



Air Resources Board



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March 11, 2009

Ms. Laura Yoshii
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Dear Ms. Yoshii:

We are transmitting our recommendations for area designations and boundaries under the revised federal 8-hour ozone standard, as required under the Federal Clean Air Act.

Ozone Nonattainment Areas

We base our recommendations on ambient ozone concentrations measured from 2006 through 2008 by 180 Federal Reference Method (FRM) monitors located throughout California. The Air Resources Board's (ARB) recommendation is that the U.S. Environmental Protection Agency (U.S. EPA) designate twenty-one areas as nonattainment for the revised ozone standard of 0.075 parts per million. Enclosure 1, included with this letter, lists the proposed nonattainment areas, which include all fifteen areas currently designated nonattainment for the 0.08 parts per million ozone standard, along with six new or expanded areas.

We also recommend that U.S. EPA designate twelve areas as attainment, where air quality data are sufficient to determine that they meet the federal standard. Finally, five should be deemed unclassifiable, where air quality data are insufficient to make a determination.

Nonattainment Area Boundaries

Regarding nonattainment area boundaries, ARB makes the following recommendations:

- Retain the existing nonattainment area boundaries for the fifteen areas that are currently designated as nonattainment for ozone.

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our website: <http://www.arb.ca.gov>.

California Environmental Protection Agency

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- Expand the Eastern Kern County nonattainment area to include Indian Wells Valley and the town of Ridgecrest.
- Establish our recommended nonattainment boundaries for new rural transport areas. These areas are Southern Inyo County, Northeast San Bernardino County, Eastern San Luis Obispo County, the high elevation site on the Tuscan Buttes and the specified portion of Pinnacles National Monument located in San Benito County.

Enclosures

We include the following materials in this package:

- Recommended nonattainment/attainment/unclassifiable areas (Enclosure 1).
- Staff Report (Enclosure 2).
- Information supporting recommendations for nonattainment areas (Enclosure 3).
- Boundary descriptions (Enclosure 4).
- 2006-2008 data for all of California's ozone monitoring sites (Enclosure 5).

Classification Process

We are completing a technical evaluation of the how well the classification scheme used for the current 8-hour ozone standard worked for California. Upon completion we will share this information, and want to work with U.S. EPA on potential changes that would improve the ozone classification process.

Please feel free to contact me at (916) 445-4383 if you have any questions regarding these recommendations, or have your staff contact Ms. Karen Magliano, Chief, Air Quality Data Branch, at (916) 322-7137.

Sincerely,

/s/

James N. Goldstene
Executive officer

Enclosures

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ENCLOSURE 1

Recommended California Nonattainment Areas for the Federal 8-Hour Ozone Standard Based on 2006-2008 Ozone Air Quality Data

	<i>Nonattainment Area</i>	<i>Design Value¹ (ppm)</i>	<i>Area Included</i>	
New Areas	Northeast San Bernardino County	0.080	Remainder of the Mojave Desert portion of San Bernardino County outside the Western Mojave ozone nonattainment area	
	Southern Inyo County	0.081	Inyo County portions of federal hydrologic units 16060015, 18090202, 18090203, 18090204, and 18090205	
	Eastern San Luis Obispo County	0.084	Eastern San Luis Obispo County	
	Pinnacles	0.079	San Benito County portion of Pinnacles National Monument	
	Tuscan Buttes	0.085	Tuscan Buttes in Tehama County above 1800'	
Expanded Area	Eastern Kern County	0.086	Mojave Desert Air Basin portion of Kern County, including Indian Wells Valley	
	South Coast Air Basin	0.119	Western Los Angeles (including Catalina and San Clemente Islands), Orange, southwestern San Bernardino, and western Riverside counties	
	San Joaquin Valley	0.108	San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare, and western Kern counties	
	Sacramento Metro Area	0.102	Sacramento, Yolo, eastern Solano, southern Sutter, and western portions of El Dorado and Placer counties	
	San Francisco Bay Area	0.081	Marin, southern Sonoma, Napa, western Solano, Contra Costa, Alameda, Santa Clara, San Francisco, and San Mateo counties	
	Continuing Areas	Ventura County	0.088	Continental portion of Ventura County (excludes Anacapa and San Nicolas islands)
		Western Mojave Desert	0.104	Central San Bernardino County
		Antelope Valley	0.094	Northeastern Los Angeles County
		Coachella Valley	0.097	Central Riverside County
		San Diego County	0.092	San Diego County
		Imperial County	0.082	Imperial County
		Sutter Buttes	0.085	Sutter Buttes in Sutter County above 2000'
		Central Mountain Counties	0.089	Amador and Calaveras counties
		Southern Mountain Counties	0.088	Tuolumne and Mariposa counties
		Western Nevada County	0.091	Portion of Nevada County west of the crest of the Sierra Nevada
	Butte County	0.085	Butte County	

¹The design value is the 3-year average (2006-2008 data) of the annual fourth highest 8-hour ozone concentration at the highest monitor (if greater than 0.075 ppm = nonattainment; if less than or equal to 0.075 = attainment). 2008 data are preliminary.

**Recommended California Attainment Areas for the
Federal 8-Hour Ozone Standard
Based on 2006-2008 Ozone Air Quality Data**

<i>Attainment Area</i>	<i>Design Value¹ (ppm)</i>	<i>Area Included</i>
North Coast Air Basin	0.058	Del Norte, Humboldt, Mendocino, and Trinity counties and the North Coast Air Basin portion of Sonoma County
Shasta County	0.073	Shasta County
Tehama County	0.075	Portion of Tehama County outside Tuscan Buttes area
Glenn County	0.065	Glenn County ²
Colusa County	0.069	Colusa County
Sutter and Yuba Counties	0.072	Yuba County and portion of Sutter County outside Sacramento Metro Area and Sutter Buttes area
Lake County	0.062	Lake County
Lake Tahoe Air Basin	0.070	Lake Tahoe Air Basin portions of El Dorado and Placer counties
North Central Coast Air Basin	0.069	Monterey County, Santa Cruz County, San Benito County outside Pinnacles National Monument boundary
Santa Barbara County	0.073	Continental portion of Santa Barbara County (excludes San Miguel, Santa Barbara, Santa Cruz, and Santa Rosa islands)
Western San Luis Obispo County	0.068	Portion of County west of Eastern San Luis Obispo area
Eastern Riverside County	0.063	Portion of Riverside County in Mojave Desert Air Basin

¹The design value is the 3-year average (2006-2008 data) of the annual fourth highest 8-hour ozone concentration at the highest monitor (if greater than 0.075 ppm = nonattainment; if less than or equal to 0.075 = attainment). 2008 data are preliminary.

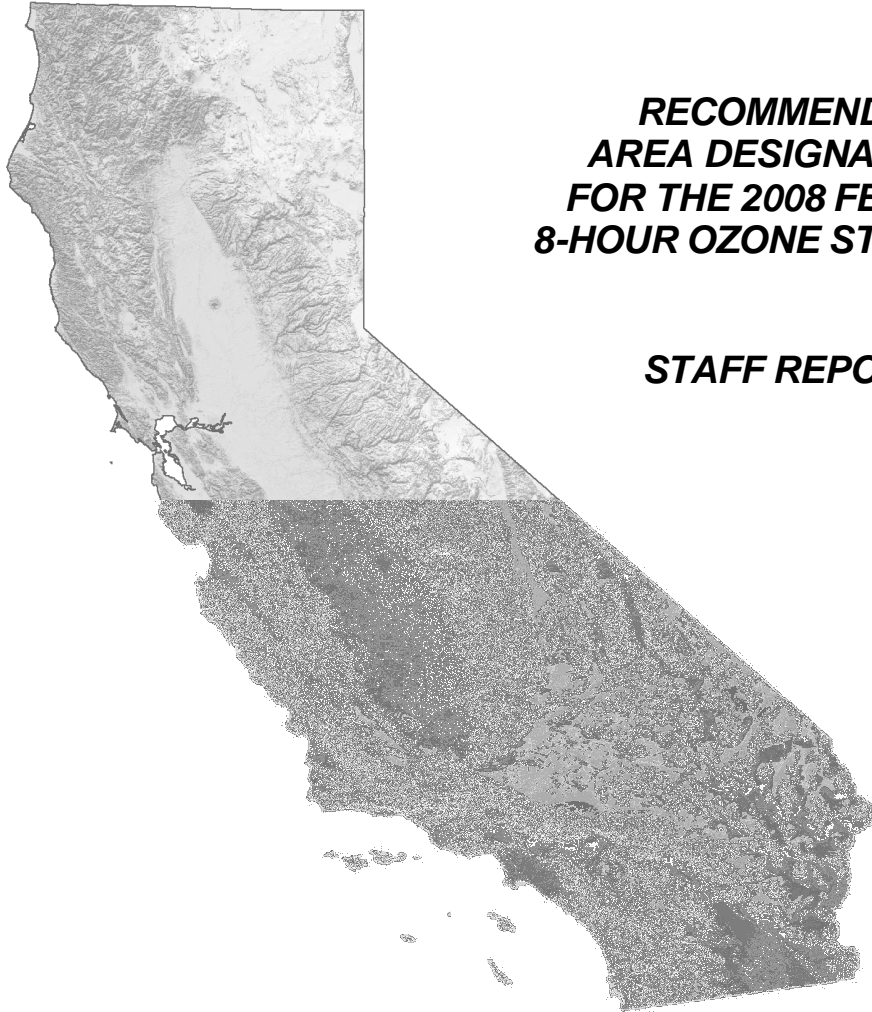
² Reflects combined data from 2 monitoring sites.

**Recommended California Unclassifiable Areas
for the Federal 8-Hour Ozone Standard**

<i>Unclassifiable Area</i>	<i>Area Included</i>
Great Basin Valleys Air Basin	Alpine County, Mono County, portion of Inyo County outside Southern Inyo County nonattainment area
Northern Mountain Counties	Plumas and Sierra counties
Northern Channel Islands	The islands located in the South Central Coast Air Basin, including Anacapa, San Miguel, San Nicolas, Santa Barbara, Santa Cruz, and Santa Rosa
Eastern Nevada County	Portion of Nevada County east of the crest of the Sierra Nevada mountains
Northeast Plateau Air Basin	Lassen, Modoc, and Siskiyou counties

State of California

AIR RESOURCES BOARD



***RECOMMENDED
AREA DESIGNATIONS
FOR THE 2008 FEDERAL
8-HOUR OZONE STANDARD***

STAFF REPORT

Revised: March 3, 2009

California Environmental Protection Agency



Air Resources Board

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BACKGROUND

On March 12, 2008, U.S. EPA revised the federal 8-hour average air quality standard for ozone, lowering it from 0.08 parts per million (ppm) to 0.075 ppm. Both the primary and the secondary standard are set at the same level. Under the Clean Air Act, all states, including California, are required to develop recommendations for area designations and appropriate boundaries. The purpose of this report is to summarize the staff's technical analyses and area designation recommendations which are due to U.S. EPA by March 12, 2009. U.S. EPA then has one year to review these recommendations and will promulgate final designations by March 12, 2010. State implementation plans are due three years after the effective date of the final designations, with attainment dates ranging from 2013 to 2030, depending on the severity of the ozone problem.

ARB staff completed analyses to determine appropriate designation areas throughout the State using the criteria outlined in U.S. EPA's guidance memo (*December 4, 2008, Area Designations for the 2008 Revised Ozone National Ambient Air Quality Standards, Memorandum from Robert J. Meyers, Principal Deputy Assistant Administrator, Office of Air and Radiation to Regional Administrators, Regions I-X*). Determining an area's designation is based on comparing the design value to the level of the standard. The design value reflects a three-year average of the 4th highest 8-hour concentration. If the design value is 0.076 ppm or greater, it violates the federal standard. The recommendations in this report are based on design values reflecting 2006 through 2008 ozone data. However, ARB anticipates that U.S. EPA will base the final designations on the most recent data, which will most likely be data collected during 2007 through 2009.

Under U.S. EPA's guidance, air quality data may be excluded from the design value calculation if they were affected by an exceptional event. An exceptional event is an event, such as a wildfire, that causes an exceedance that is not reasonable to control through the regulatory process. During 2007 and 2008, wildfires impacted air quality throughout California. However, there is only one area in the State, Shasta County, where excluding such data makes a difference between attainment and nonattainment based on the design value for the 2006 through 2008 timeframe. Attachment A to this staff report includes a list of sites and dates for Shasta County that we are evaluating for identification as exceptional events.

In addition to Shasta County, other areas of California were also adversely impacted by wildfires. In some cases, the fire-impacted days may adversely impact design values, based on the 2007 through 2009 data that we expect U.S. EPA to use in determining the final area designations. Such measurements might also affect an area's classification with respect to the 0.075 ppm ozone

standard. ARB and the local districts are still investigating these impacts, and will submit documentation to U.S. EPA in accordance with established rules and regulations.

OZONE AIR QUALITY

ARB maintains a comprehensive network of federally sanctioned ozone monitors. This network comprises nearly 200 monitors, statewide. We are basing our initial recommendations on ambient ozone concentrations measured during 2006 through 2008 at locations sited and operated in accordance with federal requirements.

Ozone is not directly emitted, but is formed in the atmosphere via photochemical reactions. Because it takes time for these reactions to occur, high concentrations are often found at downwind locations, sometimes far away from the initial precursor emissions sources. In California, many of these transport-impacted areas do not have significant emissions sources of their own, and therefore are dependent on emissions controls in the upwind region to mitigate their ozone problem.

Our recommendations for several of California's new nonattainment areas recognize the importance of transport. Recent photochemical modeling completed as part of the planning process for the 0.08 ppm federal 8-hour ozone standard showed that many of the State's downwind transport-impacted areas will attain the standard as a result of upwind emissions controls. The modeling also showed that because ozone concentrations in the transport-impacted areas are generally lower, they should attain earlier than the upwind urban areas. This is particularly true for areas located downwind of the South Coast Air Basin. As a result, our recommended ozone nonattainment boundaries recognize these differences in the challenge, and also, differences in the level of control requirements, as well as local planning jurisdictions.

RECOMMENDED AREA DESIGNATIONS

Section 107(d)(1)(A) of the Clean Air Act defines a nonattainment area as any area that does not meet or that contributes to nearby areas not meeting the ambient air quality standard. U.S. EPA guidance recommends that the Core Based Statistical Area (CBSA) or Combined Statistical Area (CSA), which includes two or more CBSAs, serve as the starting point or "presumptive" boundary for an ozone nonattainment area. When a violating monitor is not located in a CBSA or CSA, U.S. EPA recommends that the boundary of the county in which the monitor is located serve as the presumptive boundary. In further refining the extent of the boundaries, U.S. EPA recommends that states evaluate each area on a case-by-case basis, considering nine factors:

- Air quality data
- Emissions data
- Population density and degree of urbanization
- Traffic and commuting patterns
- Growth rates and patterns
- Meteorology
- Geography/topography
- Jurisdictional boundaries
- Level of control of emission sources

Evaluation of these factors may support nonattainment area boundaries that are either larger or smaller than the presumptive boundary. Although each of our recommended nonattainment areas is unique, the boundaries embody several broad principles:

- For existing 8-hour ozone nonattainment areas, we retained the same nonattainment area boundaries, with the exception of expanding one area.
- For new nonattainment areas, a single monitor showing violations of the 8-hour ozone standard places the area into nonattainment status. While the starting point for a new nonattainment area is generally the county, our consideration of factors outlined in U.S. EPA guidance justified a smaller nonattainment area in many cases.

As shown in Figure 1, most of California will be nonattainment for the 8-hour ozone standard. We are proposing the State be divided into 21 distinct nonattainment areas. We are also proposing that 12 areas be designated as attainment. Table 1 presents a summary of the recommended nonattainment areas and corresponding boundaries. Following the figure and table, we discuss each of the nonattainment area recommendations, followed by a discussion of areas that qualify as attainment and areas that qualify as unclassified.

FIGURE 1

**Recommended Area Designations for the
Federal 8-Hour Ozone Standard**

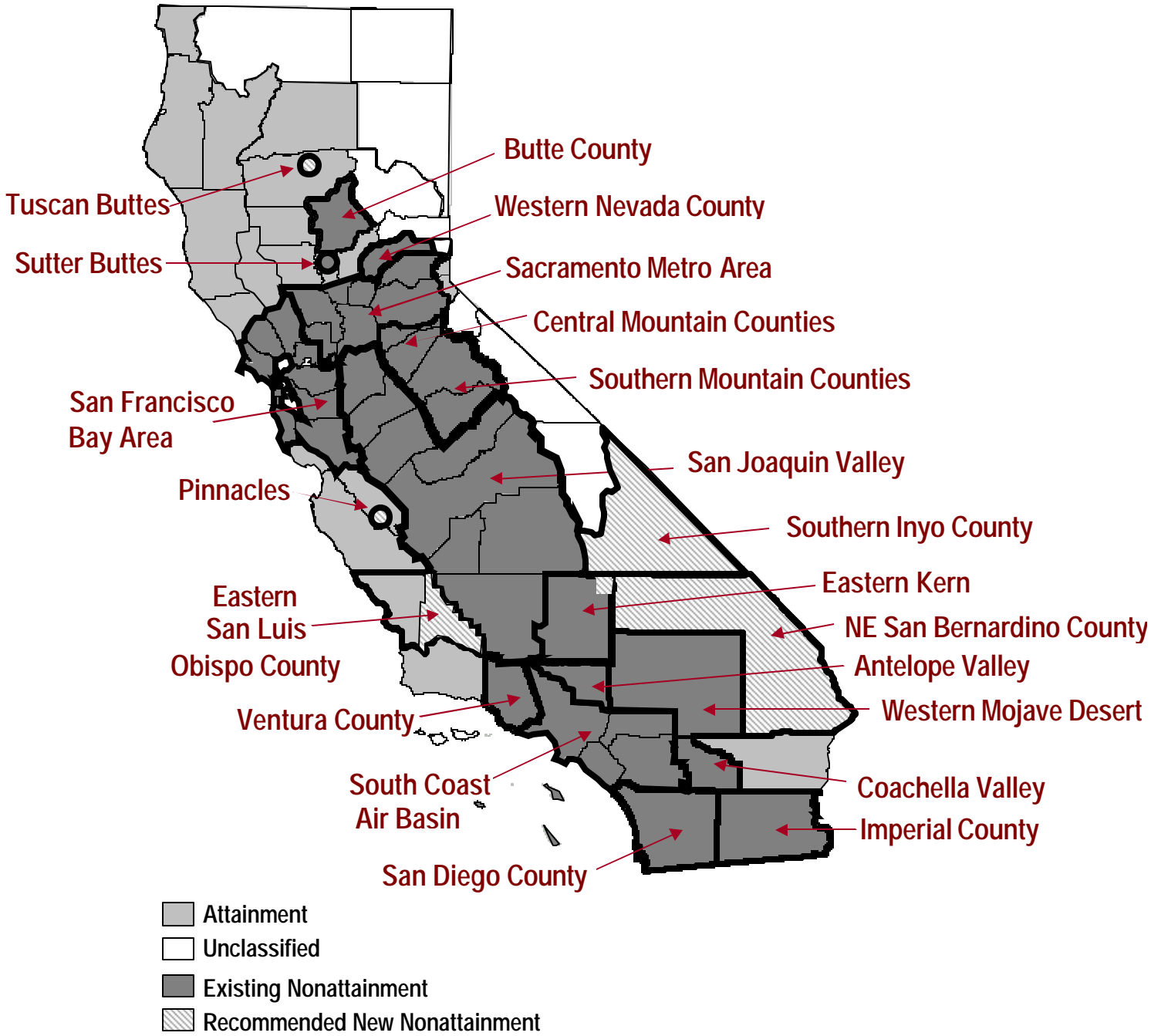


TABLE 1

**Recommended California Nonattainment Areas for the Federal 8-Hour Ozone Standard
Based on 2006-2008 Ozone Air Quality Data**

	<i>Nonattainment Area</i>	<i>Design Value¹ (ppm)</i>	<i>Area Included</i>	
New Areas	Northeast San Bernardino County	0.080	Remainder of the Mojave Desert portion of San Bernardino County outside the Western Mojave ozone nonattainment area	
	Southern Inyo County	0.081	Inyo County portions of federal hydrologic units 16060015, 18090202, 18090203, 18090204, and 18090205	
	Pinnacles	0.079	San Benito County portion of Pinnacles National Monument	
	Eastern San Luis Obispo County	0.084	Eastern San Luis Obispo County	
	Tuscan Buttes	0.085	Tuscan Buttes in Tehama County above 1800'	
Expanded Area	Eastern Kern County	0.086	Mojave Desert Air Basin portion of Kern County, including Indian Wells Valley	
	South Coast Air Basin	0.119	Western Los Angeles (including Catalina and San Clemente Islands), Orange, southwestern San Bernardino, and western Riverside counties	
	San Joaquin Valley	0.108	San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare, and western Kern counties	
	Sacramento Metro Area	0.102	Sacramento, Yolo, eastern Solano, southern Sutter, and western portions of El Dorado and Placer counties	
	San Francisco Bay Area	0.081	Marin, southern Sonoma, Napa, western Solano, Contra Costa, Alameda, Santa Clara, San Francisco, and San Mateo counties	
	Existing Areas	Ventura County	0.088	Continental portion of Ventura County (excludes Anacapa and San Nicolas islands)
		Western Mojave Desert	0.104	Central San Bernardino County
		Antelope Valley	0.094	Northeastern Los Angeles County
		Coachella Valley	0.097	Central Riverside County
		San Diego County	0.092	San Diego County
		Imperial County	0.082	Imperial County
		Sutter Buttes	0.085	Sutter Buttes in Sutter County above 2000'
		Central Mountain Counties	0.089	Amador and Calaveras counties
		Southern Mountain Counties	0.088	Tuolumne and Mariposa counties
		Western Nevada County	0.091	Portion of Nevada County west of the crest of the Sierra Nevada
	Butte County	0.085	Butte County	

¹The design value is the 3-year average (2006-2008 data) of the annual fourth highest 8-hour ozone concentration at the highest monitor (if greater than 0.075 ppm = nonattainment; if less than or equal to 0.075 = attainment). 2008 data are preliminary.

