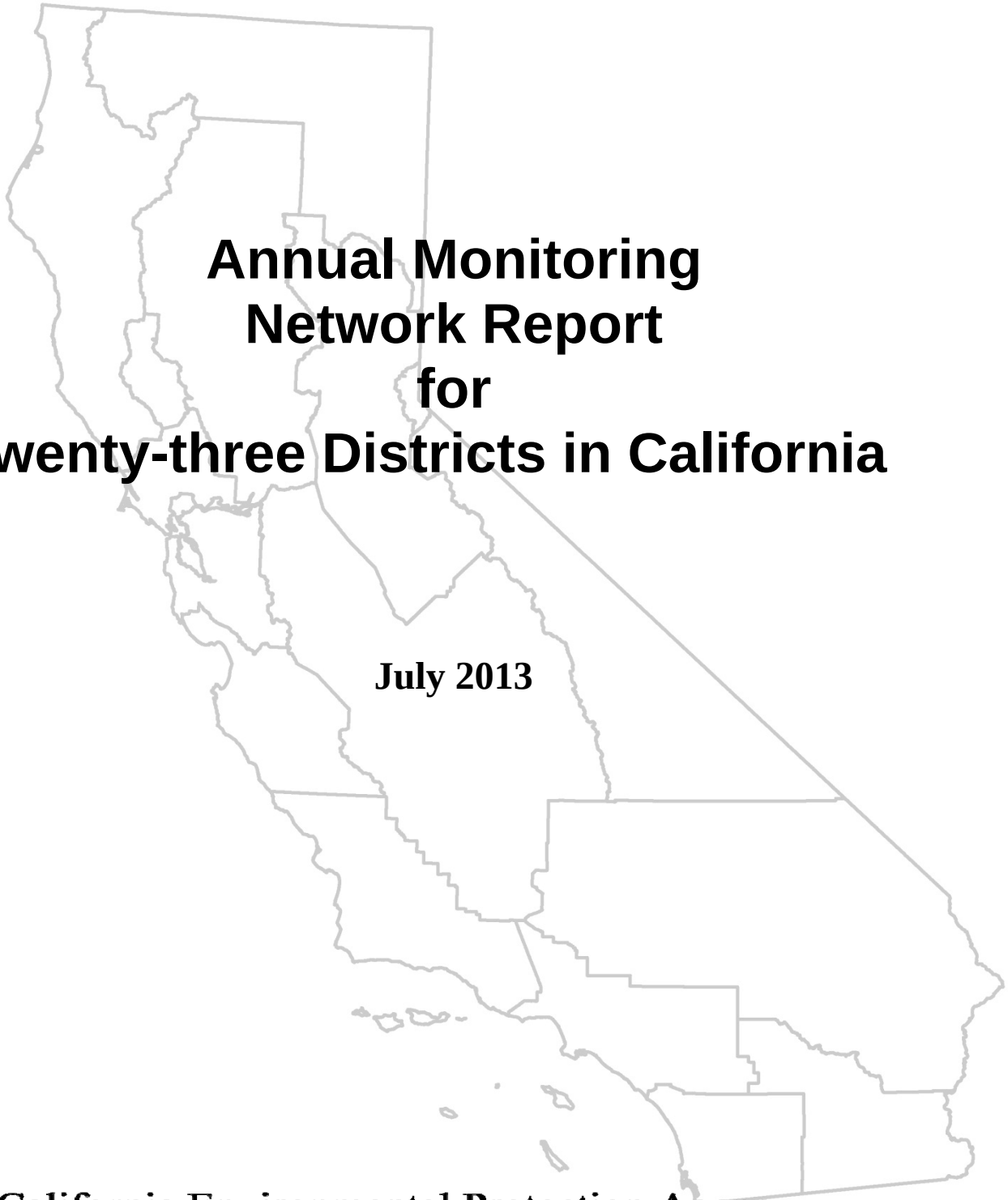

Annual Monitoring Network Report for Twenty-three Districts in California

July 2013

California Environmental Protection Agency
Air Resources Board

ANNUAL MONITORING NETWORK REPORT
FOR
TWENTY-THREE DISTRICTS IN CALIFORNIA

California Air Resources Board

July 2013

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Section 1. Introduction

Federal regulations require State and local agencies that conduct ambient air monitoring for regulatory purposes to submit an Annual Monitoring Network Report, beginning in 2007. The report must contain specific monitoring network information and be available for a 30-day public inspection period prior to submittal to the U.S. Environmental Protection Agency (U.S. EPA). This report meets the requirements specified in Title 40, Code of Federal Regulations, Part 58.10 (40 CFR 58.10) for a subset of the California monitoring network.

This report covers the monitoring network for 23 of the 32 air districts within the Air Resources Board (ARB) Primary Quality Assurance Organization (PQAO). A PQAO is the umbrella under which monitoring agencies are organized to ensure that monitoring is conducted according to a common set of procedures, using common calibration facilities and standards, and that oversight is conducted by one air quality organization. Most of the districts in California are included in the ARB PQAO. The exceptions are the South Coast, San Diego, and Bay Area districts, which each comprise their own PQAO. Each PQAO is responsible for their monitoring network and reports directly to U.S. EPA on monitoring network requirements.

Table 1 lists the districts in the ARB PQAO that are included within the scope of this report, as well as those districts that are preparing their own report. This report covers documentation of the monitoring network for the period of January 1 through December 31, 2012, along with a discussion of proposed changes to the network. Consistent with direction from the U.S. EPA, this report includes monitors operated by the local districts, ARB, and other agencies within the jurisdiction of the region included in this report. This includes monitors designated as State and Local Air Monitoring Sites (SLAMS), National Core (NCore) multi-pollutant monitoring stations, Special Purpose Monitoring (SPM), and other types of monitors operated by ARB, air districts, and National Park Service (NPS). This report also includes the Federal Reference Method (FRM) monitors and Federal Equivalent Method (FEM) monitors.

This report documents that the area covered by this report complies with federal monitoring requirements, which are specified in 40 CFR 58, Appendices A through E. Table 2 identifies the elements from 40 CFR 58 that are required to be included in the annual report. The requirements are comprehensive and include information on items such as minimum monitoring requirements, monitor operation, monitor siting, sampling schedule, and quality assurance activities.

Overview of Report

Table 1 and Figure 1 identify the 23 air districts within the ARB PQAO covered in this report as well as the 9 districts in the ARB PQAO that are preparing their own report. A brief summary of elements included in this report is listed below.

- Summary of CFR elements required for inclusion in the report
- Detailed information on each monitor
- Minimum monitoring requirements and compliance with these requirements
- PM collocation requirements
- $PM_{2.5}$ FRM operating schedules
- Proposed and implemented network changes

In compiling this report, ARB solicited input from and review by the local air districts whose jurisdictions are included. Also, the report was available for a 30 day public inspection period prior to its submittal to the U.S. EPA. This report can be downloaded from the internet at www.arb.ca.gov/aqd/amnr/amnr.htm.

Table 1
Districts Included in the ARB Primary Quality Assurance Organization (PQAO)

Air districts that are included in this ARB report	Air districts drafting their own Annual Network Plans
Amador County APCD	Great Basin Unified APCD
Antelope Valley APCD	Imperial County APCD
Butte County AQMD	Monterey Bay Unified APCD
Calaveras County APCD	North Coast Unified AQMD
Colusa County APCD	Sacramento Metropolitan AQMD
Eastern Kern APCD	San Joaquin Valley APCD
El Dorado County AQMD	San Luis Obispo County APCD
Feather River AQMD	Santa Barbara County APCD
Glenn County APCD	Ventura County APCD
Lake County AQMD	
Lassen County APCD	
Mariposa County APCD	
Mendocino County AQMD	
Modoc County APCD	
Mojave Desert AQMD	
Northern Sierra AQMD	
Northern Sonoma County APCD	
Placer County APCD	
Shasta County AQMD	
Siskiyou County APCD	
Tehama County APCD	
Tuolumne County APCD	
Yolo-Solano AQMD	

Notes:
APCD stands for Air Pollution Control District.
AQMD stands for Air Quality Management District.
The South Coast, San Diego and Bay Area districts are not included in this table. These three districts are drafting their own network plan because they are designated PQAOs.

Figure 1
The ARB PQAO

Table 2
Location of Information Required for Annual Network Plan

Elements required by 40 CFR 58.10	Location in Annual Network Plan
Monitoring purpose information	Section 3
Evidence that siting and operation criteria are met: 40 CFR 58, Appendix A 40 CFR 58, Appendix B 40 CFR 58, Appendix D 40 CFR 58, Appendix E	 Section 6 & 7 Section 7 Section 5 & 6 Section 7
Air Quality System Site Identification Number (AQS Site ID)	Section 3, Table 3 Section 4, Table 4
Location of sites Street address Geographic coordinates	 Section 3, Table 3 Section 4, Table 4
Sampling and analysis methods of monitors	Section 4, Table 4
Operating schedules for monitors	Section 8
Proposals to move/remove stations	Section 10
Monitoring objectives and spatial scale	Sections 3 & 4, Tables 3 & 4
Sites suitable or not for comparison to the annual PM2.5 National Ambient Air Quality Standard	Section 9.1
Core-Based statistical area information (MSA and micropolitan)	Section 3, Tables 3 Section 4, Table 4 Section 5, Tables 5, 5a, 6 & 7 Appendix B
Review of changes to PM2.5 Network	Section 9.2

Section 2. Monitoring Network Overview

California's ambient air monitoring network is one of the most extensive in the world, consisting of over 250 sites where air pollution levels are monitored and more than 700 monitors used to measure the pollutant levels. A monitoring network this large is needed to cover the diverse range of topography, meteorology, emissions, and air quality in California, while adequately representing a large population. The monitoring network is critical in assessing the State's clean air progress and in determining pollutant exposures in California.

The network of monitoring sites for a pollutant tends to be denser where the air quality problem is worse and where the population is greater. The monitoring network also strives to provide representative data to all the broad geographical areas in California, including the coastal areas, the interior valleys, the desert regions, and the mountainous areas. Monitoring is also conducted in Mexico, across the border from San Diego and Imperial counties. Monitors are operated by ARB, some by local air districts, and a few by other entities including the National Park Service, private contractors, and tribal authorities. Note that tribal monitors are not included in this report.

Ambient concentration data are collected for a wide variety of pollutants. The most prevalent of these are ozone (O_3), particulate matter with a diameter of 2.5 microns or less ($PM_{2.5}$), particulate matter with a diameter of 10 microns or less (PM_{10}), and a number of toxic compounds. While toxics monitoring plays an integral part in air monitoring programs, this report only covers those pollutants specified by federal requirements to be included in the annual monitoring network plans. Monitoring for meteorological parameters is also conducted at a number of sites. The data is needed to better understand and inform the public about the nature of the ambient air quality problems in California.

Not all pollutants are monitored at all sites. Most sites monitor for multiple pollutants; other sites monitor for only one or two. The State and local air quality agencies in California make the effort to only collect data that is needed from each site. The needs for the monitoring data are varied. A sense of this can be gathered from the information on monitoring objectives and purposes in the next section of this report. A fundamental purpose of monitoring is to distinguish between areas where pollutant levels violate the ambient air quality standards and areas where they do not. Health-based ambient air quality standards are set at levels of pollutant concentrations that result in adverse impacts to human health. Evidence of a standard being violated in an area leads to efforts to reduce the sources of pollution that result in the exceedances. In other words, air quality agencies develop strategies and regulations to achieve needed emission reductions. Data from the ambient monitoring network are then used to indicate the success of this, in terms of the rate of progress towards attaining the standards or to show that standards have been attained.

Section 3. Site and Monitoring Information

This section details monitoring information for the sites and monitors that fall within the geographical scope of this report. U.S. EPA requires three types of information to be included in the annual network plans. These are: federal site type, federal monitoring objective, and federal monitor type. The first three subsections, below, describe these federal monitoring requirements. The fourth subsection provides detail on state and local monitoring purposes, which encompass a broader scope of active program areas than the federal monitoring requirements.

Federal Site type

Monitoring sites must be capable of informing air quality program managers about many things including the peak air pollution levels, typical levels in populated areas, air pollution transported into and outside of a city or region, air pollution levels near specific sources and so on. For these reasons, U.S. EPA requires that each monitor at a site be designated, at a minimum, with one of the twelve site types that are established in the AQS database. The site type is monitor dependent. The twelve site types are:

→Extreme Downwind
→Highest Concentration
→Population Exposure
→Upwind Background
→Regional Transport
→Quality Assurance
→Max Ozone Concentration
→Max Precursor Emissions Impacts
→Source Oriented
→Welfare Related Impacts
→General
→Other

While most of the site types are specific to a monitoring purpose, for example population exposure, two site types are general in nature and could be used for broad purposes (i.e., General and Other). U.S. EPA requires that a monitor be properly designated with an appropriate site type so that the data collected by the monitor at a site can be used to support the three basic federal monitoring objectives, which are discussed in more detail below. The site type of the monitors covered in this report is included in Table 3.

Federal Monitoring Objective

An ambient air monitoring network must be designed to meet three basic federal monitoring objectives, which are:

1) to provide air quality data to the public in a timely manner,
2) to support compliance with national air quality standards and
3) to support air quality research studies.

For the purpose of this report, the monitoring objectives are the federal *monitoring objectives* defined in Appendix D of 40 CFR 58. Federal monitoring regulations required that each monitor measuring criteria pollutants have at least one monitoring objective. However, many air quality agencies operate monitors with multiple objectives in mind. For example, monitoring is conducted to provide both air quality data to the public as well as to support air quality standards. The federal monitoring objective of the monitors covered in this report is included in Table 3.

Federal Monitor Type

U.S. EPA requires that every state establish a network of air monitoring stations for criteria pollutants, using criteria set in the CFR for the monitoring stations' location and operation. The monitoring stations in this network are called the State and Local Air Monitoring Stations (SLAMS). In addition, U.S. EPA requires state and local monitoring agencies to establish monitoring stations to measure approximately 60 volatile hydrocarbons and carbonyls, which plays an integral role in ozone studies. These stations are called the Photochemical Assessment Monitoring Stations (PAMS). A third type of monitor, the Special Purpose Monitor (SPM), is used by state and local monitoring agencies to fulfill very specific or short-term monitoring goals. While there are a total of fifteen monitor types established by U.S. EPA, SLAMS, PAMS, and SPM are the three most common monitor types used by state and local monitoring agencies in California. Table 3 lists the monitor type of each monitor that is covered in this report. The majority of the monitors included in this report are part of the SLAMS network in California. The completed list of monitor types is listed at the end of Table 3.

State and Local Monitoring Purposes

There are a number of monitoring purposes besides the federal classifications. These are directly related to the needs of state and local agencies. California has a very comprehensive monitoring network that is needed for implementing a variety of programs. Listed below are some of the most common state and local monitoring purposes:

- *Agricultural Burning* refers to the intentional use of fire for vegetation management, both in agricultural settings, such as fields and orchards, as well as in wildlands, including rangeland and forests, to improve land for wildlife and game habitat or as a tool for disease or pest prevention. Monitors with this purpose are used to assess when and where burning can occur.

- *Expected High Concentration* monitoring is used to measure pollutant concentrations in areas where air pollution is expected to be at its highest. The State designation criteria contain the requirement for this type of monitoring in order to show that an area attains the State air quality

standards. During the State area designation process, the data from all monitors in an area are examined, but only the data from the monitors with the highest concentrations will determine the designation of the area.

- The *Geyser Air Monitoring Program (GAMP)* was established to monitor ambient air quality in geothermal areas, mainly monitoring for hydrogen sulfide.

- *Residential Burning* or backyard burning is the open burning of yard wastes by household residents. Backyard burning includes dry weeds, plant pruning, shrubbery, tree trimmings, and branches. Data from monitors with this purpose help guide decisions regarding appropriate times to allow residential burning.

- *Representative Concentration* means locating a site to represent a geographical region with common topography and meteorology. These sites do not necessarily indicate the highest concentrations in the area for a particular pollutant. This is a purpose listed by the U.S. EPA.

- *State Area Designation* monitoring is used to determine compliance with the State ambient air quality standards for a particular pollutant. Using the monitors with the highest concentrations of a particular pollutant, the ARB determines if the area is in attainment or non-attainment of the State air quality standards, as already described in the discussion of Expected High Concentration Monitoring.

- *State Implementation Plan (SIP) and/or Maintenance Plan Requirement* is monitoring conducted to demonstrate compliance with SIP requirements. The SIP is a plan prepared by states and submitted to the U.S. EPA describing how each area will attain and maintain federal air quality standards. Once an area attains a standard, the area is required to show and maintain that status, which requires continued monitoring in the area.

- *Trend Analysis* monitoring is useful for comparing and analyzing air pollution concentrations over time and distance. Usually, trend analyses show the progress or lack of progress in improving air quality for an area over a period of years. Some sites are more useful than others for trend analyses. For example, it is better to have a history of monitoring at a site that includes the full time period of a trend analysis.

This is not a comprehensive list of all state and local monitoring purposes, but only includes the most common purposes used for monitoring by air quality agencies in California. Note that while the terms “objective” and “purpose” are almost analogous to one another and could be used interchangeably, to avoid confusion, this report separates the monitoring objectives from the monitoring purposes by limiting the monitoring objectives to the three federal objectives as defined above and the monitoring purposes to the state and local monitoring

purposes. The state and local monitoring purposes are more comprehensive than the federal monitoring objectives. The state and local monitoring purpose of the monitors covered in this report is included in Table 3.

Summary of Table 3

Table 3 lists the federal site type, federal monitoring objective, federal monitor type, and state and local monitoring purposes of each monitor covered in this report. In addition, Table 3 lists other site and monitoring information, such as the Air Quality System (AQS) Site ID, site address, site name, pollutants monitored, and parameter codes. Note that the term “site type” refers to the individual monitor(s) at a site and not the site itself. U.S. EPA has determined that a single site type may not describe all of the monitors at a particular site; therefore, U.S. EPA established the site type designations at the monitor level, rather than the site level. Also note that a monitor can have multiple site type, monitoring objective, monitor type, or monitoring purpose designations.

Finally, Table 3 also lists the location of each monitor, including the Core-Based Statistical Area (CBSA) in which the monitor is located. CBSAs are defined by the United States Office of Management and Budget (OMB) and provide a consistent set of geographical areas for Federal agencies to use in collecting, tabulating, and publishing statistical data. Two types of areas are included as CBSAs: Metropolitan Statistical Areas and Micropolitan Statistical Areas. The difference between a Metropolitan and Micropolitan statistical area is the level of population. A Metropolitan Statistical Area has an urban core with a population of 50,000 or more, whereas a Micropolitan Statistical Area has an urban core with a population of at least 10,000, but less than 50,000. Both Metropolitan and Micropolitan statistical areas comprise one or more counties.

U.S. EPA specifies the number of monitors required for each pollutant based on the OMB statistical areas. Older standards, such as the federal ozone standard, specify required monitors based on Metropolitan Statistical Area and Micropolitan Statistical Area. More recent standards, such as the federal SO_2 standard, use the newer collective term, CBSA. Because it is more current, the term CBSA is used in this report, as well. A comprehensive CBSA list for California is provided in Table 5a in Section 5 of this report. Also in Table 5a is information about CBSAs that are not covered in this plan, but are covered either in part or in whole, in other individual district plans.

