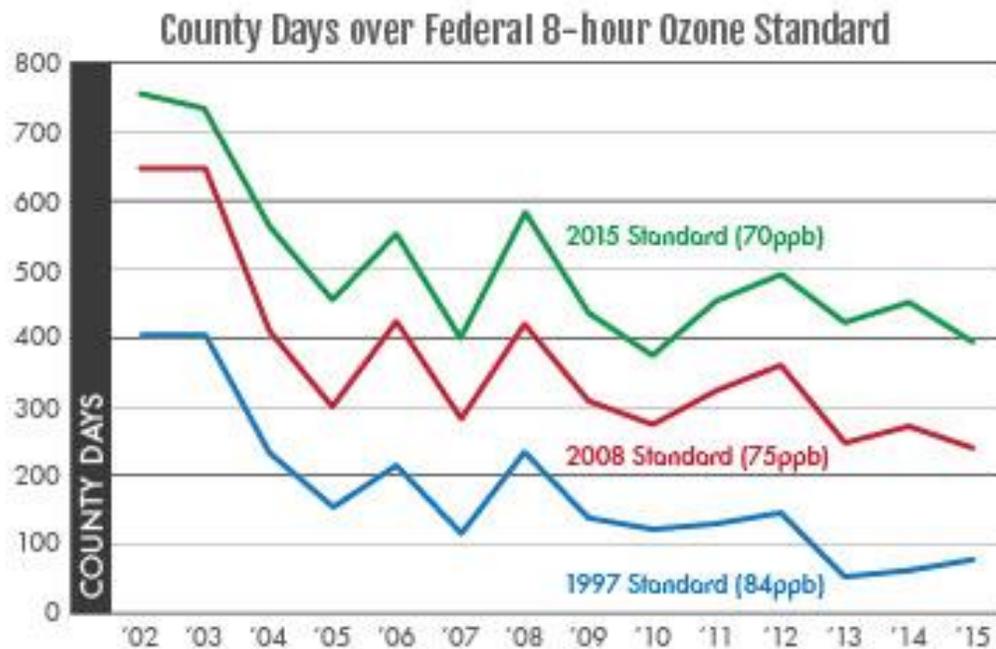
the nation are subject to multiple iterations of standards for a single pollutant. The San Joaquin Valley air basin is subject to four standards for ozone and four standards for PM2.5. Each of these standards requires a separate attainment plan that leads to multiple overlapping requirements and deadlines.

For instance, our Air Pollution Control District is on the verge of promulgating no less than 10 active State Implementation Plans. This results in a great deal of confusion, costly bureaucracy and duplicative regulations, all without corresponding public health benefits. Both S. 263, the Ozone Standards Implementation Act and S. 452, the ORDEAL Act, represent a step in the right direction to address this problem by providing more time between each review, from five years to 10 years, making it easier and more cost-effective for states to comply.

Through decades of implementing effective air quality strategies, air pollution from San Joaquin Valley businesses has been reduced by more than 80 percent through an investment of more than \$40 billion by regulated sources.

The pollution that industrial facilities, agricultural operations, cars and trucks release is at historical lows. San Joaquin Valley residents' exposure to high smog levels has been reduced by over 90 percent. Unfortunately, after all this investment and sacrifice, we have reached a point where we cannot attain the federal standards even if we eliminated all Valley businesses, agricultural operations, or trucks traveling through the San Joaquin Valley. Figure 1 below demonstrates the total number of exceedance days among all eight Valley Counties by ozone standard.

**Figure 1**



Federal law specifically preempts local jurisdictions from imposing tailpipe emissions standards on mobile sources. The San Joaquin Valley cannot attain the federal standards without significant reduction in emissions from these federal sources.

Another pollution source over which we have no local jurisdiction or control is transboundary transport. Observational and modeling studies have shown that international ozone precursor emissions can lead to ozone formation within the atmospheric boundary layer over far-upwind areas, and, under favorable conditions, can be transported within the mid-and upper-troposphere, contributing to local ozone concentrations.

During spring and summer in California, transboundary ozone is delivered onshore by prevailing tropospheric wind currents flowing across the Pacific Ocean. Some of this comes from natural sources, but an increasing proportion is due to a dramatic increase in fossil fuel combustion in Asia over the past two decades.

Through extensive research and air monitoring, the Air Pollution Control District has established that concentrations of transboundary ozone measured on the California coast in certain locations are highly representative of concentrations found at the same time in transpacific air masses flowing through the gap in the coast range between Pt. Reyes and the Carquinez Strait.

