
Definition of important terms used in this document:

- 1) **Designated “unclassifiable”** – an area where EPA could not determine if there was a violation of the 2008 Lead National Ambient Air Quality Standard (NAAQS) or a contribution to a violation in a nearby area, because there was insufficient air quality data for both 2006-2008 and 2007-2009 and where additional monitoring data for 2010 could not result in a different designation.
- 2) **Designated “attainment”** – an area which EPA has determined, based on the most recent 3 years of certified air quality data from 2006-2008 or 2007-2009, has no violations of the 2008 Lead NAAQS during 36 consecutive valid 3-month site means; and which EPA has further determined does not contribute to a violation of the 2008 Lead NAAQS in a nearby area and that additional monitoring data from 2010 could not result in a different designation.
- 3) **Designated nonattainment area** – an area which EPA has determined, based on a State recommendation and/or on the technical analysis included in this document, has a violation of the 2008 Lead NAAQS during the most recent three consecutive years of quality-assured, certified air quality data.
- 4) **Prior nonattainment area** – an area that is currently designated as nonattainment or maintenance for the 1978 Lead Standard (including both current nonattainment areas and maintenance areas).
- 5) **Recommended nonattainment area** – an area a State or Tribe has recommended to EPA be designated as nonattainment.
- 6) **Violating monitor** – an ambient air monitor whose design value exceeds 0.15 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). As described in Appendix R of part 50, a violation can be based on either Pb-TSP or Pb-PM10 data and only three months of data are necessary to produce a valid violating design value.
- 7) **1978 Lead NAAQS** – $1.5 \mu\text{g}/\text{m}^3$, National Ambient Air Quality Standard for lead promulgated in 1978. Based on Pb-TSP indicator and averaged over a calendar quarter.
- 8) **2008 Lead NAAQS** - $0.15 \mu\text{g}/\text{m}^3$, National Ambient Air Quality Standard for lead promulgated in 2008. Based on Pb-TSP indicator and a three-month rolling average. Pb-PM10 data may be used in limited instances, including to show nonattainment.

CALIFORNIA
Area Designations For the
2008 Lead National Ambient Air Quality Standards

The Environmental Protection Agency (EPA) has revised the level of the primary (health-based) National Ambient Air Quality Standard (NAAQS) for lead (Pb) from 1.5 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) to 0.15 $\mu\text{g}/\text{m}^3$ measured as total suspended particles (TSP). EPA has revised the secondary (welfare-based) standard to be identical in all respects to the primary standard.

Pursuant to section 107(d) of the Clean Air Act, EPA must designate as “nonattainment” those areas that violate the NAAQS and those nearby areas that contribute to violations. The table below identifies the portion of counties in California (CA) that EPA intends to designate “nonattainment” for the 2008 lead national ambient air quality standard (2008 Lead NAAQS).

Table 1. Designation Recommendations

Area	CA Recommended Nonattainment Counties	EPA’s Designated Nonattainment Counties	Nonattainment area for 1978 Lead NAAQS
Los Angeles County within the South Coast Air Basin, excluding San Clemente and Santa Catalina Islands (Southern Los Angeles County)	Los Angeles (partial)	Los Angeles (partial)	na

Technical Analysis for Los Angeles County
within the South Coast Air Basin, excluding San Clemente and Santa Catalina
Islands (Southern Los Angeles County)

Introduction

This technical analysis for Los Angeles County identifies the partial county area within the South Coast Air Basin (Southern Los Angeles County) with monitors that violate the 2008 Lead NAAQS and evaluates nearby areas for contributions to ambient lead concentrations in the area. EPA has evaluated the surrounding area based on the weight of evidence of the following factors recommended in previous EPA guidance:

- Air quality in potentially included versus excluded areas;
- Emissions and emissions-related data in areas potentially included versus excluded from the nonattainment area, including population data, growth rates and patterns and emissions controls;
- Meteorology (weather/transport patterns);
- Geography/topography (mountain ranges or other air basin boundaries);
- Jurisdictional boundaries (e.g., counties, air districts, reservations, etc.); and
- Any other relevant information submitted to or collected by EPA (e.g., modeling where done appropriately).

Figure 1 is a map showing the state's recommended nonattainment area and the surrounding counties. Figure 2 shows the lead monitors in the area.