Table 3
Site and Monitoring Information
(Monitors reporting data in 2012)

Station/Address/AQS Site #		OZONE 44201	CO 42101	NO2 42602	SO2 42401	PM2.5* 88101/88501	PM10* 81102
LAKE COUNTY AIR BASIN							
Lake County / CBSA: Clearlake Micropolitan Statistical Area							
Middletown-Anderson Springs Road	Site Type:						Gnrl
11270 Anderson Springs Road, Middletown	Monitoring Obj.:						RSupport
060333010	Monitoring Purp.:						StateD, GAMP
	Monitor Type:						SLAMS
Glenbrook-High Valley Road	Site Type:						Gnrl
8276 High Valley Road, Cobb	Monitoring Obj.:						RSupport
060333011	Monitoring Purp.:						StateD, GAMP
	Monitor Type:						SLAMS
Lakeport-Lakeport Blvd	Site Type:	Gnrl				Gnrl	Gnrl
905 Lakeport Blvd, Lakeport	Monitoring Obj.:	NAAQS				NAAQS	NAAQS
060333001	Monitoring Purp.:	StateD				StateD	StateD
	Monitor Type:	SLAMS				SLAMS	SLAMS
LAKE TAHOE AIR BASIN							
El Dorado County / CBSA: Sacramento-Arden-Arcade-Roseville Metropolitan Statistical Area							
South Lake Tahoe-Sandy Way	Site Type:						(PopEx)
3337 Sandy Way, South Lake Tahoe	Monitoring Obj.:						(PublicR)
060170011	Monitoring Purp.:						(RConc)
	Monitor Type:						(SLAMS)
MOJAVE DESERT AIR BASIN							
Kern County / CBSA: Bakersfield Metropolitan Statistical Area							
Canebrake-3147 Highway 178	Site Type:						PopEx
3147 Highway 178, Canebrake	Monitoring Obj.:						NAAQS
060290017	Monitoring Purp.:						RConc
	Monitor Type:						SLAMS
Mojave-923 Poole Street	Site Type:	HConc				***(PopEx)***	(PopEx)
923 Poole Street, Mojave	Monitoring Obj.:	NAAQS				***(NAAQS)***	(NAAQS)
060290011	Monitoring Purp.:	SIPMain, Trans				***(StateD)***	(StateD)
	Monitor Type:	SLAMS				***(SLAMS)***	(SLAMS)
Ridgecrest-100 West California Avenue	Site Type:					PopEx	PopEx
100 West California Avenue, Ridgecrest	Monitoring Obj.:					NAAQS	NAAQS
060290015	Monitoring Purp.:					StateD, RConc	SIPMain, StateD
	Monitor Type:					SLAMS	SLAMS
Los Angeles County / CBSA: Los Angeles-Long Beach-Anahiem Metropolitan Statistical Area							
Lancaster-43301 Division Street	Site Type:	Trans	Gnrl	Gnrl		Gnrl	Gnrl:(Gnrl)
43301 Division Street, Lancaster	Monitoring Obj.:	NAAQS	NAAQS	NAAQS		NAAQS	NAAQS:(PublicR)
060379033	Monitoring Purp.:	Trnds	RConc	RConc		RConc	Rconc:(RConc)
	Monitor Type:	SLAMS	SLAMS	SLAMS		SLAMS	SLAMS:(SLAMS)
Riverside County / CBSA: Riverside-San Bernardino-Ontario Metropolitan Statistical Area							
Blythe-445 W Murphy Street	Site Type:	Gnrl					
445 W Murphy Street, Blythe	Monitoring Obj.:	PublicR					
060659003	Monitoring Purp.:	RConc					
	Monitor Type:	SLAMS					
San Bernardino County / CBSA: Riverside-San Bernardino-Ontario Metropolitan Statistical Area							
Barstow-200 E Buena Vista Road	Site Type:	Trans	Gnrl	Gnrl			Gnrl
200 E Buena Vista Road, Barstow	Monitoring Obj.:	NAAQS	NAAQS	NAAQS			NAAQS
060710001	Monitoring Purp.:	StateD	StateD	StateD			StateD
	Monitor Type:	SLAMS	SLAMS	SLAMS			SLAMS
Hesperia-Olive Street	Site Type:	Trans					Gnrl
17288 Olive Street, Hesperia	Monitoring Obj.:	NAAQS					NAAQS
060714001	Monitoring Purp.:	StateD					StateD
	Monitor Type:	SLAMS					SLAMS

Table 3 (cont.)
Site and Monitoring Information
(Monitors reporting data in 2012)

Station/Address/AQS Site #		OZONE 44201	CO 42101	NO2 42602	SO2 42401	PM2.5* 88101/88501	PM10* 81102
Joshua Tree National Monument	Site Type:	PopEx					
060719002	Monitoring Obj.:	PublicR					
	Monitoring Purp.:	RConc					
	Monitor Type:	SLAMS					
Lucerne Valley-Middle School	Site Type:						Gnrl
8560 Aliento-Middle School, Lucerne Valley	Monitoring Obj.:						NAAQS
060710013	Monitoring Purp.:						StateD
	Monitor Type:						SLAMS
Phelan-Beekley and Phelan Roads	Site Type:	Trans					
Beekley Road and Phelan Road, Phelan	Monitoring Obj.:	NAAQS					
060710012	Monitoring Purp.:	StateD					
	Monitor Type:	SLAMS					
Trona-Athol and Telescope	Site Type:	Gnrl		Gnrl	Gnrl		Gnrl:(HConc)
Corner of Athol and Telescope, Trona	Monitoring Obj.:	NAAQS		NAAQS	NAAQS		NAAQS:(NAAQS)
060711234	Monitoring Purp.:	StateD		StateD	StateD		StateD:(StateD)
	Monitor Type:	SLAMS		SLAMS	SLAMS		SLAMS:(SLAMS)
Victorville-14036 Park Avenue	Site Type:	Trans	Gnrl	Gnrl	Gnrl	Gnrl	Gnrl:(PopEx)
14036 Park Avenue, Victorville	Monitoring Obj.:	NAAQS	NAAQS	NAAQS	NAAQS	NAAQS	NAAQS:(NAAQS)
060710306	Monitoring Purp.:	StateD	StateD	StateD	StateD	StateD	StateD:(StateD)
	Monitor Type:	SLAMS	SLAMS	SLAMS	SLAMS	SLAMS	SLAMS:(SLAMS)
MOUNTAIN COUNTIES AIR BASIN							
Amador County / Not in a CBSA							
Jackson-201 Clinton Road	Site Type:	Gnrl/Trans					
201 Clinton Road, Jackson	Monitoring Obj.:	NAAQS					
060050002	Monitoring Purp.:	StateD/SIPMain					
	Monitor Type:	SLAMS					
Calaveras County / Not in a CBSA							
San Andreas-501 Gold Strike Road	Site Type:	Gnrl/Trans				***(Gnrl)***	Gnrl
501 Gold Strike Road, San Andreas	Monitoring Obj.:	NAAQS				***(PublicR)***	NAAQS
060090001	Monitoring Purp.:	StateD/SIPMain				***(RConc)***	StateD
	Monitor Type:	SLAMS				***(SPM)***	SLAMS
El Dorado County / CBSA: Sacramento-Arden-Arcade-Roseville Metropolitan Statistical Area							
Cool-Highway 193	Site Type:	HConc					
1400 American River Trail, Cool	Monitoring Obj.:	NAAQS					
060170020	Monitoring Purp.:	SIPMain					
	Monitor Type:	SLAMS					
Echo Summit	Site Type:	Trans					
21200 Highway 50-Little Norway	Monitoring Obj.:	NAAQS					
060170012	Monitoring Purp.:	StateD					
	Monitor Type:	SLAMS					
Placerville-Gold Nugget Way	Site Type:	HConc/Trans					
3111 Gold Nugget Way, Placerville	Monitoring Obj.:	NAAQS					
060170010	Monitoring Purp.:	StateD					
	Monitor Type:	SLAMS					
Mariposa County / Not in a CBSA							
Jerseydale-6440 Jerseydale	Site Type:	Trans					
6440 Jerseydale Road, Jerseydale	Monitoring Obj.:	NAAQS					
060430006	Monitoring Purp.:	StateD					
	Monitor Type:	SLAMS					
Yosemite National Park-Turtleback Dome	Site Type:	HConc/Trans					
060430003	Monitoring Obj.:	NAAQS					
	Monitoring Purp.:	StateD					
	Monitor Type:	SLAMS					
Yosemite Village-Visitor Center	Site Type:					(Gnrl)	Gnrl
060431001	Monitoring Obj.:					(PublicR)	NAAQS
	Monitoring Purp.:					(RConc)	StateD
	Monitor Type:					(SPM)	SLAMS

Table 3 (cont.)
Site and Monitoring Information
(Monitors reporting data in 2012)

Station/Address/AQS Site #		OZONE 44201	CO 42101	NO2 42602	SO2 42401	PM2.5* 88101/88501	PM10* 81102
Nevada County / CBSA: Truckee-Grass Valley Micropolitan Statistical Area							
Grass Valley-Litton Building	Site Type:	HConc/Trans				HConc:(Gnrl)	
200 Litton Drive, Grass Valley	Monitoring Obj.:	NAAQS				NAAQS:(NAAQS)	
060570005	Monitoring Purp.:	StateD/Trnds				StateD:(StateD)	
	Monitor Type:	SLAMS				SLAMS:(SLAMS)	
Truckee-Fire Station	Site Type:					HConc:(Gnrl)	
10049 Donner Pass Road, Truckee	Monitoring Obj.:					NAAQS:(NAAQS)	
060571001	Monitoring Purp.:					StateD:(StateD)	
	Monitor Type:					SLAMS:(SLAMS)	
White Cloud Mountain	Site Type:	Gnrl					
26533 State Highway 20, White Cloud Mtn.	Monitoring Obj.:	NAAQS					
060570007	Monitoring Purp.:	StateD					
	Monitor Type:	SLAMS					
Placer County / CBSA: Sacramento-Arden-Arcade-Roseville Metropolitan Statistical Area							
Colfax-City Hall	Site Type:	Gnrl				(Gnrl)	Gnrl
33 South Main Street, Colfax	Monitoring Obj.:	NAAQS				(PublicR)	NAAQS
060610004	Monitoring Purp.:	StateD				(StateD)	StateD
	Monitor Type:	SLAMS				(SLAMS)	SLAMS
Plumas County / Not in a CBSA							
Chester-222 1st Avenue	Site Type:					(Gnrl)	
222 1st Avenue, Chester	Monitoring Obj.:					(NAAQS)	
060631007	Monitoring Purp.:					(StateD)	
	Monitor Type:					(SLAMS)	
Portola-161 Nevada Street	Site Type:					HConc:(Gnrl)	
420 N Gulling Street, Portola	Monitoring Obj.:					NAAQS:(NAAQS)	
060631009	Monitoring Purp.:					StateD:(StateD)	
	Monitor Type:					SLAMS:(SLAMS)	
Quincy-N Church Street	Site Type:					HConc:(Gnrl)	
267 North Church Street, Quincy	Monitoring Obj.:					NAAQS:(NAAQS)	
060631006	Monitoring Purp.:					StateD:(StateD)	
	Monitor Type:					SLAMS:(SLAMS)	
Tuolumne County / CBSA: Phoenix Lake-Cedar Ridge Micropolitan Statistical Area							
Sonora-Barretta Street	Site Type:	Gnrl					
251 South Barretta Street, Sonora	Monitoring Obj.:	NAAQS					
061090005	Monitoring Purp.:	StateD/SIPMain					
	Monitor Type:	SLAMS					
NORTH COAST AIR BASIN							
Mendocino County / CBSA: Ukiah Micropolitan Statistical Area							
Fort Bragg-Dana Street	Site Type:						(Gnrl)
300 Dana Street, Fort Bragg	Monitoring Obj.:						(NAAQS)
060450010	Monitoring Purp.:						(RConc)
	Monitor Type:						(SLAMS)
Ukiah-County Library	Site Type:					***(Gnrl)***	
105 North Main Street, Ukiah	Monitoring Obj.:					***(NAAQS)***	
060450006	Monitoring Purp.:					***(RConc)***	
	Monitor Type:					***(SLAMS)***	
Ukiah-East Gobbi Street	Site Type:	Trans					
306 East Gobbi Street, Ukiah	Monitoring Obj.:	NAAQS					
060450008	Monitoring Purp.:	StateD					
	Monitor Type:	SLAMS					
Willits-125 East Commercial Street	Site Type:					***(Gnrl)***	
125 East Commercial Street, Willits	Monitoring Obj.:					***(NAAQS)***	
060452002	Monitoring Purp.:					***(RConc)***	
	Monitor Type:					***(SLAMS)***	
Sonoma County / CBSA: Santa Rosa Metropolitan Statistical Area							
Cloverdale-100 Washington Street	Site Type:						Gnrl
100 Washington Street, Colverdale	Monitoring Obj.:						NAAQS
060970001	Monitoring Purp.:						AgBn, ResBn
	Monitor Type:						SLAMS

Table 3 (cont.)
Site and Monitoring Information
(Monitors reporting data in 2012)

Station/Address/AQS Site #		OZONE 44201	CO 42101	NO2 42602	SO2 42401	PM2.5* 88101/88501	PM10* 81102
Guerneville-Church and 1st	Site Type:						Gnrl
16255 1st Street, Guerneville	Monitoring Obj.:						NAAQS
060973002	Monitoring Purp.:						AgBn, ResBn
	Monitor Type:						SLAMS
Healdsburg-133 Matheson Street	Site Type:						Gnrl
133 Matheson Street, Healdsburg	Monitoring Obj.:						NAAQS
060970002	Monitoring Purp.:						AgBn, ResBn
	Monitor Type:						SLAMS
Healdsburg-Municipal Airport	Site Type:	Gnrl					
200a Heidelberg Way, Healdsburg	Monitoring Obj.:	NAAQS					
060971003	Monitoring Purp.:	StateD					
	Monitor Type:	SLAMS					
NORTHEAST PLATEAU AIR BASIN							
Siskiyou County / Not in a CBSA							
Yreka-Foothill Drive	Site Type:	Gnrl/Trans				Gnrl	Gnrl
528 Foothill Drive, Yreka	Monitoring Obj.:	NAAQS				NAAQS	NAAQS
060932001	Monitoring Purp.:	StateD				StateD	AgBn/StateD
	Monitor Type:	SLAMS				SLAMS	SLAMS
SACRAMENTO VALLEY AIR BASIN							
Butte County / CBSA: Chico Metropolitan Statistical Area							
Chico-East	Site Type:	Gnrl	Gnrl	Gnrl		Gnrl:(Gnrl)	Gnrl
984 East Avenue, Chico	Monitoring Obj.:	NAAQS	NAAQS	NAAQS		NAAQS:(PublicR)	NAAQS
060070008	Monitoring Purp.:	StateD/AgBn	StateD	StateD		StateD:(AgBn)	StateD/AgBn
	Monitor Type:	SLAMS	SLAMS	SLAMS		SLAMS:(SPM)	SLAMS
Gridley-Cowee Avenue	Site Type:					(Gnrl)	
608 Cowee Avenue, Gridley	Monitoring Obj.:					(PublicR)	
060074001	Monitoring Purp.:					(AgBn)	
	Monitor Type:					(SPM)	
Paradise-4405 Airport Road	Site Type:	Gnrl/HConc					
4405 Airport Road, Paradise	Monitoring Obj.:	NAAQS					
060070007	Monitoring Purp.:	StateD/AgBn					
	Monitor Type:	SLAMS					
Paradise-6701 Clark Road	Site Type:					(Gnrl)	
6701 Clark Road, Paradise	Monitoring Obj.:					(PublicR)	
060072002	Monitoring Purp.:					(AgBn)	
	Monitor Type:					(SPM)	
Colusa County/ Not in a CBSA							
Colusa-Sunrise Blvd	Site Type:	Gnrl				Gnrl:(Gnrl)	Gnrl
100 Sunrise Blvd, Colusa	Monitoring Obj.:	NAAQS				NAAQS:(PublicR)	NAAQS
060111002	Monitoring Purp.:	StateD/AgBn				StateD:(AgBn)	StateD/AgBn
	Monitor Type:	SLAMS				SLAMS:(SPM)	SLAMS
Glenn County / Not in a CBSA							
Willows-E Laurel Street	Site Type:	Gnrl				(Gnrl)	Gnrl
720 N Colusa Street, Willows	Monitoring Obj.:	NAAQS				(PublicR)	NAAQS
060210003	Monitoring Purp.:	StateD/AgBn				(AgBn)	StateD/AgBn
	Monitor Type:	SLAMS				(SPM)	SLAMS
Placer County / CBSA: Sacramento-Arden-Arcade-Roseville Metropolitan Statistical Area							
Auburn-Atwood	Site Type:	Gnrl				***(Gnrl)***	
11645 Atwood Road, Auburn	Monitoring Obj.:	NAAQS				***(NAAQS)***	
060610003	Monitoring Purp.:	StateD				***(StateD)***	
	Monitor Type:	SLAMS				***(SLAMS)***	
Auburn-B Avenue	Site Type:						Gnrl
11464 B Ave, Auburn	Monitoring Obj.:						NAAQS
060610002	Monitoring Purp.:						StateD
	Monitor Type:						SLAMS
Lincoln-1st Street	Site Type:	Gnrl				(Gnrl)	
1445 1st Street, Lincoln	Monitoring Obj.:	NAAQS				(NAAQS)	
060612002	Monitoring Purp.:	StateD				(StateD)	
	Monitor Type:	SLAMS				(SLAMS)	

Table 3 (cont.)
Site and Monitoring Information
(Monitors reporting data in 2012)

Station/Address/AQS Site #		OZONE 44201	CO 42101	NO2 42602	SO2 42401	PM2.5* 88101/88501	PM10* 81102
Roseville-N Sunrise Blvd	Site Type:	Gnrl		Gnrl		Gnrl:(Gnrl)	Gnrl
151 N Sunrise Blvd, Roseville	Monitoring Obj.:	NAAQS		NAAQS		NAAQS:(PublicR)	NAAQS
060610006	Monitoring Purp.:	StateD/AgBn		StateD		StateD:(AgBn)	StateD/AgBn
	Monitor Type:	SLAMS		SLAMS		SLAMS:(SPM)	SLAMS
Shasta County / CBSA: Redding Metropolitan Statistical Area							
Anderson-North Street	Site Type:	Gnrl					Gnrl
2220 North Street, Anderson	Monitoring Obj.:	NAAQS					NAAQS
060890007	Monitoring Purp.:	StateD					StateD
	Monitor Type:	SLAMS					SLAMS
Lassen Volcanic Natl Park-Manzanita Lake	Site Type:	Gnrl					
060893003	Monitoring Obj.:	NAAQS					
	Monitoring Purp.:	StateD					
	Monitor Type:	SLAMS					
Redding-Health Department Roof	Site Type:	Gnrl				Gnrl	Gnrl
2630 Hospital Lane, Redding	Monitoring Obj.:	NAAQS				NAAQS	NAAQS
060890004	Monitoring Purp.:	StateD				StateD	StateD
	Monitor Type:	SLAMS				SLAMS	SLAMS
Shasta Lake-13791 Lake Blvd	Site Type:	Gnrl					
13791 Lake Blvd, Shasta Lake	Monitoring Obj.:	NAAQS					
060890009	Monitoring Purp.:	StateD					
	Monitor Type:	SLAMS					
Shasta Lake-4066 La Mesa Avenue	Site Type:						Gnrl
4066 La Mesa Avenue, Shasta Lake	Monitoring Obj.:						NAAQS
060890008	Monitoring Purp.:						StateD
	Monitor Type:						SLAMS
Solano County / CBSA: Vallejo-Fairfield Metropolitan Statistical Area							
Vacaville-Merchant Street	Site Type:						Gnrl
650 Merchant Street, Vacaville	Monitoring Obj.:						NAAQS
060953001	Monitoring Purp.:						StateD
	Monitor Type:						SLAMS
Vacaville-Ulatis Drive	Site Type:	Gnrl					
2012 Ulatis Drive, Vacaville	Monitoring Obj.:	NAAQS					
060953003	Monitoring Purp.:	StateD					
	Monitor Type:	SLAMS					
Sutter County / CBSA: Yuba City Metropolitan Statistical Area							
Sutter Buttes-S Buttes	Site Type:	HConc/Trans					
061010004	Monitoring Obj.:	NAAQS					
	Monitoring Purp.:	AgBn					
	Monitor Type:	SLAMS					
Yuba City-Almond Street	Site Type:	Gnrl		Gnrl		Gnrl:(Gnrl)	Gnrl
773 Almond Street, Yuba City	Monitoring Obj.:	NAAQS		NAAQS		NAAQS:(PublicR)	NAAQS
061010003	Monitoring Purp.:	StateD/AgBn		StateD		StateD:(AgBn)	StateD
	Monitor Type:	SLAMS		SLAMS		SLAMS:(SPM)	SLAMS
Tehama County / CBSA: Red Bluff Micropolitan Statistical Area							
Red Bluff-Main Street	Site Type:					***(Gnrl)***	
301 S Main Street, Red Bluff	Monitoring Obj.:					***(NAAQS)***	
061030006	Monitoring Purp.:					***(RConc)***	
	Monitor Type:					***(SLAMS)***	
Red Bluff-Oak Street	Site Type:	Gnrl					
502 Oak Street, Red Bluff	Monitoring Obj.:	NAAQS					
061030005	Monitoring Purp.:	StateD					
	Monitor Type:	SLAMS					
Red Bluff-Messer Drive	Site Type:						Gnrl
700 Messer Drive, Red Bluff	Monitoring Obj.:						NAAQS
061030002	Monitoring Purp.:						StateD
	Monitor Type:						SLAMS

Table 3 (cont.)
Site and Monitoring Information
(Monitors reporting data in 2012)

Station/Address/AQS Site #		OZONE 44201	CO 42101	NO2 42602	SO2 42401	PM2.5* 88101/88501	PM10* 81102
Tuscan Butte	Site Type:	Gnrl/Trans					
061030004	Monitoring Obj.:	NAAQS					
	Monitoring Purp.:	StateD					
	Monitor Type:	SLAMS					
Yolo County / CBSA: Sacramento-Arden-Arcade-Roseville Metropolitan Statistical Area							
Davis-UCD Campus	Site Type:	Gnrl		Gnrl		(Gnrl)	
061130004	Monitoring Obj.:	NAAQS		NAAQS		(PublicR)	
	Monitoring Purp.:	StateD/AgBn		StateD		(AgBn)	
	Monitor Type:	SLAMS		SLAMS		(SPM)	
West Sacramento-15th Street	Site Type:						Gnrl
132 15th Street, West Sacramento	Monitoring Obj.:						NAAQS
061132001	Monitoring Purp.:						StateD
	Monitor Type:						SLAMS
Woodland-Gibson Road	Site Type:	Gnrl				Gnrl	Gnrl
41929 E Gibson Road, Woodland	Monitoring Obj.:	NAAQS				NAAQS	NAAQS
061131003	Monitoring Purp.:	StateD				StateD	StateD/AgBn
	Monitor Type:	SLAMS				SLAMS	SLAMS

Footnotes:
This table only lists sites and monitors that have reported data in 2012. Lead monitors are not included in this list because there is no lead monitoring in the areas included in this report.

After a county name, the table lists the U.S. Office of Management and Budget's Core-Based Statistical Area (CBSA) that includes the county. The term CBSA includes both Metropolitan Statistical Areas and Micropolitan Statistical Areas. A Metropolitan Statistical Area has at least one urban area with a population of 50,000 or more. A Micropolitan Statistical Area has at least one urban area with a population of 10,000 to less than 50,000.

*Site and monitoring information inside a parenthesis ( ) in a PM column denotes that a continuous PM monitor is located at the site. Site and monitoring information without a parenthesis reflects the filter-based PM monitor. For sites that have both continuous and filter-based PM monitors, the monitoring information are shown in the same column, separated by a colon (for example, SLAMS:(SPM)). Note that not all continuous $PM_{2.5}$ monitors are Federal Equivalent Methods (FEMs). While some continuous $PM_{2.5}$ monitors are non-FEMs, they are California Approved Samplers (CAS) and the data are used for State purposes. For example, the $PM_{2.5}$ data (88501) from the BAM 1020, method code 731, are considered non-FEMs but these data are used in State designation calculations. Inversely, the continuous FEM $PM_{2.5}$ data (88101) from the Met One BAM, method code 170, are considered FEMs but these data are not used in State calculations. The table lists both types of continuous $PM_{2.5}$ monitors. $PM_{2.5}$ FEM monitors are purposely **BOLD** and *italicized* to distinguish them from the non-FEM monitors. All continuous PM_{10} monitors are FEMs (i.e., TEOMs or BAMs).

