



South Coast  
AQMD

# SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

---

## ANNUAL AIR QUALITY MONITORING NETWORK PLAN

July 1, 2025

**Deputy Executive Officer**

**Monitoring and Analysis**

Jason C. Low, Ph.D.

**Assistant Deputy Executive Officer**

**Monitoring and Analysis**

Andrea Polidori, Ph.D.

**Atmospheric Measurements Manager**

**Monitoring and Analysis**

Rene M. Bermudez

**Monitoring Network Operations Manager**

**Monitoring and Analysis**

Juan Garcia

## Table of Contents

	<u>Page</u>
Introduction	3
Public Comments	3
Network Design	4
Special Programs	22
Recent or Proposed Modifications to Network	25
Minimum Monitoring Requirements	27
Data Submittal and Archiving Requirements	34
 Appendix A: Network Depiction Maps	
Ozone Monitoring Locations	A-2
• PM <sub>10</sub> Monitoring Locations	A-3
• Nitrogen Dioxide Monitoring Locations	A-4
• Carbon Monoxide Monitoring Locations	A-5
• Sulfur Dioxide Monitoring Locations	A-6
• Source and Ambient Lead Monitoring Locations	A-7
• PAMS Monitoring Locations	A-8
• PM <sub>2.5</sub> Monitoring Locations	A-9
• South Coast AQMD 2024 Air Quality Data Summary	A-10
Appendix B: Detailed Site Information	B-1
Appendix C: PM <sub>2.5</sub> Continuous Monitor Comparability Assessment	C-1
Appendix D: System Modification Requests	D-1
Appendix E: Approved U.S. EPA Waivers	E-1

## INTRODUCTION

An annual review of the Air Quality Monitoring Network is required by Federal Regulations to identify and report needs for additions, relocations, or terminations of monitoring sites or instrumentation. This report describes the network of ambient air quality monitors in the jurisdiction of and operated by the South Coast Air Quality Management District (South Coast AQMD). It includes a review of actions taken during the 2024-2025 fiscal year and plans for action in the year ahead. This plan addresses the requirement for an annual network plan as listed in Title 40, Part 58, Section 10 of the Code of Federal Regulations (40 CFR § 58.10). Regulations require the report be submitted to the U.S. Environmental Protection Agency (U.S. EPA) by July 1 of each year after a 30-day public comment period. All monitors meet the requirement of appendices A, B, C, D and E as required in 40 CFR § 58.10 (a)(1) where applicable.

South Coast AQMD, along with U.S. EPA and CARB have reviewed air monitoring sites in the South Coast Air Basin (Basin) monitoring network. State and Local Air Monitoring Station (SLAMS) designations, along with site types and spatial scales of representativeness for criteria pollutants were reviewed as part of this process. The most recent review occurred when U.S. EPA Region 9 visited selected sites for compliance verification in 2023. The most recent review was during Technical System Audits (TSA) of the National Air Toxics Trend (NATTS) program (May 2023), the Photochemical Assessment Monitoring Stations (PAMS) program (May 2023), and the criteria pollutant air monitoring network (September 2023). South Coast AQMD also conducts an annual air monitoring review and prepares a report for submission to U.S. EPA. The review focuses on current and future air monitoring network strategies, and changes to the air monitoring network. Any proposed changes to the network are made in consultation with U.S. EPA and CARB. When re-location of monitoring sites becomes necessary, site reports are updated in U.S. EPA's Air Quality System (AQS) to document compliance with established siting criteria for the new locations.

## Public Comments

Pursuant to Federal regulations, a draft plan was made available for public inspection electronically at (<http://www.aqmd.gov/home/air-quality/clean-air-plans/monitoring-network-plan>) from May 23, 2025 through June 24, 2025 for a comment period of 32 days. Hard copies of the final document are available at the South Coast AQMD's Public Information Desk in Diamond Bar, CA. The final document is available on the South Coast AQMD website beginning July 1, 2025, and is made available to U.S. EPA by July 1, 2025, and a hardcopy provided upon request.