New Nonattainment Areas

Northeast San Bernardino County

San Bernardino County is the largest county in the nation, comprising over 20,000 square miles. Because of its size, it encompasses a very diverse landscape. Currently, the central portion of San Bernardino County, located in the Mojave Desert Air Basin, is defined as the Western Mojave Desert (WMD) nonattainment area. While the presumptive boundary for an expanded nonattainment area would include the entire Mojave Desert portion of San Bernardino County, ARB is recommending the area be designated as two separate areas, based on differences in the nature and severity of the ozone problems.

With a population of more than 350,000 (2006 estimate), the WMD portion of San Bernardino County is adjacent to the South Coast Air Basin. Given its proximity to the South Coast, major highways traveling through the WMD carry significant commuter and truck traffic in and out of the South Coast region. Principal cities in the area include Hesperia, Phelan, Victorville, Apple Valley, and Twentynine Palms. Previous transport assessments show that ozone concentrations in the WMD portion of San Bernardino County are impacted by transport from the South Coast and San Joaquin Valley air basins, which are the areas with the highest ozone levels in the state. Along with the transport impact, there is also a local component to the ozone problem in this area. The design value for the WMD is 0.104 ppm at the Joshua Tree-National Monument site. Design values for other sites in the area are similar in magnitude, though slightly lower.

In contrast to the WMD, the more remote northeast portion of San Bernardino County is sparsely populated. There are no sizable cities, and the area has few significant emission sources. Because the area lacks significant population centers and emissions sources capable of generating ozone locally, the transport component is even more important. Furthermore, the design value for this part of San Bernardino County is 0.080 ppm, which is substantially lower than the WMD design value.

Although the northeast portion of San Bernardino County is contiguous with the existing WMD nonattainment area and is part of the same county, ARB staff is recommending it be defined as a separate nonattainment area. The design value for the WMD portion of San Bernardino County is 30 percent higher than the design value for the northeast portion of the County. Although both areas will rely on controls from upwind areas to reach attainment, because the magnitude of their problems is so different, the northeast portion of San Bernardino County should attain the standard in a shorter timeframe. Designating the area separately would give them a classification consistent with their overall air quality problem and facilitate a more timely attainment finding.

Southern Inyo County

Inyo County is the second largest county in California and one of the largest counties in the nation. It encompasses more than 10,000 square miles, from the below sea level floor of Death Valley to the 14,000 foot peaks of the Sierra Nevada. The only long-term ozone monitor in Inyo County is located at the Death Valley National Monument in southeast Inyo County. The site is operated by the National Park Service and has a design value of 0.081 ppm, which exceeds the federal standard. The area has an extremely low population, with only 0.22 residents per square mile, and lacks industrial emissions sources. While the presumptive boundary for the nonattainment area would include all of Inyo County, ARB is recommending a smaller nonattainment area because of the diversity of the area's geography and the nature of the ozone impact.

Previous studies suggest that ozone concentrations at the Death Valley site are substantially impacted by transport. Wind flow into the southern portion of the County is generally from the southwest to northeast, carrying pollutants and emissions from the highly urbanized South Coast and southern San Joaquin Valley air basins into southern Inyo County. Although Death Valley is the only monitoring site in southern Inyo County, data are also collected at the Trona site in San Bernardino County, just 2 miles south of the Inyo County line. These data suggest that exceedances are also likely to occur in the southwest portion of Inyo County. During 2004 through 2008, about half of the exceedance days at Trona coincide with exceedance days at Death Valley, indicating that the nonattainment area should include the southwest portion of Inyo County, as well as the Death Valley area.

In addition to these data, limited 2008 ozone monitoring data are available for a site at Bishop, in the northern portion of Inyo County. The site is operated by the Bishop Piute Tribe. The Bishop data show several days with concentrations above the federal 8-hour standard, but because the data are incomplete, it is not possible to calculate a valid design value for this site and determine if it would violate the standard. Furthermore, an analysis completed by the Great Basin Unified Air Pollution Control District (APCD) shows that emissions and pollutants from this area do not likely contribute to the exceedances at Death Valley.

In determining the appropriate nonattainment area boundary, ARB staff consulted with the local Great Basin Unified APCD. The recommended boundary for this area is based on federal hydrologic units. Hydrologic units are based on topography and drainage, similar in many respects to the way California's air basins are defined. Therefore, it is appropriate to use them in defining the nonattainment area boundary, since mountainous terrain affects the transport and mixing depth of pollution. In addition, hydrologic units have been used previously to define designated areas for ozone. ARB staff recommends the Southern Inyo County ozone nonattainment area comprise the Inyo County

portions of federal hydrologic units 16060015, 18090202, 18090203, 18090204, and 18090205. These units cover not only the areas exceeding the standard, but also the areas most heavily impacted by transport from the major upwind urban areas.

Pinnacles National Monument

San Benito County is located in California's north central coast region, just south of the San Francisco Bay Area (Bay Area). Although it is considered part of the coastal region, San Benito County is located inland. The federal ozone standard is exceeded at only one site in this area, the Pinnacles National Monument site, with a design value of 0.079 ppm.

With the exception of 2008, the trend in the design value for Pinnacles has been consistently downward. In fact, the 2006 and 2007 design values for this site (0.075 ppm and 0.074 ppm, respectively) show attainment. The higher value for 2008 likely reflects the impact of wildfires that burned throughout the State during the summer of 2008. If the impacted days were removed from consideration, the 2008 design value would be more consistent with values for previous years. However, the area would still be nonattainment. In contrast to Pinnacles, design values for sites in the surrounding north central coast region are all well below the level of the standard, ranging from 0.052 ppm to 0.069 ppm.

Pinnacles is an elevated site (1000 feet) located in an area of complex terrain within the boundaries of Pinnacles National Monument. Previous transport study indicates that exceedances measured at Pinnacles can be overwhelmingly impacted by transport aloft from the Bay Area. Although the San Francisco Bay Area does not yet attain the standard, design values for Bay Area sites have decreased since the early 2000s, similar to those for Pinnacles. As emissions in the Bay Area continue to decrease, ozone concentrations in downwind areas such as Pinnacles will also improve.

Because exceedances in San Benito County are measured only at Pinnacles and nowhere else in the local area, ARB recommends limiting the nonattainment area. The ozone problem at Pinnacles is attributable to transport from the Bay Area, which is already designated as nonattainment. Designating Pinnacles as nonattainment, as well, would adequately reflect the impact region for the upwind urban area. Specifically, ARB recommends limiting the nonattainment area to that portion of Pinnacles National Monument located within San Benito County. Using the Monument boundary would provide for an easily identifiable nonattainment area.

Eastern San Luis Obispo County

San Luis Obispo County is located in California's south central coast region and encompasses coastal, as well as inland areas. The design value for the County is 0.084 ppm, measured at the Carrizo Plains School-9640 Carrizo site in the eastern part of the County. This site is located in a populated area and was originally sited to provide information on transport impacts from the San Joaquin Valley. The design value for a second inland, eastern County site, Red Hills, is also above the standard at a level of 0.088 ppm, but only two years of data are available. In contrast to Carrizo Plains, the Red Hills site is located in an unpopulated area. Design values for all other sites in San Luis Obispo County are below the level of the standard, as are design values for sites in counties located both to the north and to the south of San Luis Obispo County.

Previous studies have shown that ozone and ozone precursor emissions from the San Joaquin Valley are transported west, impacting sites in eastern San Luis Obispo County, including Carrizo Plains and Red Hills. Ozone concentrations can also be impacted by transport south from the San Francisco Bay Area. In the absence of transport, it is likely that exceedances would not occur at these sites. Therefore, reducing the transport impact will be critical to attaining the federal standard. Given that exceedances are limited to the eastern portion of the County, and all other sites meet the standard, ARB recommends that only the eastern portion of San Luis Obispo County be designated as nonattainment.

Tuscan Buttes

Tuscan Buttes in Tehama County is located in the Sacramento Valley, where the majority of the land is near sea level. There are two monitors in the County. The first site, Red Bluff-Oak Street, is in the town of Red Bluff at an elevation of 322 feet. While the design value for this site currently meets the standard, several of the high measurements at this site during 2008 may have been impacted by wildfires. The District and ARB are currently reviewing this data, and if warranted, ARB plans to include documentation to support the exclusion of these measurements as exceptional events when we submit our designation recommendations to U.S. EPA in March 2009.

The second monitor in Tehama County, Tuscan Buttes, has a design value of 0.085 ppm which exceeds the standard. Located at an elevation of 1,877 feet, the Tuscan Buttes monitor is similar to the Sutter Buttes monitor in Sutter County. Both of these monitors were sited to study high-elevation transport of pollutants from the Sacramento urban nonattainment region into the upper Sacramento Valley, and there are no pollution sources or populated areas near either site. Furthermore, design values for low elevation sites in areas

surrounding Tehama County (Colusa and Glenn counties and northern Sutter County) are below the level of the standard, lending additional support to the argument that the ozone problem at Tuscan Buttes is unique and isolated.

Because of the elevated location and lack of population exposure at the Tuscan Buttes site, ARB recommends the geographic scope of the nonattainment area be limited to that portion of the Tuscan Buttes area with an elevation of 1800 feet or more. This approach is consistent with the approach U.S. EPA used in designating the Sutter Buttes ozone nonattainment area.

Expanded Nonattainment Area

Eastern Kern County

Kern County is located in two different air basins: the San Joaquin Valley Air Basin and the Mojave Desert Air Basin. The eastern portion, located in the Mojave Desert Air Basin, falls under the jurisdiction of the Kern County Air Pollution Control District. Currently, the Eastern Kern nonattainment area, which does not include Indian Wells Valley, is designated as nonattainment based on a design value of 0.086 ppm for the Mojave-Poole Street site.

In contrast, Indian Wells Valley (defined as the Kern County portion of hydrologic unit 18090205), in the northeastern portion of Kern County, is designated as attainment for the 0.08 ppm ozone standard. Indian Wells Valley is a desert region that includes the China Lake Naval Air Weapons Station and the town of Ridgecrest. Similar to the rest of Eastern Kern, Indian Wells Valley is sparsely populated, with few significant emissions sources. Furthermore, previous studies have shown that ozone concentrations in both of these areas are overwhelmingly impacted by transport from the San Joaquin Valley and South Coast air basins.

Ozone data collected during 2006 through 2008 are available for a site located in the China Lake area of Indian Wells Valley. Although these data have not been reviewed or forwarded to U.S. EPA, the design value for the site, 0.081 ppm, exceeds the federal standard and is comparable to the design value of 0.086 ppm for the Mojave-Poole Street site in the existing Eastern Kern nonattainment area. Because the design values for these two areas are similar in magnitude and both areas are impacted by ozone transported from the same upwind areas, ARB staff recommends that the existing Eastern Kern nonattainment area be expanded to include Indian Wells Valley. As a result, the Eastern Kern ozone nonattainment area would include the entire Mojave Desert Air Basin portion of Kern County.

Existing Nonattainment Areas

South Coast Air Basin

The South Coast Air Basin nonattainment area would continue to include all of the South Coast Air Basin: western Los Angeles (including Catalina and San Clemente Islands, which are not part of the Channel Islands), Orange, southwestern San Bernardino, and western Riverside counties. This nonattainment area violates the 8-hour standard with a design value of 0.119 ppm at the Crestline monitoring site in San Bernardino County.

San Joaquin Valley

The San Joaquin Valley nonattainment area would continue to comprise the entire San Joaquin Valley Air Basin: San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare, and western Kern counties. The San Joaquin Valley violates the federal 8-hour standard with a design value of 0.108 ppm at the Arvin-Bear Mountain Blvd. monitoring site in Kern County.

Sacramento Metro Area

The Sacramento Metro nonattainment area would continue to include all of Sacramento and Yolo counties, southern Sutter County, the Sacramento Valley Air Basin portion of Solano County, the Sacramento Valley and Mountain Counties air basin portions of Placer County, and the Mountain Counties Air Basin portion of El Dorado County. This area violates the standard with a design value of 0.102 ppm at the Folsom-Natoma Street site in Sacramento County. Although the nonattainment area involves multiple local air pollution control agencies, all but the Solano County portion are covered by a single transportation planning agency.

San Francisco Bay Area

The San Francisco Bay Area nonattainment area would continue to comprise all of the San Francisco Bay Area Air Basin: Marin, Napa, Contra Costa, Alameda, Santa Clara, San Francisco, and San Mateo counties and the San Francisco Bay Area Air Basin portions of Solano and Sonoma counties. The area's nonattainment designation is based on a design value of 0.081 ppm for the Livermore-793 Rincon Avenue site in Alameda County.

Ventura County

The Ventura County 8-hour nonattainment area would continue to include only the continental portion of Ventura County. Anacapa and San Nicolas Islands, two of the Channel Islands, would not be included. Ventura County violates the

federal standard with a design value of 0.088 ppm at the Simi Valley-Cochran Street site.

Western Mojave Desert

The Western Mojave Desert nonattainment area would continue to comprise the central portion of San Bernardino County that is located in the Mojave Desert Air Basin. Ozone concentrations at a number of sites in this area violate the federal 8-hour standard, and the area has a design value of 0.104 ppm at the Joshua Tree-National Monument site.

Antelope Valley

The Antelope Valley nonattainment area would continue to comprise the portion of Los Angeles County that is located in the Mojave Desert Air Basin. The area has a design value of 0.094 ppm at the Lancaster-43301 Division Street site.

Coachella Valley

The Coachella Valley ozone nonattainment area would continue to include the portion of Riverside County that is located in the Salton Sea Air Basin. The design value for this area is 0.097 ppm at the Palm Springs-Fire Station site.

San Diego County

The 8-hour nonattainment area would continue to include all of San Diego County. Ozone concentrations in the County exceed the standard at several sites, and the design value is 0.092 ppm at Alpine-Victoria Drive.

Imperial County

Similar to San Diego County, the Imperial County nonattainment area would continue to include the entire County. The design value for Imperial County is 0.082 ppm at both El Centro-9th Street and Westmorland-West 1st Street.

Sutter Buttes

The Sutter Buttes nonattainment area would continue to include that portion of the Sutter Buttes above 2000 feet elevation. Located in Sutter County, the design value for this area is 0.085 ppm at the Sutter Buttes site.

Central Mountain Counties

The Central Mountain Counties nonattainment area would continue to include all of Amador and Calaveras counties. The design value for this two-county area is 0.089 ppm at the San Andreas-Gold Strike Road site in Calaveras County.

Southern Mountain Counties

The Southern Mountain Counties nonattainment area would continue to include all of Mariposa and Tuolumne counties. The design value for this area is 0.088 ppm at the Turtleback Dome site in Yosemite National Park, which is in Mariposa County.

Western Nevada County

This nonattainment area would continue to comprise the western portion of Nevada County, up to the crest of the Sierra Nevada. The current design value for western Nevada County is 0.091 ppm at the Grass Valley-Litton Building site.

Butte County

This nonattainment area would continue to comprise all of Butte County. There are two monitoring sites in Butte County, and both have design values that violate the standard. The Paradise-4405 Airport Road site has the higher value, with a design value of 0.085 ppm.

Attainment Areas

A number of areas in California have ozone monitoring data that are in attainment of the 2008 federal 8-hour standard according to the criteria established by U.S. EPA (*U.S. EPA, December 1998, Guideline on Data Handling Conventions for the 8-Hour Ozone NAAQS*). One of these areas, Shasta County, attained the 0.08 ppm standard but has ozone data showing violations of the federal 0.075 ppm standard. However, a number of days in this area during 2008 were impacted by wildfires, an exceptional event. If these days are excluded, Shasta County's design value is below the 2008 federal 8-hour ozone standard. A second area, Eastern Riverside County, was previously designated as unclassified because of incomplete data. Now that complete data are available, the area qualifies as attainment. The remaining ten areas all have design values in attainment of the 0.075 ppm ozone standard, and ARB recommends they also be designated as attainment. All of the recommended attainment areas are summarized in Table 2, below.

Shasta County

Currently, Shasta County in northern California is designated as attainment for the federal 0.08 ppm ozone standard. There are three monitoring sites in Shasta County: Anderson-North Street, Redding-Health Department Roof, and Lassen Volcanic National Park-Manzanita Lake. Using all data collected at these sites during 2006 through 2008, the design values for both Anderson (0.076 ppm) and Lassen (0.077 ppm) are just slightly above the federal standard.

During the summer of 2008, a significant number of wildfires in California impacted ambient ozone readings at sites throughout the State. Shasta County Air Quality Management District has documented these impacts and requested that high ozone measurements during 16 days in June and July 2008 be excluded as impacted by exceptional events (refer to Attachment A). ARB is still in the process of reviewing these data. However, if the measurements are excluded in accordance with U.S. EPA's exceptional events rule, the revised design value would be 0.073 ppm for all three sites in Shasta County.

If the impacted data are excluded, the design value for Shasta County is below the 2008 federal 8-hour ozone standard. Therefore, pending ARB concurrence with the District's evaluation, we recommend that Shasta County be designated as attainment for the federal 8-hour ozone standard.

Eastern Riverside County

Riverside County is subdivided among three air basins: South Coast Air Basin, Salton Sea Air Basin (Coachella Valley), and Mojave Desert Air Basin. The urbanized South Coast and Coachella Valley portions of the County have design values that violate the standard, and these areas are designated as nonattainment. In contrast, the eastern portion of Riverside County, located in the Mojave Desert Air Basin, is sparsely populated, with few emissions sources. This portion of the County is currently designated as unclassified for the federal 8-hour ozone standard.

When U.S. EPA designated areas for the 0.08 ppm ozone standard, complete ozone monitoring data were not available for eastern Riverside County, and the area was designated as unclassified. Since then, the ozone monitoring site at Blythe (Blythe-445 West Murphy Street) has continued to operate. The Blythe data show a design value of 0.063 ppm, based on data collected during 2006 through 2008. Because this value is below the standard, ARB recommends that eastern Riverside County be designated as attainment for the 2008 federal 8-hour ozone standard.

Other Areas

A number of other areas in California that were attainment or unclassified for the 0.08 ppm standard also qualify as attainment for the revised federal ozone standard of 0.075 ppm. These areas are listed in Table 2, along with their design values, based on data collected during 2006 through 2008. ARB recommends that all these areas be designated as attainment for ozone.