Codes used in Table 3

Site Types

ExDwn	Extreme downwind
HConc	Highest concentration
MaxO3	Max ozone concentration
MaxEm	Max precursor emmissions impact
PopEx	Population Exposure
Sourc	Source oriented
UpWin	Upwind background
Gnrl	General/Background
Trans	Regional transport
Welf	Welfare related impacts
QA	Quality Assurance
Other	Other

Federal Monitoring Objectives

PublicR	Provide air pollution data to public in a timely manner
NAAQS	NAAQS comparison
RSupport	Research support

Monitoring Purposes

EHConc	Monitoring at expected high concentration sites relative to California Ambient Air Quality Standards
RConc	Representative concentrations
AgBn	Support agricultural/prescribed burn decisions
ResBn	Support residential burn program
Trnds	Trends analysis
StateD	Support State area designation
SIPMain	State Implementation Plan (SIP) maintance requirement
GAMP	Geyser Air Monitoring Program

Monitor Types

Impr	Improve
Indx	Index site
Indus	Industrial
NATTS	NATTS
NonEPA	Non-EPA federal
NonReg	Non-regulatory
PAMS	PAMS
NCore	Proposed Ncore
QAcoll	QA collocated
SLAMS	SLAMS
SPM	Special purpose
SupSP	Supplemental speciation
TrnSP	Trends speciation
Tribal	Tribal monitors
UnPAMS	Unofficial PAMS

Section 4. Additional Information about the Monitors

U.S. EPA regulations require that the annual network plan list specific additional information about the monitors that characterize the nature and location of the monitoring. Table 4 lists the spatial scales, sampling methods, method codes, parameter occurrence codes (POC) and start dates of the monitors that are included in this report. Also included in Table 4 are the geographical coordinates of the monitoring sites. Note that the continuous PM monitors are listed in parenthesis in the PM columns in Table 4. Moreover, continuous $PM_{2.5}$ FEM monitors are purposely bold and italicized in the $PM_{2.5}$ column to differentiate them from the continuous $PM_{2.5}$ non-FEM monitors. At the end of Table 4, the codes used for the spatial scales, sampling methods, and method codes are defined. Also, a brief explanation of the POC is given.

The regulations also require that the annual network plan list the laboratory analysis methods of the monitors. However, there is no separate analysis method for the gaseous monitors and continuous PM monitors. For the filter-based PM monitors, only simple mass weighing is done. Finally, the regulations require that the network plan include distance from road information, groundcover of the monitoring sites, probe heights of the monitoring instruments, materials used for monitoring, residence time, and distance from obstructions information.

The monitoring information for groundcover, distance from road/obstruction, probe heights, monitoring instrument/material and residence time is not included at this time. Previous network plans included this information; however, U.S. EPA determined that some of the information was inadequate and needs to be updated. For this reason, U.S. EPA, ARB, districts, and a contractor are in the process of developing a statewide database to collect and store current site and monitoring information for all of the monitoring sites in California. Once this database is complete, which is anticipated to be available for use in 2014, this required site and monitoring information will be included in the ARB network plan. In the interim, older information can be viewed via ARB's site surveys at: www.arb.ca.gov/qaweb/site.php.

Table 4
Additional Information about the Monitors
(Monitors reporting data in 2012)

Station/Geographical Coordinates/AQS Site #		OZONE 44201	CO 42101	NO2 42602	SO2 42401	PM2.5* 88101/88501	PM10* 81102
LAKE COUNTY AIR BASIN							
Lake County / CBSA: Clearlake Micropolitan Statistical Area							
Middletown-Anderson Springs Road	Spatial Scale:						NGH
38.7744, -122.6994	Samp. Method:						SCH, XG
060333010	Mthd. Code/POC:						098 / 1
	Start Date:						1-1-2005
Glenbrook-High Valley Road	Spatial Scale:						NGH
38.8502, -122.7361	Samp. Method:						SCH, XG
060333011	Mthd. Code/POC:						098 / 1
	Start Date:						1-1-2005
Lakeport-Lakeport Blvd	Spatial Scale:	URB				URB	URB
39.0330, -122.9219	Samp. Method:	UV				SCH	SCH
060333001	Mthd. Code/POC:	087 / 1				117 / 1	098 / 2
	Start Date:	1-1-1980				1-1-1999	4-1-2001
LAKE TAHOE AIR BASIN							
El Dorado County / CBSA: Sacramento-Arden-Arcade-Roseville Metropolitan Statistical Area							
South Lake Tahoe-Sandy Way	Spatial Scale:						(NGH)
38.9450, -119.9703	Samp. Method:						(BAM)
060170011	Mthd. Code/POC:						(122 / 2)
	Start Date:						(6-1-2001)
MOJAVE DESERT AIR BASIN							
Kern County / CBSA: Bakersfield Metropolitan Statistical Area							
Canebrake-3147 Highway 178	Spatial Scale:						REG
35.7277, -118.1393	Samp. Method:						SI
060290017	Mthd. Code/POC:						141 / 1
	Start Date:						1/1/2009
Mojave-923 Poole Street	Spatial Scale:	REG				***(NGH)***	(REG)
35.0503, -118.1478	Samp. Method:	UV				***(BAM)***	(BAM)
060290011	Mthd. Code/POC:	087 / 1				***(170 / 3)***	(122 / 3)
	Start Date:	8-1-1993				***(4-1-2011)***	(4-1-2011)
Ridgecrest-100 West California Avenue	Spatial Scale:					NGH	NGH
35.6211, -117.6731	Samp. Method:					SI	SI
060290015	Mthd. Code/POC:					118 / 1	063 / 1
	Start Date:					6-1-1999	12-15-1999
Los Angeles County / CBSA: Los Angeles-Long Beach-Anahiem Metropolitan Statistical Area							
Lancaster-43301 Division Street	Spatial Scale:	MID	MID	MID		NGH	NGH:(NGH)
34.6713, -118.1305	Samp. Method:	UV	IR	CL		SQ	SI:(BAM)
060379033	Mthd. Code/POC:	087 / 1	093 / 1	099 / 1		117 / 1	063 / 1:(122 / 2)
	Start Date:	11-1-2001	11-1-2001	11-1-2001		11-1-2001	11-1-01:(11-1-01)
Riverside County / CBSA: Riverside-San Bernardino-Ontario Metropolitan Statistical Area							
Blythe-445 W Murphy Street	Spatial Scale:	NGH					
33.6119, -114.6000	Samp. Method:	UV					
060659003	Mthd. Code/POC:	087 / 1					
	Start Date:	5-1-2003					
San Bernardino County / CBSA: Riverside-San Bernardino-Ontario Metropolitan Statistical Area							
Barstow-200 E Buena Vista Road	Spatial Scale:	NGH	NGH	NGH			NGH
34.8938, -117.0244	Samp. Method:	UV	IR	CL			SI
060710001	Mthd. Code/POC:	087 / 1	093 / 1	099 / 1			063 / 2
	Start Date:	1-1-1974	1-1-1973	1-1-1973			4-20-1988
Hesperia-Olive Street	Spatial Scale:	NGH					NGH
34.4158, -117.2861	Samp. Method:	UV					SI
060714001	Mthd. Code/POC:	087 / 1					063 / 1
	Start Date:	1-1-1980					1-1-1989

Table 4 (cont.)
Additional Information about the Monitors
(Monitors reporting data in 2012)

Station/Geographical Coordinates/AQS Site #		OZONE 44201	CO 42101	NO2 42602	SO2 42401	PM2.5* 88101/88501	PM10* 81102
Joshua Tree National Monument	Spatial Scale:	REG					
34.0694, -116.3888	Samp. Method:	UV					
060719002	Mthd. Code/POC:	047 / 1					
	Start Date:	10/1/1993					
Lucerne Valley-Middle School	Spatial Scale:						NGH
34.4103, -116.9067	Samp. Method:						SI
060710013	Mthd. Code/POC:						063 / 1
	Start Date:						6-1-1989
Phelan-Beekley and Phelan Roads	Spatial Scale:	NGH					
34.4250, -117.5897	Samp. Method:	UV					
060710012	Mthd. Code/POC:	087 / 1					
	Start Date:	7-1-1987					
Trona-Athol and Telescope	Spatial Scale:	REG		NGH	REG		NGH:(NGH)
35.7744, -117.3722	Samp. Method:	UV		CL	FL		SI:(BAM)
060711234	Mthd. Code/POC:	087 / 1		099 / 1	077 / 1		063 / 1:(122/ 2)
	Start Date:	4-1-1997		4-1-1997	4-1-1997		4/1/97:(6-1-97)
Victorville-14036 Park Avenue	Spatial Scale:	NGH	NGH	NGH	NGH	NGH	NGH:(NGH)
34.5122, -117.3250	Samp. Method:	UV	IR	CL	FL	SQ	SI:(BAM)
060710306	Mthd. Code/POC:	087 / 1	093 / 1	099 / 1	077 / 1	117 / 1	063 / 1 (122 / 2)
	Start Date:	1-1-2000	1-1-2000	1-1-2000	1/1/2000	1-1-2000	4-1-2000
MOUNTAIN COUNTIES AIR BASIN							
Amador County / Not in a CBSA							
Jackson-201 Clinton Road	Spatial Scale:	URB					
38.3427, -120.7644	Samp. Method:	UV					
060050002	Mthd. Code/POC:	087 / 1					
	Start Date:	5-1-1992					
Calaveras County / Not in a CBSA							
San Andreas-501 Gold Strike Road	Spatial Scale:	REG				***(REG)***	REG
38.2019, -120.6802	Samp. Method:	UV				***(BAM)***	SI
060090001	Mthd. Code/POC:	087 / 1				***(170 / 3)***	063 / 1
	Start Date:	5-1-1994				***(6-15-2010)***	4-1-1994
El Dorado County / CBSA: Sacramento-Arden-Arcade-Roseville Metropolitan Statistical Area							
Cool-Highway 193	Spatial Scale:	REG					
38.8906, -121.0000	Samp. Method:	UV					
060170020	Mthd. Code/POC:	087 / 1					
	Start Date:	6-1-1996					
Echo Summit	Spatial Scale:	REG					
38.8117, -120.0331	Samp. Method:	UV					
060170012	Mthd. Code/POC:	087 / 1					
	Start Date:	5-7-2006					
Placerville-Gold Nugget Way	Spatial Scale:	REG					
38.7247, -120.8219	Samp. Method:	UV					
060170010	Mthd. Code/POC:	087 / 1					
	Start Date:	2-1-1992					
Mariposa County / Not in a CBSA							
Jerseydale-6440 Jerseydale	Spatial Scale:	REG					
37.5466, -119.8416	Samp. Method:	UV					
060430006	Mthd. Code/POC:	087 / 1					
	Start Date:	7-1-1995					
Yosemite National Park-Turtleback Dome	Spatial Scale:	REG					
37.7133, -119.7058	Samp. Method:	UV					
060430003	Mthd. Code/POC:	047 / 1					
	Start Date:	11-1-1988					
Yosemite Village-Visitor Center	Spatial Scale:					(NGH)	NGH
37.7486, -119.5869	Samp. Method:					(BAM)	SI
060431001	Mthd. Code/POC:					(731 / 3)	063 / 2
	Start Date:					(2-2-2002)	1-28-1989

Table 4 (cont.)
Additional Information about the Monitors
(Monitors reporting data in 2012)

Station/Geographical Coordinates/AQS Site #		OZONE 44201	CO 42101	NO2 42602	SO2 42401	PM2.5* 88101/88501	PM10* 81102
Nevada County / CBSA: Truckee-Grass Valley Micropolitan Statistical Area							
Grass Valley-Litton Building	Spatial Scale:	URB				NGH:(NGH)	
39.2336, -121.0555	Samp. Method:	UV				SCH:(BAM)	
060570005	Mthd. Code/POC:	087 / 1				117 / 1: (731 / 3)	
	Start Date:	6-1-1993				12-30-98:(7-1-07)	
Truckee-Fire Station	Spatial Scale:					NGH:(NGH)	
39.3274, -120.1847	Samp. Method:					SQ:(BAM)	
060571001	Mthd. Code/POC:					118 / 1:(731 / 3)	
	Start Date:					3-31-99:(1-1-07)	
White Cloud Mountain	Spatial Scale:	REG					
39.3181, -120.8456	Samp. Method:	UV					
060570007	Mthd. Code/POC:	087 / 1					
	Start Date:	6-1-1995					
Placer County / CBSA: Sacramento-Arden-Arcade-Roseville Metropolitan Statistical Area							
Colfax-City Hall	Spatial Scale:	URB				(NGH)	NGH
39.0997, -120.9541	Samp. Method:	UV				(BAM)	SI
060610004	Mthd. Code/POC:	087 / 1				(731 / 3)	063 / 1
	Start Date:	1-1-1992				(1-1-2012)	1-1-2012
Plumas County / Not in a CBSA							
Chester-222 1st Avenue	Spatial Scale:					(NGH)	
40.3097, -121.2277	Samp. Method:					(BAM)	
060631007	Mthd. Code/POC:					(731 / 3)	
	Start Date:					(1-1-2007)	
Portola-161 Nevada Street	Spatial Scale:					NGH:(NGH)	
39.8083, -120.4717	Samp. Method:					SCH:(BAM)	
060631009	Mthd. Code/POC:					118 / 1:(731 / 3)	
	Start Date:					1-18-07:(9-1-03)	
Quincy-N Church Street	Spatial Scale:					NGH:(NGH)	
39.9397, -120.9441	Samp. Method:					SQ:(BAM)	
060631006	Mthd. Code/POC:					118 / 1:(731 / 3)	
	Start Date:					3-26-99:(1-1-07)	
Tuolumne County / CBSA: Phoenix Lake-Cedar Ridge Micropolitan Statistical Area							
Sonora-Barretta Street	Spatial Scale:	NGH					
37.9819, -120.3786	Samp. Method:	UV					
061090005	Mthd. Code/POC:	087 / 1					
	Start Date:	7-1-1992					
NORTH COAST AIR BASIN							
Mendocino County / CBSA: Ukiah Micropolitan Statistical Area							
Fort Bragg-Dana Street	Spatial Scale:						(NGH)
39.4373, -123.7877	Samp. Method:						(BAM)
060450010	Mthd. Code/POC:						(122 / 1)
	Start Date:						(8-17-2011)
Ukiah-County Library	Spatial Scale:					***(NGH)***	
39.1511, -123.2066	Samp. Method:					***(BAM)***	
060450006	Mthd. Code/POC:					***(170 / 3)***	
	Start Date:					***(12-31-2008)***	
Ukiah-East Gobbi Street	Spatial Scale:	URB					
39.1447, -123.2002	Samp. Method:	UV					
060450008	Mthd. Code/POC:	087 / 1					
	Start Date:	8-1-1992					
Willits-125 East Commercial Street	Spatial Scale:					***(NGH)***	
39.4118, -123.3528	Samp. Method:					***(BAM)***	
060452002	Mthd. Code/POC:					***(170 / 3)***	
	Start Date:					***(9-15-2009)***	
Sonoma County / CBSA: Santa Rosa Metropolitan Statistical Area							
Cloverdale-100 Washington Street	Spatial Scale:						NGH
38.8047, -123.0177	Samp. Method:						SI
060970001	Mthd. Code/POC:						063 / 2
	Start Date:						1-1-1990

Table 4 (cont.)
Additional Information about the Monitors
(Monitors reporting data in 2012)

Station/Geographical Coordinates/AQS Site #		OZONE 44201	CO 42101	NO2 42602	SO2 42401	PM2.5* 88101/88501	PM10* 81102
Guerneville-Church and 1st	Spatial Scale:						NGH
38.5016, -122.9977	Samp. Method:						SI
060973002	Mthd. Code/POC:						063 / 1
	Start Date:						4-1-1990
Healdsburg-133 Matheson Street	Spatial Scale:						NGH
38.6111, -122.8686	Samp. Method:						SI
060970002	Mthd. Code/POC:						063 / 2
	Start Date:						5-21-1988
Healdsburg-Municipal Airport	Spatial Scale:	URB					
38.6536, -122.9005	Samp. Method:	UV					
060971003	Mthd. Code/POC:	087 / 1					
	Start Date:	6-1-1991					
NORTHEAST PLATEAU AIR BASIN							
Siskiyou County / Not in a CBSA							
Yreka-Foothill Drive	Spatial Scale:	NGH				NGH	NGH
41.7267, -122.6336	Samp. Method:	UV				SQ	SI
060932001	Mthd. Code/POC:	087 / 1				117 / 1	063 / 2
	Start Date:	1-1-1981				8-21-2008	1-1-1988
SACRAMENTO VALLEY AIR BASIN							
Butte County / CBSA: Chico Metropolitan Statistical Area							
Chico-East	Spatial Scale:	URB	NGH	NGH		NGH:(NGH)	NGH
39.7616, -121.8405	Samp. Method:	UV	IR	CL		SCH:(BAM)	SI
060070008	Mthd. Code/POC:	087 / 1	593 / 1	099 / 3		118 / 1:(731 / 3)	063 / 1
	Start Date:	6-1-2012	6-1-2012	6-8-2012		4-27-12:(6-1-12)	5-27-2012
Gridley-Cowee Avenue	Spatial Scale:					(NGH)	
39.3272, -121.6686	Samp. Method:					(BAM)	
060074001	Mthd. Code/POC:					(731 / 3)	
	Start Date:					(3-1-2001)	
Paradise-4405 Airport Road	Spatial Scale:	REG					
39.7141, -121.6177	Samp. Method:	UV					
060070007	Mthd. Code/POC:	087 / 1					
	Start Date:	5-1-2000					
Paradise-6701 Clark Road	Spatial Scale:					(NGH)	
39.7788, -121.5906	Samp. Method:					(BAM)	
060072002	Mthd. Code/POC:					(731 / 3)	
	Start Date:					(9-9-2010)	
Colusa County / Not in a CBSA							
Colusa-Sunrise Blvd	Spatial Scale:	REG				NGH:(NGH)	REG
39.1888, -121.9980	Samp. Method:	UV				SQ:(BAM)	SI
060111002	Mthd. Code/POC:	087 / 1				118 / 1:(731 / 3)	063 / 2
	Start Date:	7-1-1996				12-16-98:(10-12-04	5-1-1988
Glenn County / Not in a CBSA							
Willows-E Laurel Street	Spatial Scale:	URB				(NGH)	REG
39.5172, -122.1897	Samp. Method:	UV				(BAM)	SI
060210003	Mthd. Code/POC:	087 / 1				(731 / 3)	063 / 1
	Start Date:	9-13-2006				(9-13-2006)	9-14-2006
Placer County / CBSA: Sacramento-Arden-Arcade-Roseville Metropolitan Statistical Area							
Auburn-Atwood	Spatial Scale:	URB				***(NGH)***	
38.9356, -121.0995	Samp. Method:	UV				***(BAM)***	
060610003	Mthd. Code/POC:	087 / 1				***(170 / 1)***	
	Start Date:	6-24-2011				***(6-24-2011)***	
Auburn-B Avenue	Spatial Scale:						NGH
38.9394, -121.1055	Samp. Method:						SI
060610002	Mthd. Code/POC:						063 / 1
	Start Date:						1-1-2012
Lincoln-1st Street	Spatial Scale:	URB				(NGH)	
38.8856, -121.3020	Samp. Method:	UV				(BAM)	
060612002	Mthd. Code/POC:	087 / 1				(731 / 3)	
	Start Date:	12-21-2012				(12-21-2012)	

Table 4 (cont.)
Additional Information about the Monitors
(Monitors reporting data in 2012)

Station/Geographical Coordinates/AQS Site #		OZONE 44201	CO 42101	NO2 42602	SO2 42401	PM2.5* 88101/88501	PM10* 81102
Roseville-N Sunrise Blvd	Spatial Scale:	URB		NGH		NGH:(NGH)	URB
38.7461, -121.2647	Samp. Method:	UV		CL		SCH:(BAM)	SI
060610006	Mthd. Code/POC:	087 / 1		099 / 1		117 / 1:(731 / 3)	063 /1
	Start Date:	1-13-1993		1-13-1993		12-31-98:(6-23-04)	1-13-1993
Shasta County / CBSA: Redding Metropolitan Statistical Area							
Anderson-North Street	Spatial Scale:	NGH					NGH
40.4531, -122.2986	Samp. Method:	UV					SI
060890007	Mthd. Code/POC:	087 / 1					063 / 1
	Start Date:	5-1-1993					5-1-1993
Lassen Volcanic Natl Park-Manzanita Lake	Spatial Scale:	REG					
40.5372, -121.5764	Samp. Method:	UV					
060893003	Mthd. Code/POC:	047 / 1					
	Start Date:	11-1-1987					
Redding-Health Department Roof	Spatial Scale:	NGH				NGH	NGH
40.5514, -122.3808	Samp. Method:	UV				SCH	SI
060890004	Mthd. Code/POC:	087 / 1				117 / 1	063 / 1
	Start Date:	5-1-1990				12-19-1998	1-1-1988
Shasta Lake-13791 Lake Blvd	Spatial Scale:	NGH					
40.6894, -122.4011	Samp. Method:	UV					
060890009	Mthd. Code/POC:	087 / 1					
	Start Date:	4-1-2009					
Shasta Lake-4066 La Mesa Avenue	Spatial Scale:						REG
40.6775, -122.3733	Samp. Method:						SI
060890008	Mthd. Code/POC:						063 / 1
	Start Date:						1-1-2004
Solano County / CBSA: Vallejo-Fairfield Metropolitan Statistical Area							
Vacaville-Merchant Street	Spatial Scale:						URB
38.3516, -121.9933	Samp. Method:						SI
060953001	Mthd. Code/POC:						063 / 2
	Start Date:						1-1-1988
Vacaville-Ulatis Drive	Spatial Scale:	URB					
38.3583, -121.9500	Samp. Method:	UV					
060953003	Mthd. Code/POC:	087 / 1					
	Start Date:	7-21-2003					
Sutter County / CBSA: Yuba City Metropolitan Statistical Area							
Sutter Buttes-S Buttes	Spatial Scale:	REG					
39.1583, -121.7500	Samp. Method:	UV					
061010004	Mthd. Code/POC:	087 / 1					
	Start Date:	5-1-1993					
Yuba City-Almond Street	Spatial Scale:	URB		NGH		NGH:(NGH)	NGH
39.1388, -121.6191	Samp. Method:	UV		CL		SCH:(BAM)	SI
061010003	Mthd. Code/POC:	087 / 1		099 / 1		118 / 1:(731 / 3)	063 / 1
	Start Date:	10-1-1989		10-1-1989		12-19-98:(6-14-04)	12-1-1989
Tehama County / CBSA: Red Bluff Micropolitan Statistical Area							
Red Bluff-Main Street	Spatial Scale:					***(NGH)***	
40.1678, -122.2271	Samp. Method:					***(BAM)***	
061030006	Mthd. Code/POC:					***(170 / 3)***	
	Start Date:					***(1-1-2009)***	
Red Bluff-Oak Street	Spatial Scale:	URB					
40.1749, -122.2366	Samp. Method:	UV					
061030005	Mthd. Code/POC:	087 / 1					
	Start Date:	2-1-1996					
Red Bluff-Messer Drive	Spatial Scale:						NGH
40.1638, -122.2213	Samp. Method:						SI
061030002	Mthd. Code/POC:						063 / 2
	Start Date:						1-1-1998

Table 4 (cont.)
Additional Information about the Monitors
(Monitors reporting data in 2012)

Station/Geographical Coordinates/AQS Site #		OZONE 44201	CO 42101	NO2 42602	SO2 42401	PM2.5* 88101/88501	PM10* 81102
Tuscan Butte	Spatial Scale:	REG					
40.2622, -122.0928	Samp. Method:	UV					
061030004	Mthd. Code/POC:	087 / 1					
	Start Date:	6-1-1995					
Yolo County / CBSA: Sacramento-Arden-Arcade-Roseville Metropolitan Statistical Area							
Davis-UCD Campus	Spatial Scale:	URB		NGH		(NGH)	
38.5352, -121.7730	Samp. Method:	UV		CL		(BAM)	
061130004	Mthd. Code/POC:	087 / 1		099 / 1		(731 / 3)	
	Start Date:	9-1-1987		5-21-1996		(8-14-2003)	
West Sacramento-15th Street	Spatial Scale:						NGH
38.5713, -121.5258	Samp. Method:						SI
061132001	Mthd. Code/POC:						063 / 1
	Start Date:						9-1-1990
Woodland-Gibson Road	Spatial Scale:	URB				NGH	URB
38.6605, -121.7305	Samp. Method:	UV				SQ	SI
061131003	Mthd. Code/POC:	087 / 1				118 / 1	063 / 1
	Start Date:	5-27-1998				1-9-1999	10-26-1998

Footnotes:
This table only lists sites and monitors that have reported data in 2012. Lead monitors are not included in this list because there is no lead monitoring in the areas included in this report.