## Network Design

The South Coast AQMD operates 32 permanent air monitoring stations (AMS) and 2 single pollutant source impact Lead (Pb) air monitoring sites in the Basin and a portion of the Salton Sea Air Basin in Coachella Valley. This area includes Orange County and the non-desert portions of Los Angeles, Riverside and San Bernardino Counties. The most recent site added is part of the area wide monitoring network at Indio (Amistad High School) relocated from the previously closed Indio Jackson Street. The newest source impact Pb sites were added in January 2010 as required by U.S. EPA regulation. The most recent site closure occurred at the Upland AMS on March 31, 2023, and at the Rehrig source impact Pb monitoring site, both due to unexpected lease termination that was beyond the control of South Coast AQMD. Detailed System Modification Requests (SMR) related to these closures are provided in

Appendix D. Furthermore, the Azusa, LAX (Hastings), and Mission Viejo sites are currently offline as they transition to new locations. It is also anticipated that the sites in Santa Clarita, Anaheim (Pampas Ln.), Palm Springs, and Banning may be relocated at the request of the local municipalities hosting these sites. Further details on these and any other proposed modifications to the network can be found in the 'Recent or Proposed Modifications to Network' section, with corresponding SMRs included in Appendix D where appropriate. Table 1 provides a list of monitoring locations, U.S. EPA AQS site codes, and the pollutants measured at each site. Table 2 provides the spatial scale and the site type for each monitor at all sites. Table 3 describes the monitoring purpose for the monitors at each site. Table 4 describes the site type, spatial scale, and monitoring purpose for continuous particulate analyzers at each site. A requirement of the annual network plan, the *monitoring purpose* is the reason a certain pollutant is being measured at a certain site.

A list and description of monitoring purposes are provided below, and portions are adapted from the CARB annual network plan.

*Background Level* monitoring is used to determine general background levels of air pollutants as they enter the Basin.

*High Concentration* monitoring is conducted at sites to determine the highest concentration of an air pollutant in an area within the monitoring network. A monitoring network may have multiple high concentration sites (i.e., due to varying meteorology year to year).

*Pollutant Transport* is the movement of pollutants between air basins or areas within an air basin. Transport monitoring is used to assess and mitigate upwind areas when transported pollutant affects neighboring downwind areas. Also, transport monitoring is used to determine the extent of regional pollutant transport among populated areas and to rural areas.

*Population Exposure* monitoring is conducted to represent the air pollutant concentrations that a populated area is exposed to.

*Representative Concentration* monitoring is conducted to represent the air quality concentrations for a pollutant expected to be similar throughout a geographical area. These sites do not necessarily indicate the highest concentrations in the area for a particular pollutant.

*Source Impact* monitoring is used to determine the impact of significant sources or source categories of air quality emissions on ambient air quality. The air pollutant sources may be stationary or mobile.

*Trend Analysis* monitoring is useful for comparing and analyzing air pollution concentrations over time. Usually, trend analyses can be used to assess the progress in improving air quality for an area over a period of several years.

*Site Comparison* monitoring is used to assess the effect on measured pollutant levels of moving a monitoring location a short distance (usually less than two miles). Some monitoring stations are no longer usable due to development, change of lease terms, or eviction. In these cases,

attempts are made to conduct concurrent monitoring at the old and new site for a period of at least one year to compare pollutant concentrations.

*Real Time Reporting/Modeling* is used to provide data to U.S. EPA's AIRNOW system which reports conditions for air pollutants on a real time basis to the public. Data is also used to provide accurate and timely air quality forecast guidance to residents of the Basin.

Multiple purposes for measuring a pollutant at a site are possible. There is a slight overlap between site type and monitoring purposes as defined by U.S. EPA and given in Tables 2, 3 and 4.