National Oceanic and Atmospheric Administration researchers have identified this area as the primary entryway for transboundary ozone affecting the San Joaquin Valley. UC Davis researchers have concluded that this same pathway was followed by flows of transboundary ozone into the Valley that may have led to our ozone standards violations. Based on this research, we believe that the transboundary ozone impact in the Valley is significant given the stringency of the latest air quality standards and the small degree by which the Valley is out of compliance.

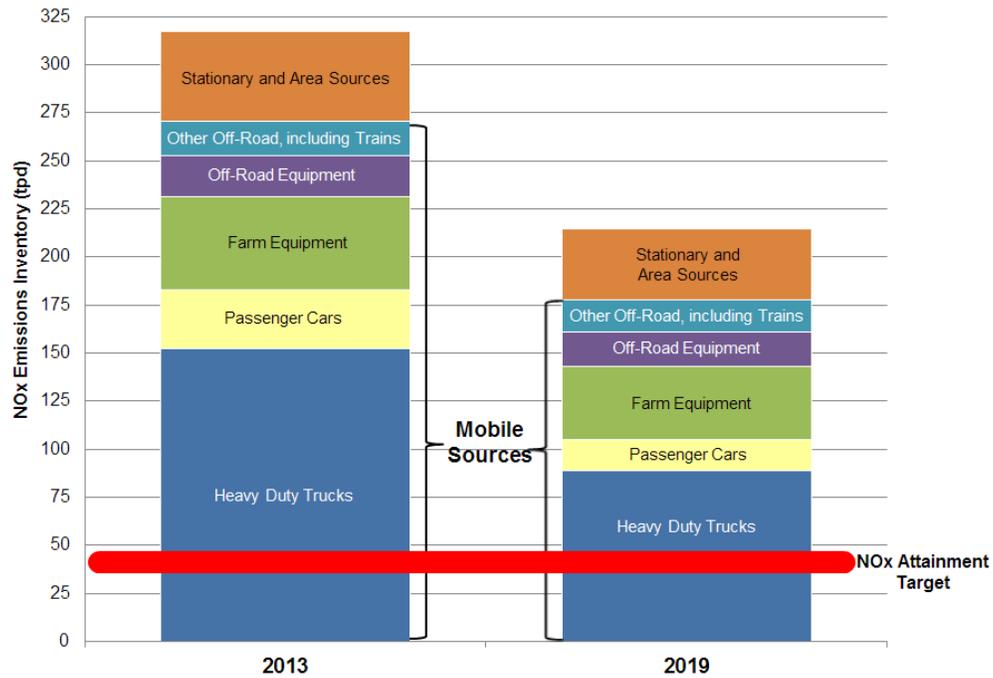
We also believe that common sense and fairness dictate that federal law include an overriding provision to prohibit sanctions on local regions and states where the inability to attain federal standards is due to pollution from outside their regulatory authority.

Right now, we are in non-attainment for three ozone standards and three PM2.5 standards. Each of these requires a separate air quality plan, which leads to multiple requirements and deadlines. There are 51 different air quality tests each of the eight transportation planning agencies must pass.

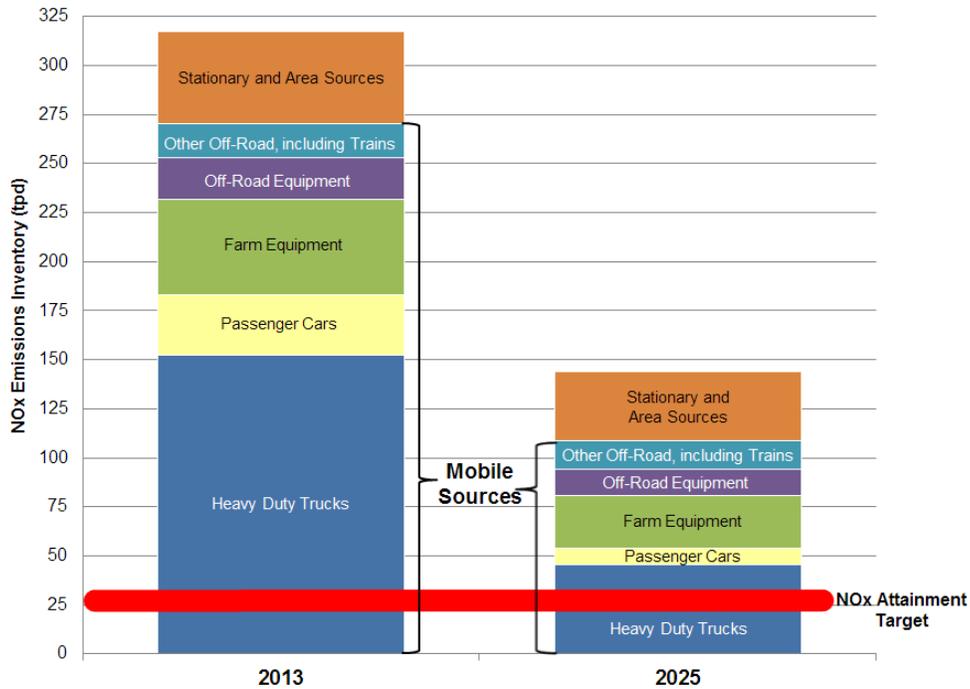
Valleywide, that's 408 tests before we spend one dollar of federal transportation funding. Eighty of those tests are for ozone alone. One test failure by one MPO can result in a loss of funding for all eight, and we are set to do this on a schedule that averages about once every two to three years.

