



# Air Resources Board



Linda S. Adams  
Secretary for  
Environmental Protection

Mary D. Nichols, Chairman  
1001 I Street • P.O. Box 2815  
Sacramento, California 95812 • [www.arb.ca.gov](http://www.arb.ca.gov)

Arnold Schwarzenegger  
Governor

October 14, 2009

Ms. Laura Yoshii  
Acting Regional Administrator  
U.S. Environmental Protection Agency  
Region 9  
75 Hawthorne Street  
San Francisco, California 94105

Dear Ms. Yoshii:

We are transmitting our recommendations for area designations and boundaries for the 2008 federal lead standard of  $0.15 \mu\text{g}/\text{m}^3$ , as required under the Federal Clean Air Act.

Ambient lead concentrations have dropped dramatically in California since the mid-1970s, primarily as a result of removing lead from gasoline. Given the low concentrations generally measured, the statewide network of lead monitors has been reduced over time. Only a few monitors are still operating, and all are located in the southern portion of the State. We base our area designation recommendations on ambient lead concentrations measured during 2006 through 2008 by these limited number of Federal Reference Method monitors.

As shown in Enclosure 1, the Air Resources Board (ARB) recommends that the U.S. Environmental Protection Agency (U.S. EPA) designate the South Coast Air Basin portion of Los Angeles County as nonattainment. The design value for this area is 2.49 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ). In contrast, ARB recommends that U.S. EPA designate Imperial County as attainment. Air quality data collected in the County are complete, and the design value of  $0.03 \mu\text{g}/\text{m}^3$  is well below the standard level. Finally, ARB recommends the remaining areas of the State be deemed unclassifiable, because air quality data are either not available or are not sufficient for making a determination.

*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


Ms. Laura Yoshii  
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We include the following materials in this package:

- Recommended nonattainment/attainment/unclassifiable areas (Enclosure 1).
- Public Meeting Notice for recommended designations (Enclosure 2).
- Staff Report (Enclosure 3).
- Information supporting recommended nonattainment area (Enclosure 4).
- Nonattainment area boundary description (Enclosure 5).

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,



James N. Goldstone  
Executive officer

cc: See next page.

Enclosures (5)

Ms. Laura Yoshii  
October 14, 2009  
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cc: (with enclosures)

Ms. Deborah Jordan, Director  
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San Francisco, California 94105

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150 South 9<sup>th</sup> Street  
El Centro, California 92243-2801

Karen Magliano  
Air Quality Data Branch  
Planning and Technical Support Division

## ENCLOSURE 1

### Recommended California Area Designations for the 2008 Federal Lead Standard Based on 2006-2008 Lead Air Quality Data

	<i>Designated Area</i>	<i>Design Value<sup>1</sup> (<math>\mu\text{g}/\text{m}^3</math>)</i>	<i>Area Included</i>
<b>Nonattainment</b>	Los Angeles County-South Coast	2.49	Air Basin portion of Los Angeles County
<b>Attainment</b>	Imperial County	0.03	Imperial County
	Great Basin Valleys Air Basin	no data	Alpine, Inyo, and Mono counties
	Lake County Air Basin	no data	Lake County
	Lake Tahoe Air Basin	no data	Air Basin portions of Placer and El Dorado counties
	Mojave Desert Air Basin	no data	Air Basin portions of Kern, Los Angeles, Riverside, and San Bernardino counties
	Mountain Counties Air Basin	no data	Amador, Calaveras, Mariposa, Nevada, Sierra, Tuolumne, and Plumas counties and Air Basin portions of El Dorado and Placer counties
	North Central Coast Air Basin	no data	Monterey, San Benito, and Santa Cruz counties
	North Coast Air Basin	no data	Del Norte, Humboldt, Mendocino, and Trinity counties and Air Basin portion of Sonoma County
<b>Unclassifiable</b>	Northeast Plateau Air Basin	no data	Lassen, Modoc, and Siskiyou counties
	Sacramento Valley Air Basin	no data	Butte, Colusa, Glenn, Sacramento, Shasta, Sutter, Tehama, and Yuba counties and Air Basin portions of Placer, Solano, and Yolo counties
	Salton Sea Air Basin (Remainder)	no data	Air Basin portion of Riverside County
	San Diego Air Basin	no data	San Diego County
	San Francisco Bay Area Air Basin	no data	Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara counties and Air Basin portions of Solano and Sonoma counties
	San Joaquin Valley Air Basin	no data	Fresno, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare counties and Air Basin portion of Kern County
	South Central Coast Air Basin	no data	San Luis Obispo, Santa Barbara, and Ventura counties
	South Coast Air Basin (Remainder)	incomplete data	Orange County and Air Basin portions of Riverside and San Bernardino counties

<sup>1</sup>The design value is the highest rolling three-month average lead concentration for any site in the area based on data collected during 2006 through 2008. The area is nonattainment if the design value is greater than  $0.15 \mu\text{g}/\text{m}^3$ .

## ENCLOSURE 2

### CALIFORNIA AIR RESOURCES BOARD

#### NOTICE OF PUBLIC MEETING TO CONSIDER A REPORT ON STAFF'S RECOMMENDED AREA DESIGNATIONS FOR THE 2008 FEDERAL LEAD STANDARD.

The Air Resources Board (ARB or Board) will present recommended area designations for the revised federal lead standard of 0.15 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ). ARB will submit these recommendations to the United States Environmental Protection Agency (U.S. EPA) by October 15, 2009.

DATE: September 24, 2009

TIME: 9:00 a.m.

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PLACE: South Coast Air Quality Management District  
Auditorium  
21865 Copley Drive  
Diamond Bar, California 91765

This item will be considered at a two-day meeting of the Board, which will commence at 9:00 a.m., September 24, and may continue at 8:30 a.m., September 25, 2009. This item is expected to be considered on September 24, 2009. Please consult the agenda for the meeting, which will be available at least 10 days before September 24, 2009, to determine the day on which this item will be considered.

