

State of California



California Environmental Protection Agency
AIR RESOURCES BOARD

**PM_{2.5} Area Designation
Recommendations for the
Revised Federal PM_{2.5} Annual Standard**

Release Date: October 28, 2013
Public Meeting Date: November 21-22, 2013

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Summary

On December 14, 2012, the U.S. Environmental Protection Agency (U.S. EPA) strengthened the annual National Ambient Air Quality Standard (NAAQS or standard) for particulate matter 2.5 micrometers or less in diameter (PM_{2.5}) from 15.0 µg/m³ to 12.0 µg/m³. The State of California is required to submit area designation recommendations and appropriate boundaries to U.S. EPA for this standard by December 14, 2013. The purpose of this report is to share the staff's technical analysis and recommendations to be sent to U.S. EPA. U.S. EPA will make final designations in December 2014.

California Air Resources Board (ARB) staff has performed an analysis to determine appropriate designation areas throughout the State using criteria outlined in the U.S. EPA's guidance memorandum.¹ Determination of attainment/nonattainment is based on comparing a three-year average of the annual average concentration to the level of the standard. This is known as the design value. These three-year rolling averages are updated once the year's monitoring data is reviewed and certified.

Due to the success of ongoing programs, many California counties already meet the 12.0 µg/m³ standard. Based on 2010-2012 PM_{2.5} air quality monitoring data, the three areas that do not meet the standard are: South Coast Air Basin, San Joaquin Valley and Imperial County. Staff is recommending that the boundaries for the 15.0 µg/m³ standard for the South Coast Air Basin and the San Joaquin Valley be retained for the new standard. The recommended boundary for Imperial County is the same as the boundary for the 35 µg/m³ 24-hour standard. While U.S. EPA is expected to base final designations on 2011-2013 PM_{2.5} data, the attainment status is not expected to be different with the addition of 2013 data.

Air Quality Analysis

ARB maintains a comprehensive PM_{2.5} monitoring network, including Federal Reference Method (FRM) mass samplers, Federal Equivalent Method (FEM) continuous mass samplers, and chemical speciation samplers. ARB staff uses these monitoring data to determine PM_{2.5} concentrations in relation to the federal standard. Speciation samplers are used to determine the nature of the PM_{2.5} pollution and to assist in assessing the efficacy of emission reduction strategies. ARB staff's initial designation recommendations are based on ambient PM_{2.5} concentrations measured from 2010 through 2012 by over 90 FRM/FEM monitors, sited and operated in accordance with federal requirements, and located throughout the State.

U.S. EPA allows for the exclusion of certain FEM data, if the data have compared poorly with FRM data, in accordance with the Particulate Matter NAAQS rule

¹ April 16, 2013, Initial Area Designations for the 2012 Revised Primary Annual Fine Particle National Ambient Air Quality Standard, Memorandum from Gina McCarthy, Assistant Administrator, Office of Air and Radiation to Regional Administrators, Regions 1-10.

published on January 15, 2013² and specific to the provisions detailed in §58.10 (b)(13) and §58.11 (e). Consequently, formal requests were submitted to the U.S. EPA by the South Coast Air Quality Management District (South Coast AQMD)³ and the San Diego County Air Pollution Control District (San Diego APCD)⁴ to exclude the use of FEM data in comparison to the NAAQS due to insufficient comparability to collocated PM_{2.5} monitors. In anticipation of U.S. EPA granting this request, the data from these monitors were not used in calculating the 2012 annual PM_{2.5} design values.

The U.S. EPA’s guidance memorandum also states that air quality monitoring data affected by exceptional events may be excluded from use in identifying a violation if certain criteria are met. The 2012 design values in this document do not reflect the exclusion of impacts from exceptional events, as these events would not affect attainment status based on data for 2010 through 2012. However, should this change with the addition of data for 2013, ARB staff will submit any required documentation to U.S. EPA in accordance with federal policy on exceptional events prior to final designations.

The following table provides the annual PM_{2.5} design value for three air districts with monitors violating the standard: South Coast AQMD, San Joaquin Valley Air Pollution Control District (San Joaquin Valley APCD), and the Imperial County Air Pollution Control District (Imperial County APCD). Attachment 1 contains the PM_{2.5} design values for all monitors in California.