TABLE 2
Recommended California Attainment Areas
for the Federal 8-Hour Ozone Standard
Based on 2006-2008 Ozone Air Quality Data

<i>Attainment Area</i>	<i>Design Value¹ (ppm)</i>	<i>Area Included</i>
North Coast Air Basin	0.058	Del Norte, Humboldt, Mendocino, and Trinity counties and the North Coast Air Basin portion of Sonoma County
Shasta County	0.073	Shasta County
Tehama County	0.075	Portion of Tehama County outside Tuscan Buttes area
Glenn County	0.065	Glenn County ²
Colusa County	0.069	Colusa County
Sutter and Yuba Counties	0.072	Yuba County and portion of Sutter County outside Sacramento Metro Area and Sutter Buttes area
Lake County	0.062	Lake County
Lake Tahoe Air Basin	0.070	Lake Tahoe Air Basin portions of El Dorado and Placer counties
North Central Coast Air Basin	0.069	Monterey County, Santa Cruz County, San Benito County outside Pinnacles National Monument boundary
Santa Barbara County	0.073	Continental portion of Santa Barbara County (excludes San Miguel, Santa Barbara, Santa Cruz, and Santa Rosa islands)
Western San Luis Obispo County	0.068	Portion of County west of Eastern San Luis Obispo area
Eastern Riverside County	0.063	Portion of Riverside County in Mojave Desert Air Basin

¹The design value is the 3-year average (2006-2008 data) of the annual fourth highest 8-hour ozone concentration at the highest monitor (if greater than 0.075 ppm = nonattainment; if less than or equal to 0.075 = attainment). 2008 data are preliminary.

² Reflects combined data from 2 monitoring sites.

Unclassifiable Areas

The areas listed in Table 3 have either no ozone monitoring data or the available monitoring data do not meet completeness criteria established by U.S. EPA. Therefore, ARB recommends they be considered unclassifiable at the current time.

**TABLE 3
Recommended California Unclassifiable Areas
for the Federal 8-Hour Ozone Standard**

<i>Unclassifiable Area</i>	<i>Area Included</i>
Great Basin Valleys Air Basin	Alpine County, Mono County, portion of Inyo County outside Southern Inyo County nonattainment area
Northern Mountain Counties	Plumas and Sierra counties
Northern Channel Islands	The islands located in the South Central Coast Air Basin, including Anacapa, San Miguel, San Nicolas, Santa Barbara, Santa Cruz, and Santa Rosa
Eastern Nevada County	Portion of Nevada County east of the crest of the Sierra Nevada mountains
Northeast Plateau Air Basin	Lassen, Modoc, and Siskiyou counties

ATTACHMENT A

***SUMMARY OF OZONE DATA
POTENTIALLY IMPACTED BY EXCEPTIONAL EVENTS***

INTRODUCTION

Under U.S. EPA's guidance, air quality data may be excluded from the designation process if they were affected by an exceptional event. During 2007 and 2008, wildfires impacted air quality throughout California. However, there is only one area in the State, Shasta County, where excluding such data makes a difference between attainment and nonattainment based on the design value for the 2006 through 2008 timeframe. The dates and sites being considered for identification as exceptional events for this area are listed in Table A-1, below.

In addition to Shasta County, there are other areas in California where it is uncertain if measurements impacted by wildfires would adversely affect their design values based on the 2007 through 2009 data that U.S. EPA is expected to use in determining the final area designations. It is also uncertain whether excluding such measurements would affect their classification with respect to the 0.075 ppm ozone standard. Therefore, additional dates and sites may be identified. ARB anticipates that documentation of all exceptional events will be submitted to U.S. EPA in March 2009.

TABLE A-1
Summary of Data Being Evaluated as
Potentially Affected by Exceptional Events

<i>COUNTY</i>	<i>MONITORING SITE</i>	<i>DATES</i>
Shasta	Anderson-North St	Jun 14-15, 24-25, 28-30, 2008 and Jul 2, 13, 17-19, 23-26, 2008
	Lassen Vol NP_Manzanita Lk	same dates as Anderson
	Redding-Health Dept Roof	same dates as Anderson

ATTACHMENT B

2006-2008 FEDERAL 8-HOUR OZONE DESIGN VALUES BY SITE

TABLE B-1
SUMMARY OF DATA AND FEDERAL 8-HOUR OZONE DESIGN VALUES
FOR CALIFORNIA SITES BASED ON 2006 THROUGH 2008 DATA

Basin Name	County Name	Site Name	Statistic	Year			2008* Design Value	
				2006	2007	2008*		
Great Basin Valleys	Inyo	Death Valley Natl Monument	4 th High	0.082	0.085	0.077	0.081	
			Valid Days	347	351	320		
	Alpine	NO MONITORS						
	Mono	NO MONITORS						
Lake County	Lake	Lakeport-Lakeport Blvd	4 th High	0.062	0.057	0.068	0.062	
			Valid Days	360	354	328		
Lake Tahoe	El Dorado	South Lake Tahoe-Airport Road	4 th High	0.069	0.070	0.072	0.070	
			Valid Days	160	169	151		
	Placer	NO MONITORS						
Mojave Desert	Kern	Mojave-923 Poole Street	4 th High	0.089	0.078	0.093	0.086	
			Valid Days	357	358	188		
	Los Angeles	Lancaster-43301 Division Street	4 th High	0.098	0.091	0.095	0.094	
			Valid Days	363	357	360		
	Riverside	Blythe-445 West Murphy Street	4 th High	0.057	0.066	0.067	0.063	
			Valid Days	361	284	237		
	San Bernardino	Barstow		4 th High	0.086	0.084	0.090	0.086
				Valid Days	344	356	364	
		Hesperia-Olive Street		4 th High	0.095	0.098	0.098	0.097
				Valid Days	358	356	362	
		Joshua Tree-National Monument		4 th High	0.103	0.104	0.105	0.104
				Valid Days	348	342	322	
		Phelan-Beekley Rd & Phelan Rd'		4 th High	0.097	0.093	0.099	0.096
				Valid Days	363	356	365	
	Trona-Athol and Telegraph		4 th High	0.080	0.077	0.084	0.080	
Valid Days			360	351	339			
Victorville-14306 Park Avenue		4 th High	0.091	0.087	0.089	0.089		
		Valid Days	363	362	359			
Mountain Counties	Amador	Jackson-Clinton Road	4 th High	0.085	0.073	0.101	0.086	
			Valid Days	363	344	265		
	Calaveras	San Andreas-Gold Strike Road	4 th High	0.098	0.076	0.094	0.089	
			Valid Days	364	356	267		
	El Dorado	Cool-Highway 193	4 th High	0.099	0.093	0.102	0.098	
			Valid Days	183	181	150		
		Echo Summit	4 th High	0.075	0.075	0.078	0.076	
			Valid Days	148	135	135		
		Placerville-Gold Nugget Way	4 th High	0.097	0.085	0.106	0.096	
			Valid Days	363	333	272		
Mariposa	Jerseydale - 6440 Jerseydale	4 th High	0.080	0.083	0.089	0.084		
		Valid Days	175	181	183			

Basin Name	County Name	Site Name	Statistic	Year			2008* Design Value	
				2006	2007	2008*		
Mountain Counties (continued)	Mariposa (continued)	Yosemite NP-Turtleback Dome	4 th High	0.084	0.087	0.094	0.088	
			Valid Days	292	334	317		
	Nevada	Grass Valley-Litton Building	4 th High	0.096	0.088	0.091	0.091	
			Valid Days	328	365	247		
		Truckee-Fire Station	4 th High	0.076	0.071	0.066	0.071	
			Valid Days	225	281	265		
		White Cloud Mountain	4 th High	0.089	0.082	0.091	0.087	
			Valid Days	162	182	153		
	Placer	Colfax-City Hall	4 th High	0.105	0.079	0.084	0.089	
			Valid Days	346	356	338		
	Plumas	Quincy-N Church Street	4 th High	0.064			0.064	
			Valid Days	229				
	Tuolumne	Sonora-Barretta Street	4 th High	0.079	0.084	0.098	0.087	
			Valid Days	365	360	271		
Sierra	NO MONITORS							
North Central Coast	Monterey	Carmel Valley-Ford Road	4 th High	0.060	0.059	0.060	0.059	
			Valid Days	364	365	332		
		King City-415 Pearl Street	4 th High		0.054	0.06	0.057	
			Valid Days		215	304		
		King City-750 Metz Road	4 th High	0.063	0.054		0.058	
			Valid Days	360	134			
	Salinas-#3	4 th High	0.054	0.053	0.060	0.055		
		Valid Days	358	354	322			
		San Benito	Hollister-Fairview Road	4 th High	0.071	0.068	0.068	0.069
				Valid Days	359	352	329	
	Pinnacles National Monument	4 th High	0.078	0.075	0.086	0.079		
		Valid Days	355	361	324			
	Santa Cruz	Davenport	4 th High	0.052	0.049	0.056	0.052	
			Valid Days	364	362	322		
		Santa Cruz-2544 Soquel Ave	4 th High	0.054	0.053	0.057	0.054	
			Valid Days	358	358	329		
Scotts Valley-Scotts Valley Dr		4 th High	0.062	0.059	0.064	0.061		
		Valid Days	361	361	332			
Watsonville-Airport Boulevard	4 th High	0.054	0.054	0.058	0.055			
	Valid Days	363	364	334				
North Coast	Humboldt	Eureka-Jacobs	4 th High		0.046	0.049	0.047	
			Valid Days	17	308	347		
	Mendocino	Ukiah- E Gobbi Street	4 th High	0.060	0.053	0.061	0.058	
			Valid Days	356	352	302		
		Willits-899 S Main Street	4 th High	0.049	0.046	0.045	0.046	
			Valid Days	351	358	149		

Basin Name	County Name	Site Name	Statistic	Year			2008* Design Value	
				2006	2007	2008*		
North Coast (continued)	Sonoma	Healdsburg-Municipal Airport	4 th High	0.056	0.060	0.055	0.057	
			Valid Days	338	341	271		
	Del Norte	NO MONITORS						
	Trinity	NO MONITORS						
Northeast Plateau	Siskiyou	Yreka-Foothill Drive	4 th High	0.067	0.060	0.058	0.061	
			Valid Days	318	332	264		
	Lassen	NO MONITORS						
	Modoc	NO MONITORS						
Sacramento Valley	Butte	Chico-Manzanita Avenue	4 th High	0.076	0.074	0.080	0.076	
			Valid Days	360	363	262		
		Paradise-4405 Airport Road	4 th High	0.089	0.083	0.084	0.085	
			Valid Days	361	364	269		
	Colusa	Colusa-Sunrise Blvd	4 th High	0.069	0.066	0.072	0.069	
			Valid Days	357	361	269		
	Glenn	Willows-720 N Colusa Street	4 th High	0.059	0.069	0.067	0.065	
			Valid Days	106	361	271		
		Willows-E Laurel Street	4 th High	0.063			0.063	
			Valid Days	252				
	Placer	Auburn-Dewitt-C Avenue	4 th High	0.098	0.079	0.095	0.090	
			Valid Days	330	347	351		
		Roseville-N Sunrise Blvd	4 th High	0.094	0.082	0.094	0.090	
			Valid Days	363	350	271		
	Sacramento	Elk Grove-Bruceville Road	4 th High	0.087	0.078	0.082	0.082	
			Valid Days	357	359	330		
		Folsom-Natoma Street	4 th High	0.102	0.090	0.114	0.102	
			Valid Days	358	354	327		
		North Highlands-Blackfoot Way	4 th High	0.092	0.071	0.072	0.078	
			Valid Days	356	341	245		
		Sacramento	Sacramento-3801 Airport Road	4 th High	0.077	0.077	0.080	0.078
				Valid Days	311	299	201	
			Sacramento-Del Paso Manor	4 th High	0.093	0.081	0.087	0.087
				Valid Days	349	362	323	
		Sacramento-T Street	4 th High	0.084	0.073	0.081	0.079	
			Valid Days	351	342	292		
	Sloughhouse	4 th High	0.104	0.080	0.102	0.095		
		Valid Days	214	208	212			
	Shasta	Anderson-North Street	4 th High	0.073	0.075	0.081	0.076	
			Valid Days	327	365	274		
Lassen Vol NP-Manzanita Lk		4 th High	0.074	0.076	0.083	0.077		
		Valid Days	353	362	316			
Redding-Health Dept Roof		4 th High	0.080	0.070	0.077	0.075		
		Valid Days	357	365	338			

Basin Name	County Name	Site Name	Statistic	Year			2008* Design Value
				2006	2007	2008*	
Sacramento Valley (continued)	Solano	Vacaville-Ulatis Drive	4 th High	0.080	0.071	0.084	0.078
			Valid Days	358	365	354	
	Sutter	Sutter Buttes-S Butte	4 th High	0.090	0.077	0.088	0.085
			Valid Days	184	183	153	
		Yuba City-Almond Street	4 th High	0.078	0.072	0.068	0.072
			Valid Days	352	343	264	
	Tehama	Red Bluff-Oak Street	4 th High	0.073	0.072	0.080	0.075
			Valid Days	330	357	319	
		Tuscan Butte	4 th High	0.087	0.082	0.087	0.085
			Valid Days	183	184	146	
	Yolo	Davis-UCD Campus	4 th High	0.078	0.075	0.077	0.076
			Valid Days	358	359	258	
		Woodland-Gibson Road	4 th High	0.088	0.073	0.076	0.079
			Valid Days	365	363	356	
	Yuba	NO MONITORS					
	Salton Sea	Imperial	Brawley -220 Main Street	4 th High	0.043	0.067	0.057
Valid Days				91	89	14	
Calexico-East			4 th High	0.078	0.083	0.078	0.079
			Valid Days	352	325	341	
Calexico-Ethel Street			4 th High	0.068	0.087	0.087	0.080
			Valid Days	362	353	363	
Calexico-Grant Street			4 th High	0.065	0.071		0.068
			Valid Days	356	205		
El Centro-9th Street			4 th High	0.091	0.083	0.074	0.082
			Valid Days	331	349	362	
Niland-English Road			4 th High	0.072	0.078	0.075	0.075
			Valid Days	354	355	362	
Westmorland-W 1st Street			4 th High	0.086	0.085	0.077	0.082
			Valid Days	355	353	360	
Riverside		Indio-Jackson Street	4 th High	0.085	0.087	0.088	0.086
			Valid Days	361	360	237	
	Joshua Tree National Park	4 th High	0.079	0.076	0.084	0.079	
		Valid Days	270	281	129		
	Palm Springs-Fire Station	4 th High	0.099	0.097	0.096	0.097	
		Valid Days	354	360	241		
San Diego	San Diego	Alpine-Victoria Drive	4 th High	0.094	0.086	0.098	0.092
			Valid Days	357	358	301	
		Camp Pendleton	4 th High	0.072	0.071	0.070	0.071
			Valid Days	355	349	300	
		Chula Vista	4 th High	0.065	0.070	0.074	0.069
			Valid Days	357	351	299	
		Del Mar-Mira Costa College	4 th High	0.067	0.072	0.075	0.071
			Valid Days	364	362	305	

Basin Name	County Name	Site Name	Statistic	Year			2008* Design Value		
				2006	2007	2008*			
San Diego (continued)	San Diego (continued)	El Cajon-Redwood Avenue	4 th High	0.076	0.073	0.082	0.077		
			Valid Days	349	332	297			
		Escondido-E Valley Parkway	4 th High	0.078	0.075	0.089	0.080		
			Valid Days	352	355	291			
		Otay Mesa-Paseo International	4 th High	0.061	0.064	0.066	0.063		
			Valid Days	359	357	273			
		San Diego-1110 Beardsley St	4 th High	0.061	0.060	0.063	0.061		
			Valid Days	362	330	291			
		San Diego-Overland Avenue	4 th High	0.07	0.073	0.082	0.075		
			Valid Days	354	357	296			
		San Francisco Bay Area	Alameda	Berkeley-6th Street	4 th High		0.029	0.045	0.037
					Valid Days		23	269	
Fremont-Chapel Way	4 th High			0.069	0.055	0.061	0.061		
	Valid Days			358	352	271			
Hayward-La Mesa	4 th High			0.067	0.055	0.068	0.063		
	Valid Days			244	242	182			
Livermore-793 Rincon Avenue	4 th High			0.089	0.067	0.087	0.081		
	Valid Days			361	361	270			
Oakland-Davie	4 th High				0.034	0.057	0.045		
	Valid Days				60	268			
San Leandro-County Hospital	4 th High			0.06	0.052	0.067	0.059		
	Valid Days			243	243	175			
Contra Costa	Bethel Island Road		4 th High	0.081	0.071	0.076	0.076		
			Valid Days	358	360	271			
	Concord-2975 Treat Blvd		4 th High	0.085	0.071	0.078	0.078		
			Valid Days	360	360	270			
	Pittsburg-10th Street		4 th High	0.079	0.067	0.067	0.071		
			Valid Days	357	356	271			
	San Pablo-Rumrill Blvd		4 th High	0.045	0.049	0.057	0.050		
			Valid Days	353	356	265			
Marin	San Rafael		4 th High	0.047	0.048	0.055	0.050		
			Valid Days	353	356	266			
Napa	Napa-Jefferson Avenue		4 th High	0.064	0.055	0.067	0.062		
			Valid Days	361	355	269			
San Francisco	San Francisco-Arkansas Street		4 th High	0.044	0.047	0.049	0.046		
			Valid Days	347	354	266			
San Mateo	Redwood City		4 th High	0.051	0.052	0.058	0.053		
			Valid Days	354	357	266			
Santa Clara	Gilroy-9th Street		4 th High	0.08	0.068	0.072	0.073		
			Valid Days	229	240	183			
	Los Gatos		4 th High	0.085	0.059	0.074	0.072		
			Valid Days	363	363	273			
	San Jose-Jackson Street		4 th High	0.073	0.057	0.067	0.065		
			Valid Days	329	352	269			

Basin Name	County Name	Site Name	Statistic	Year			2008* Design Value
				2006	2007	2008*	
San Francisco Bay Area (continued)	Santa Clara (continued)	San Martin-Murphy Avenue	4 th High	0.088	0.070	0.071	0.076
			Valid Days	238	239	182	
		Sunnyvale-910 Ticonderoga	4 th High	0.064	0.054	0.063	0.060
			Valid Days	243	243	183	
	Solano	Benicia-East 2nd Street	4 th High		0.063	0.075	0.069
			Valid Days		270	266	
		Fairfield-Chadbourne Road	4 th High	0.074	0.062	0.068	0.068
			Valid Days	242	241	183	
		Vallejo-304 Tuolumne Street	4 th High	0.06	0.054	0.067	0.060
			Valid Days	346	354	267	
	Sonoma	Santa Rosa-5th Street	4 th High	0.049	0.047	0.059	0.051
			Valid Days	362	357	269	
San Joaquin Valley	Fresno	Clovis-N Villa Avenue	4 th High	0.094	0.092	0.108	0.098
			Valid Days	357	341	269	
		Fresno-1st Street	4 th High	0.101	0.094	0.108	0.101
			Valid Days	362	360	265	
		Fresno-Drummond Street	4 th High	0.085	0.079	0.093	0.085
			Valid Days	359	357	241	
		Fresno-Sierra Skypark #2	4 th High	0.097	0.088	0.101	0.095
			Valid Days	355	359	262	
		Parlier	4 th High	0.099	0.090	0.094	0.094
			Valid Days	339	356	231	
	Kern	Arvin-Bear Mountain Blvd	4 th High	0.111	0.102	0.112	0.108
			Valid Days	350	353	292	
		Bakersfield-5558 California Ave	4 th High	0.107	0.085	0.101	0.097
			Valid Days	348	361	298	
		Bakersfield-Golden State Hwy	4 th High	0.091	0.08	0.094	0.088
			Valid Days	362	358	209	
		Edison	4 th High	0.108	0.093	0.107	0.102
			Valid Days	361	361	301	
		Maricopa-Stanislaus Street	4 th High	0.09	0.086	0.084	0.086
			Valid Days	351	291	265	
		Oildale-3311 Manor Street	4 th High	0.100	0.090	0.104	0.098
			Valid Days	354	357	303	
		Shafter-Walker Street	4 th High	0.093	0.083	0.093	0.089
			Valid Days	361	353	303	
	Kings	Hanford-S Irwin Street	4 th High	0.086	0.080		0.083
			Valid Days	339	297		
	Madera	Madera-Pump Yard	4 th High	0.081	0.077	0.091	0.083
			Valid Days	363	360	250	
	Merced	Merced-S Coffee Avenue	4 th High	0.086	0.087	0.105	0.092
			Valid Days	167	363	256	
	San Joaquin	Stockton-Hazelton Street	4 th High	0.083	0.075	0.077	0.078
			Valid Days	362	361	267	