If you require special accommodations or language needs, please contact the Clerk of the Board at (916) 322-5594 or by facsimile at (916) 322-3928 as soon as possible, but no later than 10 business days before the scheduled Board hearing. TTY/TDD Speech to Speech users may dial 711 for the California Relay Service.

#### **BACKGROUND**

The federal Clean Air Act requires U.S. EPA to set health-based National Ambient Air Quality Standards. On October 15, 2008, U.S. EPA lowered the lead standard from  $1.5 \mu\text{g}/\text{m}^3$  to  $0.15 \mu\text{g}/\text{m}^3$ . Compliance with the new standard is based on a rolling three-month average concentration measured as lead in total suspended particulate, or TSP. Under the Clean Air Act, ARB is required to submit recommendations for area designations and appropriate boundaries to U.S. EPA by October 15, 2009. The purpose of this report is to summarize the staff's area designation recommendations, based on currently available monitoring data. Staff will also discuss the implementation of new lead monitoring requirements.

U.S. EPA has one year to review the recommendations, promulgating final area designations by October 15, 2010. State implementation plans are due 18 months after U.S. EPA makes the final designations. An area must attain the standard within five years of the nonattainment designation.

Although states are required to make area designation recommendations by October 2009, U.S. EPA recognizes that the current lead sampling network is not adequate in most areas, including California. As a result, U.S. EPA may take an additional two years to designate areas with insufficient data. During this time, new lead samplers will be deployed to collect the data needed to identify designations for many areas with no or limited monitoring data.

### **PROPOSED ACTION**

All areas of California were in compliance of the previous ambient lead standard of  $1.5 \mu\text{g}/\text{m}^3$ . Because concentrations have been well below that standard for more than a decade, the sampling network was reduced and the number of sampling sites currently operating is very limited.

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Based on ARB staff's technical analysis and current ambient lead data for 2006 through 2008, ARB staff recommendations for lead designations are:

- The Los Angeles County portion of the South Coast Air Basin as nonattainment;
- Imperial County as attainment;
- All other areas of California as unclassified because they do not have sufficient data.

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### **AVAILABILITY OF DOCUMENTS**

ARB staff will prepare a written staff report prior to the meeting. Copies of the staff report may be obtained from the Board's Public Information Office, 1001 I Street, First Floor, Environmental Services Center, Sacramento, California 95814, (916) 322-2990. This notice and the staff report are also accessible on ARB's website at: [www.arb.ca.gov/desig/desig.htm](http://www.arb.ca.gov/desig/desig.htm).

### **SUBMITTAL OF COMMENTS**

Interested members of the public may present comments orally or in writing at the meeting and may also be submitted by postal mail or electronic submittal before the meeting. To be considered by the Board, written comments not physically submitted at the meeting must be received no later than 12:00 noon, September 23, 2009, and addressed to the following:

Postal mail: Clerk of the Board, Air Resources Board  
1001 I Street, Sacramento, California 95814

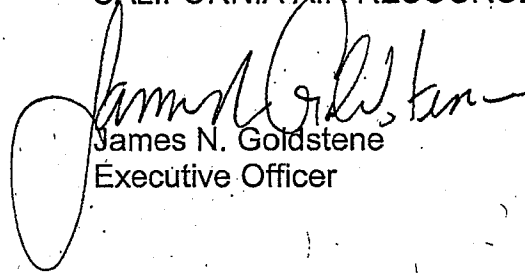
Electronic submittal: <http://www.arb.ca.gov/lispub/comm/bclist.php>

Please note that under the California Public Records Act (Government Code section 6250 et seq.), your written and oral comments, attachments, and associated contact information (e.g., your address, phone, email, etc.) become part of the public record and can be released to the public upon request. Additionally, this information may become available via Google, Yahoo, and any other search engines.

The Board requests, but does not require, that 20 copies of any written statement be submitted and that written and e-mail statements be filed prior to the meeting so that ARB staff and Board members have time to fully consider each comment. Further inquiries regarding this matter should be directed to Ms. Gayle Sweigert, Manager of the Air Quality Analysis Section, at (916) 322-6923, or Marcella Nystrom, Staff Air Pollution Specialist, at (916) 323-8543.

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CALIFORNIA AIR RESOURCES BOARD