After a county name, the table lists the U.S. Office of Management and Budget's Core-Based Statistical Area (CBSA) that includes the county. The term CBSA includes both Metropolitan Statistical Areas and Micropolitan Statistical Areas. A Metropolitan Statistical Area has at least one urban area with a population of 50,000 or more. A Micropolitan Statistical Area has at least one urban area with a population of 10,000 to less than 50,000.

*Monitoring information inside a parenthesis ( ) in a PM column denotes that a continuous PM monitor is located at the site. Monitoring information without a parenthesis reflects the filter-based PM monitor. For sites that have both continuous and filter-based PM monitors, the monitoring information are shown in the same column, separated by a colon (for example, NGH:(NGH)). Note that not all continuous $PM_{2.5}$ monitors are Federal Equivalent Methods (FEMs). While some continuous $PM_{2.5}$ monitors are non-FEMs, they are California Approved Samplers (CAS) and the data are used for State purposes. For example, the $PM_{2.5}$ data (88501) from the BAM 1020, method code 731, are considered non-FEMs but these data are used in State designation calculations. Inversely, the continuous FEM $PM_{2.5}$ data (88101) from the Met One BAM, method code 170, are considered FEMs but these data are not used in State calculations. The table lists both types of continuous $PM_{2.5}$ monitors. $PM_{2.5}$ FEM monitors are purposely **BOLD** and *italicized* to distinguish them from the non-FEM monitors. All continuous PM_{10}monitors are FEMs (i.e., TEOMs or BAMs).

Codes used in Table 4

Spatial scales

MIC	Microscale
MID	Middle Scale
NGH	Neighborhood Scale
URB	Urban Scale
REG	Regional Scale

Sampling methods

CL	Chemiluminescent
FL	Fluoresecence
IR	Nondispersive infrared
SCH	Low volume single channel sampler, size selective inlet
SI	High volume sampler, size selective inlet
SQ	Low volume sequential sampler, size selective inlet
UV	Ultraviolet absorption
XG	X-ray fluorescence
BAM	Beta Attenuation Monitor
TEOM	Tapered Element Oscillating Microbalance Monitor

Method codes

047	Thermo Electron/Thermo Environmental Instr., Inc. Model 49, 49C, & 49i Ozone analyzer
063	Anderson-General Metal Works Model 1200 High Volume sampler
077	Advance Pollution Instruments Model 100 SO2 analyzer
087	Teledyne -Advance Pollution Instuments Model 400 or T400 Ozone analyzer
093	Advance Pollution Instruments Model 300, GFC CO analyzer
098	Rupprecht & Patashnick Partisol Model 2000 Air Sampler
099	Advance Pollution Instruments Model 200A NO analyzer
117	Rupprecht & Patashnick Model 2000 PM2.5 Air Sampler
118	Rupprecht & Patashnick Plus Model 2025PM SEQ PM2.5 Air sampler
122	Met One BAM/GBAM Model 1020 Monitor
141	Tisch EnvironmentalModel TE-6070 PM10 High-Volume Sampler
170	Met One BAM Model 1020 Monitor PM2.5 VSCC FEM
593	Advance Pollution Instruments Model 300 EU, GFC CO analyzer
731	Met One BAM-1020 Monitor W/PM2.5 SCC

Note: POC stands for parameter occurrence code. This code is used to differentiate between the numbers of physical monitors at a site that measure for the same pollutant. For example, the PM10 monitors at a collocated PM10 site will use different POCs to differentiate between the primary and secondary PM10 monitors.

Section 5. Federal Minimum Monitoring Requirements

For most pollutants, U.S. EPA has established minimum monitoring requirements. These requirements are usually based on the CBSA along with considerations of population, emissions, or current air quality. Minimum monitoring requirements for ozone, $PM_{2.5}$, PM_{10}, NO_2, SO_2 and lead will be discussed in this section. In contrast, there are also monitoring requirements that apply to an entire Primary Quality Assurance Organization (PQAO) or State or are based on ozone nonattainment classification, which will be discussed in the next section.

Federal Ozone, PM_{10}, and $PM_{2.5}$ Monitoring Requirements

Requirements for the minimum numbers of monitors appear in Appendix D of Title 40, Part 58 of the CFR. For purposes of the minimum requirements, the areas are defined by the CBSAs developed by the OMB (more information on CBSAs appears on page 10). For ozone, $PM_{2.5}$, continuous $PM_{2.5}$ and PM_{10}, the required minimum number is based on the population of an area and the severity of the air quality for the pollutant in the area. For the CBSAs included in this report, Table 5 summarizes the number of existing O_3, $PM_{2.5}$, continuous $PM_{2.5}$ and PM_{10} monitors and the number required by federal regulations. For a complete list of CBSAs in California, see Table 5a. Table 5a also lists information regarding CBSAs that are included in other district network plans. Note that this report only includes nine CBSAs, of which five CBSAs are partially covered in this report and parts are covered in the network reports being completed by other air districts.

More detailed information on the ozone, $PM_{2.5}$, continuous $PM_{2.5}$ and PM_{10} monitoring requirements and compliance with federal requirements can be found in Appendix B of this report. The tables in Appendix B list the CBSA, population of the CBSA and minimum monitoring requirement information. In addition, Appendix B also lists the monitoring sites for which are counted towards federal minimum monitoring requirements. The number of required monitors is based on the population of the CBSA, taken from the 2010 U.S. Census, in combination with the degree to which air quality in the CBSA is greater or less than the national air quality standards. In all cases, sufficient monitoring exists and no additional monitoring is required.

Table 5
Numbers of Required and Existing Sites by Core Based Statistical Area (CBSA)
(CBSAs that include the twenty-three air districts included in this report)

Core Based Statistical Area (CBSA)	Pop.	Ozone		PM2.5				PM10 (SSI)[3]	
		Required SLAMS[1]	Existing SLAMS	Required SLAMS	Existing SLAMS	Required Cont.[2]	Existing Cont.	Required SLAMS	Existing SLAMS
Bakersfield*	839,361	2	8	2	4	1	3	1-2	4
Chico	220,000	1	2	1	1	1	3	0	1
Los Angeles-Long Beach-Anaheim*	12,828,837	4	19	3	12	2	7	2-4	11
Redding	177,223	1	4	0	1	0	0	0	3
Riverside-San Bernardino-Ontario*	4,224,851	3	20	3	10	2	8	6-10	20
Sacramento-Arden Arcade-Roseville*	2,149,127	2	14	3	6	2	9	2-4	12
Santa Rosa*	483,878	1	2	0	1	0	1	0-1	3
Vallejo-Fairfield*	413,344	2	3	0	1	0	1	0-1	1
Yuba City	166,892	1	1	0	1	0	1	0	1

Notes:
2010-2012 air quality data was used in determining the number of required sites.

This table excludes tribal monitoring sites.

Population is based on year 2010 Census data.

*Parts of these CBSAs are included in the geographical scope of this report, and parts are within the geographical scope of reports being completed by the districts. The numbers of sites listed are for the entire CBSA. Table 5a shows the completed list of CBSAs in California.

[1]SLAMS stands for State and Local Air Monitoring Stations.

[2]Continuous refers to a continuous $PM_{2.5}$ monitor, i.e., one that measures hourly data. For this assessment, both continuous FEM and non-FEM $PM_{2.5}$ monitors were counted for each CBSA.

[3]SSI stands for size selective inlet. The SSI is an FRM for PM_{10}.

Table 5a
Core-Based Statistical Areas in California

CBSA Name	County(ies)	Included in the ARB plan?	CBSA also included in which district's plan?
Bakersfield	Kern	Yes, partially	San Joaquin Valley
Chico	Butte	Yes	--
El Centro	Imperial	No	Imperial
Fresno	Fresno	No	San Joaquin Valley
Hanford-Corcoran	Kings	No	San Joaquin Valley
Los Angeles-Long Beach-Anaheim	Los Angeles and Orange	Yes, partially	South Coast
Madera	Madera	No	San Joaquin Valley
Merced	Merced	No	San Joaquin Valley
Modesto	Stanislaus	No	San Joaquin Valley
Napa	Napa	No	Bay Area
Oxnard-Thousand Oaks-Ventura	Ventura	No	Ventura County
Redding	Shasta	Yes	--
Riverside-San Bernardino-Ontario	Riverside and San Bernardino	Yes, partially	South Coast
Sacramento-Roseville-Arden Arcade	El Dorado, Placer, Sacramento, and Yolo	Yes, partially	Sacramento Metropolitan
Salinas	Monterey	No	Monterey Bay Unified
San Diego-Carlsbad	San Diego	No	San Diego County
San Francisco-Oakland-Hayward	Alameda, Contra Costa, Marin, San Francisco, and San Mateo	No	Bay Area
San Jose-Sunnyvale-Santa Clara	Santa Benito and Santa Clara	No	Bay Area
San Luis Obispo-Paso Robles-Arroyo Grande	San Luis Obispo	No	San Luis Obispo County
Santa Cruz-Watsonville	Santa Cruz	No	Monterey Bay Unified
Santa Maria-Santa Barbara	Santa Barbara	No	Santa Barbara County
Santa Rosa	Sonoma	Yes, partially	Bay Area
Stockton-Lodi	San Joaquin	No	San Joaquin Valley
Vallejo-Fairfield	Solano	Yes, partially	Bay Area
Visalia-Porterville	Tulare	No	San Joaquin Valley
Yuba City	Sutter and Yuba	Yes	--

Federal Near-Road, Area-Wide and Susceptible Population NO_2 Monitoring Requirements

There are new federal requirements for NO_2 near roadway monitors that are applicable in California. However, none of the 23 districts covered in this report are required to deploy near roadway monitors. Near roadway monitors required for the Sacramento-Arden-Arcade-Roseville CBSA are being addressed by the Sacramento Metropolitan District. Near roadway monitors required for the Riverside-San Bernardino-Ontario and Los Angeles-Long Beach-Santa Ana CBSAs are being addressed by the South Coast District. Near roadway monitors required for the San Diego-Carlsbad-San Marcos CBSA are being addressed by the San Diego County District. Near roadway monitors required for the Oxnard-Thousand Oaks-Ventura CBSA are being addressed by the Ventura County District. Near roadway monitors required for the San Francisco-Oakland-Fremont and San Jose-Sunnyvale-Santa Clara CBSAs are being addressed by the Bay Area District, and near roadway monitors required in the Bakersfield, Fresno, Modesto, and Stockton CBSAs are being addressed by the San Joaquin Valley District. All six of these districts are preparing separate network plans and/or separate documents related to the implementation of the NO_2 near roadway requirements. Table 6 lists the districts responsible for planning and implementing near-road NO_2 monitoring in California.

In addition, federal monitoring regulations also require that there must be NO_2 monitoring at a location of expected highest NO_2 concentration representing the neighborhood or larger spatial scales within each CBSA with a population of 1,000,000 or greater. There are three CBSAs included in this report that meet the population criteria: Los Angeles-Long Beach-Anaheim, Riverside-San Bernardino-Ontario, and Sacramento-Roseville-Arden Arcade CBSA. Area-wide NO_2 monitoring in the Los Angeles-Long Beach-Anaheim and Riverside-San Bernardino-Ontario CBSAs is being addressed by the South Coast District. Area-wide NO_2 monitoring in the Sacramento-Roseville-Arden Arcade CBSA is being addressed by the Sacramento Metropolitan District. There is no required NO_2 area-wide monitoring for the remaining CBSAs included in this network plan.

Finally, federal regulations also require that NO_2 monitoring is conducted in 40 locations throughout the United States in selected areas to protect susceptible and vulnerable populations. The locations of these areas are determined by each U.S. EPA Regional Administrator. In California, seven locations were selected to be part of the nationwide network, which includes San Diego, Oakland, Long Beach, Los Angeles, San Bernardino, Parlier, and Bakersfield. The selected monitoring locations are located in districts network plans.

Table 6
Near-Road NO_2 Monitoring Requirements in California

CBSA	District Responsible for NO_2 Near-Road Monitoring	Number of Required NO_2 Monitors
Bakersfield	San Joaquin Valley Unified	1
Fresno	San Joaquin Valley Unified	1
Los Angeles-Long Beach-Santa Ana	South Coast	2
Modesto	San Joaquin Valley Unified	1
Oxnard-Thousand Oaks-Ventura	Ventura County	1
Riverside-San Bernardino-Ontario	South Coast	2
Sacramento-Arden-Arcade-Roseville	Sacramento Metro	1
San Diego-Carlsbad-San Marcos	San Diego	2
San Francisco-Oakland-Fremont	Bay Area	2
San Jose-Sunnyvale-Santa Clara	Bay Area	1
Stockton	San Joaquin Valley Unified	1

Federal CO and SO_2 Monitoring Requirements

Monitoring for carbon monoxide (CO) is only required at a select number of NO_2 near-road monitoring sites, beginning in the year 2015 (and continuing through 2017) and will be addressed in future network plans by the implementing agencies. Regardless of the future implementation of the near-roadway CO and NO_2 requirements, California has and continues to monitor for CO and NO_2.

On June 2, 2010, the U.S. EPA published the final rule for the revised federal SO_2 standard which specifies the minimum number of sites at which state and local air agencies must deploy SO_2 monitors. The monitoring regulations require

SO_2 monitors be placed in CBSAs based on a population weighted emissions index (PWEI) for the area. The PWEI of a CBSA is calculated by multiplying the latest available SO_2 emission data within each CBSA by the population of the CBSA and then divided by one million. The final rule requires:

- Three SO_2 monitors in CBSAs with PWEI values of one million or more;
- Two SO_2 monitors in CBSAs with PWEI values less than one million but greater than 100,000; and
- One SO_2 monitor in CBSAs with PWEI values greater than 5,000 but less than 100,000.

California has thirty-five CBSAs with population ranging from 17,000 to more than 12 million people. Table 7 lists the CBSAs in California that require SO_2 monitoring. In addition, Table 7 shows that these CBSAs exceed federal monitoring requirements for SO_2. California's monitoring network currently consists of more SO_2 monitors than the federal requirement. None of the areas included in this report are required to monitor for SO_2.

Table 7
Minimum Monitoring Requirements for SO_2

CBSA	County(ies)	Population (2010)	SO2 emission per CBSA (tpy)	PWEI (Million persons-tpy)	Number of Required Monitors	Number of Active Monitors	Number of Additional Monitors Needed
Los Angeles-Long Beach-Santa Ana	Los Angeles and Orange	12,828,837	13,498	173,785	2	5	0
Riverside-San Bernardino-Ontario	Riverside and San Bernardino	4,224,851	2,478	10,266	1	4	0
San Francisco-Oakland-Fremont	Alameda, Contra Costa, San Francisco, San Mateo, and Marin	4,317,853	12,669	54,702	1	9	0

Federal Lead Monitoring Requirements

On December 14, 2010, U.S. EPA finalized the rule for the revised federal lead (Pb) standard, which also specifies the monitoring requirements for Pb. While the final rule maintains the airport monitoring threshold at 1.0 ton per year (tpy), the rule lowers the industrial source-oriented monitoring threshold from 1.0 tpy to 0.5 tpy. In addition, the final rule replaces the population-based monitoring requirement with a requirement to monitor for Pb at urban NCore sites.

The U.S. EPA selected 15 airports for a one-year study as part of the new Pb rule. Five airports are in California: Palo Alto Airport, McClellan-Palomar Airport, Reid-Hillview Airport, Gillespie Field Airport, and San Carlos Airport. None of these airports fall within the geographical scope of this report. With respect to source-oriented monitoring for Pb, the only stationary sources in California subject to the 0.5 tpy threshold are located in the South Coast Air Basin. The South Coast annual network plan provides a description of their source-oriented lead monitors. The areas covered in this network plan are not required to conduct source-oriented lead monitoring.

Lastly, the final rule requires Pb monitoring at urban NCore sites. Urban NCore sites are those sites in a CBSA of 500,000 or more. Currently, there are six urban NCore sites in California, located in El Cajon, Fresno, Los Angeles, Riverside, Sacramento and San Jose. A seventh rural NCore site is located at White Mountain Research Station. None of these NCore sites are located in areas covered by this network plan. More information on NCore sites is provided in Section 6 of this report.

Section 6. Federal Monitoring Requirements at State-level or by PQAO or Area

Certain parts of 40 CFR 58 require that state and local agencies operate multi-pollutant monitoring sites, meet PM collocation requirements, as well as monitor at sites that are considered background, transport, or highest (maximum) concentration sites. The rest of this Section discusses these requirements.

Federal NCore Monitoring Requirements for California

On October 17, 2006, U.S. EPA issued amendments to the ambient air monitoring requirements for criteria pollutants. These amendments are codified in 40 CFR Parts 53 and 58. One of the most significant changes in the regulations was the requirement to establish a network of National Core (NCore) multi-pollutant monitoring stations. NCore sites include neighborhood and urban scale measurements in metropolitan areas and rural areas. Sites are long term and sited away from direct emission sources that could impact the ability to detect area-wide concentrations. These stations provide data on several pollutants at lower detection limits and replace the National Air Monitoring Station (NAMS) network that had existed for many years.

Currently, in California, there are a total of seven monitoring sites that are part of the national NCore network. The seven NCore sites are listed in Table 8 along with the agency that operates the site.

Table 8
NCore Monitoring in California

NCore Site Name	NCore Type	Agency Responsible for NCore Monitoring
El Cajon	Urban	San Diego
Fresno-Garland	Urban	ARB
Los Angeles-North Main	Urban	South Coast
Riverside-Rubidoux	Urban	South Coast
Sacramento-Del Paso Manor	Urban	Sacramento Metro
San Jose	Urban	Bay Area
White Mountain Research Station	Rural	Great Basin Unified

6.1 Federal Collocation Requirements for the ARB PQAO

Appendix A of 40 CFR 58 includes requirements for collocation of samplers as part of quality checks for the $PM_{2.5}$, continuous $PM_{2.5}$, PM_{10}, and lead (Pb) monitoring networks. The CFR contains separate collocation requirements for these monitors. The requirements are to be met for each primary quality assurance organization (PQAO). Four PQAOs exist in California, one each for the San Francisco Bay Area AQMD, San Diego County APCD, and South Coast AQMD, and one for the remainder of the State that is called the ARB PQAO.

$PM_{2.5}$ Collocation Status

For $PM_{2.5}$, the CFR requires that for each type of $PM_{2.5}$ federal reference method (FRM), 15% of the sites within a PQAO have a collocated monitor of the same type. Three types of $PM_{2.5}$ FRMs exist currently in the ARB PQAO. Collocation requirements apply to each method type. The types of $PM_{2.5}$ samplers are: R&P Non-sequential (117), R&P Sequential (118), and Thermo Scientific (145). For method 117, the collocation site is Victorville. For method 118, the collocation sites are: Bakersfield-California, Fresno-Garland, Sacramento-Del Paso Manor and Truckee. For method 145, both the Calexico-Ethel and Keeler sites are collocated with the same manual method. Table 9 shows that the ARB PQAO met the collocation requirement for $PM_{2.5}$ FRM. Also, Table 9 lists the collocation sites by method type.