Table 1: Nonattainment Area Design Values

Air District	Nonattainment Area High Site	2012 Annual Average Design Value (µg/m ³)
South Coast AQMD	Mira Loma, Riverside County	15.2
San Joaquin Valley APCD	Clovis, Fresno County	16.0
Imperial County APCD	Calexico, Imperial County	14.0

Boundary Analysis

In California, if the pollution problem is regional in nature, the primary considerations for air quality planning are air basin and air district boundaries. Consistent with State law, California’s air basin boundaries were established based on a scientific assessment of emissions, geography, and meteorology, with consideration of political jurisdictions. Basin boundaries are formally

² National Ambient Air Quality Standards for Particulate Matter; Final Rule. 78 Federal Register 10 (15 January 2013), pp. 3086-3287.

³ South Coast Air Quality Management District. Annual Air Quality Monitoring Network Plan. July 2013. <http://www.aqmd.gov/tao/AQ-Reports/AQMonitoringNetworkPlan/AQnetworkplan.htm>.

⁴ San Diego Air Pollution Control District. 2012 Air Quality Network Plan. July 2013. http://www.sdapcd.org/air/reports/2012_network_plan.pdf.

adopted by ARB in regulation. Local air districts have been established, and their jurisdictions defined, by State statute. ARB typically uses a combination of air basin and air district lines to identify boundaries for areas that violate air quality standards, with the exception of situations where a single city or community has a unique air pollution problem distinct from the region.

The Clean Air Act requires that a nonattainment area must include not only the area that is violating the standard, but also nearby areas that contribute to violations. Accordingly, ARB's recommended nonattainment boundaries are sufficiently large to include both the violating and contributing areas. U.S. EPA guidance recommends that in making boundary recommendations for nonattainment areas, states evaluate each area on a case-by-case basis in consideration of the following five factors:

- Air quality data
- Emissions and emission-related data
- Meteorology
- Geography/topography
- Jurisdictional boundaries

The boundaries already in existence for the 24-hour PM_{2.5} standard, and in the case of the South Coast and San Joaquin Valley Air Basins, the previous annual PM_{2.5} standard, are the result of extensive technical analyses,⁵ and continue to appropriately reflect conditions under the revised annual PM_{2.5} standard.

Designation Recommendations

After consideration of the five factors outlined in U.S. EPA's guidance memorandum, ARB staff recommends the nonattainment area boundaries outlined below.

Imperial County Air Pollution Control District

No portion of Imperial County was designated nonattainment for the previous annual standard of 15 µg/m³. In 2006, after extensive technical analysis, U.S. EPA designated a portion of Imperial County as nonattainment of the 24-hour PM_{2.5} standard of 35 µg/m³. Based on 2010-2012 monitoring data, only one monitor in Imperial County is in nonattainment for the revised annual PM_{2.5} standard, with a design value of 14.0 µg/m³. The violations of the PM_{2.5} standard are localized at the monitor at Calexico, on the U.S. – Mexico border, at the southern end of Imperial County. ARB staff's assessment of air quality in the region indicates the area would attain the PM_{2.5} air quality standard but for emissions emanating from outside of the United States, in particular, from the

⁵ Letter from James Goldstene, Executive Officer, ARB, to Wayne Nastri, Regional Administrator, U.S. EPA, December 17, 2007, plus enclosures; Letter from Wayne Nastri, Regional Administrator, U.S. EPA, to Arnold Schwarzenegger, Governor, State of California, August 18, 2008, plus enclosures; Letter from James Goldstene, Executive Officer, ARB, to Wayne Nastri, Regional Administrator, U.S. EPA, October 15, 2008, plus enclosures.

much larger adjacent city of Mexicali, Mexico. Consideration of U.S. EPA's five factors indicates that this international pollutant transport contributes to elevated PM_{2.5} levels at Calexico and, to a much lesser extent, the urban area to the north. This analysis of the contribution of international transport to the annual PM_{2.5} standard is consistent with the assessment previously submitted for the recently revised 24-hour PM_{2.5} standard and U.S. EPA's extensive technical analysis in support of the final designations.⁵ Consistent with the previous assessment of the impacts of international pollutant transport on PM_{2.5} in Imperial County, ARB recommends the annual PM_{2.5} nonattainment area coincide with the nonattainment area already in existence.