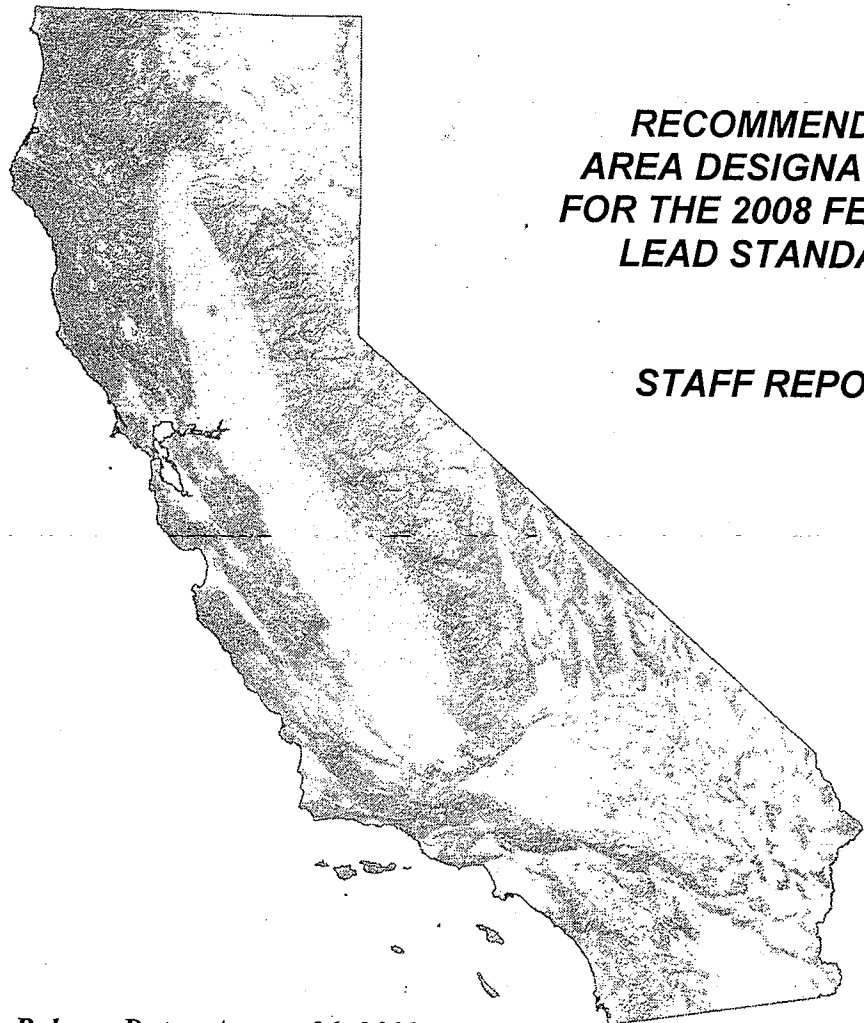
James N. Goldstene  
Executive Officer

Date: September 8, 2009

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*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 at [www.arb.ca.gov](http://www.arb.ca.gov)*

**State of California**  
**AIR RESOURCES BOARD**



**RECOMMENDED  
AREA DESIGNATIONS  
FOR THE 2008 FEDERAL  
LEAD STANDARD**

**STAFF REPORT**

*Release Date: August 26, 2009*

*Hearing Date: September 24, 2009*

California Environmental Protection Agency



**Air Resources Board**



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## **BACKGROUND**

The purpose of this report is to summarize the staff's area designation recommendations for the revised federal lead standard. This report also discusses the new federal lead monitoring requirements.

On October 15, 2008, U.S. EPA revised the federal ambient air quality standard for lead, lowering it from 1.5 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) to  $0.15 \mu\text{g}/\text{m}^3$  for both the primary and the secondary standard. U.S. EPA determined that numerous health studies are now available that demonstrate health effects at much lower levels of lead than previously thought. U.S. EPA subsequently published the final rule in the Federal Register on November 12, 2008 (<http://www.epa.gov/fedrgstr/EPA-AIR/2008/November/Day-12/a25654.pdf>). This is the first time that the federal lead standard has been revised since it was first issued in 1978.

In addition to revising the level of the standard, U.S. EPA changed the averaging time from a quarterly average to a rolling three-month average. The level of the standard is "not to be exceeded" and is evaluated over a three-year period. Lead levels are measured as lead in total suspended particulate, or TSP. The revised lead standard also includes new monitoring requirements.

Under the Clean Air Act, all states are required to develop recommendations for area designations and appropriate boundaries. These initial recommendations for lead must be submitted to U.S. EPA by October 15, 2009. U.S. EPA has one year to review the recommendations, promulgating final area designations by October 15, 2010. State implementation plans are due 18 months after U.S. EPA makes the final designations. An area must attain the lead standard within five years of the nonattainment designation.

Although states are required to make area designation recommendations, U.S. EPA recognizes that the current lead sampling network is not adequate in all areas, including California. As a result, U.S. EPA may take an additional two years to designate areas with insufficient data. During this time, new lead samplers will be deployed to collect the data needed to resolve unclassifiable designations.

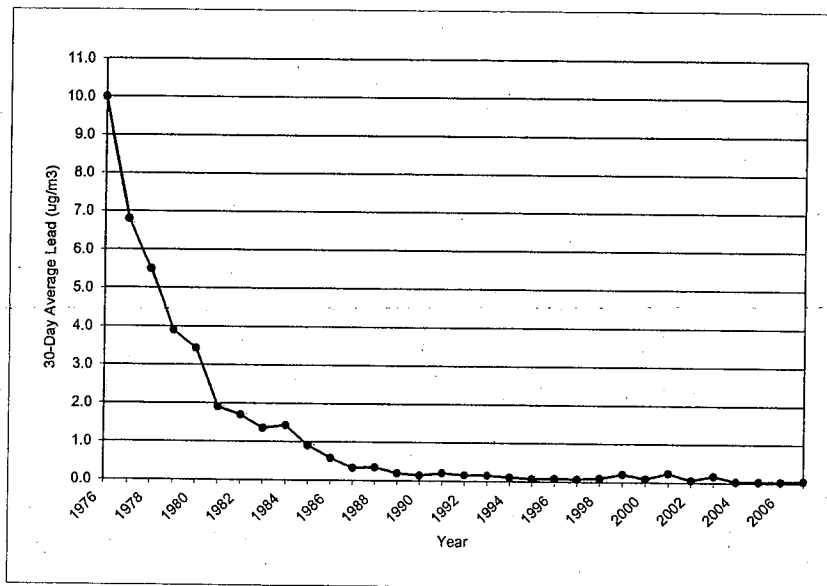
## **LEAD AIR QUALITY TRENDS**

When U.S. EPA adopted the lead standard in 1978, it was estimated that over 90 percent of ambient lead concentrations were attributable to the use of lead in gasoline. The U.S. EPA required a monitoring network be established to include at least two permanent monitors in all urban areas with a population of 500,000 or more. By requiring monitors in urban areas, the regulation was designed to provide information on the major source of lead (gasoline fuel), as well as to

provide information on population exposure to ambient lead concentrations. California's lead monitoring program predated federal requirements by many years. California began monitoring in the late 1960s, and continued to expand the monitoring network in the 1970s and into the early 1980s.