Figure 1. State Recommended Nonattainment Area and Surrounding Counties

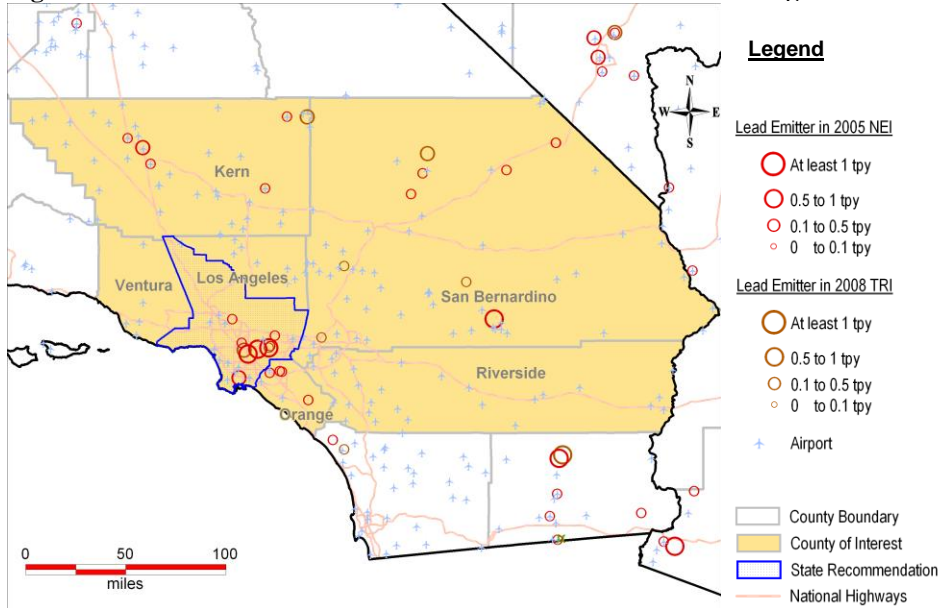


Figure 2. Violating and Attaining Lead (Pb) Monitors in Southern California



In October 2009, California Air Resources Board (CARB) recommended that the Los Angeles County portion of the South Coast Air Basin be designated as nonattainment for the 2008 Lead NAAQS based on air quality data from 2006-2008. CARB clarified its recommendation to be the Los Angeles County portion of the South Coast Air Basin, excluding San Clemente and Santa Catalina Islands, in May 2010.¹ CARB's recommendation was based on data from Federal Reference Method (FRM) or Federal Equivalent Method (FEM) monitors located in the state.²

The Pb air monitors operated by South Coast Air Quality Management District (AQMD) are FEM monitors. South Coast AQMD analyzed the filters using a modified analysis FEM. As additional checks on the analysis method, EPA is reviewing results from filter strip audits and also having filters that contributed to the area's design value analyzed by an independent lab following a different FEM. Based on EPA's technical review of the methods, EPA expects to move forward with the nonattainment designation described in this document.

Based on EPA's technical analysis and currently available information, which is described below, EPA is intending to designate the Los Angeles County portion of the South Coast Air Basin, excluding San Clemente and Santa Catalina Islands (Southern Los Angeles County) as nonattainment for the 2008 Lead NAAQS.

Air Quality Data

This factor considers the lead design values (in $\mu\text{g}/\text{m}^3$) for air quality monitors in Southern Los Angeles County and surrounding areas based on data from 2006-2008. A monitor's design value indicates whether that monitor attains a specified air quality standard. The 2008 Lead NAAQS are met at a monitoring site when the identified design value is valid and less than or equal to $0.15 \mu\text{g}/\text{m}^3$. A design value is only valid if minimum data completeness criteria are met. A lead design value that meets the NAAQS is generally considered valid if it encompasses 36 consecutive valid 3-month site means (specifically for a 3-year calendar period and the two previous months). For this purpose, a 3-month site mean is valid if valid data were obtained for at least 75 percent of the scheduled monitoring days in the 3-month period. For purposes of assessing data capture, data collected before January 1, 2009 will be treated with an assumed scheduled sampling frequency of every sixth day, as specified by 40 CFR part 50 Appendix R, section 4(c)(i). A lead design value that does not meet the NAAQS is considered valid if at least one 3-month mean that meets the same 75 percent requirement is above the NAAQS. That is, a site does not have to monitor for three full calendar years in order to have a valid violating design value; a site could monitor just three months and still produce a valid (violating) design value.

The 2008 Lead NAAQS design values for Southern Los Angeles County and surrounding areas are shown in Table 2.

¹ May 12, 2010 CARB Supplemental Information

² October 2009 CARB Recommendation

Table 2. Air Quality Data – Pb Monitors in Southern California

County	State Recommended Nonattainment?	Monitor Name	Monitor Air Quality System (AQS) ID	Monitor Location	Lead Design Value, 2006 - 2008 ($\mu\text{g}/\text{m}^3$)
Los Angeles, CA	Yes (Partial County)	Exide – Vernon, Rehrig	06-037-1405-01	4010 E. 26th Street, Vernon	2.49
		Exide – Vernon, Railyard	06-037-1406-01	Rail Road Yard, Washington Blvd, Commerce	0.55 ²
		Trojan	06-037-1403-01	9440 Ann St., Santa Fe Springs	0.18 ¹
		Exide – Commerce (formerly Quenell)	na ³	LA Paper Box, 61 st St, City of Commerce	0.14 ³
		Quemetco	06-037-1404-01	500 S. 7 th St, City of Industry	0.09 ¹
		Los Angeles - Main St.	06-037-1103-02	1630 N. Main St, Los Angeles	0.03
		Pico Rivera	06-037-1602-01	4144 San Gabriel River Pkwy, Pico Rivera	0.03
		Lynwood	06-037-1301-01	11220 Long Beach Blvd, Lynwood	0.03
		Long Beach (South)	06-037-4004-02	1305 E. Pacific Coast Hwy, Long Beach	0.02
		Long Beach (North)	06-037-4002-02	3648 N. Long Beach Blvd, Long Beach	0.01
		LAX - Westchester Pkwy	06-037-5005-01	7201 W. Westchester Parkway, Los Angeles	0.01
Riverside County, CA	No	Rubidoux	06-065-8001-03	5888 Mission Blvd, Rubidoux	0.02
		Riverside	06-065-1003-02	7002 Magnolia Ave, Riverside	0.01
San Bernadino County, CA	No	San Bernadino	06-071-9004-01	24302 4th St, San Bernadino	0.02
		Upland	06-071-1004-01	1350 San Bernadino Rd, Upland	0.02

Monitors in Bold have the highest 2006-2008 design value in the respective county.