The recommended Imperial County PM_{2.5} nonattainment area includes the urban areas of Calexico, Brawley, El Centro, Holtville, Imperial, Seeley, and Westmorland. The area is under the jurisdiction of the Imperial County Air Pollution Control District. The official boundary is provided in Attachment 2.

San Joaquin Valley Air Basin

In 1997, the San Joaquin Valley Air Basin (San Joaquin Valley) was designated nonattainment of the annual PM_{2.5} standard of 15.0 µg/m³. Based on 2010-2012 monitoring data, the San Joaquin Valley remains in nonattainment of the revised annual PM_{2.5} standard with a design value of 16.0 µg/m³ measured at the Clovis–N Villa Ave monitoring site. In addition to data recorded at the high site listed in Table 1, other monitors distributed throughout the San Joaquin Valley record violations of the standard (Attachment 1). Consideration of U.S. EPA's five factors indicates broad regional contribution to elevated PM_{2.5} levels and supports the use of the air basin boundary which reflects the regional nature of PM_{2.5} pollution in this area. Consistent with this recent analysis, the assessment previously submitted for the recently revised 24-hour PM_{2.5} standard, and U.S. EPA's extensive technical analysis in support of their final designations,⁵ ARB recommends the annual PM_{2.5} nonattainment area coincide with the nonattainment area already in existence.

The recommended San Joaquin Valley PM_{2.5} nonattainment area consists of San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare, and Western Kern Counties. The area is under the jurisdiction of the San Joaquin Valley Air Pollution Control District. The official boundary is provided in Attachment 2.

South Coast Air Basin

In 1997, the South Coast Air Basin (South Coast) was designated nonattainment of the annual PM_{2.5} standard of 15.0 µg/m³. Based on 2010-2012 monitoring data, the South Coast remains in nonattainment of the revised annual PM_{2.5} standard with a design value of 15.2 µg/m³ measured at the Mira Loma–Van Buren monitoring site. In addition to data recorded at the high site listed in Table 1, other monitors distributed throughout the South Coast record violations of the standard (Attachment 1). Consideration of U.S. EPA's five factors indicates broad regional contribution to elevated PM_{2.5} levels and supports the

use of the air basin boundary which reflects the regional nature of PM_{2.5} pollution in this area. Consistent with this recent analysis, the assessment previously submitted for the recently revised 24-hour PM_{2.5} standard, and U.S. EPA's extensive technical analysis in support of their final designations,⁵ ARB recommends the annual PM_{2.5} nonattainment area coincide with the nonattainment area already in existence.

The recommended South Coast PM_{2.5} nonattainment area includes Western Los Angeles (excluding Catalina and San Clemente Islands), Orange, Southwestern San Bernardino, and Western Riverside Counties. This area is under the jurisdiction of the South Coast Air Quality Management District. The official boundary is provided in Attachment 2.

The areas recommended by ARB as nonattainment for the PM_{2.5} standard are illustrated below (Figure 1):

Figure 1: Proposed Nonattainment Areas



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ATTACHMENT 1

PM2.5 Annual Average and Annual Design Values (ug/m3)