Basin Name	County Name	Site Name	Statistic	Year			2008* Design Value
				2006	2007	2008*	
San Joaquin Valley (continued)	San Joaquin (continued)	Tracy-Airport	4 th High	0.093	0.079	0.090	0.087
			Valid Days	355	354	269	
	Stanislaus	Modesto-14th Street	4 th High	0.090	0.076	0.090	0.085
			Valid Days	358	362	268	
		Turlock-S Minaret Street	4 th High	0.092	0.075	0.106	0.091
			Valid Days	363	361	265	
	Tulare	Sequoia & Kings Canyon NP	4 th High	0.104	0.099	0.112	0.105
			Valid Days	300	238	232	
		Sequoia NP-Lower Kaweah	4 th High	0.097	0.091	0.101	0.096
			Valid Days	348	360	325	
		Visalia-N Church Street	4 th High	0.092	0.086	0.105	0.094
			Valid Days	361	361	301	
South Central Coast	San Luis Obispo	Atascadero-Lewis Avenue	4 th High	0.071	0.066	0.069	0.068
			Valid Days	356	352	330	
		Carrizo Plains School-Carrizo	4 th High	0.086	0.080	0.088	0.084
			Valid Days	340	349	322	
		Morro Bay	4 th High	0.053	0.053	0.058	0.054
			Valid Days	351	343	320	
		Nipomo-Regional Park	4 th High	0.055	0.056	0.066	0.059
			Valid Days	345	351	325	
		Paso Robles-Santa Fe Avenue	4 th High	0.072	0.068	0.064	0.068
			Valid Days	360	363	190	
		Red Hills	4 th High		0.084	0.092	0.088
			Valid Days		362	330	
		San Luis Obispo-S Higuera St	4 th High	0.055	0.057	0.060	0.057
			Valid Days	356	356	242	
	Santa Barbara	Carpinteria-Gobernador Road	4 th High	0.058	0.066	0.072	0.065
			Valid Days	349	354	272	
		El Capitan Beach	4 th High	0.056	0.057	0.066	0.059
			Valid Days	364	364	299	
		Gaviota-GTC Site B	4 th High	0.055	0.055	0.058	0.056
			Valid Days	360	362	241	
		Goleta-Fairview	4 th High	0.064	0.057	0.062	0.061
			Valid Days	364	358	301	
		Las Flores Canyon #1	4 th High	0.07	0.078	0.070	0.072
			Valid Days	363	360	330	
		Lompoc-HSandP	4 th High	0.062	0.066	0.067	0.065
			Valid Days	363	358	301	
		Lompoc-S H Street	4 th High	0.051	0.056	0.062	0.056
			Valid Days	362	356	302	
		Paradise Road-Los Padres NF	4 th High	0.075	0.077	0.068	0.073
			Valid Days	363	355	301	
		Santa Barbara-E Canon Perdido	4 th High	0.056	0.063	0.062	0.060
			Valid Days	357	359	240	

Basin Name	County Name	Site Name	Statistic	Year			2008* Design Value	
				2006	2007	2008*		
South Central Coast (continued)	Santa Barbara (continued)	Santa Maria-906 S Broadway	4 th High	0.048	0.048	0.056	0.050	
			Valid Days	349	354	217		
		Santa Ynez -Airport Road	4 th High	0.064	0.063	0.067	0.064	
			Valid Days	364	363	301		
		Vandenberg AFB-STS Power	4 th High	0.059	0.069	0.065	0.064	
			Valid Days	356	358	331		
	Ventura	El Rio-Rio Mesa School #2	4 th High	0.059	0.061	0.065	0.061	
			Valid Days	364	351	297		
		Ojai-Ojai Avenue	4 th High	0.094	0.076	0.081	0.083	
			Valid Days	363	361	301		
		Piru-3301 Pacific Avenue	4 th High	0.085	0.076	0.081	0.080	
			Valid Days	359	358	304		
		Simi Valley-Cochran Street	4 th High	0.089	0.086	0.090	0.088	
			Valid Days	360	357	295		
		Thousand Oaks-Moorpark Road	4 th High	0.076	0.074	0.077	0.075	
			Valid Days	364	358	301		
		Ventura-Emma Wood State Bch	4 th High	0.062	0.065	0.067	0.064	
			Valid Days	362	350	294		
	Channel Islands	NO MONITORS						
	South Coast	Los Angeles	Azusa	4 th High	0.091	0.096	0.101	0.096
				Valid Days	357	355	236	
Burbank-W Palm Avenue			4 th High	0.098	0.088	0.092	0.092	
			Valid Days	358	356	235		
Glendora-Laurel			4 th High	0.106	0.105	0.112	0.107	
			Valid Days	354	352	241		
Lebec-Peace Valley Road			4 th High	0.095	0.063		0.079	
			Valid Days	321	82			
Los Angeles-North Main Street			4 th High	0.075	0.072	0.073	0.073	
			Valid Days	355	337	224		
Los Angeles-Westchester Pkwy			4 th High	0.062	0.067	0.065	0.064	
			Valid Days	358	355	221		
Lynwood			4 th High	0.064	0.057	0.055	0.058	
			Valid Days	357	357	235		
North Long Beach			4 th High	0.057	0.057	0.064	0.059	
			Valid Days	354	350	236		
Pasadena-S Wilson Avenue			4 th High	0.096	0.090	0.091	0.092	
			Valid Days	360	357	232		
Pico Rivera-4144 San Gabriel			4 th High	0.078	0.079	0.077	0.078	
			Valid Days	222	352	233		
Pomona			4 th High	0.108	0.103	0.100	0.103	
			Valid Days	354	352	238		
Reseda			4 th High	0.104	0.093	0.095	0.097	
			Valid Days	355	339	242		

Basin Name	County Name	Site Name	Statistic	Year			2008* Design Value
				2006	2007	2008*	
South Coast (continued)	Los Angeles (continued)	Santa Clarita	4 th High	0.112	0.102	0.103	0.105
			Valid Days	357	351	235	
		West Los Angeles-VA Hospital	4 th High	0.068	0.067	0.075	0.070
			Valid Days	360	345	236	
	Orange	Anaheim-Pampas Lane	4 th High	0.071	0.074	0.076	0.073
			Valid Days	361	357	239	
		Costa Mesa-Mesa Verde Drive	4 th High	0.061	0.065	0.073	0.066
			Valid Days	362	341	236	
		La Habra	4 th High	0.09	0.082	0.078	0.083
			Valid Days	349	355	238	
	Mission Viejo-26081 Via Pera	4 th High	0.09	0.081	0.092	0.087	
		Valid Days	353	358	239		
	Riverside	Banning Airport	4 th High	0.105	0.095	0.108	0.102
			Valid Days	353	359	237	
		Lake Elsinore-W Flint Street	4 th High	0.102	0.097	0.108	0.102
			Valid Days	353	352	239	
		Perris	4 th High	0.114	0.103	0.106	0.107
			Valid Days	348	362	243	
	Riverside-Rubidoux	4 th High	0.112	0.099	0.111	0.107	
		Valid Days	358	356	236		
	San Bernardino	Crestline	4 th High	0.111	0.126	0.120	0.119
			Valid Days	363	365	234	
		Fontana-Arrow Highway	4 th High	0.114	0.113	0.110	0.112
			Valid Days	351	346	234	
		Redlands-Dearborn	4 th High	0.125	0.112	0.112	0.116
			Valid Days	364	362	244	
		San Bernardino-4th Street	4 th High	0.119	0.117	0.112	0.116
			Valid Days	356	352	236	
		Upland	4 th High	0.112	0.112	0.108	0.110
			Valid Days	360	354	236	

* 2008 data are preliminary and may not be complete. Therefore, the 2008 Design Value should be considered preliminary.

ENCLOSURE 3

STATE OF CALIFORNIA INFORMATION TO SUPPORT NONATTAINMENT AREA BOUNDARY RECOMMENDATIONS FOR THE 2008 FEDERAL 8-HOUR OZONE STANDARD

CONTINUING NONATTAINMENT AREAS

Because the 2008 revised 8-hour ozone standard (0.075 parts per million (ppm)) is more stringent than the previous 8-hour standard (0.08 ppm), all areas that were nonattainment for the previous standard continue to be nonattainment under the revised standard. These continuing nonattainment areas and their respective boundaries were justified when they were designated for the previous standard. ARB staff recommends retaining the current boundaries for 15 of the 16 areas, as summarized below. In addition, ARB staff recommends expanding the current Eastern Kern County nonattainment area, as described in the section titled *"New and Expanded Nonattainment Areas,"* below.

South Coast Air Basin

Based on 2006 through 2008 monitoring data, the South Coast Air Basin remains nonattainment for the revised 8-hour ozone standard with a design value of 0.119 ppm for the Crestline (Lake Gregory) site in San Bernardino County. The recommended South Coast Air Basin ozone nonattainment area would continue to include western Los Angeles County (including San Clemente and Santa Catalina islands), Orange County, western Riverside County, and southwestern San Bernardino County. This area falls under the jurisdiction of the South Coast Air Quality Management District (AQMD).

San Joaquin Valley

The San Joaquin Valley nonattainment area would continue to comprise the entire San Joaquin Valley Air Basin: San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare, and western Kern counties. The San Joaquin Valley violates the federal 8-hour standard with a design value of 0.108 ppm at the Arvin-Bear Mountain Blvd. monitoring site in Kern County. This area is under the jurisdiction of the San Joaquin Valley Air Pollution Control District (APCD).

Sacramento Metro Area

The Sacramento Metro nonattainment area would continue to include all of Sacramento and Yolo counties, southern Sutter County, the Sacramento Valley Air Basin portion of Solano County, the Sacramento Valley and Mountain Counties air basin portions of Placer County, and the Mountain Counties

Air Basin portion of El Dorado County. This area violates the standard with a design value of 0.102 ppm at the Folsom-Natoma Street site in Sacramento County. The Sacramento Metro nonattainment area involves multiple local air pollution control agencies, including the Sacramento Metro, El Dorado County, Feather River, and Yolo-Solano AQMDs and the Placer County APCD. However, all but the Solano County portion of the nonattainment area are covered by a single transportation planning agency.

San Francisco Bay Area

The San Francisco Bay Area nonattainment area would continue to comprise all of the San Francisco Bay Area Air Basin: Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara counties and the San Francisco Bay Area Air Basin portions of Solano and Sonoma counties. The area's nonattainment designation is based on a design value of 0.081 ppm for the Livermore-793 Rincon Avenue site in Alameda County. The nonattainment area falls under the jurisdiction of the Bay Area AQMD.

Ventura County

The Ventura County 8-hour nonattainment area would continue to include only the continental portion of Ventura County. Anacapa and San Nicolas Islands, two of the Channel Islands, would not be included. Ventura County violates the federal standard with a design value of 0.088 ppm at the Simi Valley-Cochran Street site. This area is under the jurisdiction of the Ventura County APCD.

Western Mojave Desert

The Western Mojave Desert nonattainment area would continue to comprise the central portion of San Bernardino County that is located in the Mojave Desert Air Basin. Ozone concentrations at a number of sites in this area violate the federal 8-hour standard, and the area has a design value of 0.104 ppm at the Joshua Tree-National Monument site. The Mojave Desert AQMD has jurisdiction over this area.

Antelope Valley

The Antelope Valley nonattainment area, under the jurisdiction of the Antelope Valley AQMD, would continue to comprise the portion of Los Angeles County that is located in the Mojave Desert Air Basin. The area has a design value of 0.094 ppm at the Lancaster-43301 Division Street site.

Coachella Valley

The Coachella Valley ozone nonattainment area would continue to include the portion of Riverside County that is located in the Salton Sea Air Basin. The design value for this area is 0.097 ppm at the Palm Springs-Fire Station site. Coachella Valley is under the jurisdiction of the South Coast AQMD.

San Diego County

This 8-hour nonattainment area falls under the jurisdiction of the San Diego County APCD and would continue to include all of San Diego County. Ozone concentrations in the County exceed the standard at several sites, and the design value is 0.092 ppm at Alpine-Victoria Drive.

Imperial County

Similar to San Diego County, the Imperial County nonattainment area would continue to include the entire County. The design value for Imperial County is 0.082 ppm at both El Centro-9th Street and Westmorland-West 1st Street. The County is under the jurisdiction of the Imperial County APCD.

Sutter Buttes

The Sutter Buttes nonattainment area would continue to include that portion of the Sutter Buttes above 2000 feet elevation. Located in Sutter County, the design value for this area is 0.085 ppm at the Sutter Buttes site, and the area is under the jurisdiction of the Feather River AQMD.

Central Mountain Counties

The Central Mountain Counties nonattainment area would continue to include all of Amador and Calaveras counties, under the jurisdiction of the Amador County and Calaveras County APCDs, respectively. The design value for this two-county area is 0.089 ppm at the San Andreas-Gold Strike Road site in Calaveras County.

Southern Mountain Counties

The Southern Mountain Counties nonattainment area would continue to include all of Mariposa and Tuolumne counties. The design value for this area is 0.088 ppm at the Turtleback Dome site in Yosemite National Park, which is in Mariposa County. The two counties are under the jurisdiction of the Mariposa County APCD and the Tuolumne County APCD.

Western Nevada County

This nonattainment area would continue to comprise the western portion of Nevada County, up to the crest of the Sierra Nevada. The Northern Sierra AQMD has jurisdiction over this area. The current design value for western Nevada County is 0.091 ppm at the Grass Valley-Litton Building site.

Butte County

This nonattainment area would continue to comprise all of Butte County, which falls under the jurisdiction of the Butte County AQMD. There are two monitoring sites in Butte County, and both have design values that violate the standard. The Paradise-4405 Airport Road site has the higher value, with a design value of 0.085 ppm.

NEW AND EXPANDED NONATTAINMENT AREAS

The following six areas represent new or expanded nonattainment areas under the revised standard. Because the revised standard is set at a lower level, it brings in areas that increasingly rural in nature. In addition to being rural, ozone concentrations in all of the new and expanded areas are dominated by transport from an upwind urban area. With the addition of the new areas, California will have a total of 21 ozone nonattainment areas.

Justification for each of the new and expanded areas is outlined below, using the nine factors U.S. EPA included in its guidance memo (*December 4, 2008, Area Designations for the 2008 Revised Ozone National Ambient Air Quality Standards, Memorandum from Robert J. Meyers, Principal Deputy Assistant Administrator, Office of Air and Radiation to Regional Administrators, Regions I-X*). These factors include air quality data, emissions data, population density and degree of urbanization, traffic and commuting patterns, growth rates and patterns, meteorology, geography and topography, jurisdictional boundaries, and level of control of emission sources.

Northeast San Bernardino County

Jurisdictional Boundaries:

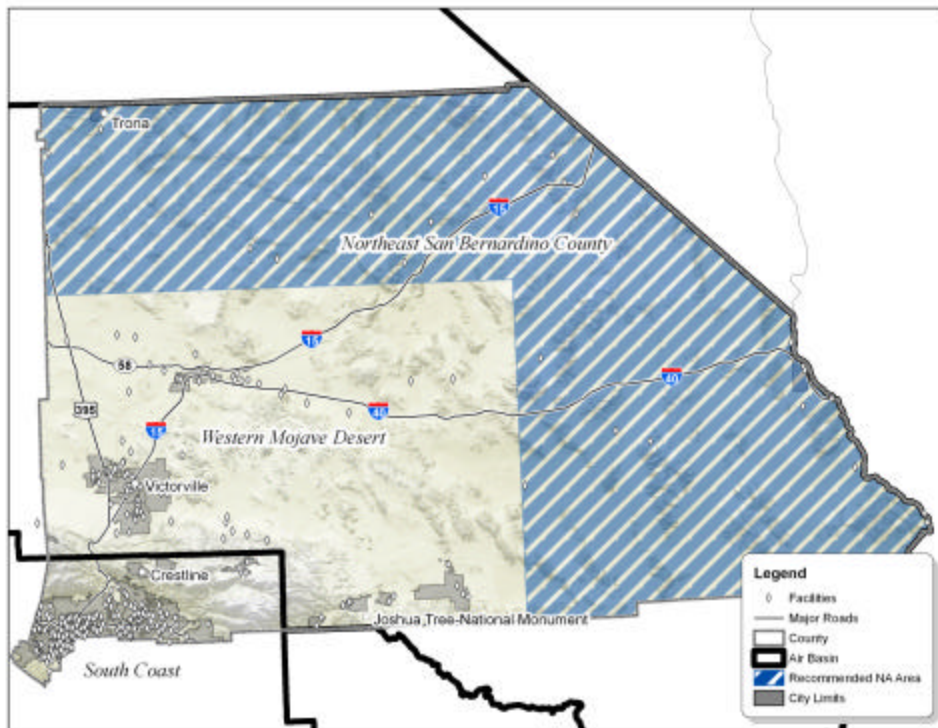
The southwest and central portions of San Bernardino County, which are under the jurisdiction of the South Coast AQMD and the Mojave Desert AQMD, respectively, were designated as nonattainment for the previous 8-hour ozone standard. ARB staff recommends these areas continue as two distinct nonattainment areas for the revised 2008 standard.

In contrast, the northeast portion of the County did not violate the previous standard, but does violate the revised standard. Although this area also falls under the jurisdiction of the Mojave Desert AQMD, it is sufficiently different in terms of air quality, emissions, population, and other human, economic, and geographic factors that ARB staff recommends it be designated as a separate nonattainment area. Designating Northeast San Bernardino County separately will give this area a classification consistent with its overall air quality problem and will facilitate a more timely attainment finding.

Geography / Topography:

San Bernardino County is the largest county in the United States (refer to Figure 1). At just over 20,000 square miles, it encompasses a very diverse set of geographic conditions, from the over 11,000 foot mountain peaks in the southwest (South Coast Air Basin) portion of the County, to the high desert areas of the central (Western Mojave Desert) portion, to the low desert areas in the eastern (Northeast San Bernardino County) portion. The variety of physical conditions has impacted the way the County has grown and resultant air quality.

**FIGURE 1
SAN BERNARDINO COUNTY**



Meteorology:

The variety of landscapes within San Bernardino County makes for a variety of different climate areas. Rainfall and temperatures show substantial variation throughout the area. The South Coast portion of the County receives an average of 16 inches of rainfall each year, with a maximum monthly average temperature of 97 degrees Fahrenheit. In contrast, the central portion receives an average of 6 inches of rainfall each year, with an average maximum summer temperature of 102 degrees Fahrenheit. In the northeast portion of the County, rainfall averages 4 inches per year, and the average maximum summer temperature is 107 degrees Fahrenheit.

Information about meteorology, ozone concentrations, and transport within the northeast portion of the County is based on data for Trona and for sites in the surrounding area at Ridgecrest, Mojave National Preserve, Jean (Nevada), Blythe, Barstow, and Mojave. Additional information is based on back trajectories constructed as part of an ozone transport assessment.

Northeast San Bernardino County is rural in nature, with extremely low population and few significant emissions sources. Because local emissions are low, locally measured ozone concentrations reflect the impact of long range transport from upwind urban areas. Based on general wind patterns, Northeast San Bernardino County is downwind of several high emission source areas, including the highly urbanized South Coast and San Joaquin Valley air basins. Previous ARB transport assessments have found that the transport contribution from both the South Coast and the San Joaquin Valley into the desert portions of San Bernardino County can be overwhelming. An evaluation of back trajectories corroborates these findings.

Air Quality Data:

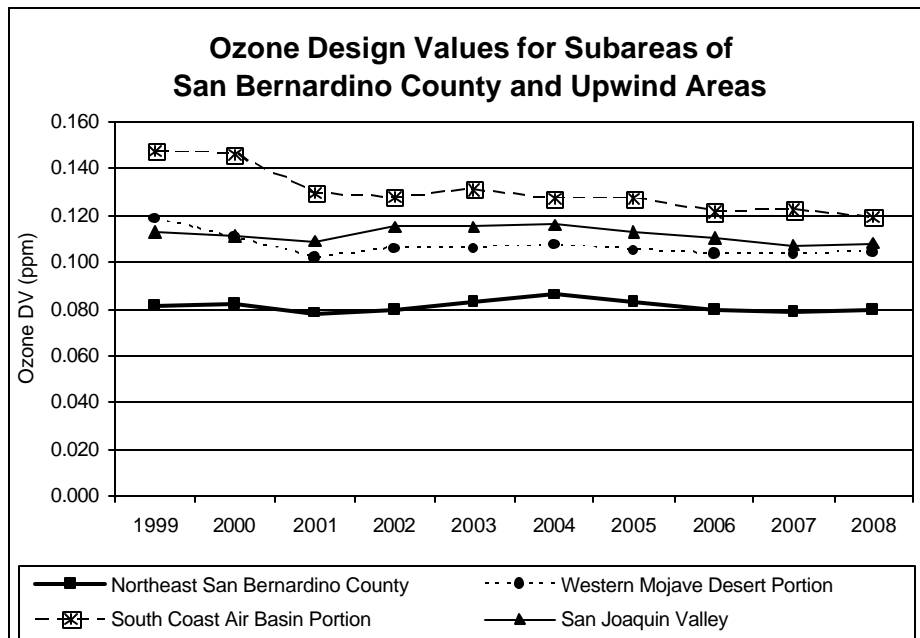
There is one ozone monitor in Northeast San Bernardino County, located at Trona (refer to Figure 1). The design value for this site is 0.080 ppm, based on data for 2006 through 2008. This value does not violate the previous 8-hour standard, but it does violate the revised standard. As shown in Table 1, the design value for Northeast San Bernardino County is significantly lower than the design values for the Western Mojave Desert portion of the County and for the upwind areas of the South Coast and the San Joaquin Valley. The design value for the northeast portion of the County is less than 10 percent above the level of the standard, while design values for the other three areas are 40 to 60 percent above the standard. Because of the significant differences in design value, the northeast portion of the County should be designated separately and given a classification that is commensurate with the overall magnitude of the ozone problem in this area.