Table includes monitors with at least one three-month average between 2006-2008. Monitors may not have a full 36 months worth of valid data, 2006-2008.

¹ Recent data are entered into AQS. Complete historic data are not available in AQS, however, the 06-08 design value as supplied in October 2009 CARB Recommendation, p E4-2, is included in the table as it is being used to inform these designations.

² Recent data are entered into AQS. Complete historic data are not available in AQS, however, the 06-08 design value as supplied by South Coast AQMD is included in the table as it is being used to inform these designations.

³ Data for this monitor have not been entered into AQS. The 06-08 design value as supplied in October 2009 CARB Recommendation, p E4-2, is included in the table as it is being used to inform these designations.

Within Los Angeles County and nearby counties, ten non-source oriented sites have collected at least three consecutive months of Pb data between 2006-2008. The highest three-month average for any of these ten non-source oriented sites is 0.03 $\mu\text{g}/\text{m}^3$. Higher three-month averages have been measured at five source-oriented sites. South Coast AQMD has collected at least three consecutive months of Pb data between 2006-2008 at sites near Exide Technologies in Vernon,

Exide (formerly Quenell)³ in City of Commerce, Trojan Battery in Santa Fe Springs, and Quemetco RSR in City of Industry. Data from all fifteen sites were collected as Pb-TSP and were reported at standard temperature and pressure (STP).

Out of the five source-oriented monitors, three show values above the Pb NAAQS. Exide – Vernon’s two monitors have design values of 2.49 $\mu\text{g}/\text{m}^3$ and 0.55 $\mu\text{g}/\text{m}^3$, respectively, while the monitor near Trojan Battery has a design value of 0.18 $\mu\text{g}/\text{m}^3$. The Exide facility in Commerce has a design value of 0.14 $\mu\text{g}/\text{m}^3$, and Quemetco’s design value is 0.09 $\mu\text{g}/\text{m}^3$. As shown in Figures 2 and 3, monitors to the north, south/southwest, east, and west of the violating monitors have design values below the standard.

Figure 3. Southern California Lead (Pb) Monitors and Associated Design Values (DV)



³ South Coast AQMD 2009 Pb Network Plan, pg D-4.

Three monitors in Los Angeles County show violations of the 2008 Lead NAAQS. Therefore some area in Los Angeles County and possibly additional areas in surrounding counties must be designated nonattainment. We evaluate nearby counties because for each monitor or group of monitors that exceed a standard, nonattainment boundaries must cover a large enough area to include not only the area judged to be violating the standard but also the source areas that are determined to be contributing to the violations. Each area has been evaluated based on the weight of evidence of eight factors and other relevant information.

Emissions and Emissions-Related Data

Evidence of lead emissions sources surrounding a violating monitor are an important factor for determining whether a nearby area is contributing to a monitored violation. For this factor, EPA evaluated county level emission data for lead, population data, and emissions controls.

Emissions

Emissions data were derived from the 2005 National Emissions Inventory, version 2 (NEIv2), which is the most up-to-date version of the national inventory. See <http://www.epa.gov/ttnchie1/net/2005inventory.html>. EPA recognizes that for certain counties, emissions may have changed since 2005. For example, certain large sources of emissions in or near this area may have installed emission controls or otherwise significantly reduced emissions since 2005. EPA therefore also considered 2008 Toxics Release Inventory (TRI) information for California.⁴ In addition, South Coast AQMD provided some updated emissions information with their 2009 monitoring network plan.⁵ Table 3 reflects data from South Coast AQMD, the 2005 NEI, and the 2008 TRI.

There are approximately 20,000 airport facilities in the U.S. at which leaded aviation gasoline is consumed. To evaluate the potential impact of emissions at and near these facilities, EPA recommends that States use the draft 2008 NEI. Airports in Los Angeles County and surrounding counties emitting over 0.10 tons per year of Pb according to the draft 2008 NEI are listed in Appendix A.

⁴ TRI available at <http://www.epa.gov/triexplorer/>

⁵ South Coast AQMD 2009 Pb Network Plan, p D-9.