The phase-out of lead in gasoline began during the 1970s, and subsequent ARB regulations virtually eliminated lead from the gasoline sold in California (except for very limited use in general aviation applications). Figure 1 shows the dramatic drop in lead concentrations since 1975 in California's urban areas. Although lead from gasoline no longer poses an air quality problem, lead emissions from remaining industrial sources (not reflected in Figure 1) can still pose "hot spot" problems in a few locations.

**FIGURE 1**  
**Maximum 30-Day Average Lead Concentrations in California**



*Note that the graphed data reflect the maximum 30-day average lead concentration, which is not directly comparable with the rolling 3-month average specified in the federal standard. Generally, the maximum 30-day average is higher than the maximum rolling 3-month average.*

As lead concentrations dropped dramatically and all areas of California attained the previous standard, most lead monitors were shut down by the early 1990s and resources deployed to other pollutants. As a result, there is insufficient monitoring data to determine designations, and most areas of the State will be unclassifiable for the revised standard. This will change over the next several years, as a new sampling network is phased-in.

## **RECOMMENDED AREA DESIGNATIONS**

ARB staff evaluated the available ambient lead data to determine appropriate area designations throughout the State. The analysis was conducted for each monitoring site in the State for which data are available. Determining an area's designation is based on comparing measured lead concentrations, averaged for each three-month period, to the level of the standard. If the concentration (known as the design value or the highest rolling three-month average) is higher than  $0.15 \mu\text{g}/\text{m}^3$ , it violates the federal standard and the area is nonattainment. The recommendations in this report reflect design values based on 2006 through 2008 ambient lead data.

Under the revised federal lead standard, there are three options for area designations:

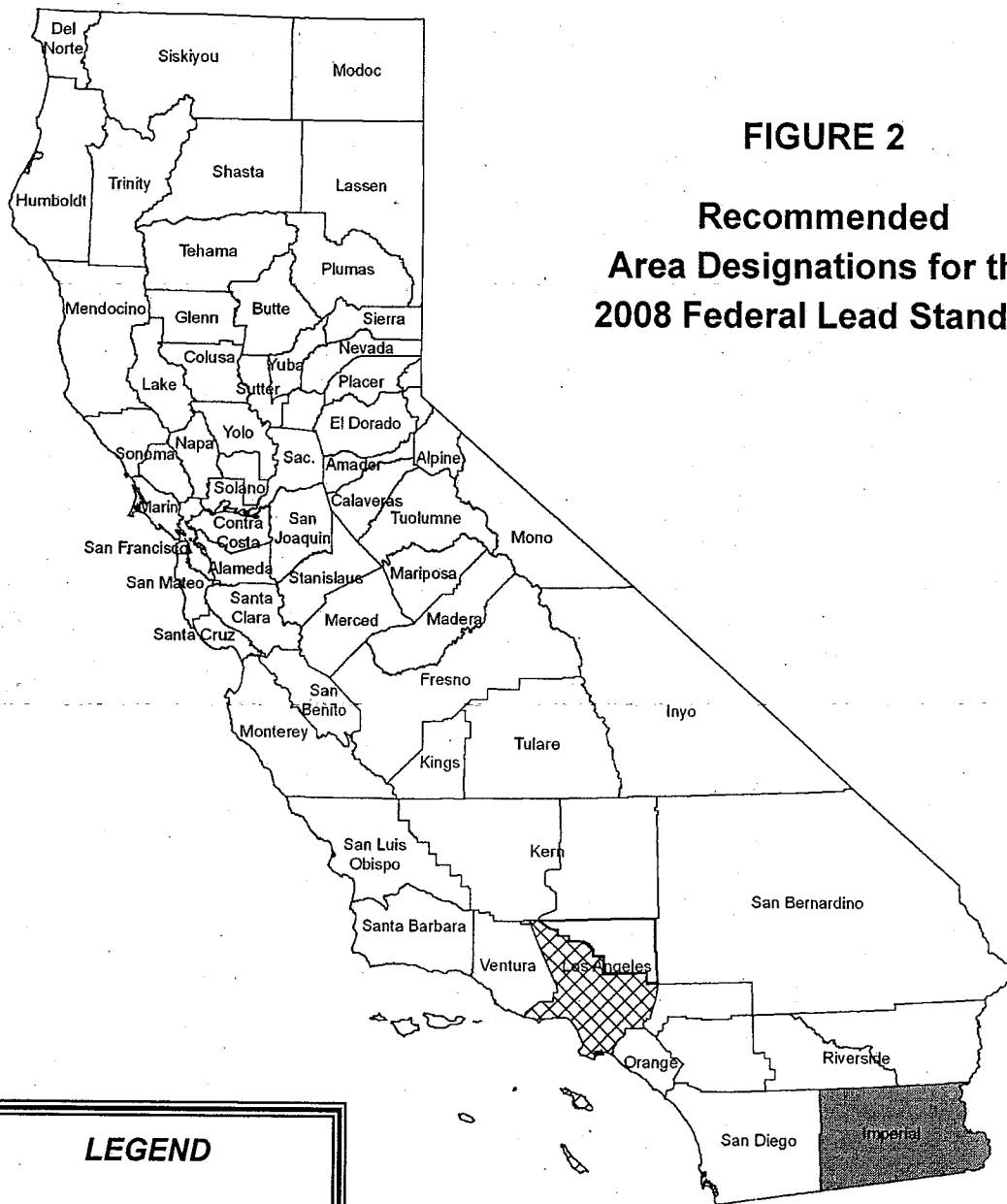
- An area is nonattainment if the design value is greater than the standard;
- An area is attainment if the design value is equal to or less than the standard, and the data meet U.S. EPA completeness requirements;
- An area is unclassifiable if there are no monitoring data or if the monitoring data indicate attainment but do not meet EPA's completeness requirements.