**TABLE 1. List of Monitoring Sites**

	Location	AQS No.	Criteria Pollutants Monitored	Start Date
1	Anaheim <sup>2</sup>	060590007	CO, NO <sub>2</sub> , O <sub>3</sub> , PM <sub>10</sub> , PM <sub>2.5</sub>	08/2001
2	Anaheim Route 5 Near Road	060590008	CO, NO <sub>2</sub>	01/2014
3	Banning Airport <sup>2</sup>	060650012	NO <sub>2</sub> , O <sub>3</sub> , PM <sub>10</sub> , PM <sub>2.5</sub>	04/1997
4	Big Bear	060718001	PM <sub>2.5</sub>	02/1999
5	Central San Bernardino Mountains	060710005	O <sub>3</sub> , PM <sub>10</sub> , PM <sub>2.5</sub>	10/1973
6	Closet World (Quemetco)	060371404	Pb	10/2008
7	Compton	060371302	CO, NO <sub>2</sub> , O <sub>3</sub> , Pb, PM <sub>2.5</sub>	01/2004
8	Fontana	060712002	CO, NO <sub>2</sub> , SO <sub>2</sub> , O <sub>3</sub> , PM <sub>10</sub> , PM <sub>2.5</sub>	08/1981
9	Glendora	060370016	CO, NO <sub>2</sub> , O <sub>3</sub> , PM <sub>10</sub> , PM <sub>2.5</sub>	08/1980
10	Indio	060652007	O <sub>3</sub> , PM <sub>10</sub> , PM <sub>2.5</sub> , H <sub>2</sub> S	01/2024
11	La Habra	060595001	CO, NO <sub>2</sub> , O <sub>3</sub>	08/1960
12	Lake Elsinore	060659001	CO, NO <sub>2</sub> , O <sub>3</sub> , PM <sub>10</sub> , PM <sub>2.5</sub>	06/1987
13	Long Beach (Hudson) <sup>3</sup>	060374006	PM <sub>10</sub>	01/2010
14	Long Beach Route 710 Near Road	060374008	NO <sub>2</sub> , PM <sub>2.5</sub>	01/2015
15	Los Angeles (Main St.)	060371103	CO, NO <sub>2</sub> , NO <sub>y</sub> , SO <sub>2</sub> , O <sub>3</sub> , PM <sub>10</sub> , Pb, PM <sub>2.5</sub>	09/1979
16	Mecca (Saul Martinez)	060652005	PM <sub>10</sub> , H <sub>2</sub> S	01/2011
17	Mira Loma (Van Buren)	060658005	CO, NO <sub>2</sub> , O <sub>3</sub> , PM <sub>10</sub> , PM <sub>2.5</sub>	11/2005
18	Mission Viejo <sup>1</sup>	060592022	CO, O <sub>3</sub> , PM <sub>10</sub> , PM <sub>2.5</sub>	06/1999
19	North Hollywood	060374010	NO <sub>2</sub> , O <sub>3</sub> , PM <sub>2.5</sub>	01/2020
20	Ontario Etiwanda Near Road	060710026	CO, NO <sub>2</sub>	06/2014
21	Ontario Route 60 Near Road	060710027	NO <sub>2</sub> , PM <sub>2.5</sub>	01/2015
22	Palm Springs <sup>2</sup>	060655001	CO, NO <sub>2</sub> , O <sub>3</sub> , PM <sub>10</sub> , PM <sub>2.5</sub>	04/1971
23	Pasadena	060372005	CO, NO <sub>2</sub> , O <sub>3</sub> , PM <sub>2.5</sub>	04/1982
24	Pico Rivera #2	060371602	CO, NO <sub>2</sub> , O <sub>3</sub> , PM <sub>10</sub> , Pb, PM <sub>2.5</sub>	09/2005
25	Pomona <sup>3</sup>	060371701	CO, NO <sub>2</sub> , O <sub>3</sub>	06/1965
26	Redlands	060714003	O <sub>3</sub> , PM <sub>10</sub>	09/1986
27	Rehrig (Exide) <sup>3</sup>	060371405	Pb	11/2007
28	Reseda	060371201	CO, NO <sub>2</sub> , O <sub>3</sub> , PM <sub>2.5</sub>	03/1965
29	Rubidoux	060658001	CO, NO <sub>2</sub> , NO <sub>y</sub> , SO <sub>2</sub> , O <sub>3</sub> , PM <sub>10</sub> , Pb, PM <sub>2.5</sub>	09/1972
30	San Bernardino	060719004	CO, NO <sub>2</sub> , O <sub>3</sub> , PM <sub>10</sub> , Pb, PM <sub>2.5</sub>	05/1986
31	Santa Clarita <sup>4</sup>	060376012	CO, NO <sub>2</sub> , O <sub>3</sub> , PM <sub>10</sub> , PM <sub>2.5</sub>	05/2001
32	Signal Hill	060374009	NO <sub>2</sub> , O <sub>3</sub> , PM <sub>2.5</sub>	01/2020
33	Temecula	060650016	O <sub>3</sub> , PM <sub>2.5</sub>	06/2010
34	West Los Angeles	060370113	NO <sub>2</sub> , O <sub>3</sub>	05/1984