Table 3. California Facilities with Pb Emissions > 0.10 tpy.*

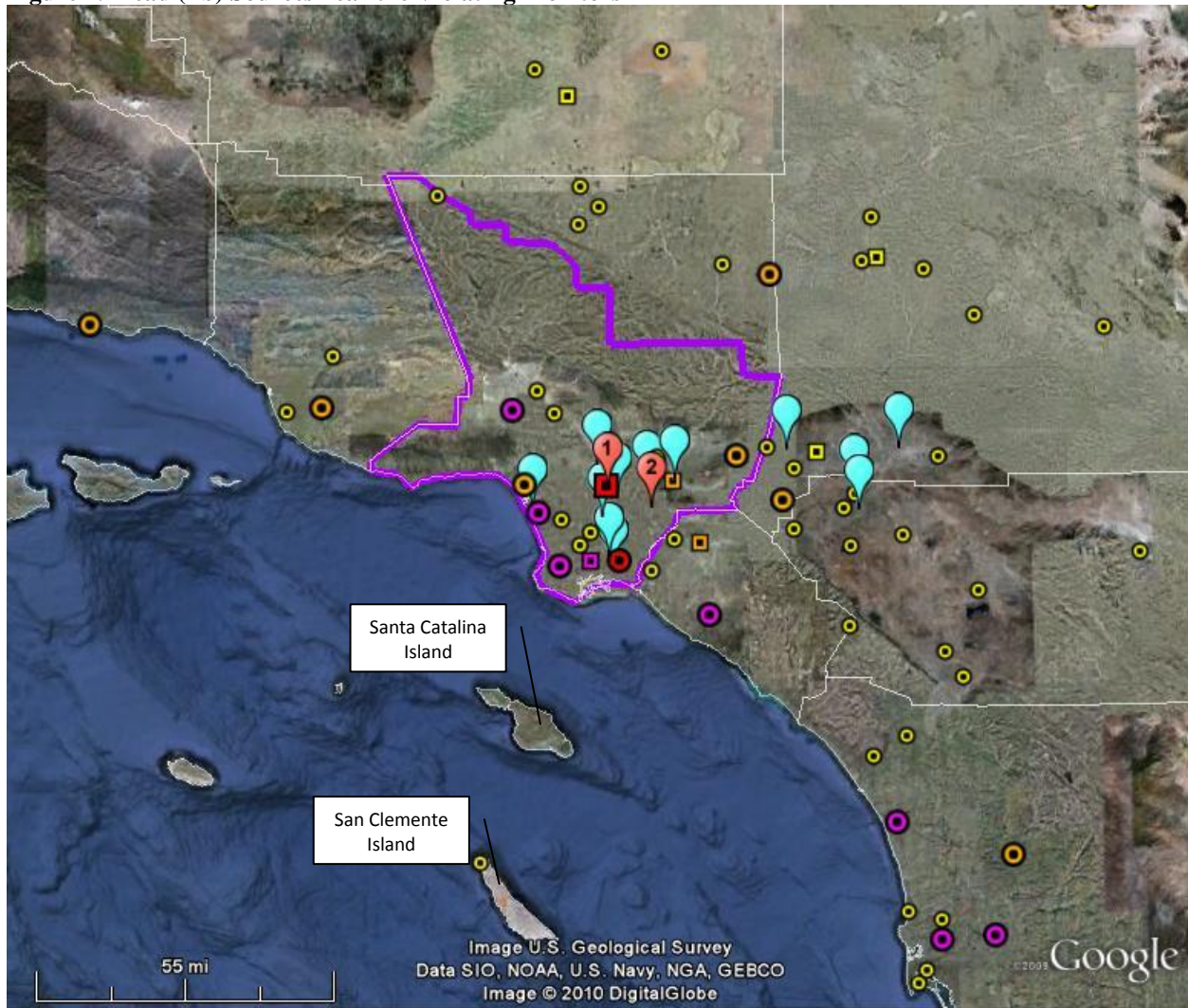
County	Facility in State Recommended Nonattainment Area?	Facility	Address	City	Facility Total Air Releases (tpy)
Kern	No	CalPortland Co Mojave Plant	9350 Oak Creek Rd	Mojave	0.22
Los Angeles	Yes	Exide Technologies	2700 S Indiana St	Los Angeles	2.00
Los Angeles	Yes	BP West Coast Products LLC Carson	1801 Sepulveda Bl	Carson	0.79
Los Angeles	Yes	Quemetco INC	720 S Seventh St	City of Industry	0.32
Los Angeles	Yes	Tesoro Los Angeles Refinery	2101 E Pacific Coast Hwy	Wilmington	0.15
Orange	No	Johnson Controls Battery Group	1550 Kimberly Ave	Fullerton	0.45
San Bernadino	No	TAMCO	12459 Arrow Rte	Rancho Cucamonga	0.12
San Bernadino	No	TXI Riverside Cement Oro Grande Plant	19409 National Trails Hwy	Oro Grande	0.10
San Joaquin	No	Owens-Brockway Glass Container Inc Plant #22	14700 W Schulte Rd	Tracy	0.26
San Joaquin	No	Pilkington NA INC	500 E Louise Ave	Lathrop	0.12

*Emissions reflect highest values from South Coast AQMD, 2008 TRI, and 2005 NEI version 2.

Figure 4 shows airports and point sources in the area near the violating monitors.

As shown in Figure 4, there are a few airports in the northern Mojave Desert part of Los Angeles County, the closest located more than 40 miles from a violating monitor. There are no known Pb sources emitting 0.1 tons of lead per year (tpy) or more on Santa Catalina Island. There is one small airport on San Clemente estimated to emit 0.17 tpy according to the draft 2008 NEI. Geography and meteorology related to the northern Mojave Desert portion of Los Angeles County and the islands are discussed below.