Basin	SiteName	Annual Average			Annual Design Values		
		2010	2011	2012	2010	2011	2012
GBV	Keeler-Cerro Gordo Road	7.1	8.1	6.7	7.0	7.4	7.3
GBV	Mammoth Lakes-Gateway HC						
LC	Lakeport-Lakeport Blvd	3.0	3.4	3.8	4.5	3.2	3.4
LT	South Lake Tahoe-Sandy Way						
MC	Echo Summit						
MC	Grass Valley-Litton Building	4.5	4.2	3.8	6.2	4.4	4.2
MC	Portola-161 Nevada Street	9.7	11.9	13.0	10.9	10.3	11.5
MC	Portola-Commercial Street						
MC	Quincy-N Church Street	7.1	10.8	9.5	10.9	9.4	9.1
MC	San Andreas-Gold Strike Road	4.9	9.1	7.0	6.5	7.2	7.5
MC	Truckee-Fire Station	5.6	6.6	6.2	7.0	6.0	6.1
MD	Lancaster-43301 Division Street	5.9	7.1	5.4	7.0	6.9	6.1
MD	Lancaster-W Pondera Street						
MD	Mojave-923 Poole Street	4.6	6.3	6.5	5.5	5.4	5.8
MD	Ridgecrest-100 West California Avenue	5.1	5.6	5.3	6.0	5.5	5.3
MD	Victorville-14306 Park Avenue	7.2	6.8	6.7	8.3	7.7	6.9
MD	Victorville-Armagosa Road						
NC	Eureka-Humboldt Hill		8.2	6.8			
NC	Eureka-I Street	5.5	6.2	5.4	6.5	6.1	5.7
NC	Eureka-Jacobs	5.6	6.6	5.7	6.8	6.4	6.0
NC	Ukiah-County Library	6.6	7.6	4.6	8.7	8.6	6.3
NC	Willits-125 E Commercial Street	7.7	9.9	7.4			8.3
NCC	Carmel Valley-Ford Road			5.7			
NCC	Hollister-Fairview Road	5.8	5.9	5.1	6.1	5.7	5.6
NCC	King City-415 Pearl Street			6.1			
NCC	Salinas-#3	6.6	6.4	5.6	6.5	6.3	6.2
NCC	Salinas-Natividad Road #2						
NCC	Santa Cruz-2544 Soquel Avenue	6.5	6.5	5.9	6.3	6.3	6.3
NEP	Alturas-W 4th Street						
NEP	Yreka-Foothill Drive	4.5	5.5	5.7	5.7	5.1	5.2
SC	Anaheim-Harbor Blvd						
SC	Anaheim-Pampas Lane	10.2	10.9	10.8	11.8	11.1	10.6
SC	Azusa	10.8	12.1	11.0	12.7	12.0	11.3
SC	Big Bear City-501 W. Valley Blvd	8.4	8.4	8.0	9.1	8.9	8.2
SC	Burbank-W Palm Avenue	12.4	13.2	12.2	13.9	13.6	12.6
SC	Compton-700 North Bullis Road	12.5	13.0	11.7	13.2	13.4	12.4
SC	Fontana-Arrow Highway	11.9	12.6	12.8	13.8	12.9	12.4
SC	Los Angeles-North Main Street	11.9	12.9	12.5	14.1	13.1	12.4

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Basin	SiteName	Annual Average			Annual Design Values		
		2010	2011	2012	2010	2011	2012
SC	Lynwood						
SC	Mira Loma Van Buren	15.2	15.3	15.0	16.9	15.9	15.2
SC	Mission Viejo-26081 Via Pera	8.0	8.5	7.9	9.3	8.7	8.1
SC	North Long Beach	10.5	11.0	10.3	12.5	11.4	10.6
SC	Ontario-1408 Francis Street	13.0	13.3	12.4	14.5	13.7	12.9
SC	Pasadena-S Wilson Avenue	10.2	10.8	10.1	11.8	11.1	10.4
SC	Pico Rivera						
SC	Pico Rivera-4144 San Gabriel	12.5	12.5	11.9	14.1	13.3	12.3
SC	Reseda	10.2	10.2	10.5	11.1	10.6	10.3
SC	Riverside-Magnolia	11.0	11.8	11.4	12.5	12.0	11.4
SC	Riverside-Rubidoux	13.1	13.6	13.5	15.0	14.1	13.4
SC	San Bernardino-4th Street	11.1	12.2	11.8	12.5	12.1	11.7
SC	South Long Beach	10.4	10.7	10.5	12.2	11.2	10.5
SCC	Arroyo Grande-2391 Willow Road	10.0	12.0	9.6			10.5
SCC	Atascadero-Lewis Avenue	6.3	7.6	6.2	7.9	7.7	6.7
SCC	El Rio-Rio Mesa School #2	8.5	8.8	8.8	9.6	9.2	8.7
SCC	Nipomo-Guadalupe Road	8.2	8.3	8.1		8.2	8.2
SCC	Ojai-Ojai Avenue			9.5			
SCC	Piru-3301 Pacific Avenue	8.5	7.6	9.6	9.2	8.5	8.6
SCC	San Luis Obispo-3220 South Higuera St	5.5	6.7	6.2	6.4	6.1	6.1
SCC	San Luis Obispo-Marsh Street						
SCC	Santa Barbara-700 East Canon Perdido	7.7	11.0	8.6	9.2	9.9	9.5
SCC	Santa Barbara-W Carillo Street						
SCC	Santa Maria-906 S Broadway	5.6	7.8	7.6	6.8	6.9	7.2
SCC	Santa Maria-Broadway						
SCC	Simi Valley-Cochran Street	8.7	8.7	9.3	9.9	9.2	8.9
SCC	Thousand Oaks-Moorpark Road	8.7	8.6	9.5	9.9	9.3	9.0
SD	Alpine-Victoria Drive			7.7			
SD	Camp Pendleton	8.0	12.0	10.7		10.8	10.2
SD	Chula Vista	9.6	9.9	10.1	11.1	10.3	9.8
SD	El Cajon-Redwood Avenue	10.8	10.6	10.5	12.1	11.2	10.6
SD	Escondido-E Valley Parkway	10.5	10.4	10.5	12.7	11.5	10.5
SD	San Diego-1110 Beardsley Street	10.4	10.8	11.0	12.0	11.0	10.7
SD	San Diego-12th Avenue						
SD	San Diego-Kearny Villa Road			8.7			
SD	San Diego-Overland Avenue	8.7	8.9	8.1	10.2	9.4	8.6
SFB	Concord-2956 A Treat Blvd						