<sup>1</sup> Site is currently offline during transition to new location through Summer 2025.

<sup>2</sup> Site may be relocated in 2025-26.

<sup>3</sup> Site SMR for closure is included in Appendix D.

<sup>4</sup> Site SMR for relocation is included in Appendix D.

**TABLE 2. FRM Criteria Pollutant Spatial Scales and Site Type**

SPATIAL SCALE

MI – Microscale

MS – Middle Scale

NS – Neighborhood Scale

US – Urban Scale

SITE TYPE

HC – Highest Concentration

PE – Population Exposure

IM – Source Oriented (Impact)

BK – General Background

SITE TYPE

CO - Collocated

RA40 – Regional Administrator Identified

NR – Near Road

	Location	CO	NO2	NOy	SO2	O3	Manual PM <sub>10</sub>	Manual PM <sub>2.5</sub>	Pb
1	Anaheim <sup>2</sup>	NS/PE	NS/PE			NS/PE	NS/PE	NS/PE	
2	Anaheim Route 5 Near Road	MI/IM/NR	MI/IM/NR						
3	Banning Airport <sup>2</sup>		NS/PE			NS/PE	NS/PE		
4	Big Bear							NS/CO <sup>5</sup>	
5	Central San Bernardino Mountains					NS/HC	NS/PE		
6	Closet World (Quemetco)								MI/IM
7	Compton	MS/HC	NS/PE/RA40			NS/PE		NS/HC/CO <sup>5</sup>	NS/PE/CO
8	Fontana	NS/PE	US/PE		NS/PE	US/PE		NS/PE	
9	Glendora	NS/PE	NS/PE			NS/HC			
10	Indio					NS/PE		NS/PE/HC/CO <sup>5</sup>	
11	La Habra	NS/PE	NS/PE			NS/PE			
12	Lake Elsinore	NS/PE	NS/PE			NS/PE			
13	Long Beach (Hudson) <sup>3</sup>								
14	Long Beach Route 710 Near Road		MI/IM/NR					MI/IM/CO <sup>5</sup>	
15	Los Angeles (Main St.)	NS/PE	NS/HC/RA40	NS/HC	NS/PE	NS/PE	NS/PE/CO	NS/PE/CO <sup>6</sup>	NS/PE/CO
16	Mecca (Saul Martinez)								
17	Mira Loma (Van Buren)	NS/PE	NS/PE			NS/PE		NS/HC/CO <sup>6</sup>	
18	Mission Viejo <sup>1</sup>	NS/PE				NS/PE		NS/PE/CO <sup>5</sup>	
19	North Hollywood		NS/PE			NS/PE			
20	Ontario Etiwanda Near Road	MI/IM/NR	MI/IM/NR						
21	Ontario Route 60 Near Road		MI/IM/NR					MI/IM/CO <sup>5</sup>	
22	Palm Springs <sup>2</sup>	NS/PE	NS/PE			NS/PE		NS/PE	
23	Pasadena	NS/PE	NS/HC			NS/PE		NS/PE	
24	Pico Rivera #2	NS/PE	NS/PE			NS/PE		NS/PE	NS/PE
25	Pomona <sup>3</sup>	MI/IM	MI/IM			NS/PE			
26	Redlands					NS/PE/HC	NS/PE		
27	Rehrig (Exide) <sup>3</sup>								MI/IM
28	Reseda	NS/PE	NS/PE			NS/PE		NS/PE	
29	Rubidoux	NS/PE	NS/PE	NS/HC	NS/PE	NS/PE	NS/HC/CO	NS/HC/CO <sup>6</sup>	NS/PE
30	San Bernardino	NS/PE	NS/PE/RA40			NS/HC		NS/PE	NS/PE
31	Santa Clarita <sup>4</sup>	NS/PE	NS/PE			NS/HC	NS/PE		
32	Signal Hill		NS/PE			NS/PE		NS/CO <sup>5</sup>	
33	Temecula					NS/HC			
34	West Los Angeles		MS/HC			NS/PE			