Figure 4. Lead (Pb) Sources near the Violating Monitors



LEGEND

<p>1 Exide-Vernon Violating Monitors ($2.49 \mu\text{g}/\text{m}^3$; $0.55 \mu\text{g}/\text{m}^3$)</p> <p>2 Trojan Battery Violating Monitor ($0.18 \mu\text{g}/\text{m}^3$)</p> <p>Monitors with Design Values $< 0.15 \mu\text{g}/\text{m}^3$</p>	<p>County Borders</p> <p>Proposed Nonattainment Boundary</p>
<p><u>Airports (according to the draft 2008 NEI)</u></p>	
<p>0.1 – 0.3 tpy</p> <p>0.3 – 0.5 tpy</p> <p>0.5 – 1.0 tpy</p> <p>> 1.0 tpy</p>	<p><u>Other Point Sources (according to 2005 NEIv2, state emissions inventory, 2008 TRI)</u></p> <p>0.1 – 0.3 tpy</p> <p>0.3 – 0.5 tpy</p> <p>0.5 – 1.0 tpy</p> <p>> 1.0 tpy</p>

Population Data, Growth Rates and Patterns

Table 4 shows the 2008 population for each county in the area being evaluated, as well as the population density and change for each county in that area. These data help assess the extent to which the concentration of human activities in the area and concentration of population-oriented commercial development may indicate emissions-based activity contributing to elevated ambient lead levels. This may include ambient lead contributions from activities that would disturb lead that has been deposited on the ground or on other surfaces. Re-entrainment of historically deposited lead is not reflected in the emissions inventory.

Table 4. Population Data

County	State Recommended Nonattainment?	2008 Population	2008 Population Density (pop/sq mi)	Population Change 2000-2008	Population % Change 2000-2008
Kern	No	800,458	98	136,948	21
Los Angeles	Yes (partial)	9,862,049	2,410	317,937	3
Orange	No	3,010,759	3,761	153,841	5
Riverside	No	2,100,516	288	541,239	35
San Bernardino	No	2,015,355	100	296,680	17
Ventura	No	797,740	429	41,326	5

Source of data: U.S. Census Bureau estimates for 2008

(<http://www.census.gov/popest/datasets.html>) and estimation of the area of U.S. Counties

CARB's March 2010 supplemental information highlights population, urbanization, and expected growth in the South Coast portion of Los Angeles County versus the Mojave Desert portion in northern Los Angeles County.

Similar to air quality and emissions, there are vast differences between the population and degree of urbanization in the two portions of Los Angeles County. Based on estimates for 2010, the highly urbanized South Coast portion of the County has a population of more than 10 million, compared with a population of 328,000 in the Mojave Desert portion. This means that nearly 97 percent of the County population lives in the South Coast portion, compared with only 3 percent in the Mojave Desert portion of the County. In terms of urbanization, the South Coast portion of Los Angeles County is part of the largest metropolitan area in California. In contrast, the Lancaster-Palmdale area is the only urbanized area in the Mojave Desert portion of the County. In terms of size, the South Coast portion of Los Angeles County is a little more than one and a half times larger than the Mojave Desert portion (2538 square miles versus 1522 square miles). However, the population density is 3,992 people per square mile, compared with only 216 people per square mile in the Mojave Desert portion. Over the last decade, the South Coast and Mojave Desert portions of Los Angeles County have realized similar growth rates, with population in both areas showing a seven percent increase from 2000 to 2005 and a two percent increase from 2005 to 2010. These trends are expected to continue, thereby maintaining the significant differences in population between the two sub-county areas.⁶

⁶ March 8, 2010 CARB Supplemental Information, p 6.

CARB's May 2010 supplemental information highlights population, urbanization, and expected growth in the South Coast mainland portion of Los Angeles County versus the two Channel Islands in Los Angeles County.

Based on estimates for 2010, the highly urbanized South Coast mainland portion of the County has a population of more than 10 million. The population of Santa Catalina Island is less than 5,000, while San Clemente Island, owned and operated by the United States Navy, is virtually uninhabited. This means that more than 99 percent of the population lives in the South Coast mainland portion of the County. In terms of size, the South Coast mainland portion of Los Angeles County is close to 20 times larger than both islands combined. However, the population density is 3,992 people per square mile, compared with about 50 people per square mile on Santa Catalina. Given the limited size of Santa Catalina Island and the military function of San Clemente Island, this discrepancy in population between the mainland and island portions of South Coast Los Angeles County is not expected to change.⁷

The northern, Mojave Desert portion and the offshore, islands portion of Los Angeles County vary drastically from the South Coast, mainland portion in terms of population density and degree of urbanization. Differences in terms of geography and meteorology are discussed below.

EPA has considered the population growth rate for this area and does not believe that it affects the boundary recommendation.

Emissions Controls

Under this factor, the existing level of control of emission sources is taken into consideration. The emissions data used by EPA in this technical analysis and provided in Table 3 and Appendix A represent emissions levels taking into account any control strategies implemented in Southern Los Angeles County on stationary sources prior to the relevant data collection.

In September 1992, South Coast AQMD adopted Rule 1420 (Emissions Standard for Lead). Aimed at reducing lead emissions from stationary sources, the rule requires specific emissions controls for gas streams and fugitive lead-dust emissions, submittal of compliance plans, and monitoring by sources emitting more than 10 tons of lead per year.⁸ CARB's submittal states that this rule has been very effective in reducing lead emissions.⁹

⁷ May 12, 2010 CARB Supplemental Information, p 3.

⁸ "Rule 1420. Emissions Standard for Lead," South Coast Air Quality Management District, September 11, 1992.

⁹ March 8, 2010 CARB Supplemental Information, p 5.

Meteorology and Geography / Topography

The geography/topography analysis evaluates the physical features of the land that might have an effect on the air shed and, therefore, on the distribution of lead over Los Angeles County. Figure 5 shows air basins in southern California. The State of California supplemental information supports including the South Coast Air Basin portion of Los Angeles County, and excluding the Mojave Desert portion of the county, based on the substantially different meteorological conditions in the South Coast Basin and Mojave Desert, and the presence of the mountain range which act as a barrier to airflow between the South Coast and Mojave Desert.