U.S. EPA's final lead rule states that the presumptive boundary for a lead nonattainment area is the perimeter of the county associated with the sampler(s) violating the standard. The nonattainment area must include the area violating the standard, as well as the area with emissions sources contributing to the violations. In some cases, the nonattainment area may be larger or smaller than a county if analyses of sources and conditions show a different area is justified.

Based on ARB staff's technical analysis and ambient lead data for 2006 through 2008, ARB staff recommendations for lead designations are:




- The Los Angeles County portion of the South Coast Air Basin as nonattainment;
- Imperial County as attainment;
- All other areas of California as unclassifiable because they do not have sufficient data.

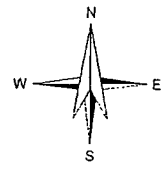
These recommendations are shown in Figure 2 and Table 1 and discussed in greater detail in the following pages.



**FIGURE 2**  
**Recommended**  
**Area Designations for the**  
**2008 Federal Lead Standard**

**LEGEND**

-  Nonattainment
-  Attainment
-  Unclassifiable



**TABLE 1**  
**Recommended California Area Designations for the**  
**Federal Lead Standard Based on 2006-2008 Air Quality Data**

	<i>Designated Area</i>	<i>Design Value<sup>1</sup></i> <i>(<math>\mu\text{g}/\text{m}^3</math>)</i>	<i>Area Included</i>
<b>Nonattainment</b>	South Coast-Los Angeles County	2.49	Air Basin portion of Los Angeles County
<b>Attainment</b>	Imperial County	0.03	Imperial County
	Great Basin Valleys Air Basin	no data	Alpine, Inyo, and Mono counties
	Lake County Air Basin	no data	Lake County
	Lake Tahoe Air Basin	no data	Air Basin portions of Placer and El Dorado counties
	Mojave Desert Air Basin	no data	Air Basin portions of Kern, Los Angeles, Riverside, and San Bernardino counties
	Mountain Counties Air Basin	no data	Amador, Calaveras, Mariposa, Nevada, Sierra, Tuolumne, and Plumas counties and Air Basin portions of El Dorado and Placer counties
	North Central Coast Air Basin	no data	Monterey, San Benito, and Santa Cruz counties
	North Coast Air Basin	no data	Del Norte, Humboldt, Mendocino, and Trinity counties and Air Basin portion of Sonoma County
	Northeast Plateau Air Basin	no data	Lassen, Modoc, and Siskiyou counties
<b>Unclassifiable</b>	Sacramento Valley Air Basin	no data	Butte, Colusa, Glenn, Sacramento, Shasta, Sutter, Tehama, and Yuba counties and Air Basin portions of Placer, Solano, and Yolo counties
	Salton Sea Air Basin (Remainder)	no data	Air Basin portion of Riverside County
	San Diego Air Basin	no data	San Diego County
	San Francisco Bay Area Air Basin	no data	Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara counties and Air Basin portions of Solano and Sonoma counties
	San Joaquin Valley Air Basin	no data	Fresno, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare counties and Air Basin portion of Kern County
	South Central Coast Air Basin	no data	San Luis Obispo, Santa Barbara, and Ventura counties
	South Coast Air Basin (Remainder)	incomplete data	Orange County and Air Basin portions of Riverside and San Bernardino counties

<sup>1</sup>The design value is the highest rolling three-month average lead concentration for any site in the area based on data collected during 2006 through 2008. The area is nonattainment if the design value is greater than  $0.15 \mu\text{g}/\text{m}^3$ .

## **Nonattainment Area**

### ***South Coast - Los Angeles County***

The South Coast Air Quality Management District (District) has collected lead data at several sites in Los Angeles County for a number of years. Several of these sampling sites are located near lead-related facilities and were established as part of the District's Rule 1420 (Emissions Standard for Lead) that was adopted in September 1992. The purpose of Rule 1420 is to reduce lead emissions from non-vehicular sources. It applies to all facilities that use or process materials containing lead, including primary or secondary lead smelters, foundries, lead-acid battery manufacturers or recyclers, as well as facilities that produce lead-oxide, brass, and bronze. The samplers are located at or beyond the property line of the facility and comply with U.S. EPA siting and operating criteria. Lead samples are generally collected on a 1-in-6 day schedule, although samples are collected more frequently at sites with the highest concentrations.

Based on lead data collected during 2008 (when sampling began at the District's Exide Rehrig Pacific site), the maximum rolling three-month average for Los Angeles County is  $2.49 \mu\text{g}/\text{m}^3$ . This value reflects the January through March 2008 three-month period and exceeds the  $0.15 \mu\text{g}/\text{m}^3$  federal lead standard. Because lead concentrations at the Rule 1420 samplers are associated with specific facilities, and lead concentrations drop off fairly rapidly with distance from the source, ARB staff recommends the nonattainment area be limited to the portion of Los Angeles County that is located in the South Coast Air Basin.

## **Attainment Area**

### ***Imperial County***

Imperial County is located in the Salton Sea Air Basin. Lead sampling data are available for the Calexico-Ethel Street site which is located near the border between the United States and Mexico. Although ambient lead concentrations in the Calexico area may be impacted by lead emissions from cross-border mobile sources, at the time this report was written, it does not appear there are any significant non-vehicular sources located in the County. The Calexico lead data are complete for November 2005 through December 2008, and they show a design value of  $0.03 \mu\text{g}/\text{m}^3$  for the May through July 2007 three-month period. Because the data are complete for the three-year period and the design value is lower than the revised standard, ARB staff recommends Imperial County be designated as attainment for the federal lead standard.



### **Unclassifiable Areas**

In addition to Imperial County and the Los Angeles County portion of the South Coast Air Basin, Table 2 includes a list of all remaining areas in California. ARB recommends these remaining areas be designated as unclassifiable for the revised federal lead standard. While nearly all these areas have no ambient lead data, some sampling data are available for sites in Riverside and San Bernardino counties in the South Coast Air Basin. Although the rolling three-month averages for these sites are lower than the federal standard, the data are not complete for the three-year period. As new samplers are deployed over the next two years, ARB will begin to build the database necessary for resolving these unclassifiable designations.