<sup>1</sup> Site is currently offline during transition to new location through Summer 2025.

<sup>2</sup> Site may be relocated in 2025-26.

<sup>3</sup> Site SMR for closure is included in Appendix D.

<sup>4</sup> Site SMR for relocation is included in Appendix D.

<sup>5</sup> Site FRM is collocated with FEM.

<sup>6</sup> Site FRM is collocated with FRM.

**TABLE 3. FRM Criteria Pollutant Monitoring Purposes**
**MONITORING PURPOSE**

BK – Background

HC – High Concentration

TP – Pollutant Transport

EX – Population Exposure

RC – Representative Concentration

RM – Real-Time Reporting/Modeling

TR – Trend Analysis

CO – Collocated

SO – Source Impact

CP – Site Comparisons

	Location	CO	NO <sub>2</sub>	NO <sub>y</sub>	SO <sub>2</sub>	O <sub>3</sub>	Manual PM <sub>10</sub>	Manual PM <sub>2.5</sub>	Pb
1	Anaheim <sup>2</sup>	TR	TR/RC			TR	EX/TR	TR/EX	
2	Anaheim Route 5 Near Road	SO/HC	SO/HC						
3	Banning Airport <sup>2</sup>		TP/RC			TP	TP		
4	Big Bear							EX/TP/CO <sup>5</sup>	
5	Central San Bernardino Mountains					HC	TP/RC		
6	Closet World (Quemetco)								SO
7	Compton	TR/HC	TR/RC			TR/RC		EX/HC/RC/CO <sup>5</sup>	EX/CO
8	Fontana	RC	TP/RC		TR	RC		EX/TP	
9	Glendora	RC	TR/RC			HC			
10	Indio					TP		TP/EX/HC/CO <sup>5</sup>	
11	La Habra	RC	TR/RC			RC			
12	Lake Elsinore	TP/RC	TP/RC			TP/RC			
13	Long Beach (Hudson) <sup>3</sup>								
14	Long Beach Route 710 Near Road		SO/HC					SO/HC/CO <sup>5</sup>	
15	Los Angeles (Main St.)	TR/RC	TR/HC	TR/HC	TR	TR/RC	TR/RC/CO	EX/HC/CO <sup>6</sup>	EX/CO
16	Mecca (Saul Martinez)								
17	Mira Loma (Van Buren)	TR/RC	TR/RC			TR/HC		EX/HC/CO <sup>6</sup>	
18	Mission Viejo <sup>1</sup>	RC				TR/RC		EX/RC/CO <sup>5</sup>	
19	North Hollywood		TR/RC			TR/RC			
20	Ontario Etiwanda Near Road	SO/HC	SO/HC						
21	Ontario Route 60 Near Road		SO/HC					SO/HC/CO <sup>5</sup>	
22	Palm Springs <sup>2</sup>	TP/RC	TP/RC			TP		EX/TP	
23	Pasadena	TR/RC	TR/EX			TR/RC		EX/RC	
24	Pico Rivera #2	RC	HC			EX		EX/RC	EX
25	Pomona	SO	SO			EX			
26	Redlands					TP/HC	TP/RC		
27	Rehrig (Exide) <sup>3</sup>								SO
28	Reseda	RC	TR/RC			EX		EX/RC	
29	Rubidoux	TR/RC	TR/RC	TR/HC	TR	TR/HC	HC/TR/CO	HC/EX/TR/CO <sup>6</sup>	EX
30	San Bernardino	TR/RC	TP/RC			TR/HC		EX/TR	EX
31	Santa Clarita	TP/RC	TP/RC			TR/HC	RC		
32	Signal Hill		TR/RC			TR		TP/CO <sup>5</sup>	
33	Temecula					TR/HC			
34	West Los Angeles		TR/HC			RC			

<sup>1</sup> Site is currently offline during transition to new location through Summer 2025.