Meteorological conditions in the South Coast and Mojave Desert portions of Los Angeles County are substantially different. The South Coast portion is bounded by the Pacific Ocean, which makes for a more temperate climate with cooler temperatures and a diurnal pattern of on-shore / off-shore air flow. Temperatures generally average in the 70s during the summertime and the 50s during the wintertime. Average annual precipitation is about 15 inches per year. In contrast to the coastal area, the Mojave Desert portion of Los Angeles County is a high desert area with average temperatures in the 80s during summer and the 40s during the winter. This desert portion of the County receives half as much rainfall, averaging about 7 inches per year.

The South Coast portion of Los Angeles, where the major lead emissions sources are located, is surrounded by mountains which act as barriers to airflow between the South Coast and Mojave Desert.... Although there are a limited number of gaps in these mountains where transport has been documented, transport of lead emissions from the South Coast into the Mojave Desert is highly unlikely, given the weight of lead particles and the rapid decrease in concentration with distance from a source. As a result, emissions sources in the South Coast are not expected to have an impact on lead concentrations in the Mojave Desert portion of the County.¹⁰

¹⁰ March 8, 2010 CARB Supplemental Information, p 6.

Figure 5. Southern California Air Basins



The South Coast Air Quality Management Plan (AQMP) also supports the exclusion of the Mojave Desert portion of Los Angeles County, indicating that the long range transport of primary pollutants (such as lead) are unlikely due to the barrier provided by the 10,000 foot mountain range, in addition to the fact that the concentrations of primary pollutants such as lead are typically highest close to the source.

The South Coast Air Basin is arid, with virtually no rainfall and abundant sunshine during the summer months. It has light winds and poor vertical mixing compared to the other large urban areas in the U.S. The combination of poor dispersion and abundant sunshine provide conditions especially favorable to the formation of photochemical smog. The Basin is bounded to the north and east by mountains with maximum elevations exceeding 10,000 feet. The unfavorable combination of meteorology, topography, and emissions from the nation's second largest urban area result in the Basin having the worst air quality in the U.S.¹¹

...The prevailing daytime sea breeze tends to transport pollutants from coastal areas into the Basin's inland valleys, and from there, still further inland into neighboring areas of

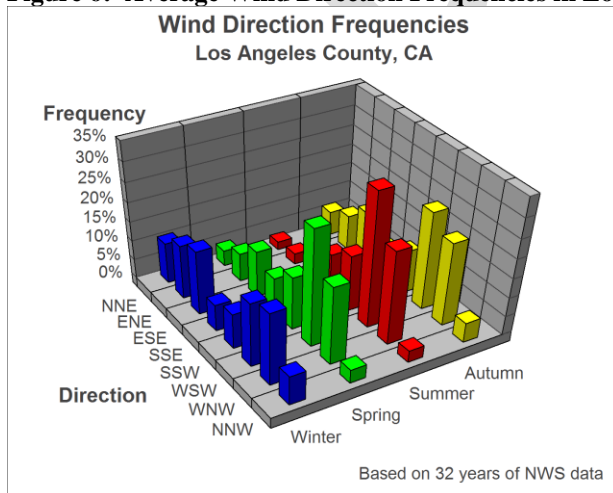
¹¹ "Final 2007 AQMP Appendix II: Current Air Quality," South Coast Air Quality Management District, June 2007. p II-1-4.

the Salton Sea Air Basin, as well as the Mojave Desert Air Basin. Concentrations of primary pollutants (those emitted directly into the air) are typically highest close to the sources which emit them. However, secondary pollutants (those formed in the air by chemical reaction of precursors) reach maximum concentrations some distance downwind of the sources that emit the precursors, due to the fact that the polluted air mass is moved inland many miles by the prevailing winds before maximum concentrations are reached.¹²

CARB supplied additional justification for excluding the two Channel Islands from the nonattainment area. Santa Catalina and San Clemente Islands are part of Los Angeles County, and fall within the South Coast Air Basin. Approximately 20 miles and 50 miles from the southern border of Los Angeles County (see Figure 5), respectively, Santa Catalina and San Clemente are isolated areas surrounded by water. CARB’s explanation states, “Although an onshore/offshore air flow regime impacts both areas, the distance between the mainland South Coast portion of the County and the islands offshore precludes any significant contribution to lead concentrations from the mainland to the islands.”¹³

The wind direction frequencies for Los Angeles, shown below, indicate that the predominant wind direction is from the WNW for winter and from the WSW for spring, summer, and autumn. Although this indicates a potential for transport to the northeastern portion of the county, the air monitoring data (see Figure 2) indicate that the measured ambient air concentration values for lead decrease to below the standard relatively near the source, which is consistent with excluding the Mojave Desert Air Basin portion and the Channel Islands portion of Los Angeles County from the non-attainment area, and not extending the nonattainment boundary beyond Los Angeles County.

Figure 6: Average Wind Direction Frequencies in Los Angeles County, CA



Source: A three-dimensional bar chart shows the wind frequencies in eight directions for the four seasons. This data is taken from 1960-1992 Solar and Meteorological Surface Observation Network information issued jointly by the

¹² “Final 2007 AQMP Appendix II: Current Air Quality,” South Coast Air Quality Management District, June 2007. p II-2-1.

¹³ May 12, 2010 CARB Supplemental Information, p 3.