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Basin	SiteName	Annual Average			Annual Design Values		
		2010	2011	2012	2010	2011	2012
SFB	Concord-2975 Treat Blvd	7.1	7.8	6.6	8.3	7.8	7.2
SFB	Fremont-Chapel Way	8.5			9.1		
SFB	Gilroy-9th Street	8.2	8.1	7.4	8.6	8.4	7.9
SFB	Livermore-793 Rincon Avenue	7.6	7.9	6.6	9.0	8.2	7.4
SFB	Napa-Jefferson Avenue			13.7			
SFB	Oakland-9925 International Blvd	7.8	10.1	9.5	8.8	9.1	9.1
SFB	Oakland-West			7.1			
SFB	Redwood City	8.4	8.8	8.5	8.7	8.6	8.6
SFB	San Francisco-Arkansas Street	10.5	9.5	8.2	10.0	9.9	9.4
SFB	San Jose-4th Street						
SFB	San Jose-Jackson Street	8.8	9.9	9.1	10.2	9.6	9.3
SFB	San Jose-Tully Road						
SFB	San Pablo-Rumrill Blvd			7.3			
SFB	San Rafael	10.7	9.9	8.0			9.5
SFB	Santa Rosa-5th Street	7.3	8.6	8.3	8.1	8.1	8.0
SFB	Vallejo-304 Tuolumne Street	7.7	9.8	9.0	9.1	9.1	8.8
SJV	Bakersfield-410 E Planz Road	17.6	14.4	14.7	21.2	18.2	15.6
SJV	Bakersfield-5558 California Avenue	14.2	16.2	13.0	18.4	16.5	14.5
SJV	Bakersfield-Golden State Highway						
SJV	Clovis-N Villa Avenue	14.7	17.9	15.4	16.4	17.0	16.0
SJV	Corcoran-Patterson Avenue	17.9			17.1		
SJV	Fresno-1st Street	13.0	15.5	14.1	15.2	14.5	14.2
SJV	Fresno-Garland			14.1			
SJV	Fresno-Hamilton and Winery	13.4	15.4	12.7	14.9	14.5	13.9
SJV	Hanford-S Irwin Street			14.8			
SJV	Madera-28261 Avenue 14		20.4	16.0			
SJV	Manteca-530 Fishback Rd		10.8	8.3			
SJV	Merced-2334 M Street	11.2	10.4	9.5	13.2	11.7	10.4
SJV	Merced-S Coffee Avenue	16.3	15.6	11.0		18.2	14.3
SJV	Modesto-14th Street	12.3	14.7	11.9	13.8	13.3	12.9
SJV	Stockton-Hazelton Street	11.0	11.3	12.4	12.2	11.2	11.6
SJV	Tranquility-32650 West Adams Avenue	7.1	8.2	7.1			7.5
SJV	Turlock-S Minaret Street	12.7	17.1	14.8		15.3	14.9
SJV	Visalia-N Church Street	13.6	16.1	14.8	16.5	15.2	14.8
SS	Brawley-220 Main Street	6.3	7.1	8.1	7.5	7.1	7.2
SS	Brawley-Main Street						
SS	Calexico-Ethel Street	12.8	13.5	15.8	12.9	14.0	14.0
SS	El Centro-9th Street	6.6	7.5	7.5	7.5	7.4	7.2