### **MONITORING REQUIREMENTS**

As described earlier, the phase-out of lead in gasoline (except for limited aviation applications) and long-term attainment of the federal lead standard has been one of California's most dramatic success stories. Consequently, over time, the number of lead monitors has been significantly reduced in California and throughout the nation.

With the success of removing lead from gasoline, remaining lead emissions come from sources such as battery recycling, lead smelters, cement and glass manufacturing, metal mining and the use of non-lead fuel in certain general aviation applications (but not in commercial passenger aircraft). Additionally, lead is a persistent pollutant that can end up in soil and dust, and re-enter the air, often many years after it was originally emitted.

To address this issue, U.S. EPA is requiring samplers near industrial sources emitting at least one ton per year of lead, and these samplers must be deployed by January 1, 2010 (*Note: Although the current regulation specifies a one ton per year threshold, U.S. EPA is considering reducing the threshold to a lower level*). ARB staff evaluated all of the available emission inventory databases, and worked with air districts to identify the industrial sources that would be subject to this monitoring requirement. At the time of the release of this Staff Report, the only region in California with sources subject to this requirement is the Los Angeles County portion of the South Coast Air Basin.

In conjunction with monitoring near industrial sources, the U.S. EPA is also requiring monitoring to track population exposure to ambient lead concentrations. Population-oriented samplers will be required by January 1, 2011, in each Core Based Statistical Area (CBSA) with a population of at least 500,000. CBSAs are defined by the U.S. Office of Management and Budget (OMB) for use by federal

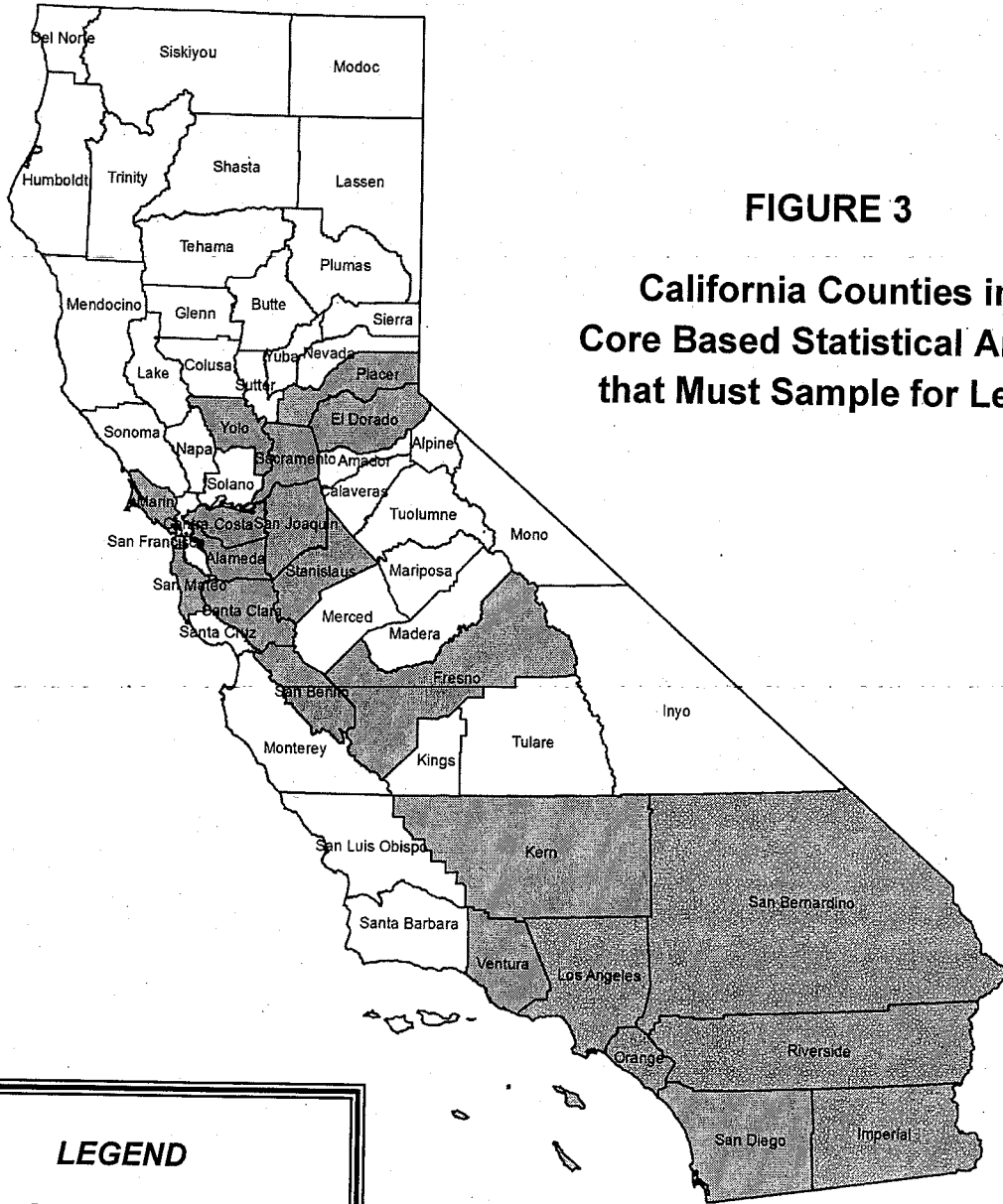
agencies and are intended to provide nationally consistent definitions. A CBSA typically includes at least one urban area, as well as adjacent communities tied to each other through economic, employment, and commuting patterns.