U.S. Department of Commerce: National Climatic Data Center and the U.S. Department of Energy: National Renewable Energy Laboratory. The chart frequencies reflect the directions from which the winds come. Based on EPA's technical analysis of the information provided by CARB, the South Coast AQMP, and the wind frequencies, EPA believes this information supports the Southern Los Angeles County as the appropriate boundary for the nonattainment area.

Jurisdictional boundaries

Existing jurisdictional boundaries may be helpful in articulating a boundary for purposes of nonattainment designations, and for purposes of carrying out the governmental responsibilities of planning for attainment of the lead NAAQS and implementing control measures. These existing boundaries may include an existing nonattainment or maintenance area boundary, a county or township boundary, a metropolitan area boundary, an air management district, or an urban planning boundary established for coordinating business development or transportation activities.

As noted in CARB's supplemental information submittal:

...Los Angeles County is divided between two air basins. The southern two-thirds of the County is located in the South Coast Air Basin (South Coast) and falls under the jurisdiction of the South Coast Air Quality Management District (South Coast AQMD or District). The northern third of the County is located in the Mojave Desert Air Basin (Mojave Desert) and falls under the jurisdiction of the Antelope Valley Air Quality Management District... The jurisdictional differences, along with the disparity among emissions sources and other factors, justify limiting the lead nonattainment area to the South Coast portion of Los Angeles County.¹⁴

The jurisdictional split described above is illustrated in Figures 7 and 8. The intended nonattainment area lies entirely within the portion of Los Angeles County that is solely under the jurisdiction of the South Coast AQMD. No tribal lands are located within or adjacent to the recommended nonattainment area. The District will be responsible for developing the Pb state implementation plan and required control strategies.

¹⁴ March 8, 2010 CARB Supplemental Information, p 1.

Figure 7: Southern California Air Districts



Figure 8: Southern California Counties



Other Relevant Information

Additional information may be found in CARB's October 2009, March 2010, and May 2010 submittals.

Conclusion

After considering the factors described above, EPA believes it is appropriate for the partial county listed in Table 1 to comprise the Southern Los Angeles County 2008 Lead NAAQS nonattainment area.

Three air quality monitors in Southern Los Angeles County show violations of the 2008 Lead NAAQS, based on 2006-2008 air quality data. All three monitors are located near sources. The ring of non-source oriented monitors surrounding the three violating monitors show concentrations well below the standard. Additionally, the South Coast and Mojave Desert portions of Los Angeles County are separated by a mountain range, and differ in population, degree of urbanization, number of sources, meteorology and topography. The mainland South Coast and offshore islands portions of Los Angeles County are separated by twenty miles or more of water, and differ vastly in population, urbanization, and number of sources. The southern mainland portion of Los Angeles County contains the violating monitors, the majority of the county's Pb sources, the majority of the population, and falls under one air quality management district's purview. Based on its consideration of all the relevant, available information, as described above, EPA believes that the boundaries described herein encompass the entire area that does not meet (or that contributes to ambient air quality in a nearby area that does not meet) the 2008 lead NAAQS.

Citations

October 2009 CARB Recommendation Letter from James N. Goldstene, Air Resources Board, to Laura Yoshii, U.S. Environmental Protection Agency Region 9, October 14, 2009 transmitting recommendations for the 2008 Pb NAAQS, with enclosures.

March 8, 2010 CARB Supplemental Information “State of California Supplemental Information for Recommended Lead Nonattainment Area, South Coast Air Basin Portion of Los Angeles County: Eight Factor Analysis,” California Air Resources Board, March 8, 2010.

May 12, 2010 CARB Supplemental Information “State of California Supplemental Information for Recommended Lead Nonattainment Area, South Coast Air Basin Portion of Los Angeles County Excluding the Channel Islands: Eight Factor Analysis,” California Air Resources Board, May 12, 2010.

South Coast AQMD 2009 Pb Network Plan “Appendix D: South Coast Air Quality Management District Lead (Pb) Monitoring Network Plan,” South Coast Air Quality Management District, July 2009.

Appendix A
Los Angeles County and Neighboring Counties: Airports Emitting 0.1 tons per year of Pb or
more, according to the Draft 2008 National Emissions Inventory

Appendix A. Los Angeles County and Neighboring Counties: Airports Emitting > 0.10 tpy Pb according to the draft 2008 NEL.