Table 9
Collocation Requirements for $PM_{2.5}$ FRM

Method Code	Number of Primary Monitors	Number of Required Collocated Monitors	Number of Active Collocated Monitors
117	9	1	1
118	25	4	4
145	2	1	2

Method 117 (R&P non-seq.): Victorville
Method 118 (R&P seq.): Bakersfield, Fresno, Sacramento and Truckee
Method 145 (Thermo): Calexico and Keeler

The CFR also requires that for each continuous $PM_{2.5}$ federal equivalent method (FEM), 15% of the sites must be collocated, but that the first collocation monitor is an FRM, the second an FEM, and so on alternating FRM with FEM as additional collocation monitors are required. At the time this report was drafted, 32 sites in the ARB PQAO operate continuous $PM_{2.5}$ FEM monitors and representing three method types. The three methods are the Met-One BAM (170), Thermo Scientific TEOM (181) and Grimm (195) of which 30 sites in the

ARB PQAO are operating method 170 and one site each is operating method 181 and 195. For method 170, the 30 sites in the ARB PQAO require that five sites are collocated of which the first, third, and fifth collocations are between an FEM/FRM and the second and fourth collocations are between an FEM/FEM. There are currently five FEM/FRM sites in the ARB PQAO: El Rio, Fresno-Garland, Merced, Modesto and Thousand Oaks. In addition, there is an FEM/FEM collocation site located at the Stockton-Hazelton site. However, to meet this collocation requirement, the ARB PQAO needs an additional FEM/FEM site. The ARB is evaluating monitoring locations in the ARB PQAO to determine where two continuous $PM_{2.5}$ FEM monitors could be added to the site without comprising other monitoring requirements.

For methods 181 and 195, which are located at the Keeler and Humboldt Hill sites, respectively, these sites would need to add a $PM_{2.5}$ FRM monitor to each of the sites to meet continuous $PM_{2.5}$ collocation requirements. The Great Basin Unified District plans to discontinue one of the two $PM_{2.5}$ FRM monitors at the Keeler site and re-designate the continuous $PM_{2.5}$ FEM monitor as the primary monitor at this site to meet collocation requirements. The North Coast Unified District plans to discontinue the $PM_{2.5}$ FRM at the Eureka-Jacob site and add it to the Humboldt Hill site to meet collocation requirements. Table 10 summarizes the collocation requirements for continuous $PM_{2.5}$ FEM in the ARB PQAO, also listing the names of the continuous $PM_{2.5}$ collocation sites.

Table 10
Collocation Requirements for continuous $PM_{2.5}$ FEM

Method Code	Number of Primary Monitors	Number of Required Collocated Monitors	Number of Active Collocated FRM Monitors	Number of Active Collocated FEM Monitors (same method designation as primary)
170	30	5	5	1 (need to add 1)
181	1	1	0 (need 1)	0
195	1	1	0 (need 1)	0

FEM/FRM sites: El Rio, Fresno, Merced, Modesto and Thousand Oaks
FEM/FEM site: Stockton

California is a very large state in which environmental conditions (e.g., temperature, precipitation, humidity, wind speeds, and elevation) vary widely and the composition of the $PM_{2.5}$ varies significantly. Also, a large number of operating agencies operate sites in the statewide $PM_{2.5}$ network. ARB and local air districts designed the locations of collocated $PM_{2.5}$ samplers to strike a balance in adequately representing all of these factors. In this way, the quality control function of the collocated monitoring is best realized. While Appendix A of 40 CFR 58 requires 80% of the collocated monitors to be within $\pm$ 20% of the

applicable federal air quality standard, focusing on achieving this was deemed to result in too much clustering of the collocated monitors in too few of the factors needing representation.

PM_{10} Collocation Status

The CFR also requires that 15% of PM_{10} sites with manual monitoring have collocated samplers. For this assessment, the ARB combines all of the PM_{10} FRM monitors regardless of its method type to get the total number of required collocation sites in the ARB PQAO. Currently, there are 63 PM_{10} FRM sites in the ARB PQAO of which five sites are already collocated. The collocation sites are:

- Bakersfield-California
- El Capitan
- Fresno-Drummond
- Sacramento-Del Paso Manor
- Simi Valley

To meet the PM_{10} collocation requirement, the ARB PQAO needs four additional PM_{10} collocation sites. ARB is initiating a phased approach to meeting the PM_{10} collocation requirement. The first step is to replace PM_{10} FRM monitors with continuous PM_{10} FEM monitors. Continuous monitors are useful for real-time reporting and forecasting, and are less expensive to maintain compared to filter monitors. To supplement the existing PM_{10} collocation network in the ARB PQAO, ARB plans to add some of the discontinued PM_{10} FRM monitors to the existing PM_{10} network to increase the number of collocation sites in the ARB PQAO. ARB will also coordinate with the districts, if necessary, to ensure that the PM_{10} collocation requirement is met. This proposal is detailed in Table 13 in Section 10 of this report.

Lead Collocation Status

On December 14, 2010, U.S. EPA finalized the rule for the revised federal lead (Pb) standard, which also specifies the collocation requirements for Pb. The regulations specify that PQAOs that have a combination of source and non-source Pb sites have 15% of their Pb monitoring sites collocated. The regulations also require that the Pb network be treated independently from the PM network, and that the first collocation site be at the highest Pb concentration site within the network. Moreover, the regulations specify that if a PQAO has no source or non-source Pb monitoring, and the only Pb monitoring is conducted at NCore sites, then the collocated Pb monitor must be of the same method designation as the primary Pb monitor.

The ARB PQAO requires no source or non-source Pb monitoring. However, the ARB PQAO does have two NCore sites which are located at Fresno-Garland and

Sacramento-Del Paso Manor. The Pb rule stated that PQAOs with only NCore and no source-oriented Pb monitoring do not have to collocate for Pb. The ARB PQAO does not require any collocation for Pb.

Federal Background, Transport, Max Concentration and Area-wide $PM_{2.5}$ Monitoring Requirements

Federal monitoring also required that the network plan list sites in California that represent background, transport, maximum concentration or area-wide monitoring for $PM_{2.5}$. From a statewide perspective, background sites are intended to quantify regionally representative $PM_{2.5}$ concentrations for sites located away from populated areas and other significant emission sources. The following sites serve as regional background sites in California:

Northern California background site - Point Reyes National Seashore

Southern California background site – San Rafael Wilderness

For transport monitoring, ARB has identified two $PM_{2.5}$ sites covered in the geographical area of this report as transport sites. They are the Vallejo and Roseville sites, which captures pollutant transport from the Bay Area to the Sacramento region and pollutant transport from Sacramento to the outlying areas of Sacramento, respectively. Finally, for maximum concentration and area-wide monitoring, ARB has identified six $PM_{2.5}$ sites. The maximum concentration and area-wide $PM_{2.5}$ sites covered in this report are listed below. Note that not all $PM_{2.5}$ sites are designated as background, transport, maximum concentration or area-wide. There are other monitoring purposes, for example quality assurance monitoring, a monitor can also serve.

Maximum-Concentration $PM_{2.5}$ Sites:
- Portola
- Lancaster
- Chico

Area-Wide $PM_{2.5}$ Sites:
- Grass Valley
- Ridgecrest
- Woodland

Section 7. Federal Air Quality Assurance

The information below, along with the information available via the web link (http://www.arb.ca.gov/aaqm/qa/qa.htm), describes the status of compliance with the requirements of 40 CFR 58, Appendices A, C, and E. The annual network plan is required to include such information.

Overview

ARB's Quality Management Branch (QMB) conducts annual performance evaluations (audits) for each SO_2, NO_2, O_3, H_2S, and CO gaseous analyzer operating at ambient air monitoring stations. Semi-annual performance evaluations are conducted for each PM monitor operating at the stations. Each gaseous analyzer is audited at three levels using known concentrations of National Institute of Standards and Technology (NIST) certified traceable gases while the PM monitor audits are conducted with a volumetric continuous flow device which is certified against NIST traceable primary standards. Additionally, laboratory mass analysis and meteorological performance audits are conducted annually. Laboratory audits utilize NIST certified weights, a hygrometer, and a temperature sensor to verify the accuracy of the balances and relative humidity and temperature sensors. Meteorological audits are conducted with instruments that are NIST traceable and/or manufacturer-certified. All of the audits performed by QMB are conducted in accordance with the 40 CFR 58, Appendix A.

QMB also conducts system audits to determine whether a district's air monitoring program satisfies the requirements of 40 CFR Part 58 and U.S. EPA's Quality Assurance Handbook for Air Pollution Measurement Systems, Volume II, December, 2008. Compliance with these regulations is necessary if the data are to be considered data-for-record per the California Code of Regulations (Title 17, Article 3, section 70301). Data meeting these requirements are eligible to be used in actions taken pursuant to the federal and California Clean Air Acts.

If a discrepancy is identified during an audit an Air Quality Data Action (AQDA) request is issued to the station operator. All AQDA's must be investigated and resolved to bring the station into compliance. The station operator completes the AQDA by documenting the resolution, specifying the time period during which data was potentially affected, and recommending whether the data is to be released, flagged, corrected, or invalidated. QMB reviews the completed AQDA and discusses any concerns with the operator. A finalized copy of the AQDA is forwarded to the operator and the ARB's Air Quality Analysis Section. Other issues identified outside of the audit process that may impact or potentially impact data quality is documented through the Corrective Action Notification (CAN) process.

Air Monitoring Station Quality Assurance

In addition to the annual instrument performance audits, QMB conducts siting evaluations. Physical measurements and observations, including probe or sampler inlet or sensor height above ground level, distance from trees, type of ground cover, residence time, obstructions to air flow, distance to local sources, topography, vehicle counts, predominant wind direction, and probe material are noted on the site survey or accompanying documentation to determine compliance with 40 CFR Part 58, Appendix E requirements.

QMB also ensures the quality of the data collected by the air monitoring stations operating in California through analysis of precision data submitted to the U.S. EPA's Air Quality System (AQS) database. Precision checks for gaseous/continuous samplers are required once every two weeks. These precision checks are conducted nightly at ARB and some district operated sites, and weekly or bi-weekly at other district sites. Precision checks for non-continuous, collocated particulate samplers are to be performed at least every twelfth day. QMB staff analyzes the precision data in accordance with 40 CFR 58, Appendix A.

Air monitoring staff performs a one-point flow rate verification check once every month on filter-based PM_{10} and $PM_{2.5}$ monitors and twice a month on PM_{10} BAM and $PM_{2.5}$ BAM automated analyzers. Air monitoring staff reviews these data and takes corrective action when the results exceed U.S. EPA's requirements. These flow rate verifications are used to assess bias of the automated instruments in accordance with 40 CFR Part 58, Appendix A, 3.2.3. These bias estimates are further verified by the semi-annual flow rate audits that are conducted five to seven months apart in each calendar year. In the course of auditing the $PM_{2.5}$ FRM and continuous samplers, the date of the last two flow rate and leak checks performed by the air monitoring staff are recorded. Any deviation of the CFR requirements discovered by QMB during these audits is addressed through an AQDA.

Information about each air monitoring station audited by QMB is available at: http://www.arb.ca.gov/qaweb/site.php. This web page includes the map location of each site, latitude and longitude coordinates as determined by GPS, site photos, and a detailed site survey of the physical parameters and conditions at each site.

The 2012 calendar year audit dates for both the gaseous analyzers and PM monitors operating at the monitoring sites covered in this report are provided in Table 11. Audit results are directly submitted to AQS quarterly per Appendix A of 40 CFR 58. In addition, as required by 40 CFR 58.15, ARB submits a data certification letter along with the required AQS reports (AMP450NC and AMP600) to U.S.EPA, annually.

Table 11
2012 Audit Date Information for the Monitors in this Plan

Site Name	Gaseous Audit	First Flow Audit	Second Flow Audit
Middletown-Anderson Springs	8/22/2012	2/22/2012	8/22/2012
Anderson-North Street	4/10/2012	4/10/2012	10/1/2012
Auburn	8/14/2012	2/8/2012	8/14/2012
Barstow	2/9/2012	2/9/2012	8/8/2012
Blythe-Murphy Street	2/7/2012		
Canebrake		3/14/2012	9/10/2012
Chester		7/10/2012	12/6/2012
Chico-Manzanita	1/10/2012	1/10/2012	CLOSED
Cloverdale		5/23/2012	11/14/2012
Colfax-City Hall	8/15/2012	2/8/2012	8/15/2012
Colusa-Sunrise Blvd	9/26/2012	3/13/2012	9/26/2012
Cool (seasonal)	7/25/2012		
Davis-UCD Campus	10/29/2012	4/26/2012	10/29/2012
Echo Summit (seasonal)	8/13/2012		
Fort Bragg-N Franklin Street	CLOSED		
Glenbrook	8/22/2012	2/22/2012	8/22/2012
Grass Valley-Litton Building	7/23/2012	1/24/2012	7/23/2012
Gridley		3/13/2012	9/26/2012
Guerneville-Church and 1st		5/22/2012	11/14/2012
Healdsburg - Matheson		5/22/2012	11/14/2012
Healdsburg-Municipal Airport	5/22/2012		
Hesperia-Olive Street	2/22/2012	2/22/2012	8/7/2012
Jackson-Clinton Road	5/29/2012		
Jerseydale	10/2/2012		
Joshua Tree National Monument	2/8/2012		
Lakeport-Lakeport Blvd	8/23/2012	2/22/2012	8/23/2012
Lancaster-Division Street	2/15/2012	2/15/2012	8/7/2012 // 9/11/2012
Lassen Volcanic National Park	4/10/2012		
Lucerne Valley - Middle School		2/22/2012	8/8/2012
Mojave	3/15/2012	3/15/2012	9/11/2012
Paradise - Airport	7/18/2012		
Phelan-Beekley Road & Phelan	2/14/2012		
Placerville-Gold Nugget Way	8/16/2012		
Portola - Nevada Street		7/10/2012	12/6/2012
Quincy-N Church Street		7/10/2012	12/6/2012
Red Bluff - Main Street		1/9/2012	7/16/2012
Red Bluff-Messer Drive		1/9/2012	7/16/2012
Red Bluff-Oak Street	7/16/2012		

Site Name	Gaseous Audit	First Flow Audit	Second Flow Audit
Redding - Health Department	4/10/2012	4/10/2012	10/1/2012
Ridgecrest - California Ave		3/14/2012	9/11/2012
Roseville-N Sunrise Blvd	3/12/2012	3/12/2012	9/14/2012
San Andreas-Gold Strike Road	5/30/2012	5/30/2012	11/29/2012
Shasta Lake - Lake Blvd	4/9/2012		
Shasta Lake-La Mesa		4/9/2012	10/1/2012
Sonora - Barretta Street	5/29/2012		
South Lake Tahoe-Sandy Way		2/9/2012	8/13/2012
Sutter Buttes (seasonal)	9/19/2012		
Trona - Athol/Telescope #2	12/18/2012	7/13/2012	12/18/2012
Truckee - Fire Station		7/12/2012	12/19/2012
Tuscan Butte (seasonal)	9/5/2012		
Ukiah - Gobbi Street	5/23/2012		
Ukiah - Library		5/23/2012	11/13/2012
Vacaville-Merchant Street		2/6/2012	7/17/2012
Vacaville-Ulatis Drive	7/17/2012		
Victorville - Park Avenue	2/23/2012	2/23/2012	8/7/2012
West Sacramento-15th Street		2/6/2012	7/17/2012
White Cloud (seasonal)	7/12/2012		
Willits - Justice Center		5/23/2012	11/13/2012
Willows-Colusa	7/19/2012	1/17/2012	7/19/2012
Woodland-Gibson Road	7/18/2012	1/17/2012	7/18/2012
Yosemite Natl Park-Turtleback	10/1/2012		
Yosemite Village - Visitor Center		4/12/2012	10/1/2012
Yreka	4/11/2012	4/11/2012	10/3/2012
Yuba City	8/9/2012	1/10/2012	7/19/2012

Section 8. Operating schedules

The CFR requires that the annual network plan include information about operating schedules. While gaseous monitors (e.g., O_3, CO, NO_2, SO_2) and particulate monitoring with FEMs usually operate continuously throughout the year, particulate monitoring with FRMs often operate one day out of every three days or one day out of every six days. The primary reason why particulate FRMs operate less frequently is that the particulate FRMs are filter-based and therefore much more labor intensive, requiring that field staff frequently retrieve and replace filters and that laboratory staff pre- and post-weigh filters. The continuous gaseous and particulate monitors produce hourly measurements of the gaseous and particulate pollutants, while the particulate filter-based monitors produce 24-hour measurements of particulate pollutants.

Particulate matter operating schedules

Current operating schedules for $PM_{2.5}$ FRM monitors in the areas included in this report are listed in Table 12. These schedules were obtained from the U.S. EPA's AQS database. In March 2013, EPA provided to ARB an annual network plan checklist which includes a finding that requires ARB to justify the reduced sampling frequency of the $PM_{2.5}$ FRM monitors that are covered in this report for which are operating on a 1-in-6 day schedule. Federal regulations required that $PM_{2.5}$ FRM monitors operate one day out of every three days unless certain monitoring criteria are met and U.S. EPA approves the sampling frequency reduction. The ARB is in the process of addressing this finding by requesting U.S. EPA approval for the reduction of the sampling frequency for the $PM_{2.5}$ FRM monitors covered in this report.

While there are a number of continuous $PM_{2.5}$ monitors deployed, most of these are not federal equivalent methods (FEM). In March of 2008, U.S. EPA approved the first continuous $PM_{2.5}$ FEM. Then on June 2009 and March 2011, U.S. EPA approved two more continuous $PM_{2.5}$ FEMs. At the time this report was drafted, in the ARB PQAO, there are 32 continuous $PM_{2.5}$ FEM sites. However, in the areas covered by this report, there are only six continuous $PM_{2.5}$ FEM sites that are currently reporting data into the AQS database. The six sites are Mojave, San Andreas, Ukiah, Willits, Auburn and Red Bluff.

Operating schedules for the manual PM_{10} samplers in the areas included in this report all operate on a 1-in-6 day schedule. There are also six continuous PM_{10} monitors operating in the area that this report covers, which are reporting data into AQS. These monitors are located at the South Lake Tahoe, Fort Bragg, Mojave, Lancaster, Trona, and Victorville sites. These continuous PM_{10} monitors are FEMs and are either BAM or TEOM monitors.

Table 12
Current $PM_{2.5}$ FRM Operating Schedules
(Monitors of the air districts included in this report)

Site Name	County	AQS Site Number	Current	Laboratory
Chico-East	Butte	060070008	Everyday	ARB
Colusa-Sunrise Blvd	Colusa	060111002	1 in 6 day	ARB
Grass Valley-Litton Building	Nevada	060570005	1 in 6 day	ARB
Lakeport-Lakeport Blvd	Lake	060333001	1 in 6 day	LAKE COUNTY
Lancaster-43301 Division St	Los Angeles	060379033	1 in 6 day	MOJAVE DESERT
Portola-222 1st Avenue	Plumas	060631007	1 in 3 day	ARB
Quincy-N Church Street	Plumas	060631006	1 in 3 day	ARB
Redding-Health Department Roof	Shasta	060890004	1 in 6 day	ARB
Ridgecrest-100 West California	Kern	060290015	1 in 6 day	SAN DIEGO COUNTY
Roseville-N Sunrise Blvd	Placer	060610006	1 in 6 day	ARB
Truckee-Fire Station	Nevada	060571001	1 in 3 day	ARB
Victorville-14036 Park Ave	San Bernardino	060710306	1 in 6 day	MOJAVE DESERT
Woodland-Gibson Road	Yolo	061131003	1 in 6 day	ARB
Yreka-Foothill Drive	Siskiyou	060932001	1 in 6 day	ARB
Yuba City-Almond Street	Sutter	061010003	Everyday	ARB

Ozone operating schedules

While most O_3 monitors operate continuously all year, a small number of O_3 sites in the areas included in this report operate only in the warmer six months of the year. Several of these sites are at higher elevation where access during the winter can be problematic. Also, for most of the State, O_3 is a summertime problem and concentrations during the winter are well below the levels of the ambient air quality standards. The following seasonal O_3 sites in the areas included in this report all operate from May through October:

Cool	(El Dorado County)
Echo Summit	(El Dorado County)
Jerseydale	(Mariposa County)
Sutter Buttes	(Sutter County)
Tuscan Butte	(Tehama County)
White Cloud	(Nevada County)

In March 2013, EPA provided to ARB an annual network plan checklist which includes a finding that requires ARB to justify the monitoring schedule of the seasonal ozone sites that are covered in this report. Federal regulations require that ozone monitors operate every day, from January through December, unless certain monitoring criteria are met and U.S. EPA approves the seasonal schedule. ARB sent a request to the U.S. EPA on June 5, 2013, asking for

approval of the monitoring schedule of the seasonal ozone sites covered in this report.

On July 17, 2013, U.S. EPA approved the request. Both the request and approval letters are included in Appendix C of this report. Note that U.S. EPA had previously approved the seasonal ozone monitoring schedule at the Tuscan Butte site.

Section 9. Additional information on $PM_{2.5}$ monitors

This section includes information for two required annual network plan elements that relate specifically to $PM_{2.5}$ and do not fit well elsewhere in the report. One required element relates to whether data for a $PM_{2.5}$ monitor can be used to determine compliance with the national annual $PM_{2.5}$ air quality standard. In the CFR, this is termed as the suitability for comparison to the annual standard. The other element requires including in the annual network plan information regarding the review process followed by air agencies when changes are made to the location of a $PM_{2.5}$ monitor that is violating a $PM_{2.5}$ standard.

9.1 Suitability for comparison to the annual $PM_{2.5}$ standard

The CFR requires that a $PM_{2.5}$ FRM or FEM monitor be located at a neighborhood scale in order for the data from the monitor to be used in regulatory determinations of compliance with the annual $PM_{2.5}$ standard. For a $PM_{2.5}$ monitor to be representative at a neighborhood scale, the concentration values measured by the monitor should be representative of concentrations expected over an area with dimensions of a few kilometers. All of the $PM_{2.5}$ FRM monitors in California are sited to be representative of a neighborhood scale and meet this suitability requirement.