TABLE 1
8-HOUR OZONE DESIGN VALUES FOR VARIOUS PORTIONS OF
SAN BERNARDINO COUNTY AND UPWIND AREAS
BASED ON 2006 THROUGH 2008 DATA

AREA	DESIGN SITE	DESIGN VALUE (ppm)	PERCENT ABOVE STANDARD
NE San Bernardino Portion of County	Trona	0.080	7%
Western Mojave Desert Portion of County	Joshua Tree-NM	0.104	39%
South Coast Air Basin Portion of County	Crestline	0.119	59%
San Joaquin Valley Air Basin	Arvin	0.108	44%

The design value trends for all four areas are shown in Figure 2. It is apparent from the graph that design values for the South Coast and Western Mojave Desert Air Basin portions of the County, as well as for the San Joaquin Valley, are higher than that for Northeast San Bernardino County. However, regardless of level, the design value trends for the Western Mojave Desert and Northeast portions of San Bernardino County mirror those for the South Coast and San Joaquin Valley. This reflects the overwhelming impact of transport in these areas, where improvements in ozone air quality are tied to improvements in the upwind urban area.

FIGURE 2



Past control strategies for both the South Coast and the San Joaquin Valley have relied heavily on reducing reactive organic gas (ROG) emissions. While this strategy has been effective in reducing ozone close to the urban areas, ozone in transport-impacted areas has not seen the same level of improvement. Future strategies will rely more heavily on reducing oxides of nitrogen (NOx) emissions. ARB expects ozone concentrations in the northeast and Western Mojave Desert portions of San Bernardino County will begin to decrease at a faster rate as emission control strategies contained in the recently submitted State Implementation Plan begin to be effective.

Population Density and Degree of Urbanization; Growth Rates and Patterns; and Traffic and Commuting Patterns:

Similar to air quality, there are vast differences among the population in each of the three San Bernardino County subareas. Based on an analysis of census data, Table 2 gives a summary of the size of each area and its population. More than three-quarters of the County population lives in the highly urbanized, South Coast portion of San Bernardino County. Most of the rest of the County population (20 percent) lives in the Western Mojave Desert portion. Less than 2 percent live in Northeast San Bernardino County. Because Northeast San Bernardino County is so large, the population density is very low, with less than 2 people per square mile. This compares with more than 1,100 people per square mile in the South Coast portion of the County, and 47 people per square mile in the Western Mojave Desert portion.

With higher population numbers and densities comes a greater degree of urbanization and generally higher growth rates, because of the jobs and convenience associated with the urban area. San Bernardino County is no exception. The Western Mojave Desert portion of the County is closely linked to the South Coast portion because of its proximity to the larger urban area. Many people within this area commute to jobs in the South Coast, while others work in the cities that have developed close to the South Coast / Western Mojave boundary. These ties are less obvious, as one moves further away from the South Coast area, into the northeast portion of the County.

Over time, both the South Coast and Western Mojave Desert portions of San Bernardino County have seen much higher growth rates when compared with Northeast San Bernardino County. Table 2 shows these different rates from 1990 to 2000. Growth rates in the urbanized portions of the County have been more than triple the rates in the northeast. This discrepancy in growth is expected to continue.

**TABLE 2
8-HOUR OZONE DESIGN VALUES FOR VARIOUS PORTIONS OF
SAN BERNARDINO COUNTY BASED ON 2006 THROUGH 2008 DATA**

AREA	SIZE (square miles)	POPULATION	GROWTH IN POPULATION (1990-2000)	PEOPLE PER SQUARE MILE
NE San Bernardino County Portion	11,470	25,941	+ 6%	2
Western Mojave Desert Portion	7,503	350,426	+ 22 %	47
South Coast Air Basin Portion	1,132	1,333,067	+ 20 %	1,178

Emissions Data and Level of Emission Controls

Similar to population, there are vast differences in ozone precursor emissions among the three County subareas (refer to Table 3). In terms of number, ARB's emissions inventory shows five times more facilities in the Western Mojave Desert portion (125 facilities) and more than 10 times more in the South Coast portion (320 facilities), as are located in Northeast San Bernardino County (26 facilities). Facilities tend to be concentrated in the urban areas and along the major roadways in the South Coast and Western Mojave Desert portions, in contrast to being scattered throughout the area in Northeast San Bernardino County.

**TABLE 3
TOTAL ROG AND NO_x EMISSIONS IN VARIOUS PORTIONS
OF SAN BERNARDINO COUNTY**

AREA	TONS / DAY ROG	TONS / DAY NO_x
NE San Bernardino County Portion	10.4	19.5
Western Mojave Desert Portion	48.4	149.5
South Coast Air Basin Portion	81.6	92.3

In combination, facilities in the South Coast and Western Mojave Desert portions of the County emit three and ten times more NO_x and ROG than facilities in the northeast portion of the County. When mobile source emissions are added in, the discrepancy is similar (refer to Table 3). Total emissions of ROG and NO_x in the South Coast and Western Mojave Desert portions of the County are five to eight times higher than in Northeast San Bernardino County. In terms of mobile source emissions, the dense network of streets and freeways in the South Coast portion of San Bernardino County carry significant amounts of traffic, averaging over 38 million vehicle miles travelled (VMT) each day. In contrast, the more

limited networks in the Western Mojave Desert and Northeast portions of San Bernardino County average less than half that amount (19.8 million VMT each day). The bulk of the daily VMT in these areas is concentrated near the South Coast portion of the County.

In terms of emissions controls, the statewide mobile source and consumer product regulations form the cornerstone of the attainment strategy for rural transport-impacted areas, along with the emissions reduction controls in the upwind regions of the South Coast and San Joaquin Valley. In addition, the Mojave Desert AQMD has adopted rules to reduce emissions from existing, as well as new or modified stationary sources under its jurisdiction.

Summary and Recommendation:

In summary, the air quality problem in Northeast San Bernardino County is much less severe than in the Western Mojave Desert portion of the County. Ozone concentrations in the northeast County are overwhelmed by transport, even more so than in the Western Mojave Desert portion. As a result, the primary attainment strategy will rely on statewide controls and control measures implemented by upwind districts. Although there are few stationary emissions sources in Northeast San Bernardino County, there are few significant differences in the control requirements for stationary sources under the jurisdiction of the Mojave Desert AQMD.

Although Northeast San Bernardino County is contiguous with the Western Mojave Desert nonattainment area, and both areas will rely on controls in upwind areas to reach attainment, the magnitude of their problems is substantially different. Therefore, ARB recommends Northeast San Bernardino County be designated as a separate nonattainment area. Designating the area separately will give them a classification consistent with the nature and severity of their overall air quality problem and will facilitate a more timely attainment finding.

Southern Inyo County

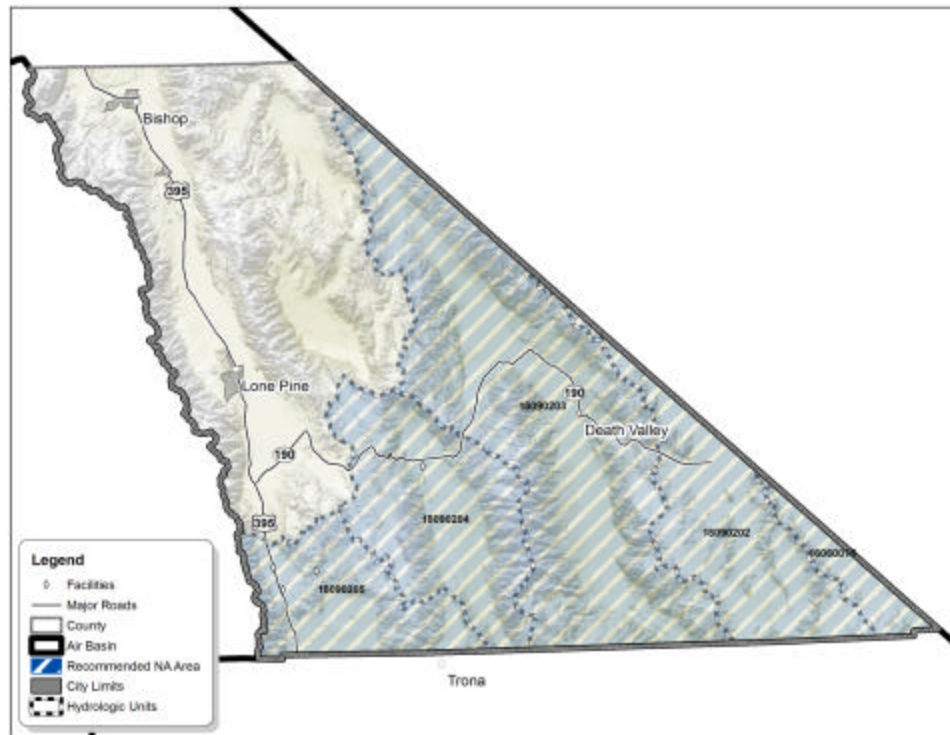
Jurisdictional Boundaries:

Inyo County falls under the jurisdiction of the Great Basin Unified Air Pollution Control District (GBUAPCD). Whereas Inyo County attained the previous 8-hour standard, concentrations violate the revised ozone standard. Because of the transport-impacted nature of the air quality problem in Southern Inyo County, ARB staff recommends limiting the extent of the nonattainment area.

Geography / Topography:

Inyo County is the second largest county in California, encompassing over 10,000 square miles of varied terrain (refer to Figure 3). Within its borders lies the highest point in the continental United States, Mount Whitney, towering nearly 14,500 feet above sea level. Less than 100 miles away is Death Valley. Its lowest point, near Badwater, lies 282 feet below sea level. This is not only the lowest point in the 48 contiguous states, but in the entire North American continent. With these extremes in elevation come extremes in temperature and precipitation, both of which can impact air quality.

**FIGURE 3
INYO COUNTY**



Meteorology:

The geographical extremes of Inyo County provide for extremes in weather. The southern portion of the County is a high desert area with a typical desert climate. Summers are hot, while winters are cool. Maximum daily temperatures during the summer months are frequently well over 100 degrees Fahrenheit. What little rainfall does occur, generally falls during the winter months. On average, rainfall in the Death Valley area is less than 2 inches per year.

Information about ozone concentrations in Inyo County are based on data for Death Valley, Bishop, and the Trona air monitoring site, which is just south of the Inyo County line in San Bernardino County. Some additional information is based on back trajectories constructed for a transport assessment.

Similar to Northeast San Bernardino County, Southern Inyo County is rural in nature with few ozone precursor emissions sources. Because the area lacks significant emissions sources capable of generating ozone locally, ozone concentrations measured in Southern Inyo County reflect the impact of long range transport. Based on general wind patterns, Southern Inyo County is downwind of two major emissions source areas: the South Coast Air Basin and the San Joaquin Valley Air Basin.

General wind patterns suggest that ozone is transported into Southern Inyo County from the south to southwest. This transported ozone travels northward, up valleys bounded by tall north-south mountain ranges. The extent of this transport is limited by tall mountains that are transverse to these north-south ranges. These transverse ranges represent the northern extent of transported airflow. When air pollutants reach this point, they disperse vertically upslope, and concentrations are lowered considerably. Although there are several towns, such as Lone Pine and Bishop, that are located north of the recommended Southern Inyo County ozone nonattainment area, there is no evidence that emissions from these areas are transported south, thereby impacting Southern Inyo County.

The extent of airflow into Southern Inyo County is limited by terrain. Similarly, federal hydrologic units are defined by terrain. These water drainage units generally follow the crests of mountain ranges. Hydrologic units are defined in a manner similar to the way air basins are defined, because water drainage is constrained by the same geographic features as airflow. As a result, hydrologic units provide an appropriate basis for defining the extent of ozone transport impacts in Southern Inyo County.

Air Quality Data:

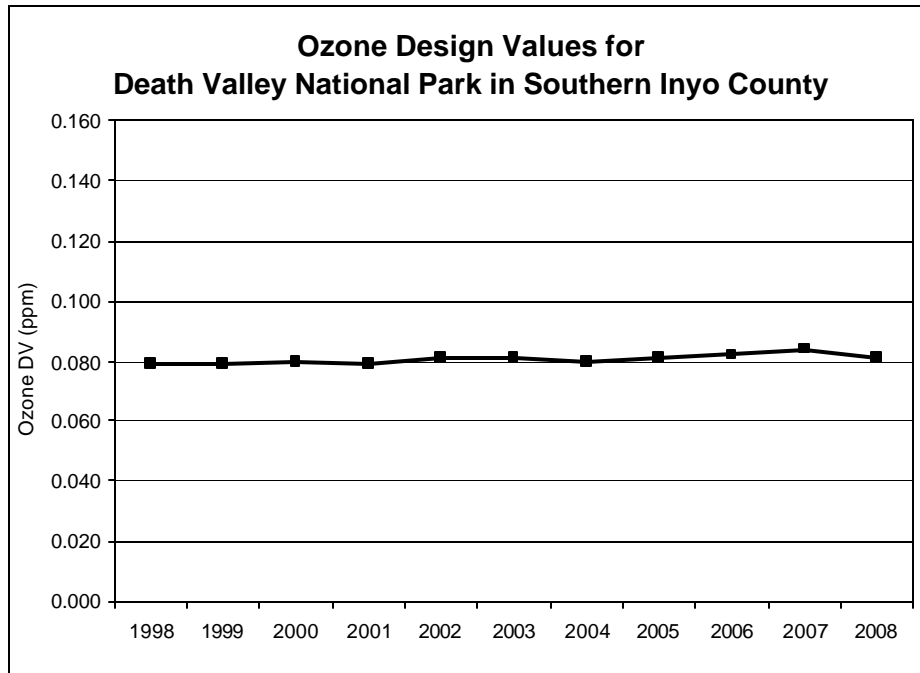
There is only one ozone monitor in Inyo County for which complete, quality assured data are available. This monitor is located within the bounds of Death Valley National Park. The design value based on 2006 through 2008 data is 0.081 parts per million, which exceeds the standard by 8 percent. The design value for Death Valley is similar to that for Trona in San Bernardino County (0.080 ppm) and the China Lake area of Kern County (0.081 ppm). Both of these areas are located near Inyo County's southern boundary, and both are highly impacted by transport, as well.

Figure 4 shows a trend line for design values at Death Valley since 1998. There has been little change in the trend over the years. Similar to the desert areas of

southern California, Southern Inyo County is impacted by transport from the South Coast and southern San Joaquin Valley areas.

Although air quality in these upwind areas has improved over the years, the same degree of improvement has not been seen in downwind areas. However, trends in downwind areas are expected to improve with the implementation of control strategies emphasizing greater NO_x reductions.

FIGURE 4



Population Density and Degree of Urbanization; Growth Rates and Patterns; and Traffic and Commuting Patterns:

While population density is relatively sparse throughout Inyo County, it is even more spread out in the southern portion. The GBUAPCD estimates only 0.22 people per square mile in the recommended Southern Inyo County nonattainment area. Over time, this area has actually seen a decrease in population, from 3,473 people in 1990 to 3,117 people in 2000. This represents an overall decrease of about 10 percent, and the population is not expected to grow significantly in the next several years. Although there are several roadways carrying traffic through Southern Inyo County, emissions related to commutes within the area are not significant because of the low population and scattered nature of development within the area.

Emissions Data and Level of Emission Controls

Emissions in Southern Inyo County are very low in comparison to the upwind South Coast and San Joaquin Valley air basins. As shown in Figure 3, there are only a handful of industrial stationary sources in Southern Inyo County. Emissions from these sources total 181 tons per year of NO_x, and there are no measurable ROG emissions. In addition to stationary sources, there are several highways traversing Inyo County that contribute mobile source emissions.

Overall, countywide emissions for Inyo County total 1,699 tons per year of NO_x and 2,184 tons per year of ROG. Since 1990, there has been a 21 percent reduction in countywide NO_x emissions and a 9 percent reduction in ROG emissions. The statewide strategy will continue to reduce overall emissions in the future. These future emission reductions will place greater emphasis on NO_x reductions. Photochemical modeling shows that a greater emphasis on NO_x reductions will have a greater benefit in terms reducing ozone concentrations in downwind, transport-impacted areas such as Southern Inyo County.

Summary and Recommendation:

Inyo County is one of the largest counties in the nation, and encompasses a variety of landscapes, from high mountain peaks to below sea level deserts. The revised ozone standard is exceeded in the southern portion of the County, which has an extremely low population and lacks significant industrial emissions sources. While the presumptive boundary for the nonattainment area would include all of Inyo County, ARB recommends a smaller nonattainment area because of the diversity of the area's geography and the nature of the ozone impact.

Previous studies suggest that ozone concentrations at the Death Valley site are substantially impacted by transport. Wind flow into the southern portion of the County is generally from the south to southwest, carrying pollutants and emissions from the highly urbanized South Coast and southern San Joaquin Valley air basins into Southern Inyo County. Although Death Valley is the only monitoring site in Southern Inyo County, data are also collected at the Trona site in San Bernardino County and in the China Lake area of Kern County. These sites are close to the southern boundary of Inyo County and suggest that exceedances are likely to occur throughout Southern Inyo County.

The recommended boundary for Southern Inyo County is based on federal hydrologic units. Hydrologic units are based on topography and water drainage, similar in many respects to the way California's air basins are defined. Therefore, it is appropriate to use them in defining the nonattainment area boundary, since mountainous terrain affects the transport and mixing depth of pollution. In addition, hydrologic units have been used in the past, to define ozone designation areas. ARB staff recommends the Southern Inyo County

ozone nonattainment area comprise the Inyo County portions of federal hydrologic units 16060015, 18090202, 18090203, 18090204, and 18090205. These units cover not only the areas exceeding the standard, but also the extent of the region expected to be impacted by transport from the major upwind urban areas.

Eastern San Luis Obispo County

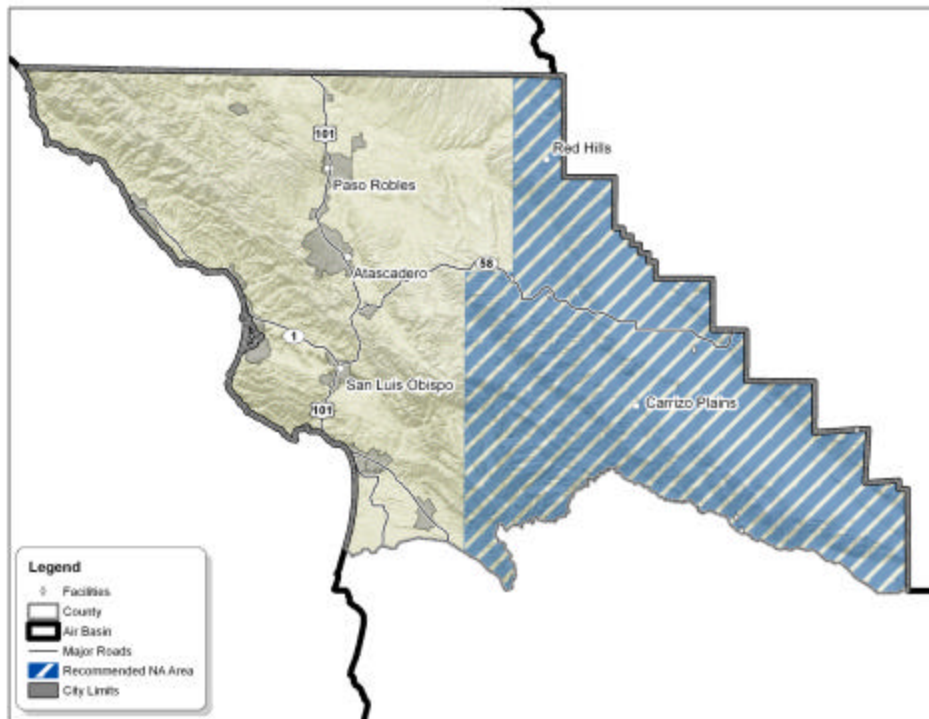
Jurisdictional Boundaries:

San Luis Obispo County is part of California's South Central Coast Air Basin. Air quality control in the County is under the jurisdiction of the San Luis Obispo County Air Pollution Control District (SLOAPCD)

Geography / Topography:

Although San Luis Obispo County is generally considered a coastal area, this generalization applies only to the western portion of the County (refer to Figure 5). This western portion includes the major cities in the County such as San Luis Obispo, Atascadero, and Paso Robles. As one moves inland, the coastal plain gives way to the mountains of the Coast Ranges, interspersed with

**FIGURE 5
SAN LUIS OBISPO COUNTY**



a series of valleys and high plains which range in elevation from about 2000 to more than 5000 feet. These rural, higher elevation areas separate San Luis Obispo County from the San Joaquin Valley. Although Eastern San Luis Obispo County is sparsely populated, there are scattered settlements and public facilities, such as schools. This area also includes Carrizo Plains National Monument, with grinding rocks and rock paintings reflecting the historic Native American population.