Figures 2 and 3 below better illustrate the additional emissions reductions the San Joaquin Valley would be forced to make to meet existing standards.

**Figure 2 Additional Emissions Reductions Required for Attainment After Direct PM 2.5 Reductions (2019 Deadline for 2006 24-hr PM 2.5 Standard)**



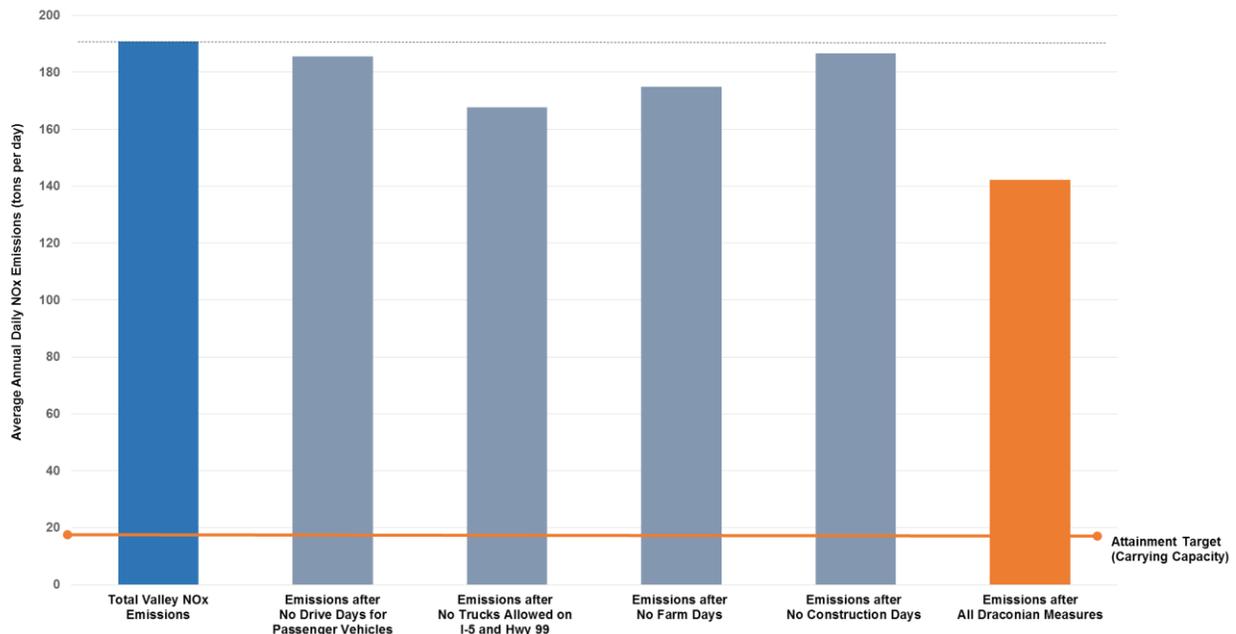
**Figure 3 Additional Emissions Reductions Required for Attainment After Direct PM 2.5 Reductions (2025 Deadline for 2012 Annual PM 2.5 Standard)**



To provide a greater context for the challenges we face, Figure 4 below illustrates that the San Joaquin Valley will not be able to attain the PM2.5 standard even with the following measures for 155 days per year:

1. No drive days for passenger vehicles.
2. Close Interstate 5 and Highway 99 to heavy-duty truck traffic.
3. No farming days.
4. No construction days.

**Figure 4 NOx Emissions after Imposition of Draconian Measures for 155 days per year in 2021**



As a Valley, we could deliver more than \$40 billion in transportation projects over the next two decades if we are not tripped up through a labyrinth of air quality tests requiring massive coordination among numerous regional, state and federal agencies. These projects put people to work, move agricultural goods to market, move freight from Northern to Southern California, and increase our citizens' mobility.