9.2 Review of changes to $PM_{2.5}$ network

The $PM_{2.5}$ network of FRM monitors in California was largely established in 1999 and completed in 2000. Little has changed in the siting of the FRM monitoring network between then and now. However, between 2008 and 2011, U.S. EPA approved three types of $PM_{2.5}$ FEMs, which are Met One (method 170), GRIMM (method 195) and Thermo (method 181). At the time this report was drafted, five agencies (ARB, Eastern Kern, Mendocino County, Placer County and Tehama County) in the areas covered by this report have submitted data from these monitors to the AQS database. While there is interagency review of proposed changes to the State and Local Air Monitoring Stations (SLAMS) network, i.e., the network that includes $PM_{2.5}$ as well as O_3, CO, PM_{10}, and other pollutants, no unique review process exists specially for $PM_{2.5}$ FRM or FEM monitors.

As part of ARB's ongoing oversight process, ARB requests the opportunity to review and comment on the possible regulatory consequences of any proposal to move or discontinue a monitor for any pollutant that violates a national or State air quality standard. Furthermore, when a local agency proposes to move or discontinue a monitor indicating the highest concentrations of a pollutant in an area, ARB requests that the agency conduct a period of concurrent or parallel monitoring at that site and at the replacement site being proposed to represent the area as the required high site for the pollutant. This is expected even when the site is close to but not exceeding any standard for the pollutant. The parallel

monitoring is typically for a period of many months or a year, depending on the pollutant, the standard that is of most concern, and other factors.

Section 10. Proposed and recently implemented monitoring site changes

This section lists the proposed and recently implemented monitoring site changes in the areas included in this report, as well as changes to the monitoring sites that the ARB conducts in areas outside the stated geographical scope of this report. Proposed monitoring site changes include proposals by the ARB or by districts that are covered in this report to add, remove, or move sites and/or monitors in the monitoring network before the end of 2014. Recently implemented monitoring changes include deployed and/or terminated sites and monitors in the monitoring network that the ARB has become aware of since last year's report. Listed below are the proposed and implemented changes to the monitoring network for which ARB are aware of at this time.

The ARB proposed or recently implemented the following network modifications:

- Terminated the ozone monitor at Calexico-East (060250006), which was approved by U.S. EPA on April 24, 2013. The approval letter is enclosed in Appendix C of this report.

- Relocated the Chico-Manzanita site (060070002) to a new location on East Avenue due to siting issues which could not be rectified. The new site is called Chico-East (060070008), which is approximately 0.34 miles from the previous location. The ARB formally requested U.S. EPA, via a letter, to approve the relocation (enclosed in Appendix C of this report). In addition, the sampling frequency of the $PM_{2.5}$ monitor at this site was increased to everyday on January 1, 2013. Moreover, as agreed upon between U.S. EPA and ARB, the 2013 $PM_{2.5}$ design values will be calculated by combining the $PM_{2.5}$ data between the two Chico sites (2011 Chico-Manzanita data, 2012 combined data at Chico-Manzanita and Chico-East, and 2013 Chico-East data).

- Relocated the NCore monitoring station at Fresno-1st Street (060190008) to Fresno-Garland (060190011). On March 7, 2013, the U.S. EPA approved the relocation of the NCore site. The approval letter is enclosed in Appendix C of this report. In addition, as agreed upon between U.S. EPA and ARB, the 2013 $PM_{2.5}$ design values will be calculated by combining the $PM_{2.5}$ data between the two Fresno sites (2011 Fresno-1st Street data and 2012-2013 Fresno-Garland data).

- Plans to transfer ownership of the Calexico-Ethel site to the Imperial County air district for maintenance and operation. The transfer process is still currently being discussed between ARB and Imperial County AQMD.

- Discontinued the PM_{10} FRM monitors at Bakersfield-California Street and Fresno-Garland. However, due to the need of PM_{10} ion data, ARB plans to reestablish PM_{10} filter monitoring at these two sites.

- Finally, ARB implemented or plans to implement the following modifications to the ARB network as listed in Table 13.

Table 13
ARB Proposed and Implemented Network Changes

AQS Site #	Site Name	Parameter	Stop date	Start date
060070002	Chico Manzanita (site closed in 2012)	CO	May-12	
		NO2	May-12	
		PM10	May-12	
		Pb	May-12	
		O3	Jul-12	
		PM2.5	Jul-12	
		PM2.5-Hrly Coll	Jul-12	
		PM2.5 HiVol	Jul-12	
		PM10-HiVol	May-12	
		Pb	May-12	
060070008	Chico East	PM2.5-Hrly		Apr-12
		PM2.5-Hrly Coll		Apr-12
		NO2		Jun-12
		O3		Jun-12
		Pb		Jun-12
		Trace CO		Aug-12
		PM2.5-HiVol		Apr-12
		PM10-HiVol		May-12
		Pb		Jun-12
060111002	Colusa	PM10-HiVol	2013	
		PM10-BAM		2013
060831008	Santa Maria	PM10-HiVol	discontinued	
		CO	Aug-12	
		TCO		Sep-12
060830011	Santa Barbara	TCO		Nov-12
060771002	Stockton	CO		May-12
		TCO	Jun-12	
		PM10-HiVol	2013	
		PM10-BAM		2013
061072002	Visalia	PM10-HiVol	2013	
		PM10-BAM		2013
060210003	Willows	PM10-HiVol	2013	
		PM10-BAM		2013
060431001	Yosemite	PM10-HiVol	2013	
		PM10-BAM		2013

Table 13 (cont.)
ARB Proposed and Implemented Network Changes

AQS Site #	Site Name	Parameter	Stop date	Start date
060190008	Fresno First (site closed in 2012)	SO2	Jan-12	
		NO2	Jan-12	
		O3	Jan-12	
		PM2.5 hourly	Jan-12	
		PM2.5 HiVol Primary	Jan-12	
		PM2.5 HiVol Coll	Jan-12	
		CO	Feb 2012	
060190011	Fresno Garland	SO2		Jan-12
		NO2		Jan-12
		O3		Jan-12
		PM2.5 hourly		Jan-12
		PM2.5 HiVol Primary		Jan-12
		PM2.5 HiVol Coll		Jan-12
		PM10-Coarse Coloc		2013
		Pb		Jan-12
		CO		Jan-12
		SO2		Jan-12
		NO2		Jan-12
061010003	Yuba City	PM10-HiVol	2013	
		PM10-BAM		2013
060990005	Modesto	PM10-HiVol	2013	
		PM10-BAM		2013
060290011	Mojave	PM10-HiVol	discontinued	
060290232	Oildale	PM10-HiVol	2013	
		PM10-BAM		2013
060790005	Paso Robles	PM10-HiVol	discontinued	
060610006	Roseville	PM10-HiVol	2013	
		PM10-BAM		2013
060670010	Sacramento	PM10-HiVol	Jun-13	
		PM10-BAM		Jun-13
060090001	San Andreas	PM10-HiVol	2013	
		PM10-BAM		2013
060792006	San Luis Obispo	PM10-HiVol	discontinued	

Proposed or Implemented District Changes:

The Antelope Valley APCD replaced the continuous PM_{10} TEOM with a continuous PM_{10} BAM at the Lancaster site due to equipment failure.

The Mojave Desert AQMD plans to replace the PM_{10} FRM monitors at the Barstow, Hesperia, Lucerne Valley, Trona and Victorville sites with continuous PM_{10} BAM monitors. In addition, Mojave Desert AQMD replaced the continuous PM_{10} TEOM monitor at the Trona and Victorville sites with continuous PM_{10} BAM monitors on 12/3/2012 and 9/29/2012, respectively. Mojave Desert AQMD plans to transition its PM_{10} FRM network to a continuous PM_{10} BAM network and anticipates submitting both standard and local conditions PM_{10} BAM data from its network.

The Placer County APCD discontinued ozone monitoring at the Auburn-C Dewitt (060610002) site in December 2012 and established ozone monitoring at the Auburn-Atwood Street site (060610003) in January 2013. In addition, the Placer County APCD plans to establish a permanent site in Tahoe City to monitor for ozone and $PM_{2.5}$.

The Tehama County APCD plans to relocate the ozone, $PM_{2.5}$ BAM, and PM_{10} monitors from three different locations in the city of Red Bluff to a central location in the same city consolidating all monitoring at the new district headquarters, approximately two miles northwest of the current location.

Section 11. Access to more information about the network

While this report includes a great deal of information about the ambient air quality monitoring network, much more information is readily available, including summaries of the pollutant data from the monitors around the State. Much of this information is available on the web. This section lists a number of additional sources of such information. Also listed is contact information for the agencies responsible for the monitoring covered in this report.

ARB's Monitoring and Laboratory Division (MLD) maintains web pages with information about all the existing monitoring sites that routinely monitor and submit air quality data in California. The pages also include detailed local maps showing the location of the sites. This information can be found at: http://www.arb.ca.gov/aaqm/mldaqsb/amn.htm. A more general MLD web page that provides links to other aspects of ambient monitoring is located at: http://www.arb.ca.gov/aaqm/aaqm.htm.

Summaries of the official air quality data from sites around the State can be found at: http://www.arb.ca.gov/adam/welcome.html. Summaries of the most recent preliminary data can be viewed at: http://www.arb.ca.gov/aqd/aqinfo.htm. These last two sources of information are maintained by ARB staff of the Air Quality Planning and Science Division, as is the following more general web page that lists links to other aspects of the ambient air quality data program: http://www.arb.ca.gov/aqd/aqdpage.htm.

Agency contact for ARB

Regarding this report and questions relating to the collected ambient air quality data:
Pheng Lee, Air Pollution Specialist, plee@arb.ca.gov, (916) 445-6059

Regarding the collection of the ambient data:
Ken Stroud, Chief, Air Quality Surveillance Branch, kstroud@arb.ca.gov, (916) 324-7591

Regarding quality oversight of the monitoring program:
Mike Miguel, Chief, Quality Management Branch, mmiguel@arb.ca.gov, (916) 322-0960

Agency contacts for the air districts covered in this report

Amador County Air Pollution Control District, Jackson, CA
Mike Boitano, Interim Air Pollution Control Officer
AirDistrict@co.amador.ca.us
(209) 257-0112

Antelope Valley Air Quality Management District, Lancaster, CA
Eldon Heaston, Air Pollution Control Officer (also APCO for Mojave Desert)
eheaston@mdaqmd.ca.gov
(661) 723-8070

Butte County Air Quality Management District, Chico, CA
Jim Wagoner, Air Pollution Control Officer
jwagoner@bcaqmd.org
(530) 332-9400

Calaveras County Air Pollution Control District, San Andreas, CA
Brian Moss, Air Pollution Control Officer
bmoss@co.calaveras.ca.us
(209) 754-6504

Colusa County Air Pollution Control District, Colusa, CA
Harry Krug, Air Pollution Control Officer
hak@countyofcolusa.org
(530) 458-0590

Eastern Kern Air Pollution Control District, Bakersfield, CA
Glen Stephens, Air Pollution Control Officer
glens@co.kern.ca.us
(661) 862-5250

El Dorado County Air Quality Management District, Placerville, CA
Dave Johnston, Air Pollution Control Officer
dave.johnston@edcgov.us
(530) 621-5896

Feather River Air Quality Management District, Yuba City, CA
Christopher Brown, Air Pollution Control Officer
apco@fraqmd.org
(530) 634-7659 x 203

Glenn County Air Pollution Control District, Willows, CA
Jim Donnelly, Air Pollution Control Officer
jdonnelly@countyofglenn.net
(530) 934-6500

Lake County Air Quality Management District, Lakeport, CA
Douglas Gearhart, Air Pollution Control Officer
dougg@lcaqmd.net
(707) 263-7000

Lassen County Air Pollution Control District, Susanville, CA
Dan Newton, Air Pollution Control Officer
dnewton@cityofsusanville.org
(530) 257-1045

Mariposa County Air Pollution Control District, Mariposa, CA
Dr. Charles Mosher, Air Pollution Control Officer
air@mariposacounty.org
(209) 966-2220

Mendocino County Air Quality Management District, Ukiah, CA
Robert Scaglione, Air Pollution Control Officer
mcaqmd@co.mendocino.ca.us
(707) 463-4354

Modoc County Air Pollution Control District, Alturas, CA
Joe Moreo, Air Pollution Control Officer
apcd@modoccounty.us
(530) 233-5522

Mojave Desert Air Quality Management District, Lancaster, CA
Eldon Heaston, Air Pollution Control Officer (also APCO for Antelope Valley)
eheaston@mdaqmd.ca.gov
(661) 723-8070

Northern Sierra Air Quality Management District, Grass Valley, CA
Gretchen Bennitt, Air Pollution Control Officer
Gretchen@myairdistrict.com
(530) 274-9360

Northern Sonoma County Air Pollution Control District, Healdsburg, CA
Barbara Lee, Air Pollution Control Officer
nsc@sonic.net
(707) 433-5911

Placer County Air Pollution Control District, Auburn, CA
Tom Christofk, Air Pollution Control Officer
pcapcd@placer.ca.gov
(530) 745-2330

Shasta County Air Quality Management District, Redding, CA
Russ Mull, Air Pollution Control Officer
scdrm@snowcrest.net
(530) 225-5789

Siskiyou County Air Pollution Control District, Yreka, CA
Eric Olson, Air Pollution Specialist
eolson@co.siskiyou.ca.us
(530) 841-4031

Tehama County Air Pollution Control District, Red Bluff, CA
Alan Abbs, Air Pollution Control Officer
aabbs@tehcoapcd.net
(530) 527-3717

Tuolumne County Air Pollution Control District, Columbia, CA
Bill Sandman, Deputy Air Pollution Control Officer
bsandman@co.tuolumne.ca.us
(209) 533-5693

Yolo-Solano Air Quality Management District, Davis, CA
Mat Ehrhardt, Air Pollution Control Officer
meharhard@ysaqmd.org
(530) 757-3673

APPENDIX A
Regulatory language of 40 CFR 58.10

§ 58.10 Annual monitoring network plan and periodic network assessment.

(a)(1) Beginning July 1, 2007, the State, or where applicable local, agency shall adopt and submit to the Regional Administrator an annual monitoring network plan which shall provide for the establishment and maintenance of an air quality surveillance system that consists of a network of SLAMS monitoring stations including FRM, FEM, and ARM monitors that are part of SLAMS, NCore stations, STN stations, State speciation stations, SPM stations, and/or, in serious, severe and extreme ozone nonattainment areas, PAMS stations, and SPM monitoring stations. The plan shall include a statement of purposes for each monitor and evidence that siting and operation of each monitor meets the requirements of appendices A, C, D, and E of this part, where applicable. The annual monitoring network plan must be made available for public inspection for at least 30 days prior to submission to EPA.

(2) Any annual monitoring network plan that proposes SLAMS network modifications (including new monitoring sites, new determinations that data are not of sufficient quality to be compared to the NAAQS, and changes in identification of monitors as suitable or not suitable for comparison against the annual $PM^{2.5}$ NAAQS) is subject to the approval of the EPA Regional Administrator, who shall provide opportunity for public comment and shall approve or disapprove the plan and schedule within 120 days. If the State or local agency has already provided a public comment opportunity on its plan and has made no changes subsequent to that comment opportunity, and has submitted the received comments together with the plan, the Regional Administrator is not required to provide a separate opportunity for comment.

(3) The plan for establishing required NCore multipollutant stations shall be submitted to the Administrator not later than July 1, 2009. The plan shall provide for all required stations to be operational by January 1, 2011.

(4) A plan for establishing source-oriented Pb monitoring sites in accordance with the requirements of appendix D to this part for Pb sources emitting 1.0 tpy or greater shall be submitted to the EPA Regional Administrator no later than July 1, 2009, as part of the annual network plan required in paragraph (a)(1) of this section. The plan shall provide for the required source-oriented Pb monitoring sites for Pb sources emitting 1.0 tpy or greater to be operational by January 1, 2010. A plan for establishing source-oriented Pb monitoring sites in accordance with the requirements of appendix D to this part for Pb sources emitting equal to or greater than 0.50 tpy but less than 1.0 tpy shall be submitted to the EPA Regional Administrator no later than July 1, 2011. The plan shall provide for the required source-oriented Pb monitoring sites for Pb sources emitting equal to or greater than 0.50 tpy but less than 1.0 tpy to be operational by December 27, 2011.

(5)(i) A plan for establishing or identifying an area-wide NO_2 monitor, in accordance with the requirements of Appendix D, section 4.3.3 to this part, shall be submitted as part of the Annual Monitoring Network Plan to the EPA Regional Administrator by July 1, 2012. The plan shall provide for these required monitors to be operational by January 1, 2013.

(ii) A plan for establishing or identifying any NO_2 monitor intended to characterize vulnerable and susceptible populations, as required in Appendix D, section 4.3.4 to this part, shall be submitted as part of the Annual Monitoring Network Plan to the EPA Regional Administrator by July 1, 2012. The plan shall provide for these required monitors to be operational by January 1, 2013.

(iii) A plan for establishing a single near-road NO_2 monitor in CBSAs having 1,000,000 or more persons, in accordance with the requirements of Appendix D, section 4.3.2 to this part, shall be submitted as part of the Annual Monitoring Network Plan to the EPA Regional Administrator by July 1, 2013. The plan shall provide for these required monitors to be operational by January 1, 2014.

(iv) A plan for establishing a second near-road NO_2 monitor in any CBSA with a population of 2,500,000 or more persons, or a second monitor in any CBSA with a population of 500,000 or more persons that has one or more roadway segments with 250,000 or greater AADT counts, in accordance with the requirements of Appendix D, section 4.3.2 to this part, shall be submitted as part of the Annual Monitoring Network Plan to the EPA Regional Administrator by July 1, 2014. The plan shall provide for these required monitors to be operational by January 1, 2015.

(v) A plan for establishing a single near-road NO_2 monitor in all CBSAs having 500,000 or more persons, but less than 1,000,000, not already required by paragraph (a)(5)(iv) of this section, in accordance with the requirements of Appendix D, section 4.3.2 to this part, shall be submitted as part of the Annual Monitoring Network Plan to the EPA Regional Administrator by July 1, 2016. The plan shall provide for these monitors to be operational by January 1, 2017.

(6) A plan for establishing SO_2 monitoring sites in accordance with the requirements of appendix D to this part shall be submitted to the EPA Regional Administrator by July 1, 2011 as part of the annual network plan required in paragraph (a) (1). The plan shall provide for all required SO_2 monitoring sites to be operational by January 1, 2013.

(7) A plan for establishing CO monitoring sites in accordance with the requirements of appendix D to this part shall be submitted to the EPA Regional Administrator. Plans for required CO monitors shall be submitted at least six months prior to the date such monitors must be established as required by section 58.13.

(8)(i) A plan for establishing near-road $PM^{2.5}$ monitoring sites in CBSAs having 2.5 million or more persons, in accordance with the requirements of appendix D to this part, shall be submitted as part of the annual monitoring network plan to the EPA Regional Administrator by July 1, 2014. The plan shall provide for these required monitoring stations to be operational by January 1, 2015.

(ii) A plan for establishing near-road $PM^{2.5}$ monitoring sites in CBSAs having 1 million or more persons, but less than 2.5 million persons, in accordance with the requirements of appendix D to this part, shall be submitted as part of the annual monitoring network plan to the EPA Regional Administrator by July 1, 2016. The plan shall provide for these required monitoring stations to be operational by January 1, 2017.

(b) The annual monitoring network plan must contain the following information for each existing and proposed site:

(1) The AQS site identification number.

(2) The location, including street address and geographical coordinates.

(3) The sampling and analysis method(s) for each measured parameter.

(4) The operating schedules for each monitor.

(5) Any proposals to remove or move a monitoring station within a period of 18 months following plan submittal.

(6) The monitoring objective and spatial scale of representativeness for each monitor as defined in appendix D to this part.

(7) The identification of any sites that are suitable and sites that are not suitable for comparison against the annual $PM^{2.5}$ NAAQS as described in § 58.30.

(8) The MSA, CBSA, CSA or other area represented by the monitor.

(9) The designation of any Pb monitors as either source-oriented or non-source-oriented according to Appendix D to 40 CFR part 58.

(10) Any source-oriented monitors for which a waiver has been requested or granted by the EPA Regional Administrator as allowed for under paragraph 4.5(a)(ii) of Appendix D to 40 CFR part 58.

(11) Any source-oriented or non-source-oriented site for which a waiver has been requested or granted by the EPA Regional Administrator for the use of

Pb-PM_{10} monitoring in lieu of Pb-TSP monitoring as allowed for under paragraph 2.10 of Appendix C to 40 CFR part 58.

(12) The identification of required NO_2 monitors as near-road, area-wide, or vulnerable and susceptible population monitors in accordance with Appendix D, section 4.3 of this part.

(13) The identification of any $PM^{2.5}$ FEMs and/or ARMs used in the monitoring agency's network where the data are not of sufficient quality such that data are not to be compared to the NAAQS. For required SLAMS where the agency identifies that the $PM^{2.5}$ Class III FEM or ARM does not produce data of sufficient quality for comparison to the NAAQS, the monitoring agency must ensure that an operating FRM or filter-based FEM meeting the sample frequency requirements described in § 58.12 or other Class III $PM^{2.5}$ FEM or ARM with data of sufficient quality is operating and reporting data to meet the network design criteria described in appendix D to this part.

(c) The annual monitoring network plan must document how state and local agencies provide for the review of changes to a $PM^{2.5}$ monitoring network that impact the location of a violating $PM^{2.5}$ monitor. The affected state or local agency must document the process for obtaining public comment and include any comments received through the public notification process within their submitted plan.

(d) The state, or where applicable local, agency shall perform and submit to the EPA Regional Administrator an assessment of the air quality surveillance system every 5 years to determine, at a minimum, if the network meets the monitoring objectives defined in appendix D to this part, whether new sites are needed, whether existing sites are no longer needed and can be terminated, and whether new technologies are appropriate for incorporation into the ambient air monitoring network. The network assessment must consider the ability of existing and proposed sites to support air quality characterization for areas with relatively high populations of susceptible individuals (e.g., children with asthma), and, for any sites that are being proposed for discontinuance, the effect on data users other than the agency itself, such as nearby states and tribes or health effects studies. The state, or where applicable local, agency must submit a copy of this 5-year assessment, along with a revised annual network plan, to the Regional Administrator. The assessments are due every five years beginning July 1, 2010.