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PM2.5 Annual Average and Annual Design Values (ug/m3)

Basin	SiteName	Annual Average			Annual Design Values		
		2010	2011	2012	2010	2011	2012
SS	Indio-Jackson Street	6.8	7.2	7.6	7.7	7.3	7.2
SS	Palm Springs-Fire Station	5.9	6.0	6.5	6.6	6.2	6.1
SV	Auburn-11645 Atwood Road			5.5			
SV	Chico-East Avenue						
SV	Chico-Manzanita Avenue	8.0	12.1	8.2	11.5	10.1	9.4
SV	Colusa-Sunrise Blvd	5.0	6.8	7.3	7.5	6.3	6.3
SV	Red Bluff-310 S Main Street	9.8	11.1	8.4			9.8
SV	Redding-Health Dept Roof	4.6	5.4	5.9	8.4	5.3	5.3
SV	Roseville-N Sunrise Blvd	6.6	8.5	6.5	8.4	7.9	7.2
SV	Sacramento-Del Paso Manor	8.8	10.5	9.1	10.9	10.0	9.5
SV	Sacramento-Health Dept Stockton Blvd	7.8	10.1	8.2	9.9	9.2	8.7
SV	Sacramento-T Street	8.1	10.1	8.3	9.5	9.2	8.8
SV	Woodland-Gibson Road	5.7	7.6	6.4	7.6	6.9	6.6
SV	Yuba City-Almond Street	5.9	8.0	6.9	8.2	7.3	6.9

- SV: Calculated using combined data for Chico-Manzanita and Chico-East (Q1&Q2 data are from Manzanita; Q3&Q4 data are from East);
- SJV: 2012 data for Fresno-1st are from Fresno-Garland
- These values are based on FRM data only.

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BOUNDARIES FOR RECOMMENDED NONATTAINMENT AREAS

South Coast

Los Angeles County (P)

Orange County

Riverside County (P)

San Bernardino County (P)

The entirety of Orange County and those portions of Los Angeles, Riverside, and San Bernardino counties described below:

Los Angeles County (P)

That portion of Los Angeles County which 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;

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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.

Riverside County (P)

That portion of Riverside County which lies to the west of a line described as follows:

Beginning at the Riverside-San Diego County boundary and running north along the range line common to Range 4 East and Range 3 East, San Bernardino Base and Meridian;

then east along the Township line common to Township 8 South and Township 7 South;

then north along the range line common to Range 5 East and Range 4 East;

then west along the Township line common to Township 6 South and Township 7 South to the southwest corner of Section 34, Township 6 South, Range 4 East;

then north along the west boundaries of Sections 34, 27, 22, 15, 10, and 3, Township 6 South, Range 4 East;

then west along the Township line common to Township 5 South and Township 6 South;

then north along the range line common to Range 4 East and Range 3 East;

then west along the south boundaries of Sections 13, 14, 15, 16, 17, and 18, Township 5 South, Range 3 East;

then north along the range line common to Range 2 East and Range 3 East; to the Riverside-San Bernardino County Line.

San Bernardino County (P)

That portion of San Bernardino County which lies south and west of a line described as follows:

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Beginning at the San Bernardino-Riverside County boundary and running north along the range line common to Range 3 East and Range 2 East, San Bernardino Base and Meridian;

then west along the Township line common to Township 3 North and Township 2 North to the San Bernardino-Los Angeles County boundary.

San Joaquin Valley

Fresno County

Kern County (P)

Kings County

Madera County

Merced County

San Joaquin County

Stanislaus County

Tulare County

The entirety of the counties of Fresno, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare, and that portion of Kern County described below:

Kern County (P)

That portion of Kern County which lies west and north of a line described as follows:

Beginning at the Kern-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 Land 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;

ATTACHMENT 2

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-Tulare County boundary.

Imperial County

Imperial County (P)

That portion of Imperial County which lies within the line described as follows:

Beginning at the intersection of the United States-Mexico border and the southeast corner of Township 17 South, Range 11 East, San Bernardino Base and Meridan,

then north along the range line of the eastern edge of Range 11 East,

then east along the township line of the southern edge of Township 12 South to the northeast corner of Township 13 South, Range 15 East,

then south along the range line common to Range 15 East and Range 16 East, to the United States-Mexico border.