Such potentially draconian regulations have contributed to driving major employers, such as Baker/Hughes, out of the Valley and is causing other major companies to think twice before expanding. Independent trucking companies are the hardest hit with difficulty keeping up with ever-changing regulations driven by ever changing standards that only the largest trucking companies can afford.<sup>1</sup>

<sup>1</sup> Anderson, Central Valley Business Journal, Truck Drivers in Short Supply, 2014, <https://cvbj.biz/2014/11/06/truck-drivers-short-supply/>

Commodity transportation in our region is higher, which impacts production. Regulations are forcing expensive farming practices that cost more than \$2 billion per year<sup>2</sup>. All of these issues create an unfair economic burden that limits our ability to implement expensive new technologies to clean the air, except closing down businesses for some of the poorest communities in the nation.

We do not advocate for changes in the Clean Air Act that would roll back existing rules and regulations that have helped improve air quality and quality of life for our residents. However, we do not believe that Congress, in passing the Clean Air Act more than 40 years ago, envisioned a scenario where a region like ours that has imposed some of the toughest regulations on stationary sources would be in danger of suffering from devastating federal sanctions. We face these dire consequences despite having already done all of the following:

- ✓ Toughest air regulations on stationary sources (600 rules since 1992)
- ✓ Toughest air regulations on farms and dairies
- ✓ Tough air regulations on what residents can do within the confines of their homes (residential water heaters, residential HVAC furnaces, charbroilers, ban on fireplace installation and use)
- ✓ \$40 billion spent by businesses on clean air
- ✓ Over \$1.6 billion dollars of public/private investment on incentive-based measures reducing over 130,000 tons of emissions
- ✓ Toughest regulations on cars and trucks
- ✓ Toughest regulations on consumer products
- ✓ Reduced emissions by 80 percent

While we acknowledge and appreciate the degree to which ERA and the California Air Resources Board have attempted to balance competing interests, to date, neither EPA nor CARB have proposed any new measures that will provide further reductions in the San Joaquin Valley in the short timeframe (2019 to 2025) mandated under the Clean Air Act in order to avoid federal sanctions.

It is unfair that under the current law, local jurisdictions will be subject to devastating federal sanctions even though failure to attain the standards is due to emissions from sources under federal jurisdiction. These federal sanctions include:

- De facto ban on new and expanding businesses (2:1 offset requirement)
- Loss of federal highway funds (\$2.5 billion and numerous jobs lost in the San Joaquin Valley)
- Federal takeover and loss of local control
- Expensive federal nonattainment penalties

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<sup>2</sup> Hurley, Noel, An Estimation of the Regulatory Cost on California Agricultural Producers, 2006  
[http://www.waterboards.ca.gov/water\\_issues/programs/rap/docs/erccp\\_jul06.pdf](http://www.waterboards.ca.gov/water_issues/programs/rap/docs/erccp_jul06.pdf)

Already, the costs incurred for air quality studies and mitigation on capital transportation expansion projects have skyrocketed, adding months, if not years to the environmental process. For the Centennial Corridor project in Bakersfield alone, we have spent \$2.8 million on air quality studies and mitigation to meet air quality conformity rules whose thresholds routinely change.

Beyond these excessive costs are concerns that our extensive modeling efforts may not be providing the right information.

According to the California Department of Transportation Division office for the San Joaquin Valley, Caltrans has been budgeting an additional six to eight months to accommodate modeling for the quantitative analyses required under air quality conformity regulations.

One of the biggest concerns Caltrans mentions is that the modeling tools being used today are not appropriate for roadway emissions measurements. Representatives with the software firm that developed tools like AERMOD have said the model was intended for stationary but not mobile sources. We are aware of no way to calibrate the model to ensure results are accurate.

For example, when Caltrans models noise, staff takes field measurements to ensure the model is representing what is actually happening. But when using air quality modeling software, Caltrans must assume the results are accurate based on emission and weather factors pulled from data that may or may not represent the project area.

Once the results are in, it must be checked to ensure it meets the thresholds set by EPA. The thresholds for particulate matter have been lowered over the years due to studies that show the concentrations may be a health risk at ever-decreasing levels.

FHWA has seriously questioned some of these health risks and assumptions. For example, one assumption is that the population will be exposed to particulate matter 24 hours, seven days a week for 70 years. This seems like an unnecessarily conservative approach and quite frankly, unreasonable.

Again, when looking at the big picture, the results of the modeling and the thresholds that are being set, there appears to be abundant room for error and potentially overstating the impacts of particulate matter.

In closing, we support a strong Clean Air Act with common sense revisions that actually result in improved air quality. We need a way to significantly reduce the almost biennial updates, with 51 tests that place our transportation funding at risk constantly. Common sense amendments to the Clean Air Act will benefit the San Joaquin Valley and the nation as a whole.

Thank you. It has been my honor and privilege to address your subcommittee this afternoon. I am happy to answer any questions that I can.