

**Appendix to California Air Resources Board Response
on Proposed Eight-Hour Ozone Area Designations**

**ADDITIONAL INFORMATION TO SUPPORT
THE U.S. ENVIRONMENTAL PROTECTION AGENCY'S RECONSIDERATION
OF PROPOSED AREA BOUNDARIES AND DESIGNATIONS**

The U.S. Environmental Protection Agency's (U.S. EPA) proposal for eight-hour ozone designations differs from the State recommendations provided by the Air Resources Board (ARB or Board) regarding the appropriate boundaries for several nonattainment areas and the attainment status of one area.

1. U.S. EPA proposed to include the foothill counties of Amador, Calaveras, Tuolumne, and Mariposa with the eight-county San Joaquin Valley as one very large nonattainment area. The State recommended separate nonattainment areas for the Central Mountain Counties (Amador and Calaveras) and Southern Mountain Counties (Tuolumne and Mariposa).
2. U.S. EPA similarly proposed to combine Western Nevada County with the five-county Sacramento Region, while we recommended Western Nevada County as a separate nonattainment area.
3. U.S. EPA proposed to group the Antelope Valley with the Western Mojave Desert area, while we recommended these as two separate nonattainment areas.
4. U.S. EPA proposed to designate all of Sutter and Yuba Counties as nonattainment based on 2003 ozone data from the special purpose monitor designed to measure high-elevation transport atop the Sutter Buttes, while the State recommended these counties as an attainment area.

We ask that you reconsider modifying California's recommendations in the areas where we disagree and designate nonattainment areas and boundaries based on Enclosures 1 and 2. The areas of disagreement are within U.S. EPA's discretion to resolve. Our letter, this Appendix, and the correspondence from local officials all provide additional information to support our request.

Boundary Issues

U.S. EPA's proposal should accommodate state planning structures. In California, the primary considerations for air quality planning are air basin and air district boundaries. Under State law, air basins are based on a rigorous scientific assessment of geography and meteorology, and consideration of political jurisdictions. Basin boundaries are formally adopted by the Board in regulation, with a full public process. The State's 35 local air districts are based on county structure, with large metropolitan areas that cross county lines governed by the same air district in the case of the greater Los Angeles

region, the San Francisco Bay Area, and the San Joaquin Valley. Nevada, Amador, Calaveras, Tuolumne, and Mariposa Counties are each under the jurisdiction of a county air district. To reflect existing inter-county coordination and similarities in pollution transport paths, we have already proposed to group Amador and Calaveras together and Tuolumne and Mariposa together. Antelope Valley and Western Mojave Desert are also independent air districts with separate governing boards.

In March 2000 correspondence from former Region 9 Air Director David Howekamp to ARB, U.S. EPA concurred with our prior recommendations for more separate eight-hour ozone nonattainment areas, but stated its expectation that ARB would package the State Implementation Plans (SIPs) to make clear how the combination of plans demonstrates attainment in all parts of the State.

The federal Clean Air Act requires U.S. EPA to address interstate and international transport, but transport within a single state has historically been within the purview of that state. As described in our July 15, 2003 letter to you, California has the mechanisms in place to do so effectively. ARB is mandated to coordinate all local air district activities relative to the federal Clean Air Act, including ensuring that the SIP achieves attainment throughout California. State law addresses this issue further by requiring upwind air districts to mitigate air pollutant transport. The requirements on upwind districts also include the adoption of all feasible measures and parity with the downwind area's program to address new and modified stationary sources. This State requirement will underpin the local SIPs.

California's shared air pollution authority, with independent local jurisdictions overseeing air quality strategies for businesses and ARB tackling mobile sources, is a demonstrated effective approach to solving some of the country's greatest air quality challenges. Over the last 30 to 40 years, California has relied on this approach to make unparalleled progress toward clean air.

California's boundary recommendations meet U.S. EPA criteria. In its December 3, 2003 letter, U.S. EPA emphasized that California should use the larger of the Consolidated Metropolitan Statistical Area or Metropolitan Statistical Area (we refer to these collectively as the C/MSA), or the one-hour ozone nonattainment area, as the presumptive boundary for the eight-hour ozone nonattainment areas. The letter also references 11 factors described in U.S. EPA boundary guidance that should be considered. Our recommendations (including creation of separate nonattainment areas for Western Nevada County, Central Mountain Counties, Southern Mountain Counties, Antelope Valley, and Western Mojave Desert) are consistent with the federal guidance. We considered geography and meteorology via air basin boundaries, location of emission sources, transportation corridors, metropolitan areas, existing nonattainment boundaries, and political jurisdictions.

Below, we highlight some of the differences between the downwind regions that the State recommends as distinct nonattainment areas and the upwind areas that U.S. EPA has proposed to combine them with. These differences support separation.