Meteorology:

San Luis Obispo County is a meteorologically diverse region. To the west, high summer temperatures average in the low to mid 60s. Toward the middle of the County, high summer temperatures average in the low to high 70s. In contrast to both these areas, Eastern San Luis Obispo County sees high summer temperatures, averaging in the 90s, and the mountains separating the eastern portion of the County from the western portion effectively block the tempering influence of the ocean.

In terms of general wind patterns, Eastern San Luis Obispo is downwind of both the San Joaquin Valley and the San Francisco Bay Area air basins. Previous ARB transport assessments found these areas to have an overwhelming impact on ozone concentrations in San Luis Obispo County.

Air Quality Data:

Ozone data are available for two sites in Eastern San Luis Obispo County: Carrizo Plains and Red Hills. Table 4 includes design values, based on data for 2006 through 2008, for sites in both the eastern and western portions of San Luis Obispo County. Values for the eastern sites are 12 to 17 percent above the level of the standard, whereas values for the western sites attain the standard.

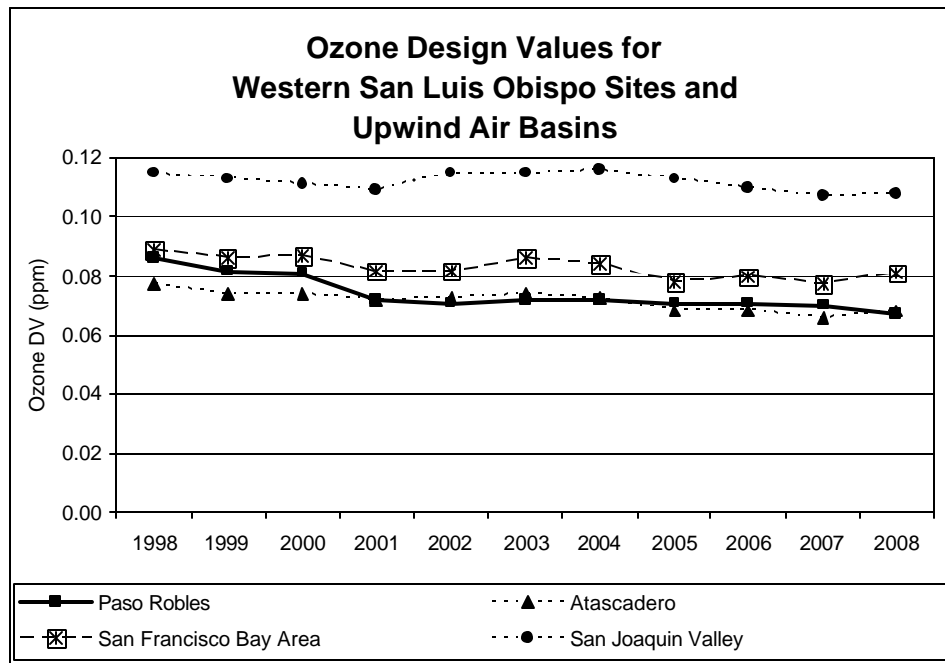
**TABLE 4
8-HOUR OZONE DESIGN VALUES FOR VARIOUS PORTIONS OF
SAN LUIS OBISPO COUNTY BASED ON 2006 THROUGH 2008 DATA**

SITE / COUNTY PORTION	DESIGN VALUE (ppm)	PERCENT ABOVE STANDARD
Carrizo Plains / Eastern San Luis Obispo	0.084	12%
Red Hills / Eastern San Luis Obispo	0.088*	17%
Paso Robles / Western San Luis Obispo	0.068	0%
Atascadero / Western San Luis Obispo	0.068	0%

* Design Value based on 2 years of data (2007-2008).

Because long-term data are not available for either Carrizo Plains or Red Hills, design value trends are not available. However, long-term trends for high sites in the western portion of the County and for the upwind air basins are plotted in Figure 6. The trends for the San Luis Obispo sites, which are also impacted by transport from the San Francisco Bay Area and San Joaquin Valley air basins, track fairly well with the upwind areas and show similar rates of improvement. We expect sites in Eastern San Luis Obispo County would show similar trends.

FIGURE 6



Population Density and Degree of Urbanization; Growth Rates and Patterns; and Traffic and Commuting Patterns:

More than 250,000 people reside in San Luis Obispo County, with the majority living in the western portion of the County. Overall, more than 95 percent of the County's population lives in Western San Luis Obispo County. Those that live in Eastern San Luis Obispo County are scattered throughout the area. Between 1990 and 2000, the total number of people in the eastern portion of the County actually decreased, and the SLOAPCD expects little growth in the area over the next several years. In contrast, the number of people living in the western portion increased by about 15 percent between 1990 and 2000. Emissions related to commutes within the area are not significant because of the low population and scattered nature of development.

Emissions Data and Level of Emission Controls:

Emissions in Eastern San Luis Obispo County are very low. The SLOAPCD estimates a total of 2.2 tons per year of ROG and 4.3 tons per year of NOx in the eastern portion of the County. These amounts are less than 1 percent of the total countywide ROG and NOx emissions. There are limited mobile source emissions from several highways traversing the eastern County area. Emissions from these sources are not expected to significantly impact ozone concentrations in Eastern San Luis Obispo County. Overall, emission sources located throughout San Luis Obispo County are subject to the rules and regulations of the SLOAPCD. In addition, mobile source emissions will continue to be reduced under the statewide strategy.

Summary and Recommendation:

San Luis Obispo County comprises coastal, as well as inland areas. However, the revised ozone standard is violated only at the inland sites, which are high elevation sites located in the rural, eastern portion of the County. This portion of the County is sparsely populated and lacks emissions sources. The design value for the eastern area is 0.084 ppm, measured at Carrizo Plains (Red Hills has a higher value, 0.088 ppm, but this value is based on only two years of data). Sites in Western San Luis Obispo County, as well as in counties to the north and to the south, all attain the standard.

The high elevation sites in Eastern San Luis Obispo County were originally sited to provide information on transport impacts from upwind urban areas. Previous studies have shown that ozone and ozone precursor emissions from the San Joaquin Valley are transported west, impacting Eastern San Luis Obispo County, including the Carrizo Plains and Red Hills sites. Ozone concentrations can also be impacted by transport south from the San Francisco Bay Area. Because violations occur only at elevated sites in the eastern County, ARB recommends limiting the nonattainment area to Eastern San Luis Obispo County, which reflects the extent of the County influenced by transport sufficient to cause violations of the federal standard.

Pinnacles National Monument

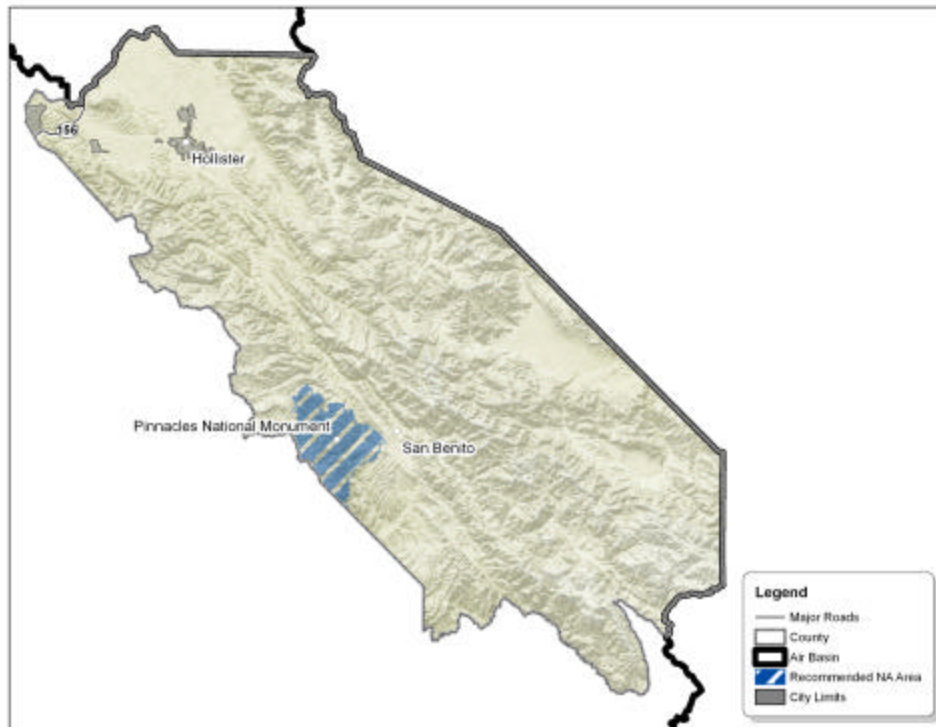
Jurisdictional Boundaries:

Nearly all of Pinnacles National Monument is located in San Benito County, with a small portion in Monterey County. Air quality control throughout San Benito County falls under the jurisdiction of the Monterey Bay Unified Air Pollution Control District (MBUAPCD). All sites within the MBUAPCD region attained the previous 8-hour standard. The monitor at Pinnacles is the only one that violates the revised standard.

Geography / Topography:

Pinnacles National Monument is located in an area of rugged terrain in California's North Central Coast Air Basin (refer to Figure 7). It lies about 40 miles inland from the Pacific Ocean, just east of the Salinas Valley, and about 80 miles south of the San Francisco Bay Area. The monument is in the southern portion of the Gabilan Mountains, which are part of California's Central Coast Range. Elevations within the Monument boundaries range from 824 feet to 3,304 feet at the top of North Chalone Peak. The landscape includes the spectacular remains of an ancient volcano. Massive monoliths, spires, sheer-walled canyons, and talus passages have been created through millions of years of erosion, faulting, and tectonic plate movement. Established in 1908, the Monument has increased by bits and pieces to its present size of about 26,000 acres. It boasts over 30 miles of trails, but has no overnight facilities.

**FIGURE 7
PINNACLES NATIONAL MONUMENT IN SAN BENITO COUNTY**



Meteorology:

Pinnacles National Monument has a Mediterranean climate with hot, dry summers and cool, moderately wet winters. Although the Monument is only 40 miles inland from the Pacific Ocean, the Santa Lucia Mountains to the west

strongly modify the ocean influence before it reaches Pinnacles. As a result, summer temperatures at Pinnacles might range from 50 degrees Fahrenheit at night to 100 degrees during the day, while those near the coast are a fairly steady 60 degrees. Similarly, winter temperatures at Pinnacles often drop below freezing while coastal temperatures remain moderate. Average rainfall at Pinnacles is 16 inches per year, with most of it occurring between January and March. Small amounts of snow fall at the higher elevations between mid-December and January.

Based on general wind patterns, Pinnacles National Monument is downwind of the San Francisco Bay Area, which has significant emissions sources. Pollutants and emissions from the Bay Area are transported aloft, impacting concentrations at high elevations in the Pinnacles area. Previous transport assessments found the transport contribution from the San Francisco Bay Area can have an overwhelming impact on ozone concentrations measured at Pinnacles.

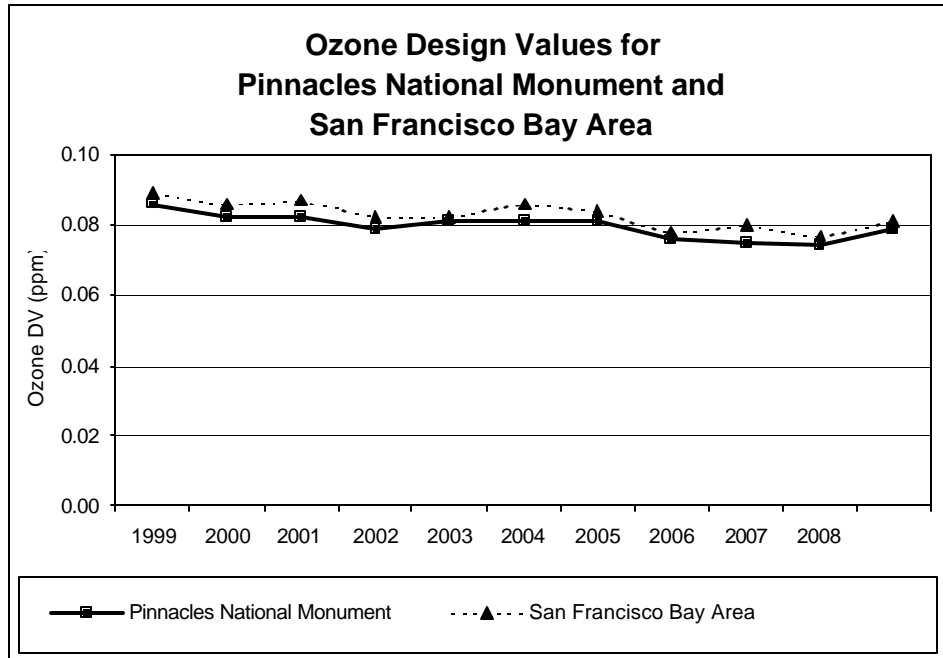
Air Quality Data:

The monitor at Pinnacles National Monument was sited to measure high elevation transport from the San Francisco Bay Area. The location is isolated and remote. Ozone concentrations measured at Pinnacles exceed the revised federal 8-hour ozone standard, with a design value of 0.079 ppm. In contrast, design values for other sites in the surrounding north central coast region are all well below the level of the standard, ranging from 0.052 ppm to 0.069 ppm. All of these sites are located at lower elevations.

The design value trend for Pinnacles is shown in Figure 8. With the exception of 2008, the design value for Pinnacles has shown an overall downward trend since 1998. In fact, the 2006 and 2007 design values for this site (0.075 ppm and 0.074 ppm, respectively) show attainment. The higher value for 2008 likely reflects the impact of wildfires that burned throughout the State during the summer of 2008. If the impacted days were removed from consideration, the 2008 design value would be more consistent with values for previous years. However, the area would still be nonattainment.

The trend for Pinnacles closely follows the trend for the San Francisco Bay Area, although at a slightly lower level. Previous transport study indicates that exceedances measured at Pinnacles are overwhelmingly impacted by transport aloft from the Bay Area. Although the San Francisco Bay Area does not yet attain the standard, design values for Bay Area sites have decreased at a rate similar to those for Pinnacles. As emissions in the San Francisco Bay Area continue to decrease, ozone concentrations in downwind areas such as Pinnacles will also continue to improve.

FIGURE 8



Population Density and Degree of Urbanization; Growth Rates and Patterns; and Traffic and Commuting Patterns:

There is no permanent population living at Pinnacles National Monument, and there are no overnight accommodations for those visiting the monument. Because there are no roads travelling through the Monument, traffic is limited to those visiting the Monument for day use.

Emissions Data and Level of Emission Controls

With the exception of the few roads, there are no significant emissions sources located within Pinnacles National Monument. As a result, the area lacks emissions for locally generating ozone. Previous analyses indicate that ozone concentrations measured at the Pinnacles monitor are attributable to the transport of pollutants and emissions from the San Francisco Bay Area. Ozone concentrations at Pinnacles should continue to decrease, with continued implementation of upwind district controls and the statewide strategy.

Summary and Recommendation:

The Pinnacles monitor is an elevated site (1000 feet) located in an area of complex terrain within the boundaries of Pinnacles National Monument. With the exception of a few roads, there are no local ozone precursor emissions sources. In addition, there are no permanent residents, and overnight stays are not allowed within the Monument boundaries. Ozone exceedances in the North Central Coast Air Basin are measured only at Pinnacles. All other sites in the surrounding areas attain the standard, with design values ranging from 0.052 to 0.069 ppm in the surrounding three-county area (Monterey, Santa Cruz, and San Benito counties). Furthermore, the violations at Pinnacles are attributable to transport from the San Francisco Bay Area, which will continue to be designated as nonattainment.

ARB recommends a focussed nonattainment area, limited to that portion of Pinnacles National Monument located within San Benito County. Using the Monument boundary provides an easily identifiable nonattainment area, and it adequately reflects the region impacted by the upwind urban area.

Tuscan Buttes

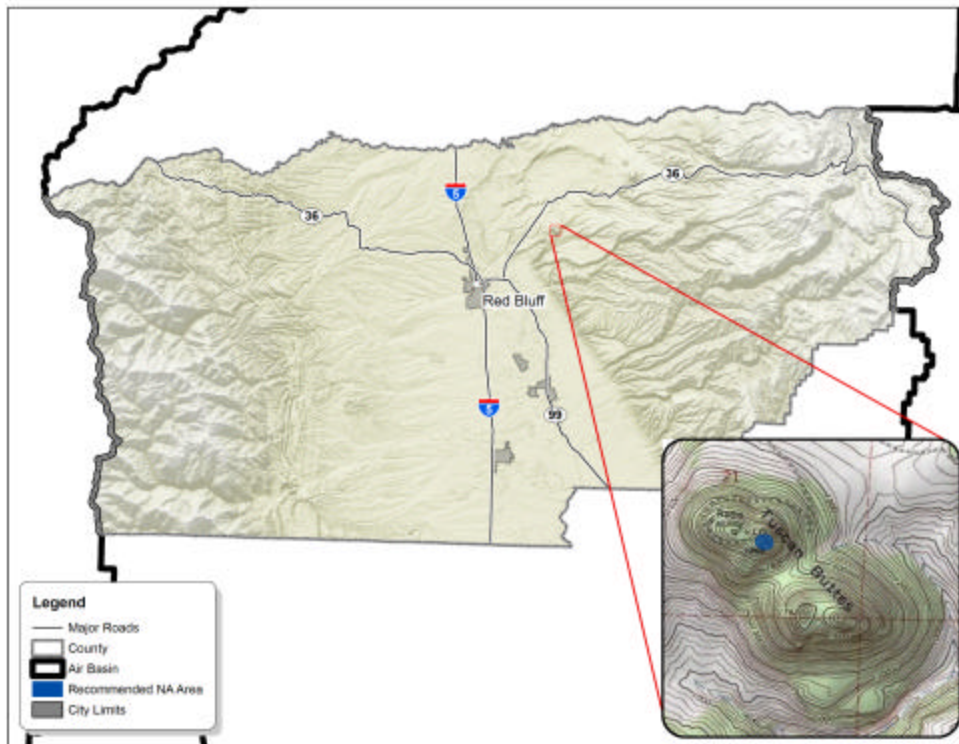
Jurisdictional Boundaries:

Tuscan Buttes is located in eastern Tehama County in the northern Sacramento Valley. All of Tehama County is under the jurisdiction of the Tehama County Air Pollution Control District.

Geography / Topography:

As shown in Figure 9, Tuscan Buttes is an isolated, elevated area in the Upper Sacramento Valley, where the majority of the land is near sea level. Located about 10 miles northeast of Red Bluff, Tuscan Buttes is a narrow, small ridge on the eastern side of the Valley. The area at the top of the Buttes stands above 1800 feet elevation.