County	Airport in State Recommended Nonattainment Area?	Facility	Type	City	Facility Total Air Releases (tpy)
Kern	No	MEADOWS FIELD	AIRPORT	BAKERSFIELD	0.34
Kern	No	MOUNTAIN VALLEY	AIRPORT	TEHACHAPI	0.14
Kern	No	SHAFTER-MINTER FIELD	AIRPORT	SHAFTER	0.13
Kern	No	CALIFORNIA CITY MUNI	AIRPORT	CALIFORNIA CITY	0.10
Kern	No	INYOKERN	AIRPORT	INYOKERN	0.10
Los Angeles	Yes	LONG BEACH /DAUGHERTY FIELD/	AIRPORT	LONG BEACH	1.07
Los Angeles	Yes	VAN NUYS	AIRPORT	VAN NUYS	0.91
Los Angeles	Yes	ZAMPERINI FIELD	AIRPORT	TORRANCE	0.59
Los Angeles	Yes	LOS ANGELES INTL	AIRPORT	LOS ANGELES	0.54
Los Angeles	No	GRAY BUTTE FIELD	AIRPORT	PALMDALE	0.49
Los Angeles	Yes	SANTA MONICA MUNI	AIRPORT	SANTA MONICA	0.34
Los Angeles	Yes	BRACKETT FIELD	AIRPORT	LA VERNE	0.33
Los Angeles	Yes	EL MONTE	AIRPORT	EL MONTE	0.24
Los Angeles	Yes	WHITEMAN	AIRPORT	LOS ANGELES	0.20
Los Angeles	Yes	COMPTON/WOODLEY	AIRPORT	COMPTON	0.18
Los Angeles	Yes	BOB HOPE	AIRPORT	BURBANK	0.17
Los Angeles	No	SAN CLEMENTE ISLAND NALF	AIRPORT	SAN CLEMENTE ISLAND	0.17
Los Angeles	No	GENERAL WM J FOX AIRFIELD	AIRPORT	LANCASTER	0.16
Los Angeles	Yes	JACK NORTHROP FIELD/HAWTHORNE MUNI	AIRPORT	HAWTHORNE	0.16
Los Angeles	No	BOHUNK'S AIRPARK	AIRPORT	LANCASTER	0.13
Los Angeles	No	LITTLE BUTTES ANTIQUE AIRFIELD	AIRPORT	LANCASTER	0.12
Los Angeles	Yes	QUAIL LAKE SKY PARK	AIRPORT	GORMAN/LANCASTER	0.11
Los Angeles	Yes	GOODYEAR BLIMP BASE	AIRPORT	CARSON	0.11
Los Angeles	No	NICHOLS FARMS	AIRPORT	PALMDALE	0.11
Orange	No	JOHN WAYNE AIRPORT-ORANGE COUNTY	AIRPORT	SANTA ANA	0.79
Orange	No	FULLERTON MUNI	AIRPORT	FULLERTON	0.19
Orange	No	MC CONVILLE AIRSTRIP	AIRPORT	LAKE ELSINORE	0.17
Orange	No	LOS ALAMITOS AAF	AIRPORT	LOS ALAMITOS	0.17
Riverside	No	FRENCH VALLEY	AIRPORT	MURRIETA/TEMECULA	0.27
Riverside	No	JACQUELINE COCHRAN RGNL	AIRPORT	PALM SPRINGS	0.21
Riverside	No	HEMET-RYAN	AIRPORT	HEMET	0.21
Riverside	No	RIVERSIDE MUNI	AIRPORT	RIVERSIDE	0.21
Riverside	No	CORONA MUNI	AIRPORT	CORONA	0.19
Riverside	No	PALM SPRINGS INTL	AIRPORT	PALM SPRINGS	0.17
Riverside	No	BERMUDA DUNES	AIRPORT	PALM SPRINGS	0.11

Riverside	No	FLABOB	AIRPORT	RIVERSIDE/RUBIDOUX/	0.11
Riverside	No	JULIAN HINDS PUMP PLANT AIRSTRIP	AIRPORT	DESERT CENTER	0.11
Riverside	No	MARCH ARB	AIRPORT	RIVERSIDE	0.11
Riverside	No	LAKE MATHEWS	AIRPORT	RIVERSIDE	0.11
Riverside	No	BILLY JOE	AIRPORT	TEMECULA	0.11
Riverside	No	PERRIS VALLEY	AIRPORT	PERRIS	0.10
San Bernardino	No	CHINO	AIRPORT	CHINO	0.38
San Bernardino	No	CABLE	AIRPORT	UPLAND	0.26
San Bernardino	No	ONTARIO INTL	AIRPORT	ONTARIO	0.15
San Bernardino	No	SOUTHERN CALIFORNIA LOGISTICS	AIRPORT	VICTORVILLE	0.13
San Bernardino	No	REDLANDS MUNI	AIRPORT	REDLANDS	0.12
San Bernardino	No	GOLDSTONE /GTS/	AIRPORT	BARSTOW	0.12
San Bernardino	No	CADIZ AIRSTRIP	AIRPORT	CADIZ	0.12
San Bernardino	No	DANBY AIRSTRIP	AIRPORT	DANBY	0.12
San Bernardino	No	IRON MOUNTAIN PUMPING PLANT	AIRPORT	DESERT CENTER	0.12
San Bernardino	No	BICYCLE LAKE AAF	AIRPORT	FORT IRWIN/BARSTOW	0.12
San Bernardino	No	CAMINO AIRSTRIP	AIRPORT	GOFFS	0.12
San Bernardino	No	PALISADES RANCH	AIRPORT	HELENDALE	0.12
San Bernardino	No	HART MINE	AIRPORT	IVANPAH	0.12
San Bernardino	No	RABBIT RANCH	AIRPORT	LUCERNE	0.12
San Bernardino	No	CONES FIELD	AIRPORT	TWENTYNINE PALMS	0.12
San Bernardino	No	TWENTYNINE PALMS (SELF)	AIRPORT	TWENTYNINE PALMS	0.12
San Bernardino	No	B & E RANCH	AIRPORT	YUCCA VALLEY	0.12
San Bernardino	No	APPLE VALLEY	AIRPORT	APPLE VALLEY	0.10
Ventura	No	CAMARILLO	AIRPORT	CAMARILLO	0.42
Ventura	No	SANTA PAULA	AIRPORT	SANTA PAULA	0.27
Ventura	No	OXNARD	AIRPORT	OXNARD	0.25