- The Central and Southern Mountain Counties are in a different air basin than the San Joaquin Valley. U.S. EPA incorrectly noted that they appear to be part of the same airshed. They are both outside the San Joaquin Valley C/MSAs. In fact, these areas are so sparsely populated that they are not part of any C/MSA. Neither were they included in any existing nonattainment area for the one-hour standard; they both attain the one-hour standard. As shown on Enclosure 1, eight-hour ozone levels are distinct as well. The eight-hour ozone design value for San Joaquin Valley is 25 percent higher than Central Mountain Counties and Southern Mountain Counties. The emission density in the Valley is more than double the value in Central or Southern Mountain Counties.
- Western Nevada County is in a separate air basin from Sacramento. U.S. EPA incorrectly noted that they appear to be part of the same airshed. Western Nevada County is also outside the Sacramento Region's C/MSA and one-hour ozone nonattainment area. Eight-hour ozone design values are eight percent higher in the State's proposed Sacramento Region than in Western Nevada County. The emission density is seven times higher in the Sacramento Region than in Western Nevada County.
- Different political jurisdictions, with separate governing boards, regulate air pollution sources in the Antelope Valley and Western Mojave Desert. The two regions are also characterized by significantly different traffic corridors and have distinct pollution transport paths from the South Coast. Antelope Valley sits astride State Highway 14 with travel north out of the South Coast basin to the eastern Sierras. Traffic out of the South Coast to Western Mojave Desert flows northeast along Interstate 15 to Las Vegas. Similarly, pollution flows out of the South Coast along the same separate routes, passing over Soledad Pass on Highway 14 into Antelope Valley and Cajon Pass on Interstate 15 into the Western Mojave Desert.

In its December 2003 letters to all states, U.S. EPA has recognized the need for some downwind regions to be in separate nonattainment areas and not grouped with upwind areas. For example, in Wisconsin, U.S. EPA proposed to establish three small downwind counties (Manitowoc, Kewaunee, Door) in a south to north transport corridor as separate, single-county nonattainment areas, each distinct from southerly upwind Sheboygan and Milwaukee-Racine, as well as Chicago, Illinois.

Needed technical and regulatory elements are in place to ensure robust SIPs. As part of our role in coordinating air quality planning among the local air districts, ARB has in place air quality models that span the entire State. Consequently, even with multiple downwind nonattainment areas, the assessment of the attainment strategies will be done as a whole.

The Central California Ozone Study has produced an air quality model that will allow California to develop SIPs for the downwind regions that reflect upwind control strategies. Attainment in Western Nevada County and the Central and Southern Mountain Counties will rely in large part on emission reductions from the contributing

upwind districts and statewide programs. Similarly, the Southern California Ozone Study covers both Antelope Valley and Western Mojave Desert, providing a tool to assess simultaneously attainment in both regions.

We are just beginning to examine eight-hour ozone levels using these new models. This work will provide much needed insight as to how long it will take to bring the downwind regions into attainment, reflecting further upwind and statewide controls. Differences in the severity of the ozone problem between regions indicate it is premature to assume that the downwind areas will need the same time to attain as their urban neighbors.

Attainment Status Issue

In July 2003, we recommended that all of Sutter and Yuba Counties be designated attainment – all monitors in the counties met the standard at that time. U.S. EPA proposes to designate all of Sutter and Yuba Counties as a nonattainment area based on violations of the standard in August 2003 at a high elevation transport site.

Sutter and Yuba Counties are under the jurisdiction of the Feather River Air Quality Management District. They lie in the middle of the Sacramento Valley, where the majority of the land is at near-sea level. There are two monitors in this region. The first is in the population center of Yuba City at 60 feet elevation, which measures attainment of the standard with a design value of 0.079 parts per million (ppm). The second is a special purpose monitor at 2,100 feet elevation atop South Butte in the Sutter Buttes Mountains, an isolated volcanic projection rising starkly from the Valley floor. ARB sited this monitor to study high-elevation transport of pollutants from the Sacramento urban area into the upper Sacramento Valley. There are no pollution sources or communities near this site. The Sutter Buttes monitor shows ozone levels over the standard, with a design value of 0.088 ppm. Because neither monitor in Sutter and Yuba Counties shows community exposure to ozone levels above the eight-hour standard, it is still appropriate for this region to be designated attainment.

However, if U.S. EPA believes it must use the values from the isolated Sutter Buttes monitor for area designations, we ask that the geographic scope of the resulting nonattainment area be limited the part of Sutter County above 2,000 feet elevation represented by the Sutter Buttes monitor. This approach would be consistent with U.S. EPA's proposals for similar high-elevation transport monitors elsewhere in the country. For example, the monitor on Whiteface Mountain (at 1,965 feet elevation) in New York violates the standard due to high-altitude transport, while monitors in neighboring counties at lower elevation do not. In its December 2003 letter to New York, U.S. EPA proposes a nonattainment area encompassing only the portions of the county above 1,900 feet elevation. U.S. EPA proposes parallel approaches for mountain-top nonattainment areas in Georgia and North Carolina.

In year 2000 correspondence from former Region 9 Air Director David Howekamp, U.S. EPA expressed support for a nonattainment area in Sutter County above 2,000 feet elevation. Region 9 further indicated that the area would not be subject to control requirements, and the local area would not be required to prepare a SIP. Instead, the SIP for the upwind area could include a regional modeling demonstration showing that this elevated site will attain the standard as a result of upwind controls and the statewide program. This approach is preferable to designating the full two-county area as nonattainment.

If U.S. EPA aligns its proposal for the Sutter Buttes consistent with its policy in other states, there is another potential question on the attainment status of Sutter County. The southernmost tip of Sutter County is included in the Sacramento Metropolitan one-hour ozone nonattainment area because a large development was planned in that part of the county during U.S. EPA's 1991 designation process. Since that development has not materialized and the area remains agricultural, we support the Feather River District's request that South Sutter County be excluded from the Sacramento Region eight-hour nonattainment area. Enclosure 3 includes a letter from the Feather River District attaching a draft resolution for its governing board to affirm its intent to continue coordination on rulemaking and transportation planning with the other agencies in the Sacramento Region.

Apart from the Sutter Buttes transport related site, if future air monitoring in the Feather River District should show violations of the federal eight-hour ozone standard, we would support a nonattainment designation at that time. We will continue to assess new monitoring data for all areas of California to identify any appropriate changes to eight-hour ozone designations.