There are 11 CBSAs in California that meet this population threshold, as shown in Table 2. Figure 3 shows which counties within these CBSAs currently have lead samplers and which additional counties might require sampling. ARB and the local districts, using U.S. EPA's monitoring criteria, will complete a more thorough evaluation to determine the best places to site these samplers before the 2011 deployment deadline. When data from these new samplers become available, they will be used to resolve some of the recommended unclassifiable designations.

**TABLE 2**  
**Core Based Statistical Areas in California**  
**with a Population of 500,000 or More**

<i>Core Based Statistical Area</i>	<i>Counties Included</i>	<i>Population* (millions)</i>
Los Angeles-Long Beach-Santa Ana	Los Angeles and Orange	9.879
Riverside-San Bernardino-Ontario	Riverside and San Bernardino	4.081
San Diego-Carlsbad-San Marcos	San Diego	2.975
San Francisco-Oakland-Fremont	Alameda, Contra Costa, Marin, San Francisco, and San Mateo	2.484
Sacramento-Arden Arcade-Roseville	El Dorado, Placer, Sacramento, and Yolo	2.091
San Jose-Sunnyvale-Santa Clara	San Benito and Santa Clara	1.804
Fresno	Fresno	0.899
Oxnard-Thousand Oaks-Ventura	Ventura	0.798
Bakersfield	Kern County	0.791
Stockton	San Joaquin County	0.671
Modesto	Stanislaus County	0.511



\* July 1, 2007 data provided by U.S. EPA.



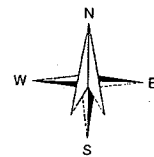
**FIGURE 3**

**California Counties in  
Core Based Statistical Areas  
that Must Sample for Lead**

**LEGEND**

-  County in CBSA\* that must sample for lead
-  County with existing sampler in CBSA that must sample for lead

*\* Refer to Table 2 for list of affected CBSAs*



## **SUMMARY**

This report summarizes ARB staff's recommendations regarding area designations for the revised federal lead standard. It also discusses new lead monitoring requirements. ARB staff recommends the U.S. EPA designate the Los Angeles County portion of the South Coast Air Basin as nonattainment and designate Imperial County as attainment for the  $0.15 \mu\text{g}/\text{m}^3$  federal lead standard. Staff recommends that all other parts of the State be designated as unclassifiable because data are either incomplete or not available. These unclassifiable designations will be resolved over the coming years, as the lead sampling network is expanded.

## **ENCLOSURE 4**

### **STATE OF CALIFORNIA SUPPLEMENTAL INFORMATION TO SUPPORT RECOMMENDED NONATTAINMENT AREA FOR THE 2008 FEDERAL LEAD STANDARD**

#### **Los Angeles County - South Coast Air Basin**

The presumptive boundary for a lead nonattainment area is the boundary of the county in which the violating monitor(s) is located. However, the Air Resources Board (ARB) recommends the Los Angeles County lead nonattainment area not be defined as the entire County, but be limited to the portion of the County within the South Coast Air Basin (South Coast). As described below, this recommendation is based on the characteristics of lead emissions, concentrations measured at other monitors in the surrounding area, and existing jurisdictional boundaries and emissions control rules.

The South Coast portion of Los Angeles County is home to several lead-related industrial sources. These facilities are Daelco Division of Quenell Inc. in the City of Commerce, Quemetco, Inc. in the City of Industry, Trojan Battery Company in Santa Fe Springs, and Exide Technologies in Vernon. The four facilities are located within a 20 mile radius in southern portion of the County. In 1992, the South Coast Air Quality Management District (District) adopted Rule 1420: Emissions Standard for Lead. The purpose of Rule 1420 is to reduce lead emissions from non-vehicular sources. It applies to all facilities that use or process materials containing lead, including primary or secondary lead smelters, foundries, and lead-acid battery manufacturers or recyclers, as well as facilities that produce lead-oxide, brass, and bronze. Under Rule 1420, concentrations from lead-related facilities may not exceed 1.5 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ), averaged over 30 days. This concentration reflects the current California ambient air quality standard for lead, and it is generally comparable with the level of the previous federal standard ( $1.5 \mu\text{g}/\text{m}^3$  averaged over a calendar quarter).

Under Rule 1420, the District operates a network of source-oriented monitors around four separate facilities. The monitors are located at or beyond the fence-line of the facility, and the District indicates they comply with U.S. EPA siting and operating criteria for a microscale monitoring site. While lead samples are generally collected on a 1-in-6 day schedule, samples may be collected more frequently at sites with high concentrations. Table 1 provides a summary of design values for the District's source-oriented monitors. Design values violate the federal standard near two facilities: Trojan Battery Company and Exide Technologies. The value for the Exide monitoring site is by far the highest.

**TABLE 1  
LEAD DESIGN VALUES FOR SOURCE-ORIENTED MONITORS**

<b>Facility Name</b>	<b>City</b>	<b>Monitor</b>	<b>3-Month Period</b>	<b>Lead Design Value*</b>
<i>Daelco Div, Quenell Inc.</i>	<i>City of Commerce</i>	<i>LA Paper Box, 61<sup>st</sup> Street</i>	<i>Jan-Mar 2006</i>	<i>0.14 µg/m<sup>3</sup>*</i>
<i>Quemetco, Inc.</i>	<i>City of Industry</i>	<i>Closet World, 500 S. 7<sup>th</sup> Street</i>	<i>Jan-Mar 2006</i>	<i>0.09 µg/m<sup>3</sup></i>
<i>Trojan Battery Co.</i>	<i>Santa Fe Springs</i>	<i>Uddeholm, 9331 Santa Fe Springs Road</i>	<i>May-Jul 2007</i>	<i>0.18 µg/m<sup>3</sup></i>
<i>Exide Technologies</i>	<i>Vernon</i>	<i>Rehrig-Pacific Street</i>	<i>Jan-Mar 2008</i>	<i>2.49 µg/m<sup>3</sup></i>