(e) All proposed additions and discontinuations of SLAMS monitors in annual monitoring network plans and periodic network assessments are subject to approval according to § 58.14.

APPENDIX B

For ozone, PM_{10}, and $PM_{2.5}$, the required minimum number of monitors are based on the population of the core-based statistical area (CBSA) and the severity of the air quality for the pollutant in the CBSA. The tables below list the CBSAs, population of the CBSAs, and the site in each CBSA that is currently measuring the highest concentration. In all cases, sufficient monitoring exists, and no additional monitoring is required.

Minimum Monitoring Requirements for O_3, PM_{10}, and $PM_{2.5}$

Ozone

Minimum Monitoring Requirements for Ozone.

CBSA	County(ies)	Population (2010 Census)	3-Year Avg of the 4th Highest Concentration	Site with the Highest 3-Yr Avg of the 4th Highest Concentration	# of Monitors Required	# of Active Monitors	# of Additonal Monitors Needed
Bakersfield*^	Kern	839,361	0.093 ppm	Edison	2	8	0
Chico	Butte	220,000	0.077 ppm	Paradise-4405 Airport Road	1	2	0
Los Angeles-Long Beach-Anahiem*	Los Angeles and Orange	12,828,837	0.096 ppm	Santa Clarita	4	19	0
Redding	Shasta	177,223	0.069 ppm	Shasta Lake-13791 Lake Blvd	1	4	0
Riverside-San Bernardino-Ontario*	Riverside and San Bernardino	4,224,851	0.106 ppm	Crestline	3	20	0
Sacramento-Arden Arcade-Roseville*	El Dorado, Placer, Sacramento, and Yolo	2,149,127	0.095 ppm	Folsom-Natoma Street	2	14	0
Santa Rosa*	Sonoma	483,878	0.047 ppm	Santa Rosa-5th Street	1	2	0
Vallejo-Fairfield*	Solano	413,344	0.068 ppm	Fairfield-Chadbourne Road^^	2	3	0
Yuba City^^^	Sutter and Yuba	166,892	0.066 ppm	Yuba City-Almond Street	1	1	0

* Parts of these CBSAs are included in the geographical scope of this report, and parts are within the geographical scope of the reports being completed by the districts. See Table 5a for the completed list of CBSAs in California. The numbers of active ozone monitors listed are for the entire CBSA (see below for site details). Only ozone monitors that are part of the SLAMS network are counted towards this monitoring requirement.

^ The 3-year average of the 4th highest concentration usually represents the design value. However, prior to 2011, the highest concentrations in the Bakersfield CBSA were measured at Arvin-Bear Mountain, which has a 2010 design value of 0.104 ppm. A replacement site for the Arvin-Bear Mountian site has not yet been deployed, so the 3-year average of the 4th highest concentration at Edison of 0.093 ppm does not represent the design value for the Bakersfield CBSA.

^^ The Fairfield site is a seasonal site (April -November).

^^^ The Sutter Buttes site in the Yuba City CBSA was not counted towards this requirement because it is a Special Purpose Monitor (SPM) site.

Ozone sites for which are counted towards minimum monitoring requirements.

CBSA	Site
Bakersfield	Arvin-DiGorgio
	Bakersfield-California
	Bakersfield-Municipal Airport
	Edison
	Maricopa
	Mojave
	Oildale
	Shafter

CBSA	Site
Chico	Chico-East
	Paradise

CBSA	Site
Redding	Anderson
	Lassan Volcanic NP
	Redding
	Shasta Lake

CBSA	Site
Sacramento-Arden Arcade-Roseville	Auburn
	Colfax
	Davis
	Elk Grove
	Folsom
	Lincoln
	North Highlands
	Placerville
	Roseville
	Sac-Del Paso
	Sac-Goldenland
	Sac-T St
	Sloughhouse
	Woodland

CBSA	Site
Los Angeles-Long Beach-Anahiem	Anahiem
	Azusa
	Burbank
	Compton
	Costa Mesa
	Glendora
	La Habra
	Lancaster
	Long Beach
	Los Angeles-North Main
	Los Angeles-Westchester
	Mission Viejo
	North Long Beach
	Pasadena
	Pico Riveria
	Pomona
	Reseda
	Santa Clarita
	West Los Angeles

CBSA	Site
Riverside-San Bernardino-Ontario	Banning-Airport
	Barstow
	Blyth
	Crestline
	Elsinore
	Fontana
	Hesperia
	Indio
	Joshua Tree-Cottonwood
	Mira Loma
	Palm Springs
	Perris
	Phelan
	Redlands
	Riverside-Rubidoux
	San Bernardino
	Trona
	Upland
	Victorville
	Westchester

CBSA	Site
Santa Rosa	Healdsburg
	Santa Rosa

CBSA	Site
Vallejo-Fairfield	Vallejo
	Vacaville
	Fairfield

CBSA	Site
Yuba City	Yuba City-Almond

PM2.5[1]

Minimum Montoring Requirements for PM2.5 SLAMS.

CBSA	County(ies)	Population (2010 Census)	3-year Highest Annual Design Value (ug/m3)	Site with the Highest 3-year Annual Design Value	3-year Highest 24-hr Design Value (ug/m3)	Site(s) with the Highest 3-year Design Value	# of Required SLAMS Sites	# of Active SLAMS Sites	# of Additional SLAMS Sites Needed
Bakersfield*	Kern	839,361	15.6	Bakersfield-410 E Planz	58	Bakersfield-California Ave	2	4	0
Chico	Butte	220,000	9.5**	Chico-East**	34**	Chico-East**	1	1	0
Los Angeles-Long Beach-Anahiem*	Los Angeles and Orange	12,828,837	13.1	Los Angeles-North Main	32	Burbank & LA-North Main	3	12	0
Redding	Shasta	177,223	5.3	Redding-Health Department	14	Redding-Health Department	0	1	0
Riverside-San Bernardino-Ontario*	Riverside and San Bernardino	4,224,851	15.6	Mira Loma Van Buren	37	Mira Loma Van Buren	3	10	0
Sacramento-Arden Arcade-Roseville*	El Dorado, Placer, Sacramento, and Yolo	2,149,127	9.5	Sacramento-DPM	31	Sacramento-DPM, Sacramento-T St, and Sacramento-Health Dept***	3	6	0
Santa Rosa*	Sonoma	483,878	8	Santa Rosa-5th St	22	Santa Rosa-5th St	0	1	0
Vallejo-Fairfield*	Solano	413,344	8.8	Vallejo-304 Tuolumne St	26	Vallejo-304 Tuolumne St	0	1	0
Yuba City	Sutter and Yuba	166,892	6.9	Yuba City-Almond	26	Yuba City-Almond	0	1	0

[1]Design values are based on both FRM and FEM data. The total number of active PM2.5 monitors include both the filter-based FRMs and the continuous FEM PM2.5 monitors that are part of the SLAMS network.

* Parts of these CBSAs are included in the geographical scope of this report, and parts are within the geographical scope of the reports being completed by the districts. See Table 5a for the completed list of CBSAs in California. The numbers of active PM2.5 SLAMS monitors listed are for the entire CBSA (see below for site details).

**The Chico-East site started on 4/2/2012. All monitors at the Chico-East site was relocated from the discontinued Chico-Manzanita site. The 2012 design values for the Chico CBSA were computed by combining the PM2.5 data from the two Chico locations (i.e., Chico-Manzanita and Chico-East).

***These three sites have a 24-hour design value of 31 ug/m3 in 2012.

PM2.5 SLAMS sites for which are counted towards minimum monitoring requirements.

CBSA	Site
Bakersfield	Bakersfield-California
	Bakersfield-E Planz
	Mojave
	Ridgecrest

CBSA	Site
Los Angeles-Long Beach-Anahiem	Anahiem
	Azusa
	Burbank
	Compton
	Lancaster
	Los Angeles-North Main
	Mission Viejo
	North Long Beach
	Pasadena
	Pico Riveria
	Reseda
	South Long Beach

CBSA	Site
Chico	Chico-East

CBSA	Site
Redding	Redding-Health Dept

CBSA	Site
Riverside-San Bernardino-Ontario	Big Bear City
	Fontana
	Indio
	Mira Loma
	Ontario
	Palm Springs
	Riverside-Magnolia
	Riverside-Rubiduox
	San Bernardino
	Victorville

CBSA	Site
Sacramento-Arden Arcade-Roseville	Auburn
	Roseville
	Sac-Del Paso
	Sac-Health
	Sac-T St
	Woodland

CBSA	Site
Santa Rosa	Santa Rosa

CBSA	Site
Vallejo-Fairfield	Vallejo

CBSA	Site
Yuba City	Yuba City-Almond

Continuous PM2.5[1]

Minimum Montoring Requirements for continuous PM2.5 monitors.

CBSA	County(ies)	Population (2010 Census)	Site with the Highest Annual Design Value	Site with the Highest 24-hr Design Value	# of Required Continuous Monitors^	# of Active Continuous Monitors^^	# of Additional Continuous Monitors Needed
Bakersfield*	Kern	839,361	Bakersfield-California	Bakersfield-California	1	3	0
Chico	Butte	220,000	Chico-East	Chico-East	1	3	0
Los Angeles-Long Beach-Anahiem*	Los Angeles and Orange	12,828,837	Los Angeles-North Main	Burbank & LA-North Main	2	7	0
Redding	Shasta	177,223	N/A	N/A	0	0	0
Riverside-San Bernardino-Ontario*	Riverside and San Bernardino	4,224,851	Mira Loma Van Buren	Mira Loma Van Buren	2	8	0
Sacramento-Arden Arcade-Roseville*	El Dorado, Placer, Sacramento, and Yolo	2,149,127	Davis-UCD Campus	Sacramento-DPM	2	9	0
Santa Rosa*	Sonoma	483,878	Santa Rosa-5th St	Santa Rosa-5th St	0	1	0
Vallejo-Fairfield*	Solano	413,344	Vallejo	Vallejo	0	1	0
Yuba City	Sutter and Yuba	166,892	Yuba City-Almond	Yuba City-Almond	0	1	0

[1]The CFR does not specify that continuous PM2.5 monitors have to be Federal Equivalent Methods (FEMs); therefore, this assessment includes both continuous FEM and non-FEM PM2.5 monitors.

* Parts of these CBSAs are included in the geographical scope of this report, and parts are within the geographical scope of the reports being completed by the districts. See Table 5a for the completed list of CBSAs in California. The numbers of active continuous PM2.5 monitors listed are for the entire CBSA (see below for site details).

^ The required number of continuous PM2.5 monitor is one-half (round up) the total number of required PM2.5 SLAMS sites in each CBSA (40 CFR 58 Appendix A Section 4.7.2).

^^The number of active continuous PM2.5 monitors listed for each CBSA include both FEM and non-FEM monitors.

N/A means that there is no continuous PM2.5 monitor in the CBSA.

Continuous PM2.5 sites for which are counted towards minimum monitoring requirements.

CBSA	Site
Bakersfield	Bakersfield
	Lebec
	Mojave

CBSA	Site
Los Angeles-Long Beach-Anahiem	Anahiem
	Burbank
	Glendora
	Los Angeles
	North Long Beach
	Reseda
	Santa Clarita

CBSA	Site
Chico	Chico-East
	Gridley
	Paradise

CBSA	Site
Redding	--

CBSA	Site
Riverside-San Bernardino-Ontario	Banning-Airport
	Crestline
	Elsinor
	Mira Loma
	Riverside-Magnolia
	Riverside-Rubidoux
	Upland
	Winchester

CBSA	Site
Yuba City	Yuba City-Almond

CBSA	Site
Sacramento-Arden Arcade-Roseville	Auburn
	Colfax
	Elk Grove
	Folsom
	Lincoln
	Roseville
	Sac-Del Paso
	Sac-T St
	UC Davis

CBSA	Site
Santa Rosa	Santa Rosa

CBSA	Site
Vallejo-Fairfield	Vallejo

PM10[1]

Minimum Montoring Requirements for PM10.

CBSA	County(ies)	Population (2010 Census)	2012 Max Daily Concentration (ug/m3)	Max Concentration Site	# of Required Monitors	# of Active Monitors	# of Additional Monitors Needed
Bakersfield*	Kern	839,361	99.6	Bakersfield-California	1-2	4	0
Chico	Butte	220,000	55.6	Chico-East**	0	1	0
Los Angeles-Long Beach-Anahiem*	Los Angeles and Orange	12,828,837	80	Los Angeles-North Main	2-4	11	0
Redding	Shasta	177,223	50	Anderson	0	3	0
Riverside-San Bernardino-Ontario*	Riverside and San Bernardino	4,224,851	270.6	Indio	6-10	20	0
Sacramento-Arden Arcade-Roseville*	El Dorado, Placer, Sacramento, and Yolo	2,149,127	76.5	Sacramento-Goldenland	2-4	12	0
Santa Rosa*	Sonoma	483,878	35	Healdsburg	0-1	3	0
Vallejo-Fairfield*	Solano	413,344	26	Vacaville	0-1	1	0
Yuba City	Sutter and Yuba	166,892	60.8	Yuba City-Almond	0	1	0

[1] For the purpose of this monitoring requirement, only PM10 FRM monitors with size selective inlets (SSI) are counted.

* Parts of these CBSAs are included in the geographical scope of this report, and parts are within the geographical scope of the reports being completed by the districts. See Table 5a for the completed list of CBSAs in California. The numbers of active PM10 monitors listed are for the entire CBSA (see below for site details).

**The Chico-East site was recently established on 4/2/2012.

PM10 FRM sites for which are counted towards minimum monitoring requirements.

CBSA	Site
Bakersfield	Bakersfield-California
	Canebrake
	Oildale
	Ridgecrest

CBSA	Site
Los Angeles-Long Beach-Anahiem	Anahiem
	Azusa
	Burbank
	Glendora
	Lancaster
	Los Angeles-North Main
	Los Angeles-Westchester
	Mission Viejo
	North Long Beach
	Santa Clarita
	South Long Beach

CBSA	Site
Chico	Chico-East

CBSA	Site
Redding	Redding-Health Dept
	Anderson
	Shasta Lake

CBSA	Site
Riverside-San Bernardino-Ontario	Banning-Airport
	Barstow
	Crestline
	Elsinore
	Fontana
	Hesperia
	Indio
	Lucerne Valley
	Mira Loma
	Norco
	Ontario
	Palm Springs
	Perris
	Redlands
	Riverside-Magnolia
	Riverside-Rubidoux
	San Bernardino
	Trona
	Upland
	Victorville

CBSA	Site
Santa Rosa	Healdsburg
	Cloverdale
	Gunerneville

CBSA	Site
Sacramento-Arden Arcade-Roseville	Auburn
	Colfax
	Lincoln
	North Highlands
	Roseville
	Sac-Branch
	Sac-Del Paso
	Sac-Goldenland
	Sac-Health Dept
	Sac-T St
	West Sac
	Woodland

CBSA	Site
Vallejo-Fairfield	Vacaville

CBSA	Site
Yuba City	Yuba City-Almond

APPENDIX C

Supporting Documents included in the ANP
(For example, EPA approval letters)

1. March 7, 2013. U.S. EPA letter, approving the relocation of the Fresno NCore site.

2. April 10, 2013. ARB letter, requesting for approval of the Chico site relocation.

3. April 24, 2013. U.S. EPA letter, approving the termination of the ozone monitor at the Calexico-East site.

4. June 5, 2013. ARB letter, requesting for approval of the seasonal ozone monitoring sites covered in this report.

5. July 17, 2013. U.S. EPA letter, approving the seasonal ozone monitoring sites covered in this report.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
RESEARCH TRIANGLE PARK, NC 27711

MAR 07 2013

OFFICE OF
AIR QUALITY PLANNING
AND STANDARDS

Ms. Karen Magliano
Manager, Air Quality Data Branch
Planning and Technical Support Division
Air Resources Board
California Environmental Protection Agency
P.O. Box 2815
Sacramento, California 95812

Dear Ms. Magliano:

This letter transmits our approval of the California Air Resources Board's request to move the NCore station from the First Street site in Fresno, AQS # 06-019-0008, to a new location approximately a quarter mile to the north, AQS # 06-019-0011, as required by the Ambient Air Monitoring Regulations. According to these rules (see 40 CFR 58.11(c)), NCore network design and changes must be approved by the Environmental Protection Agency's (EPA) Administrator. This authority has been delegated to the Director of the Air Quality Assessment Division in EPA's Office of Air Quality Planning and Standards.

In considering approving the move of the NCore monitoring station, we worked with EPA Region 9 on a review of your request, including the rationale of why the First Street NCore station could no longer be supported, and assessed the location and characteristics of the area at the new location to be monitored. We especially appreciate the time and effort that went into the one-month parallel field study that was conducted in January 2012 for $PM_{2.5}$ and ozone, as this demonstrated the consistency of the two locations. After careful consideration of your request to move the site, we are pleased to approve the new location for this station as part of the NCore network.

We understand the NCore station at the new location has been fully operational since early last year. Thank you for your program's efforts in working through the issues of having to move the NCore station and establish the new site. For any technical questions, you may contact Tim Hanley at hanley.tim@epa.gov and 919-541-4417.

Sincerely,

Richard A. Wayland

Richard A. Wayland
Director
Air Quality Assessment Division

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Matthew Rodriquez
Secretary for
Environmental Protection

Edmund G. Brown Jr.
Governor

April 10, 2013

Matthew Lakin, Ph.D.
Air Quality Analysis Office, Chief
U.S. EPA Region 9
75 Hawthorne Street
Mail Code: AIR-6
San Francisco, California 94105

Dear Dr. Lakin:

We are requesting approval from the U.S. Environmental Protection Agency to move our air monitoring station in Chico, Chico-Manzanita (AQS # 060070002), based on 40CFR Part 58.14 (6): *A SLAMS monitor not eligible for removal under any of the criteria in paragraphs (c)(1) through (c)(5) of this section may be moved to a nearby location with the same scale of representation if logistical problems beyond the State's control make it impossible to continue operation at its current site.*

The site must be moved due to siting issues related to nearby trees which came to our attention during annual performance audits. Numerous unsuccessful attempts over a two year period to get the property owner to cut down the trees were made. On July 20, 2009 the owner responded unequivocally that he was unwilling to cut the trees. During an audit on January 10, 2012, the Quality Assurance Section formally issued an Air Quality Data Action request, as the distance from the PM10 sampler to the tree drip line was less than 10 meters (per siting criteria in 40 CFR 58, Appendix E). Due to these on-going siting issues that could not be resolved with the property owner, the site move is unavoidable. The new site location is within half a mile and has the same scale of representation for each criteria pollutant.

Our proposed new site [Chico-East (AQS# 060070008)] is located at 984 East Ave, Chico, California. This site is approximately 0.34 miles away and in the acceptable monitoring region for comparable sites. The new site shares the same topographic and land-use features, thus will share the same sampling objectives and monitoring scales as the Chico-Manzanita site. The East site is 0.58 miles from Highway 99. This is not considered to be a large enough distance to create a bias in the data. Figure 1 shows a map of the two locations and their relation to Highway 99. All parameters monitored at

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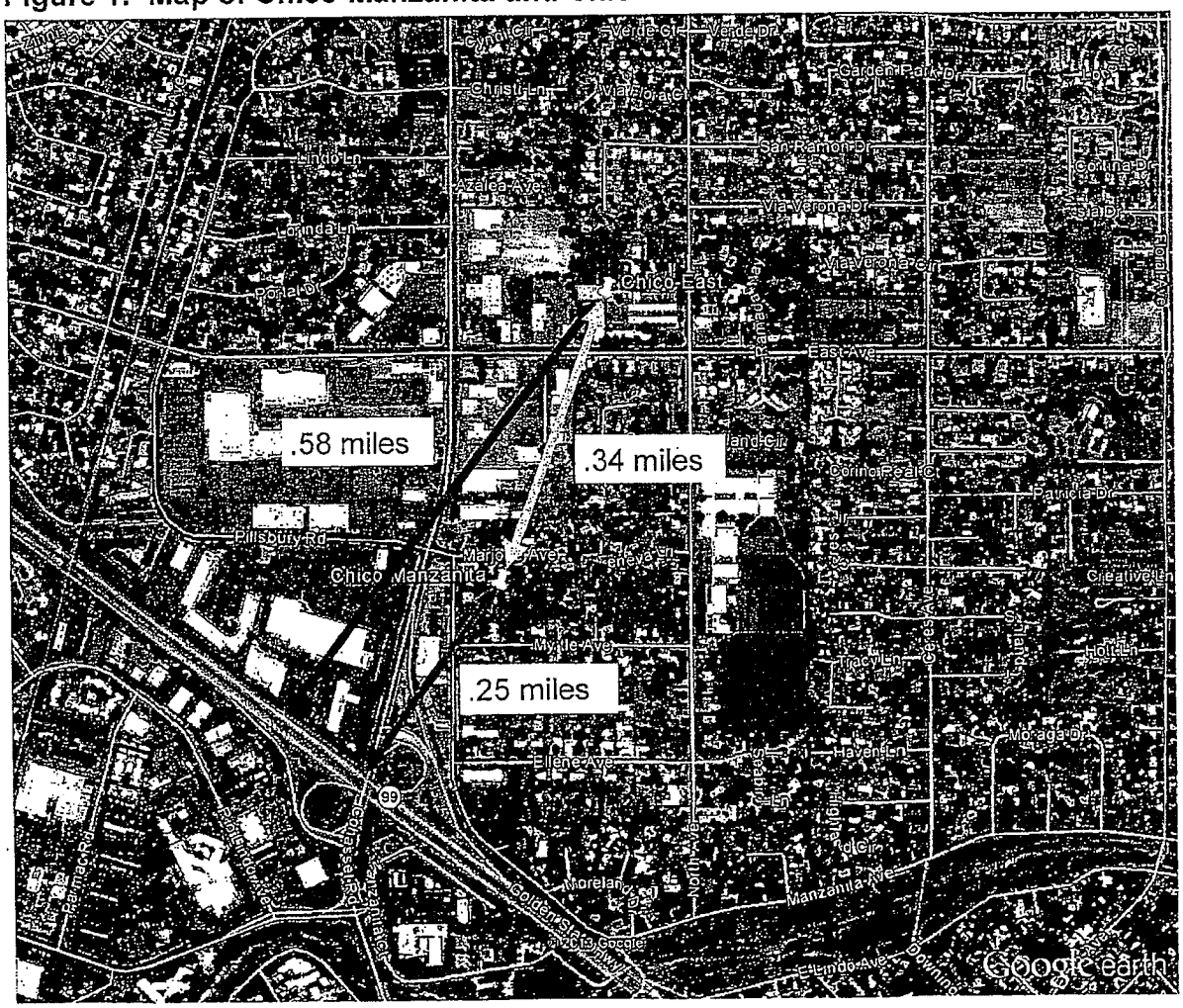
the Manzanita site are being monitored at the East site using the same monitoring methods.