FIGURE 9
TUSCAN BUTTES IN TEHAMA COUNTY



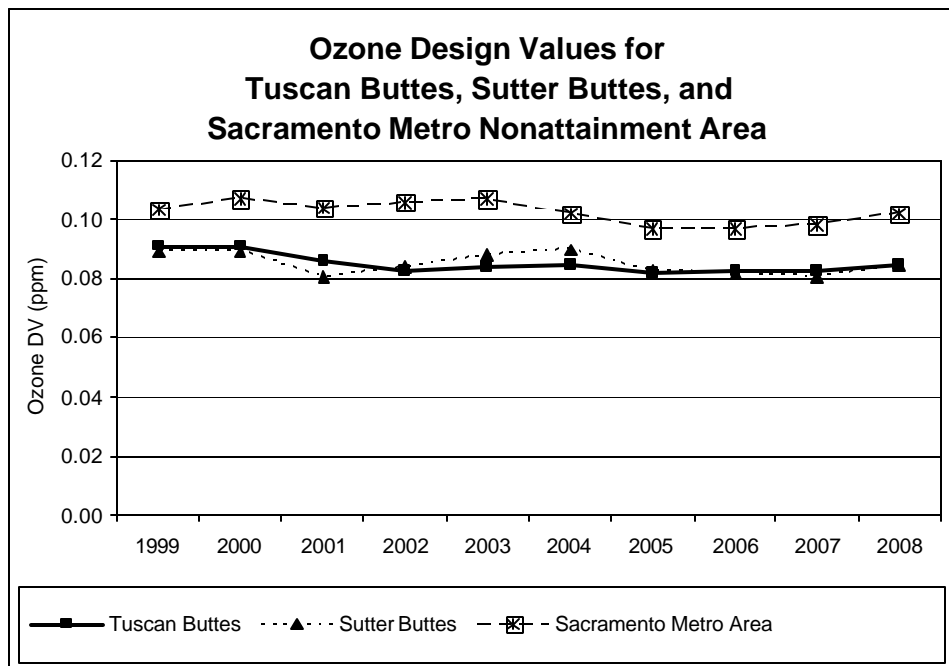
Meteorology:

Tuscan Buttes exhibits the typical climate pattern of the Sacramento Valley, with hot, dry summers and cooler, wetter winters. In terms of air quality, the Buttes are impacted by transport from the Sacramento urban area. Based on general wind patterns, this area is downwind of significant emissions sources within the Sacramento Metro Area. Previous transport assessments found that the transport contribution from the Sacramento Metro Area to the Upper Sacramento Valley can be overwhelming. Because there are no local population or emissions sources, ozone concentrations measured at Tuscan Buttes are attributable to transport.

Air Quality Data:

Figure 10 shows the design value trends for Tuscan Buttes, as well as for the upwind Sacramento Metro Area. The graph also shows the trend line for Sutter Buttes, another high elevation, transport dominated site in the Upper Sacramento Valley. The trends for both Tuscan Buttes and Sutter Buttes are nearly identical. Both track well with the trend for the Sacramento Metro Area, illustrating the importance of transport at the two locations.

FIGURE 10



Although all three areas show general improvement over the years, the values for 2008 are slightly higher than for previous years. These higher values likely reflect the impact of wildfires that burned throughout California during the summer of 2008. If the fire-impacted days were removed, the design values for 2008 would be lower, but the areas would still be nonattainment.

Because there is no population in either the Tuscan Buttes or Sutter Buttes areas, ozone concentrations measured at these sites do not represent population exposure. In contrast to these sites, design values for surrounding sites that are located in populated areas, such as the Red Bluff site in Tehama County and sites in the populated areas of Colusa, Glenn, and northern Sutter counties, show attainment of the revised standard.

Population Density and Degree of Urbanization; Growth Rates and Patterns; and Traffic and Commuting Patterns:

There is no population living at Tuscan Buttes or in the surrounding local area. This is not expected to change in the next several years. Access to the area is limited, and traffic-related emissions are insignificant.

Emissions Data and Level of Emission Controls

There are virtually no ozone precursor emissions sources in the Tuscan Buttes area. The only development on the Buttes is a radio facility and a fire lookout.

Access to these facilities is very limited. The site is dominated by transport from the Sacramento Metro area, and attainment will depend on upwind district controls and the statewide strategy.

Summary and Recommendation:

There are two monitors in Tehama County. The first site, Red Bluff-Oak Street, is located in the town of Red Bluff at an elevation of 322 feet. The design value for this site reflects population exposures and meets the revised standard. In contrast, the design value for the Tuscan Buttes site violates the standard. There are no population or emissions in the Tuscan Buttes area. Ozone concentrations measured at the site are dominated by transport from the Sacramento Metro Area.

Located at an elevation of 1,877 feet, the Tuscan Buttes monitor is similar to the Sutter Buttes monitor in Sutter County. Both of these monitors were sited to study high-elevation transport of pollutants from the Sacramento Metro Area into the Upper Sacramento Valley. There are no pollution sources or populated areas near either site. In both cases, design values for lower elevation sites in the surrounding populated areas all attain the standard, lending additional support to the argument that the ozone problems at the elevated sites are unique and isolated.

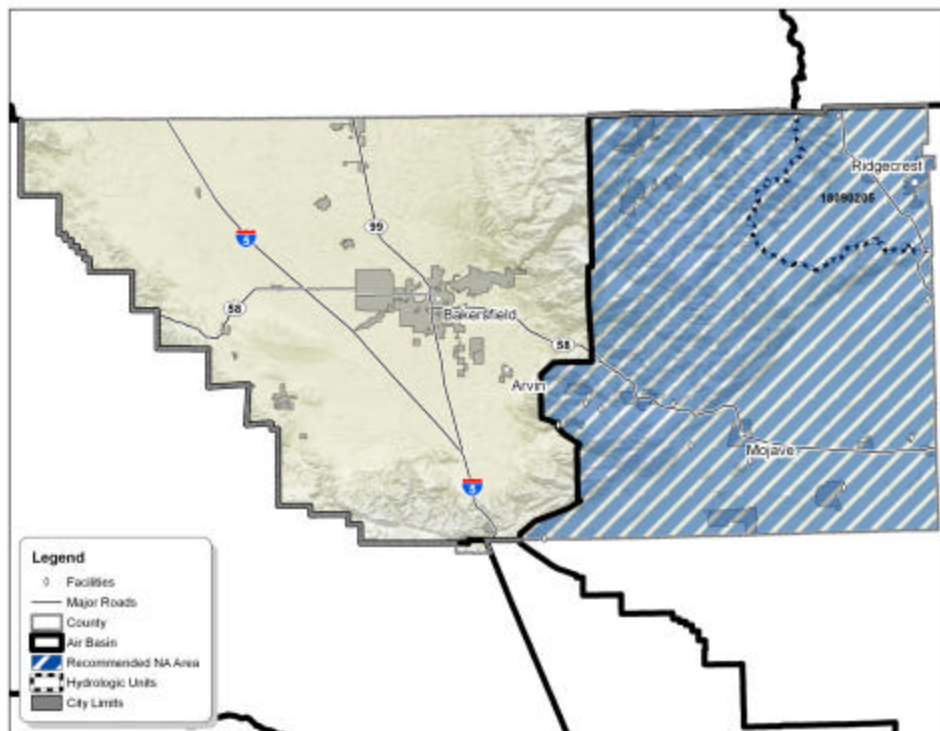
Sutter Buttes is currently designated as nonattainment, and the nonattainment area includes the immediate area above 2000 feet elevation. Because of the elevated location and lack of population exposure at the Tuscan Buttes site, ARB recommends the geographic scope of this nonattainment area be limited to that portion of the Tuscan Buttes area with an elevation of 1800 feet or more. This approach is consistent with the approach U.S. EPA used in designating the Sutter Buttes ozone nonattainment area.

Eastern Kern County

Jurisdictional Boundaries:

Kern County is located in two different air basins. The western portion of the County is located in the San Joaquin Valley Air Basin, while the eastern portion is located in the Mojave Desert Air Basin (refer to Figure 11). The eastern portion of the County falls under the jurisdiction of the Kern County Air Pollution Control District. Currently, the northeast corner of Eastern Kern County, which coincides with the Kern County portion of federal hydrologic unit #18090205, is designated as attainment for the old federal 8-hour standard. In contrast, the remainder of Eastern Kern County is designated as nonattainment.

FIGURE 11
EASTERN KERN COUNTY



Geography / Topography:

Eastern Kern County occupies the northwestern portion of the Mojave Desert, as well as portions of the Tehachapi Mountains and the southern end of the Sierra Nevada. The ozone monitors in Eastern Kern County are located in the desert portions of the region, which are classified as high desert. Elevations in this area range from about 2000 to 5000 feet above sea level.

Meteorology:

Violations of the revised ozone standard are measured at two sites in the desert portion of Eastern Kern County. This desert region has a typical desert climate, with hot dry summers and cool winters with little rainfall. In the southern part of Eastern Kern County, maximum summer temperatures average 94 degrees Fahrenheit, and rainfall averages 6 inches per year. Values in the northeast corner (Indian Wells Valley area) are a little higher, with maximum summer temperatures averaging 100 degrees and rainfall averaging 7 inches each year.

Based on general wind patterns, Eastern Kern County is downwind of two major urban source areas: the South Coast Air Basin and the San Joaquin Valley Air Basin. As a result, ozone concentrations throughout Eastern Kern County are

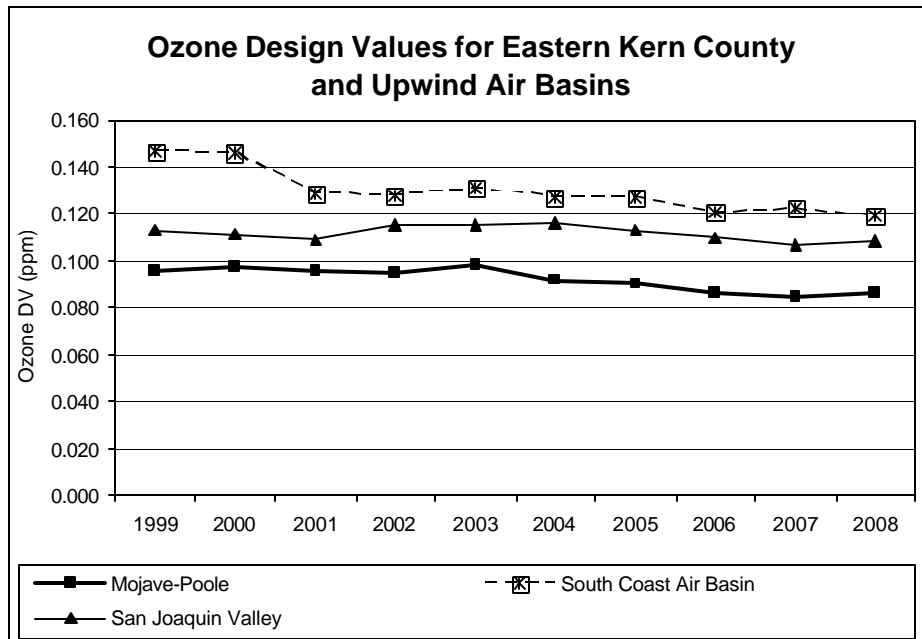
impacted by long range transport from these areas. Previous transport assessments show that ozone concentrations in Eastern Kern County can be overwhelmed by transport from the upwind areas.

Air Quality Data:

Ozone data are available for a site at the China Lake Naval Air Weapons Station in the Indian Wells Valley and a site at Mojave-Poole Street in the current nonattainment area. The design value for China Lake is 0.081 ppm, while the design value for Mojave is 0.086 ppm. Both of these values violate the revised standard.

As mentioned previously, ozone air quality in Eastern Kern County is significantly impacted by transport from both the San Joaquin Valley and the South Coast air basins. Figure 12 shows the trend in design values for Mojave, as well as for the San Joaquin Valley and South Coast Air Basin (long-term trend data are not available for the China Lake site). The trends show that although the design value for Mojave is lower, it tracks well with the South Coast and San Joaquin Valley trends. Because of the overwhelming transport impact, ozone air quality in Mojave has decreased at a rate similar to that in the upwind areas. Although China Lake is not included on the graph, this site is also impacted by transport, and we would expect the trend to be similar to that for Mojave, but at a lower level, overall.

FIGURE 12



Population Density and Degree of Urbanization; Growth Rates and Patterns; and Traffic and Commuting Patterns:

Several towns are scattered throughout Eastern Kern County. The largest one in the Indian Wells Valley area is Ridgecrest. This town grew up around the China Lake Naval Air Weapons Center. Overall, population in all of Eastern Kern County is small, compared with that in the South Coast and San Joaquin Valley areas. The total Eastern Kern County population in 2005 was about 132,000. The increase in population has also been small, increasing only 13 percent between 1995 and 2005. Because of the limited population, overall local, traffic-related emissions are not expected to be significant.

Emissions Data and Level of Emission Controls

Relative to the South Coast and San Joaquin Valley air basins, ozone precursor emissions in Eastern Kern County are insignificant. There are only a handful of stationary sources (refer to Figure 11), and nearly all of these are located in the portion of Eastern Kern County that is already designated as nonattainment. In addition to these stationary sources, several highways traverse the region, carrying traffic in and out of the Eastern Kern County area. Because of the sparse population and limited emissions sources, attainment in Eastern Kern County is dependent on emissions reductions in the upwind districts and from the statewide strategy.

Summary and Recommendation:

Indian Wells Valley is a high desert area in the northeast corner of Kern County. It includes the China Lake Naval Air Weapons Station and the town of Ridgecrest. Similar to the rest of Eastern Kern County, Indian Wells Valley is sparsely populated and has few significant emissions sources. The design value for Indian Wells Valley (0.081 ppm) is similar to the design value for the current Eastern Kern County nonattainment area (0.086 ppm). Furthermore, previous studies have shown that ozone concentrations in both of these areas are overwhelmingly impacted by transport from the San Joaquin Valley and South Coast air basins.

Because both areas are similar in terms of air quality, population, emissions, and transport impacts, ARB recommends the current Eastern Kern County nonattainment area be expanded to include the Indian Wells Valley area. As a result, the entire portion of Kern County within the Mojave Desert Air Basin would be included in the Eastern Kern County ozone nonattainment area.

ENCLOSURE 4

**STATE OF CALIFORNIA BOUNDARY RECOMMENDATIONS
FOR NEW NONATTAINMENT AREAS
UNDER THE 2008 FEDERAL 8-HOUR OZONE STANDARD**

NORTHEAST SAN BERNARDINO COUNTY

That portion of San Bernardino County that lies north and east of a line described as follows: latitude 35 degrees, 10 minutes north and longitude 115 degrees, 45 minutes west.

SOUTHERN INYO COUNTY

That portion of Inyo County that lies within the bounds of Hydrologic Unit Number 16060015, 18090202, 18090203, 18090204, and 18090205.

EASTERN SAN LUIS OBISPO COUNTY

That portion of San Luis Obispo County that lies east of a line described as follows: Beginning at the San Luis Obispo County / Santa Barbara County boundary and running north along 120 degrees 24 minutes longitude to the intersection with 35 degrees 27 minutes latitude; east along 35 degrees 27 minutes latitude to the intersection with 120 degrees 18 minutes longitude; then north along 120 degrees 18 minutes longitude to the San Luis Obispo County / Monterey County boundary.

PINNACLES NATIONAL MONUMENT (SAN BENITO COUNTY)

That portion of San Benito County that lies within the boundary of Pinnacles National Monument as it existed on February 26, 2009.

TUSCAN BUTTES (TEHAMA COUNTY)

That portion of the immediate Tuscan Buttes area at or above 1,800 feet in elevation.

EASTERN KERN COUNTY

That portion of Kern County that lies east and south of a line described as follows: Beginning at the Kern County / Los Angeles County boundary and running north and east along the northwest boundary of the Rancho La Liebre Land Grant to the point of intersection with the range line common to Range 16 West and Range 17 West, San Bernardino Base and Meridian; north along the range line to the point of intersection with the Rancho El Tejon Land Grant boundary; then southeast, northeast, and northwest along the boundary of the Rancho El Tejon Grant to the northwest corner of Section 3, Township 11 North, Range 17 West; then west 1.2 miles; then north to the Rancho El Tejon Land Grant boundary; then northwest along the Rancho El Tejon line to the southeast corner of Section 34, Township 32 South, Range 30 East, Mount Diablo Base and Meridian; then north to the northwest corner of Section 35, Township 31 South, Range 30 East; then northeast along the boundary of the Rancho El Tejon Land Grant to the southwest corner of Section 18, Township 31 South, Range 31 East; then east to the southeast corner of Section 13, Township 31 South, Range 31 East; then north along the range line common to Range 31 East and Range 32 East, Mount Diablo Base and Meridian, to the northwest corner of Section 6, Township 29 South, Range 32 East; then east to the southwest corner of Section 31, Township 28 South, Range 32 East; then north along the range line common to Range 31 East and Range 32 East to the northwest corner of Section 6, Township 28 South, Range 32 East, then west to the southeast corner of Section 36, Township 27 South, Range 31 East, then north along the range line common to Range 31 East and Range 32 East to the Kern County / Tulare County boundary.

ENCLOSURE 5
SUMMARY OF DATA AND FEDERAL 8-HOUR OZONE DESIGN VALUES
FOR CALIFORNIA SITES BASED ON 2006 THROUGH 2008 DATA

Basin Name	County Name	Site Name	Statistic	Year			2008* Design Value	
				2006	2007	2008*		
Great Basin Valleys	Inyo	Death Valley Natl Monument	4 th High	0.082	0.085	0.077	0.081	
			Valid Days	347	351	320		
	Alpine	NO MONITORS						
	Mono	NO MONITORS						
Lake County	Lake	Lakeport-Lakeport Blvd	4 th High	0.062	0.057	0.068	0.062	
			Valid Days	360	354	328		
Lake Tahoe	El Dorado	South Lake Tahoe-Airport Road	4 th High	0.069	0.070	0.072	0.070	
			Valid Days	160	169	151		
	Placer	NO MONITORS						
Mojave Desert	Kern	Mojave-923 Poole Street	4 th High	0.089	0.078	0.093	0.086	
			Valid Days	357	358	188		
	Los Angeles	Lancaster-43301 Division Street	4 th High	0.098	0.091	0.095	0.094	
			Valid Days	363	357	360		
	Riverside	Blythe-445 West Murphy Street	4 th High	0.057	0.066	0.067	0.063	
			Valid Days	361	284	237		
	San Bernardino	Barstow		4 th High	0.086	0.084	0.090	0.086
				Valid Days	344	356	364	
		Hesperia-Olive Street		4 th High	0.095	0.098	0.098	0.097
				Valid Days	358	356	362	
		Joshua Tree-National Monument		4 th High	0.103	0.104	0.105	0.104
				Valid Days	348	342	322	
		Phelan-Beekley Rd & Phelan Rd'		4 th High	0.097	0.093	0.099	0.096
				Valid Days	363	356	365	
Trona-Athol and Telegraph		4 th High	0.080	0.077	0.084	0.080		
		Valid Days	360	351	339			
Victorville-14306 Park Avenue		4 th High	0.091	0.087	0.089	0.089		
		Valid Days	363	362	359			
Mountain Counties	Amador	Jackson-Clinton Road	4 th High	0.085	0.073	0.101	0.086	
			Valid Days	363	344	265		
	Calaveras	San Andreas-Gold Strike Road	4 th High	0.098	0.076	0.094	0.089	
			Valid Days	364	356	267		
	El Dorado	Cool-Highway 193	4 th High	0.099	0.093	0.102	0.098	
			Valid Days	183	181	150		
		Echo Summit		4 th High	0.075	0.075	0.078	0.076
				Valid Days	148	135	135	
	Placerville-Gold Nugget Way		4 th High	0.097	0.085	0.106	0.096	
			Valid Days	363	333	272		
Mariposa	Jerseydale - 6440 Jerseydale	4 th High	0.080	0.083	0.089	0.084		
		Valid Days	175	181	183			