*\* Data available for LA Paper Box monitor from January 2006 through May 2006 only. Data available for Closet World monitor from January through December 2006 and October through December 2008. Data available for Rehrig-Pacific Street monitor from mid-November 2007 through mid-July 2009.*

Exide Technologies is a lead-acid battery recycling facility. The most reliable estimate puts lead emissions from this facility at about 2 tons per year. The District currently maintains a network of three lead monitors around Exide. All three are located beyond the fence-line, in publically accessible areas. In addition, the monitors are located near points of modeled maximum concentration. Based on violations of the State lead standard, as specified in their Rule 1420, the District issued violation notices to Exide for exceeding the limit during five consecutive months (December 2007 through April 2008). Concentrations during this time period also violated the previous federal standard. Since this time, District monitors show concentrations that are much lower, although they still violate the revised lead standard of 0.15 µg/m<sup>3</sup> calculated as a rolling three-month average.

Lead particles are relatively heavy, and tend to settle out quickly after they are emitted. As a result, the highest concentrations occur in the immediate vicinity of an emission source. The U.S. EPA final lead rule states that data from nonsource-oriented monitors can be helpful in determining the appropriate nonattainment area boundary. In addition to the source-oriented monitors summarized above, the District maintains a network of six nonsource oriented lead monitors in Los Angeles County, two in Riverside County, and two in San Bernardino County. Although data are not currently available for 2008, data from these nonsource monitors are available for 2005 through 2007. Table 2 provides a summary of design values for the nonsource-oriented sites. The design values range from 0.01 µg/m<sup>3</sup> to 0.03 µg/m<sup>3</sup>, demonstrating the significant difference in concentrations measured by the nonsource-oriented monitors versus the source-oriented monitors. This provides additional support for limiting the geographic extent of the recommended nonattainment area.

**TABLE 2**  
**LEAD DESIGN VALUES AT SOUTH COAST**  
**NONSOURCE-ORIENTED MONITORS**

<i>Site Name</i>	<i>County</i>	<i>2005-2007 Design Value</i>
Long Beach-East Pacific Coast Highway	Los Angeles	0.02 µg/m <sup>3</sup>
Los Angeles-North Main Street	Los Angeles	0.03 µg/m <sup>3</sup>
Los Angeles-Westchester Parkway	Los Angeles	0.01 µg/m <sup>3</sup> *
Lynwood	Los Angeles	0.03 µg/m <sup>3</sup>
North Long Beach	Los Angeles	0.01 µg/m <sup>3</sup>
Pico Rivera **	Los Angeles	0.03 µg/m <sup>3</sup> *
Riverside-Magnolia	Riverside	0.01 µg/m <sup>3</sup>
Riverside-Rubidoux	Riverside	0.02 µg/m <sup>3</sup>
San Bernardino-4 <sup>th</sup> Street	San Bernardino	0.02 µg/m <sup>3</sup> *
Upland	San Bernardino	0.02 µg/m <sup>3</sup> *

\* Data are not complete for some months during the three-year period.

\*\* Reflects data from two sites: Pico Rivera (Jan 2005-Apr 2005) and Pico Rivera-4144 San Gabriel (Sep 2005-Dec 2007).

In summary, ARB staff recommend the South Coast portion of Los Angeles County be designated as nonattainment for the 2008 federal lead standard based on data from the Exide Rehrig-Pacific Street monitor. Although concentrations have dropped over the last year, they still violate the 2008 federal lead standard. Design values for all nonsource-oriented monitors in Los Angeles County, as well as in the rest of the Air Basin, show compliance with the revised standard. The District's Rule 1420 provides a mechanism for reducing emissions from lead-related industrial sources. Although the concentration limit currently specified in the Rule reflects the California lead standard, the District is planning to revise Rule 1420 to be more consistent with the level of the 2008 federal lead standard (0.15 µg/m<sup>3</sup>). The recommended nonattainment area falls under the jurisdiction of the South Coast Air Quality Management District, the agency responsible for administrating and enforcing Rule 1420.

**ENCLOSURE 5**

**STATE OF CALIFORNIA BOUNDARY RECOMMENDATION  
FOR A NEW NONATTAINMENT AREA  
UNDER THE 2008 FEDERAL LEAD STANDARD**

**LOS ANGELES COUNTY – SOUTH COAST AIR BASIN**

That portion of Los Angeles County that lies south and west of a line described as follows:

Beginning at the Los Angeles-San Bernardino County boundary and running west along the township line common to Township 3 North and Township 2 North, San Bernardino Base and Meridian; then north along the range line common to Range 8 West and Range 9 West; then west along the township line common to Township 4 North and Township 3 North; then north along the range line common to Range 12 West and Range 13 West to the southeast corner of Section 12, Township 5 North and Range 13 West; then west along the south boundaries of Sections 12, 11, 10, 9, 8, and 7, Township 5 North and Range 13 West to the boundary of the Angeles National Forest which is collinear with the range line common to Range 13 West and Range 14 West; then north and west along the Angeles National Forest boundary to the point of intersection with the township line common to Township 7 North and Township 6 North (point is at the northwest corner of Section 4 in Township 6 North and Range 14 West); then west along the township line common to Township 7 North and Township 6 North; then north along the range line common to Range 15 West and Range 16 West to the southeast corner of Section 13, Township 7 North and Range 16 West; then along the south boundaries of Sections 13, 14, 15, 16, 17, and 18, Township 7 North and Range 16 West; then north along the range line common to Range 16 West and Range 17 West to the north boundary of the Angeles National Forest (collinear with the township line common to Township 8 North and Township 7 North); then west and north along the Angeles National Forest boundary to the point of intersection with the south boundary of the Rancho La Liebre Land Grant; then west and north along this land grant boundary to the Los Angeles-Kern County boundary.