After conferring with your staff, we conducted parallel monitoring for ozone and PM2.5 for two months. Parallel monitoring was conducted from May 1, 2012 until June 30, 2012. The results of the parallel site monitoring study indicate that the new site has concentrations that are comparable to the Chico-Manzanita site, consistent with the two sites being located very close to each other.

Figure 1: Map of Chico-Manzanita and Chico-East sites.



Ozone Comparison

Figure 2 displays the hourly data comparison between the two sites for May and June 2012. As shown, the hourly concentrations are highly correlated, with an R^2 value of 0.9528. Table 1 displays a comparison of the four highest 8-hour averages for the month. The proposed new site (Chico-East) had slightly higher 8-hour concentrations, an average of 3.06 percent with the greatest absolute difference of 3.9 ppb, compared to the old site (Chico-East) based on the four highest 8-hour averages. This analysis indicates that the ozone concentrations at the two sites compare well and are within the allowed uncertainty of the method (+/- 7%).

Figure 2: Linear regression of hourly ozone data for both sites.

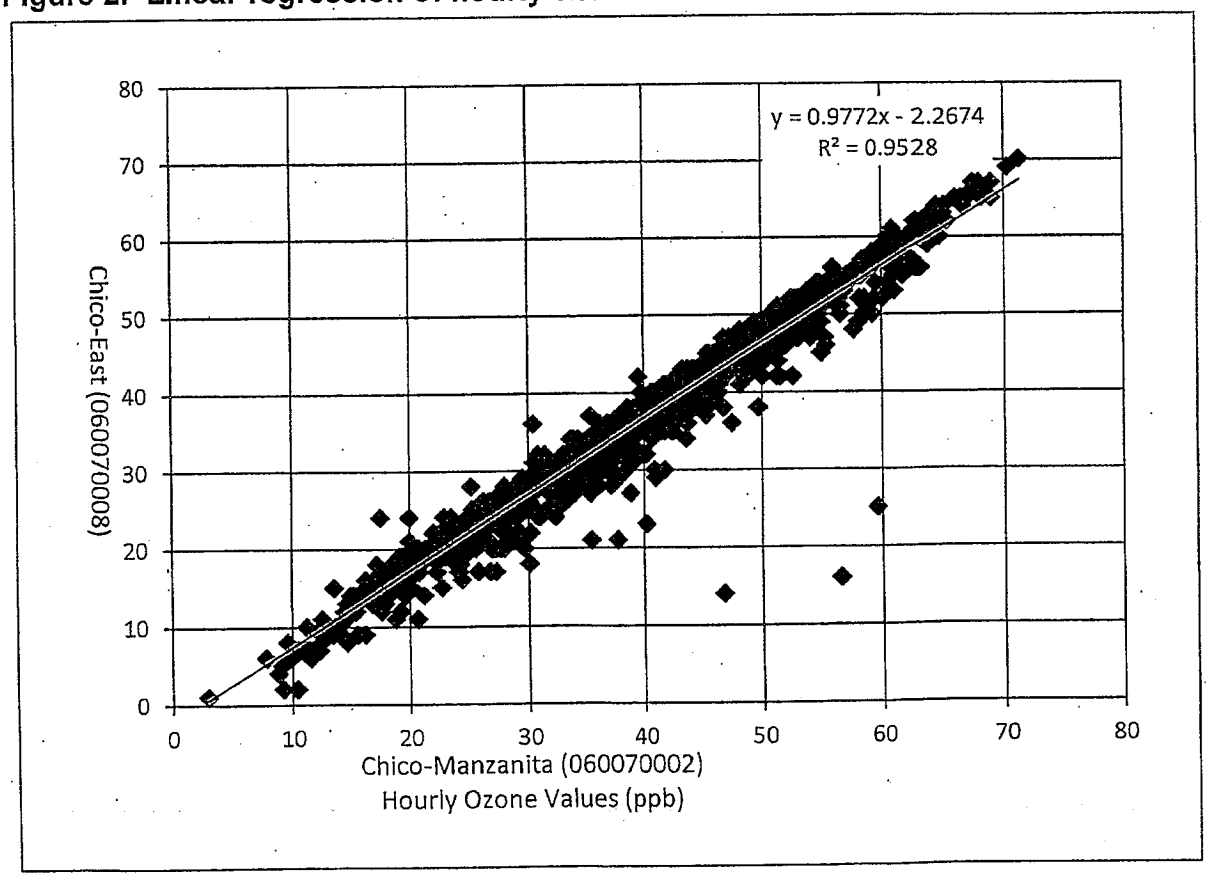


Figure 3: Linear regression of 8-hour ozone average for both sites.

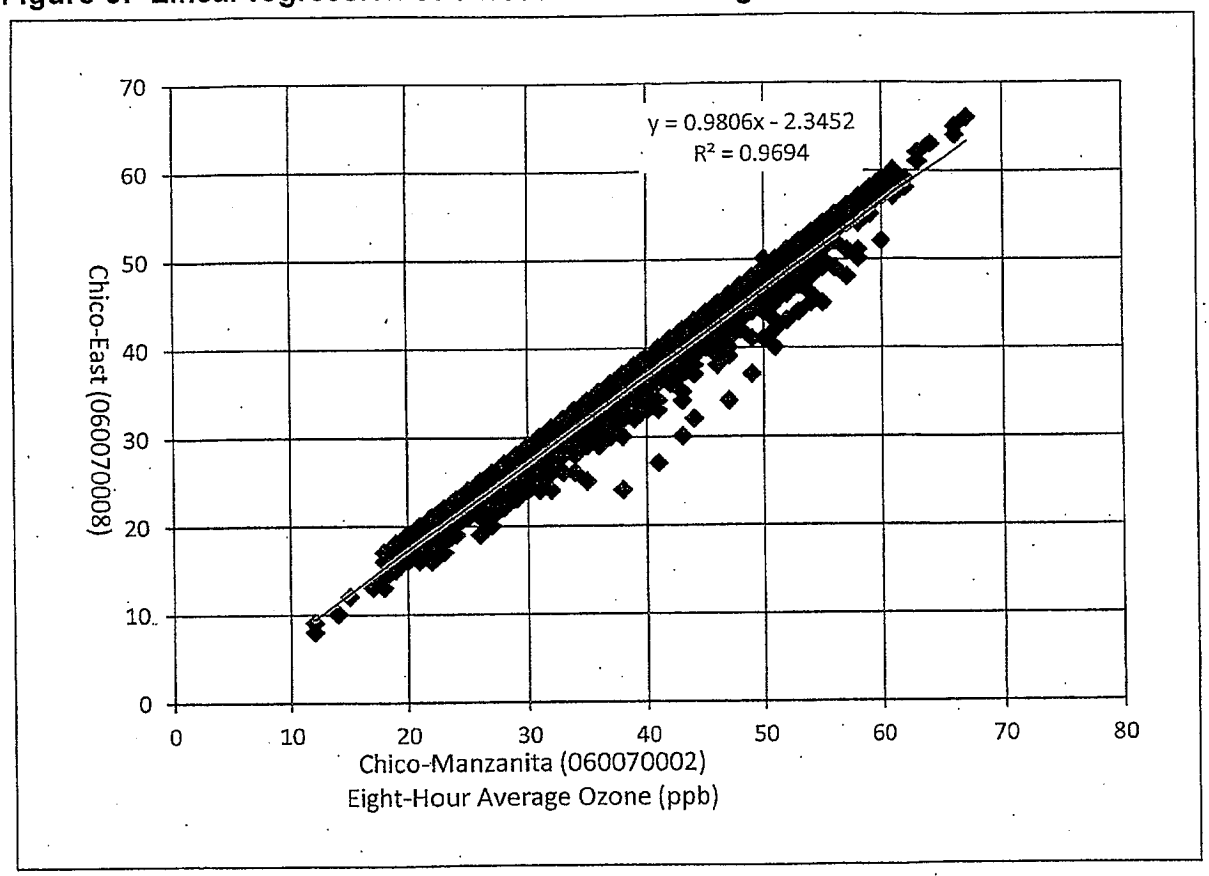


Table 1: Comparison of 4 Highest 8-Hour Averages for Ozone.

Date & Time	Chico-Manzanita 8-Hour Average (ppb)	Chico-East 8-Hour Average (ppb)	Percent Difference from Chico-Manzanita (%)
5/9/12 3:00pm	70	71.3	1.86%
5/9/12 4:00pm	69	70.3	1.88%
5/9/12 5:00pm	67	68.9	2.84%
5/30/12 3:00pm	65	68.9	5.67%

PM2.5 Comparison

Figure 3 displays the linear regression between the eight FRM PM2.5 samples collected at the Chico-East and Chico-Manzanita locations. As shown, the daily PM2.5 concentrations are highly correlated, with an R^2 value of 0.9473. Table 2 displays a comparison of the eight samples. The table shows that the highest concentrations occurred on the same days at both sites. The proposed new site (Chico-East) differed by an average -3.5% percent from the old site (Chico-Manzanita).

Figure 3: Linear regression of FRM PM2.5 data for both sites.

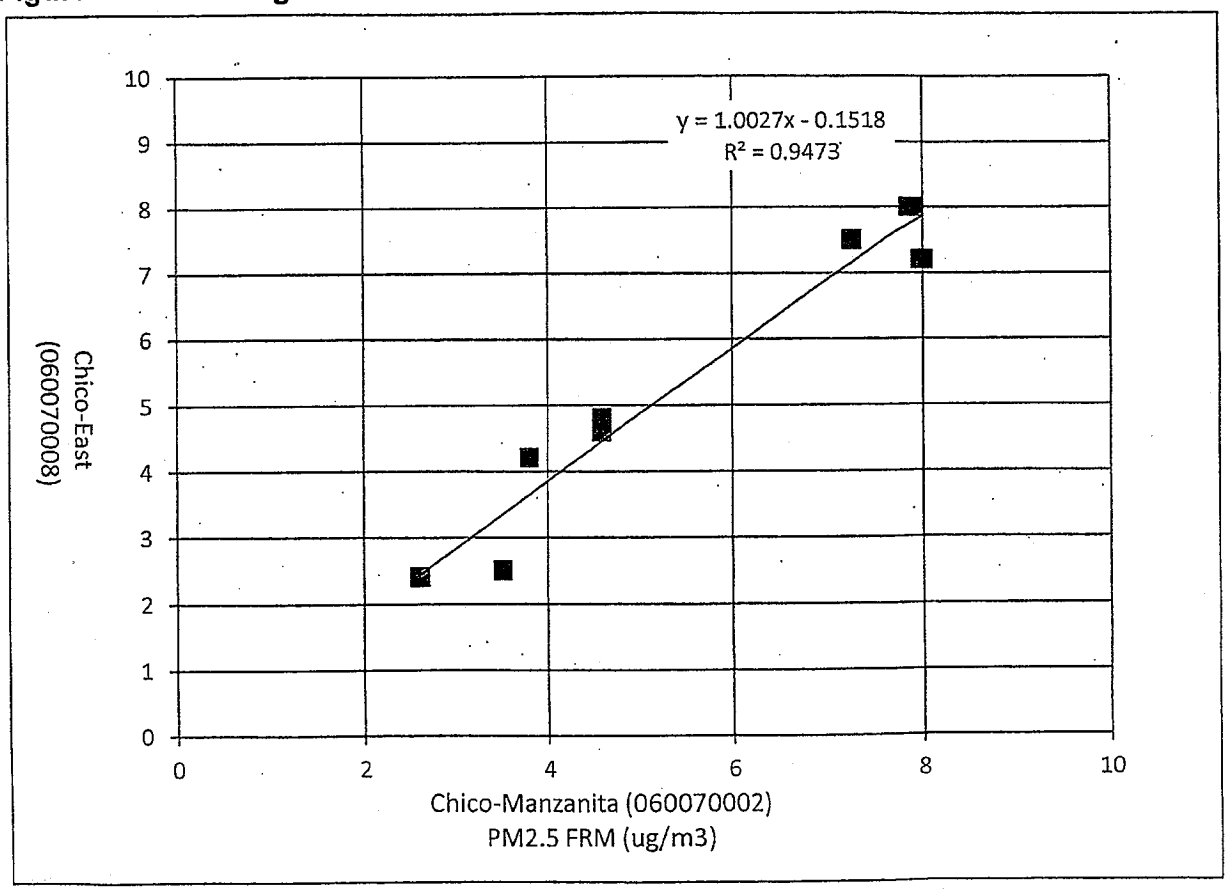


Table 2: Comparison of 3 highest FRM PM2.5 collected at each site.

Date	Chico-Manzanita FRM PM2.5 (ug/m3)	Date	Chico-East FRM-PM2.5 (ug/m3)	Percent Difference from Chico-Manzanita (%)
5/9/12	8.0	5/9/12	7.2	-10.0%
5/15/12	7.9	5/15/12	8.0	1.27%
5/21/12	7.3	5/21/12	7.5	2.74%
5/27/12	4.6	5/27/12	4.6	0.0%
6/8/12	2.6	6/8/12	2.4	-7.70%
6/14/12	3.8	6/14/12	4.2	9.53%
6/26/12	3.5	6/26/12	2.5	-28.58%
7/2/12	4.6	7/2/12	4.8	4.17%

The Chico-East site is representative of the exposure of sensitive groups, meets the siting criteria for the air monitoring network (SLAMS and Toxics), and has the same spatial and land-use patterns of the Chico-Manzanita site. Based on the parallel monitoring, the two sites captured the impact of similar sources over the time period and the data shows that moving the site to the Chico-East location will maintain a historical trend without introducing any significant bias.

If you have any questions or require additional information, please contact Mr. Joe Guerrero at (916) 324-7591 or via email at jguerrer@arb.ca.gov.

Sincerely,

Dr. Michael Benjamin, Chief
Monitoring and Laboratory Division

cc: See next page

cc: Jim Wagoner, Air Pollution Control Officer
Butte County Air Quality Management District
269 Entler Avenue, Suite 15
Chico, California 95928

Kurt Karperos, Chief
Planning and Technical Support Division

Joe Guerrero, P.E., Manager
Air Monitoring North Section

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105
APR 24 2013

Kenneth Stroud, Chief
Air Quality Surveillance Branch
Monitoring and Laboratory Division
California Air Resources Board
1001 I Street
P.O Box 2815
Sacramento, CA 95812

Dear Mr. Stroud:

This letter is in response to the California Air Resources Board's (CARB) request for approval for the discontinuation of SLAMS (State/Local Air Monitoring Station) ozone monitoring at Calexico-East (AQS site ID: 06-025-0006) in Imperial County. Imperial County Air Pollution Control District (ICAPCD) documented the discontinuation of monitoring activities at the Calexico-East site since July 2010 in the most recent *Annual Network Plan for Ambient Monitoring* for 2012 (Page 17). ICAPCD made the plan available for public inspection prior to its submittal to EPA and received no public comments on this proposed monitoring network change.

Per 40 CFR §58.14, monitoring agencies are required to obtain EPA approval for the discontinuation of SLAMS monitors. In a letter to EPA dated July 22, 2010, CARB explained that although the resources are available to continue monitoring at Calexico-East, the site requires substantial maintenance and the resources required to operate, maintain and upgrade it are limited. There are four ambient ozone monitors operating in Imperial County, exceeding EPA's minimum monitoring requirements for ozone. CARB provided to EPA a comparative analysis of both ozone 8-hour design values and 24-hour average $PM_{2.5}$ (non-FEM BAM) concentrations for Calexico-East and Calexico-Ethel, another station located approximately 8 miles west of Calexico-East that collects ozone and $PM_{2.5}$ data. While official approval of the non-regulatory non-FEM $PM_{2.5}$ BAM is not necessary, EPA acknowledges the shutdown of $PM_{2.5}$ monitoring at the Calexico-East site.

Based on our evaluation of ambient ozone monitoring data at Calexico-East and Calexico-Ethel between 2005 and 2009, EPA approves CARB's discontinuation of SLAMS ozone monitoring at Calexico-East pursuant to 40 CFR §58.14(c)(3). The discontinuation of Calexico-East meets the criteria of 40 CFR §58.14(c)(3) since the site has not measured violations of the National Ambient Air Quality Standards (NAAQS) in the previous five years and the approved State Implementation Plan (SIP) provides for a specific, reproducible approach to representing air quality in the absence of monitoring data. Ozone concentrations at the Calexico-East and

Calexico-Ethel sites are highly correlated, with Calexico-Ethel reporting higher concentrations the majority of the time. Enclosed are plots of daily maximum 8-hour ozone concentrations for Calexico-East and Calexico-Ethel examined during EPA's analysis.

If you have any questions, please feel free to contact me at (415) 972-3851 or Michael Flagg of my staff at (415) 947-3372.

Sincerely,

Matthew Lakin, Manager
Air Quality Analysis Office

Enclosures

A. Correlation between 2009 Calexico-East and Calexico-Ethel 8-hour ozone daily maximum values for 2009
B. 2005-2009 daily maximum 8-hour ozone concentration (ppb) at Calexico-East and Calexico-Ethel

cc: Brad Poiriez, ICAPCD
Monica Soucier, ICAPCD
Michael Benjamin, CARB
Fernando Amador, CARB
Karen Magliano, CARB
Michael Miguel, CARB

Air Resources Board

Mary D. Nichols, Chairman
1001 I Street • P.O. Box 2815
Sacramento, California 95812 • www.arb.ca.gov

Matthew Rodriquez
Secretary for
Environmental Protection

Edmund G. Brown Jr.
Governor

June 5, 2013

Matthew Lakin, Ph.D, Manager
Air Quality Analysis Office, Region 9
U.S. Environmental Protection Agency
75 Hawthorne Street
San Francisco, California 94105

Dear Dr. Lakin:

This letter is in response to your staff's request that the Air Resources Board (ARB) submit a waiver request for five seasonal ozone monitors included in our annual network report. The five monitors are Echo Summit, Cool, Jerseydale, White Cloud Mountain, and Sutter Butte.

An analysis of ozone data collected at the seasonal and surrounding sites shows that the highest ozone concentrations occur during the hotter summer months. Thus, monitoring from May through October is sufficient to capture the highest concentrations. In addition, the limited monitoring schedule provides for consistent and safe access to the monitoring sites. A more detailed description of our analyses and supporting data is provided in the enclosures.

Based on our analyses, ARB is requesting a waiver for seasonal ozone monitoring at the five sites, under the provisions of 40 Code of Federal Regulations Part 58.12 (a)(3). If you have any questions or concerns about this request, please contact Gayle Sweigert at (916) 322-6923 or Marci Nystrom at (916) 323-8543.

Sincerely,

Sylvia Vanderspek

Sylvia Vanderspek, Chief
Air Quality Planning Branch
Planning and Technical Support Division

Enclosure

cc: See next page.

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

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

July 17, 2013

Ms. Sylvia Vanderspek, Manager
Air Quality Planning Branch
Planning and Technical Support Division
California Air Resources Board
P.O. Box 2815
Sacramento, California 95812

Dear Ms. Vanderspek:

This letter is in response to your letter dated June 5, 2013 requesting a seasonal ozone waiver for five remote sites within the California Air Resources Board (CARB) ambient air monitoring network. The following sites were requested to operate from May through October: Echo Summit (AQS ID: 060170012), Cool (AQS ID: 060170020), Jerseydale (AQS ID: 060430006), White Cloud Mountain (AQS ID: 060570007), and Sutter Butte (061010004). EPA has reviewed the information provided and determined that data from the requested sites during the part of the year outside the requested monitoring season is not needed for regulatory decision-making; therefore, EPA approves the seasonal ozone waiver for these sites per 40 CFR 58.12 (a)(3); 40 CFR 58 and 40 CFR 58 Appendix D, 4.1(i). This decision is based on site comparisons and maximum ozone concentrations for requested and nearby sites using five years of recent data.

If you have any questions regarding this letter, please feel free to contact me at (415) 947-4534.

Sincerely,

/s/

Meredith Kurpius, Manager
Air Quality Analysis Office

cc: Gayle Swiegert, CARB
Ken Stroud, CARB
Mike Miguel, CARB

APPENDIX D

List of Abbreviations and Acronyms

APCD	Air Pollution Control District
AQMD	Air Quality Management District
AQS	Air Quality System
ARB	Air Resources Board
CFR	Code of Federal Regulations
CBSA	Core-Based Statistical Area
FEM	Federal equivalent method
FRM	Federal reference method
MSA	Metropolitan Statistical Area
NAAQS	National Ambient Air Quality Standard
NO_2	Nitrogen dioxide
Pb	Lead
PM_{10}	Particulate matter (0 to 10 microns aerodynamic diameter)
$PM_{2.5}$	Particulate matter (0 to 2.5 microns aerodynamic diameter)
PQAO	Primary quality assurance organization
SIP	State Implementation Plan
SLAMS	State and Local Air Monitoring Stations
SO_2	Sulfur dioxide
U.S. EPA	United States Environmental Protection Agency