Basin Name	County Name	Site Name	Statistic	Year			2008* Design Value	
				2006	2007	2008*		
Mountain Counties (continued)	Mariposa (continued)	Yosemite NP-Turtleback Dome	4 th High	0.084	0.087	0.094	0.088	
			Valid Days	292	334	317		
	Nevada	Grass Valley-Litton Building	4 th High	0.096	0.088	0.091	0.091	
			Valid Days	328	365	247		
		Truckee-Fire Station	4 th High	0.076	0.071	0.066	0.071	
			Valid Days	225	281	265		
		White Cloud Mountain	4 th High	0.089	0.082	0.091	0.087	
			Valid Days	162	182	153		
	Placer	Colfax-City Hall	4 th High	0.105	0.079	0.084	0.089	
			Valid Days	346	356	338		
	Plumas	Quincy-N Church Street	4 th High	0.064			0.064	
			Valid Days	229				
	Tuolumne	Sonora-Barretta Street	4 th High	0.079	0.084	0.098	0.087	
			Valid Days	365	360	271		
Sierra	NO MONITORS							
North Central Coast	Monterey	Carmel Valley-Ford Road	4 th High	0.060	0.059	0.060	0.059	
			Valid Days	364	365	332		
		King City-415 Pearl Street	4 th High		0.054	0.06	0.057	
			Valid Days		215	304		
		King City-750 Metz Road	4 th High	0.063	0.054		0.058	
			Valid Days	360	134			
	Salinas-#3	4 th High	0.054	0.053	0.060	0.055		
		Valid Days	358	354	322			
		San Benito	Hollister-Fairview Road	4 th High	0.071	0.068	0.068	0.069
				Valid Days	359	352	329	
	Pinnacles National Monument	4 th High	0.078	0.075	0.086	0.079		
		Valid Days	355	361	324			
	Santa Cruz	Davenport	4 th High	0.052	0.049	0.056	0.052	
			Valid Days	364	362	322		
		Santa Cruz-2544 Soquel Ave	4 th High	0.054	0.053	0.057	0.054	
			Valid Days	358	358	329		
		Scotts Valley-Scotts Valley Dr	4 th High	0.062	0.059	0.064	0.061	
			Valid Days	361	361	332		
Watsonville-Airport Boulevard		4 th High	0.054	0.054	0.058	0.055		
		Valid Days	363	364	334			
North Coast	Humboldt	Eureka-Jacobs	4 th High		0.046	0.049	0.047	
			Valid Days	17	308	347		
	Mendocino	Ukiah- E Gobbi Street	4 th High	0.060	0.053	0.061	0.058	
			Valid Days	356	352	302		
		Willits-899 S Main Street	4 th High	0.049	0.046	0.045	0.046	
			Valid Days	351	358	149		

Basin Name	County Name	Site Name	Statistic	Year			2008* Design Value	
				2006	2007	2008*		
North Coast (continued)	Sonoma	Healdsburg-Municipal Airport	4 th High	0.056	0.060	0.055	0.057	
			Valid Days	338	341	271		
	Del Norte	NO MONITORS						
	Trinity	NO MONITORS						
Northeast Plateau	Siskiyou	Yreka-Foothill Drive	4 th High	0.067	0.060	0.058	0.061	
			Valid Days	318	332	264		
	Lassen	NO MONITORS						
	Modoc	NO MONITORS						
Sacramento Valley	Butte	Chico-Manzanita Avenue	4 th High	0.076	0.074	0.080	0.076	
			Valid Days	360	363	262		
		Paradise-4405 Airport Road	4 th High	0.089	0.083	0.084	0.085	
			Valid Days	361	364	269		
	Colusa	Colusa-Sunrise Blvd	4 th High	0.069	0.066	0.072	0.069	
			Valid Days	357	361	269		
	Glenn	Willows-720 N Colusa Street	4 th High	0.059	0.069	0.067	0.065	
			Valid Days	106	361	271		
		Willows-E Laurel Street	4 th High	0.063			0.063	
			Valid Days	252				
	Placer	Auburn-Dewitt-C Avenue	4 th High	0.098	0.079	0.095	0.090	
			Valid Days	330	347	351		
		Roseville-N Sunrise Blvd	4 th High	0.094	0.082	0.094	0.090	
			Valid Days	363	350	271		
	Sacramento	Elk Grove-Bruceville Road	4 th High	0.087	0.078	0.082	0.082	
			Valid Days	357	359	330		
		Folsom-Natoma Street	4 th High	0.102	0.090	0.114	0.102	
			Valid Days	358	354	327		
		North Highlands-Blackfoot Way	4 th High	0.092	0.071	0.072	0.078	
			Valid Days	356	341	245		
		Sacramento	Sacramento-3801 Airport Road	4 th High	0.077	0.077	0.080	0.078
				Valid Days	311	299	201	
			Sacramento-Del Paso Manor	4 th High	0.093	0.081	0.087	0.087
				Valid Days	349	362	323	
		Sacramento-T Street	4 th High	0.084	0.073	0.081	0.079	
			Valid Days	351	342	292		
	Sloughhouse	4 th High	0.104	0.080	0.102	0.095		
		Valid Days	214	208	212			
	Shasta	Anderson-North Street	4 th High	0.073	0.075	0.081	0.076	
			Valid Days	327	365	274		
Lassen Vol NP-Manzanita Lk		4 th High	0.074	0.076	0.083	0.077		
		Valid Days	353	362	316			
Redding-Health Dept Roof		4 th High	0.080	0.070	0.077	0.075		
		Valid Days	357	365	338			

Basin Name	County Name	Site Name	Statistic	Year			2008* Design Value
				2006	2007	2008*	
Sacramento Valley (continued)	Solano	Vacaville-Ulatis Drive	4 th High	0.080	0.071	0.084	0.078
			Valid Days	358	365	354	
	Sutter	Sutter Buttes-S Butte	4 th High	0.090	0.077	0.088	0.085
			Valid Days	184	183	153	
		Yuba City-Almond Street	4 th High	0.078	0.072	0.068	0.072
			Valid Days	352	343	264	
	Tehama	Red Bluff-Oak Street	4 th High	0.073	0.072	0.080	0.075
			Valid Days	330	357	319	
		Tuscan Butte	4 th High	0.087	0.082	0.087	0.085
			Valid Days	183	184	146	
	Yolo	Davis-UCD Campus	4 th High	0.078	0.075	0.077	0.076
			Valid Days	358	359	258	
		Woodland-Gibson Road	4 th High	0.088	0.073	0.076	0.079
			Valid Days	365	363	356	
	Yuba	NO MONITORS					
	Salton Sea	Imperial	Brawley -220 Main Street	4 th High	0.043	0.067	0.057
Valid Days				91	89	14	
Calexico-East			4 th High	0.078	0.083	0.078	0.079
			Valid Days	352	325	341	
Calexico-Ethel Street			4 th High	0.068	0.087	0.087	0.080
			Valid Days	362	353	363	
Calexico-Grant Street			4 th High	0.065	0.071		0.068
			Valid Days	356	205		
El Centro-9th Street			4 th High	0.091	0.083	0.074	0.082
			Valid Days	331	349	362	
Niland-English Road			4 th High	0.072	0.078	0.075	0.075
			Valid Days	354	355	362	
Westmorland-W 1st Street			4 th High	0.086	0.085	0.077	0.082
			Valid Days	355	353	360	
Riverside		Indio-Jackson Street	4 th High	0.085	0.087	0.088	0.086
			Valid Days	361	360	237	
	Joshua Tree National Park	4 th High	0.079	0.076	0.084	0.079	
		Valid Days	270	281	129		
	Palm Springs-Fire Station	4 th High	0.099	0.097	0.096	0.097	
		Valid Days	354	360	241		
San Diego	San Diego	Alpine-Victoria Drive	4 th High	0.094	0.086	0.098	0.092
			Valid Days	357	358	301	
		Camp Pendleton	4 th High	0.072	0.071	0.070	0.071
			Valid Days	355	349	300	
		Chula Vista	4 th High	0.065	0.070	0.074	0.069
			Valid Days	357	351	299	
		Del Mar-Mira Costa College	4 th High	0.067	0.072	0.075	0.071
			Valid Days	364	362	305	

Basin Name	County Name	Site Name	Statistic	Year			2008* Design Value		
				2006	2007	2008*			
San Diego (continued)	San Diego (continued)	El Cajon-Redwood Avenue	4 th High	0.076	0.073	0.082	0.077		
			Valid Days	349	332	297			
		Escondido-E Valley Parkway	4 th High	0.078	0.075	0.089	0.080		
			Valid Days	352	355	291			
		Otay Mesa-Paseo International	4 th High	0.061	0.064	0.066	0.063		
			Valid Days	359	357	273			
		San Diego-1110 Beardsley St	4 th High	0.061	0.060	0.063	0.061		
			Valid Days	362	330	291			
		San Diego-Overland Avenue	4 th High	0.07	0.073	0.082	0.075		
			Valid Days	354	357	296			
		San Francisco Bay Area	Alameda	Berkeley-6th Street	4 th High		0.029	0.045	0.037
					Valid Days		23	269	
Fremont-Chapel Way	4 th High			0.069	0.055	0.061	0.061		
	Valid Days			358	352	271			
Hayward-La Mesa	4 th High			0.067	0.055	0.068	0.063		
	Valid Days			244	242	182			
Livermore-793 Rincon Avenue	4 th High			0.089	0.067	0.087	0.081		
	Valid Days			361	361	270			
Oakland-Davie	4 th High				0.034	0.057	0.045		
	Valid Days				60	268			
San Leandro-County Hospital	4 th High			0.06	0.052	0.067	0.059		
	Valid Days			243	243	175			
Contra Costa	Bethel Island Road		4 th High	0.081	0.071	0.076	0.076		
			Valid Days	358	360	271			
	Concord-2975 Treat Blvd		4 th High	0.085	0.071	0.078	0.078		
			Valid Days	360	360	270			
	Pittsburg-10th Street		4 th High	0.079	0.067	0.067	0.071		
			Valid Days	357	356	271			
	San Pablo-Rumrill Blvd		4 th High	0.045	0.049	0.057	0.050		
			Valid Days	353	356	265			
Marin	San Rafael		4 th High	0.047	0.048	0.055	0.050		
			Valid Days	353	356	266			
Napa	Napa-Jefferson Avenue		4 th High	0.064	0.055	0.067	0.062		
			Valid Days	361	355	269			
San Francisco	San Francisco-Arkansas Street		4 th High	0.044	0.047	0.049	0.046		
			Valid Days	347	354	266			
San Mateo	Redwood City		4 th High	0.051	0.052	0.058	0.053		
			Valid Days	354	357	266			
Santa Clara	Gilroy-9th Street		4 th High	0.08	0.068	0.072	0.073		
			Valid Days	229	240	183			
	Los Gatos		4 th High	0.085	0.059	0.074	0.072		
			Valid Days	363	363	273			
	San Jose-Jackson Street		4 th High	0.073	0.057	0.067	0.065		
			Valid Days	329	352	269			

Basin Name	County Name	Site Name	Statistic	Year			2008* Design Value
				2006	2007	2008*	
San Francisco Bay Area (continued)	Santa Clara (continued)	San Martin-Murphy Avenue	4 th High	0.088	0.070	0.071	0.076
			Valid Days	238	239	182	
		Sunnyvale-910 Ticonderoga	4 th High	0.064	0.054	0.063	0.060
			Valid Days	243	243	183	
	Solano	Benicia-East 2nd Street	4 th High		0.063	0.075	0.069
			Valid Days		270	266	
		Fairfield-Chadbourne Road	4 th High	0.074	0.062	0.068	0.068
			Valid Days	242	241	183	
		Vallejo-304 Tuolumne Street	4 th High	0.06	0.054	0.067	0.060
			Valid Days	346	354	267	
	Sonoma	Santa Rosa-5th Street	4 th High	0.049	0.047	0.059	0.051
			Valid Days	362	357	269	
San Joaquin Valley	Fresno	Clovis-N Villa Avenue	4 th High	0.094	0.092	0.108	0.098
			Valid Days	357	341	269	
		Fresno-1st Street	4 th High	0.101	0.094	0.108	0.101
			Valid Days	362	360	265	
		Fresno-Drummond Street	4 th High	0.085	0.079	0.093	0.085
			Valid Days	359	357	241	
		Fresno-Sierra Skypark #2	4 th High	0.097	0.088	0.101	0.095
			Valid Days	355	359	262	
		Parlier	4 th High	0.099	0.090	0.094	0.094
			Valid Days	339	356	231	
	Kern	Arvin-Bear Mountain Blvd	4 th High	0.111	0.102	0.112	0.108
			Valid Days	350	353	292	
		Bakersfield-5558 California Ave	4 th High	0.107	0.085	0.101	0.097
			Valid Days	348	361	298	
		Bakersfield-Golden State Hwy	4 th High	0.091	0.08	0.094	0.088
			Valid Days	362	358	209	
		Edison	4 th High	0.108	0.093	0.107	0.102
			Valid Days	361	361	301	
		Maricopa-Stanislaus Street	4 th High	0.09	0.086	0.084	0.086
			Valid Days	351	291	265	
		Oildale-3311 Manor Street	4 th High	0.100	0.090	0.104	0.098
			Valid Days	354	357	303	
		Shafter-Walker Street	4 th High	0.093	0.083	0.093	0.089
			Valid Days	361	353	303	
	Kings	Hanford-S Irwin Street	4 th High	0.086	0.080		0.083
			Valid Days	339	297		
	Madera	Madera-Pump Yard	4 th High	0.081	0.077	0.091	0.083
			Valid Days	363	360	250	
	Merced	Merced-S Coffee Avenue	4 th High	0.086	0.087	0.105	0.092
			Valid Days	167	363	256	
	San Joaquin	Stockton-Hazelton Street	4 th High	0.083	0.075	0.077	0.078
			Valid Days	362	361	267	

Basin Name	County Name	Site Name	Statistic	Year			2008* Design Value
				2006	2007	2008*	
San Joaquin Valley (continued)	San Joaquin (continued)	Tracy-Airport	4 th High	0.093	0.079	0.090	0.087
			Valid Days	355	354	269	
	Stanislaus	Modesto-14th Street	4 th High	0.090	0.076	0.090	0.085
			Valid Days	358	362	268	
		Turlock-S Minaret Street	4 th High	0.092	0.075	0.106	0.091
			Valid Days	363	361	265	
	Tulare	Sequoia & Kings Canyon NP	4 th High	0.104	0.099	0.112	0.105
			Valid Days	300	238	232	
		Sequoia NP-Lower Kaweah	4 th High	0.097	0.091	0.101	0.096
			Valid Days	348	360	325	
		Visalia-N Church Street	4 th High	0.092	0.086	0.105	0.094
			Valid Days	361	361	301	
South Central Coast	San Luis Obispo	Atascadero-Lewis Avenue	4 th High	0.071	0.066	0.069	0.068
			Valid Days	356	352	330	
		Carrizo Plains School-Carrizo	4 th High	0.086	0.080	0.088	0.084
			Valid Days	340	349	322	
		Morro Bay	4 th High	0.053	0.053	0.058	0.054
			Valid Days	351	343	320	
		Nipomo-Regional Park	4 th High	0.055	0.056	0.066	0.059
			Valid Days	345	351	325	
		Paso Robles-Santa Fe Avenue	4 th High	0.072	0.068	0.064	0.068
			Valid Days	360	363	190	
		Red Hills	4 th High		0.084	0.092	0.088
			Valid Days		362	330	
		San Luis Obispo-S Higuera St	4 th High	0.055	0.057	0.060	0.057
			Valid Days	356	356	242	
	Santa Barbara	Carpinteria-Gobernador Road	4 th High	0.058	0.066	0.072	0.065
			Valid Days	349	354	272	
		El Capitan Beach	4 th High	0.056	0.057	0.066	0.059
			Valid Days	364	364	299	
		Gaviota-GTC Site B	4 th High	0.055	0.055	0.058	0.056
			Valid Days	360	362	241	
		Goleta-Fairview	4 th High	0.064	0.057	0.062	0.061
			Valid Days	364	358	301	
		Las Flores Canyon #1	4 th High	0.07	0.078	0.070	0.072
			Valid Days	363	360	330	
		Lompoc-HSandP	4 th High	0.062	0.066	0.067	0.065
			Valid Days	363	358	301	
		Lompoc-S H Street	4 th High	0.051	0.056	0.062	0.056
			Valid Days	362	356	302	
		Paradise Road-Los Padres NF	4 th High	0.075	0.077	0.068	0.073
			Valid Days	363	355	301	
		Santa Barbara-E Canon Perdido	4 th High	0.056	0.063	0.062	0.060
			Valid Days	357	359	240	

Basin Name	County Name	Site Name	Statistic	Year			2008* Design Value
				2006	2007	2008*	
South Central Coast (continued)	Santa Barbara (continued)	Santa Maria-906 S Broadway	4 th High	0.048	0.048	0.056	0.050
			Valid Days	349	354	217	
		Santa Ynez -Airport Road	4 th High	0.064	0.063	0.067	0.064
			Valid Days	364	363	301	
		Vandenberg AFB-STC Power	4 th High	0.059	0.069	0.065	0.064
			Valid Days	356	358	331	
	Ventura	El Rio-Rio Mesa School #2	4 th High	0.059	0.061	0.065	0.061
			Valid Days	364	351	297	
		Ojai-Ojai Avenue	4 th High	0.094	0.076	0.081	0.083
			Valid Days	363	361	301	
		Piru-3301 Pacific Avenue	4 th High	0.085	0.076	0.081	0.080
			Valid Days	359	358	304	
		Simi Valley-Cochran Street	4 th High	0.089	0.086	0.090	0.088
			Valid Days	360	357	295	
		Thousand Oaks-Moorpark Road	4 th High	0.076	0.074	0.077	0.075
			Valid Days	364	358	301	
		Ventura-Emma Wood State Bch	4 th High	0.062	0.065	0.067	0.064
			Valid Days	362	350	294	
	Channel Islands	NO MONITORS					
	South Coast	Los Angeles	Azusa	4 th High	0.091	0.096	0.101
Valid Days				357	355	236	
Burbank-W Palm Avenue			4 th High	0.098	0.088	0.092	0.092
			Valid Days	358	356	235	
Glendora-Laurel			4 th High	0.106	0.105	0.112	0.107
			Valid Days	354	352	241	
Lebec-Peace Valley Road			4 th High	0.095	0.063		0.079
			Valid Days	321	82		
Los Angeles-North Main Street			4 th High	0.075	0.072	0.073	0.073
			Valid Days	355	337	224	
Los Angeles-Westchester Pkwy			4 th High	0.062	0.067	0.065	0.064
			Valid Days	358	355	221	
Lynwood			4 th High	0.064	0.057	0.055	0.058
			Valid Days	357	357	235	
North Long Beach			4 th High	0.057	0.057	0.064	0.059
			Valid Days	354	350	236	
Pasadena-S Wilson Avenue			4 th High	0.096	0.090	0.091	0.092
			Valid Days	360	357	232	
Pico Rivera-4144 San Gabriel			4 th High	0.078	0.079	0.077	0.078
			Valid Days	222	352	233	
Pomona	4 th High	0.108	0.103	0.100	0.103		
	Valid Days	354	352	238			
Reseda	4 th High	0.104	0.093	0.095	0.097		
	Valid Days	355	339	242			

Basin Name	County Name	Site Name	Statistic	Year			2008* Design Value
				2006	2007	2008*	
South Coast (continued)	Los Angeles (continued)	Santa Clarita	4 th High	0.112	0.102	0.103	0.105
			Valid Days	357	351	235	
		West Los Angeles-VA Hospital	4 th High	0.068	0.067	0.075	0.070
			Valid Days	360	345	236	
	Orange	Anaheim-Pampas Lane	4 th High	0.071	0.074	0.076	0.073
			Valid Days	361	357	239	
		Costa Mesa-Mesa Verde Drive	4 th High	0.061	0.065	0.073	0.066
			Valid Days	362	341	236	
		La Habra	4 th High	0.09	0.082	0.078	0.083
			Valid Days	349	355	238	
		Mission Viejo-26081 Via Pera	4 th High	0.09	0.081	0.092	0.087
			Valid Days	353	358	239	
	Riverside	Banning Airport	4 th High	0.105	0.095	0.108	0.102
			Valid Days	353	359	237	
		Lake Elsinore-W Flint Street	4 th High	0.102	0.097	0.108	0.102
			Valid Days	353	352	239	
		Perris	4 th High	0.114	0.103	0.106	0.107
			Valid Days	348	362	243	
		Riverside-Rubidoux	4 th High	0.112	0.099	0.111	0.107
			Valid Days	358	356	236	
	San Bernardino	Crestline	4 th High	0.111	0.126	0.120	0.119
			Valid Days	363	365	234	
		Fontana-Arrow Highway	4 th High	0.114	0.113	0.110	0.112
			Valid Days	351	346	234	
		Redlands-Dearborn	4 th High	0.125	0.112	0.112	0.116
			Valid Days	364	362	244	
		San Bernardino-4th Street	4 th High	0.119	0.117	0.112	0.116
			Valid Days	356	352	236	
		Upland	4 th High	0.112	0.112	0.108	0.110
			Valid Days	360	354	236	

* 2008 data are preliminary and may not be complete. Therefore, the 2008 Design Value should be considered preliminary.