<sup>2</sup> Site may be relocated in 2025-26.

<sup>3</sup> Site SMR for closure is included in Appendix D.

<sup>4</sup> Site SMR for relocation is included in Appendix D.

<sup>5</sup> Site FRM is collocated with FEM.

<sup>6</sup> Site FRM is collocated with FRM and FEM.



**TABLE 4. Continuous PM<sub>10</sub>/PM<sub>2.5</sub> Monitoring Purpose, Site Type and Spatial Scales**

<u>SITE TYPE</u>	<u>SPATIAL SCALE</u>	<u>INSTRUMENT TYPE</u>	
HC – High Concentration		MI – Microscale - Near Road	BAM FEM
PE – Population Exposure	NS – Neighborhood Scale	BAM (NON-FEM)	
BK - Background			

MONITORING PURPOSE

CO – Collocated	RM – Real-Time Reporting/Modeling
SO – Source Impact	SPM Special Purpose Monitoring
TP – Pollutant Transport	TR – Trend Analysis

	Continuous PM <sub>10</sub>				Continuous PM <sub>2.5</sub>			
Location	Type	Purpose	Site Type	Scale	Type	Purpose	Site Type	Scale
Anaheim <sup>2</sup>	BAM/FEM	TR/RM	PE	NS	BAM/FEM	TR/RM	PE	NS
Banning Airport <sup>2</sup>					BAM/NON-FEM	TP/RM	PE	NS
Big Bear					BAM/ FEM	TP/RM/CO	PE	NS
Central San Bernardino Mountains					BAM/NON-FEM	TP/RM	PE	NS
Compton					BAM/FEM	TR/RM	HC	NS
Fontana	BAM/FEM	TP/RM	HC	NS	BAM/NON-FEM	TP/RM	PE	NS
Glendora	BAM/FEM	TR/RM	PE	NS	BAM/NON-FEM	TR/RM	PE	NS
Indio	BAM/FEM	RM	HC	NS	BAM/ FEM SPM <sup>5</sup>	TP	HC	NS
Lake Elsinore	BAM/FEM	TP/RM	PE	NS	BAM/NON-FEM	TP/RM	PE	NS
Long Beach Route 710 Near Road					BAM/FEM	SO/RM	HC	MI
Long Beach (Hudson) <sup>3</sup>	BAM/FEM	TR/RM	HC	NS				
Los Angeles (Main St.)	BAM/FEM	TR/RM	PE	NS	BAM/FEM	TR/RM	HC	NS
Mecca (Saul Martinez)	BAM/FEM	RM	HC	NS				
Mira Loma (Van Buren)	BAM/FEM	TR/RM	HC	NS	BAM/FEM	TR/RM	HC	NS
Mission Viejo <sup>1</sup>	BAM/FEM	TR/RM	PE	NS	BAM/FEM SPM <sup>5</sup>	TR/RM	PE	NS
North Hollywood					BAM/NON-FEM	TR/RM	PE	NS
Ontario Route 60 Near Road					BAM/FEM	SO/RM	HC	MI
Palm Springs <sup>2</sup>	BAM/FEM	TR/RM	PE	NS				
Reseda					BAM/NON-FEM	RM	PE	NS
Rubidoux	BAM/FEM	TR/RM	HC	NS	BAM/FEM	RM/TR/CO	HC	NS
San Bernardino	BAM/FEM	TR/RM	PE	NS				
Santa Clarita <sup>3</sup>					BAM/NON-FEM	TP/RM	PE	NS
Signal Hill	BAM/FEM	TR/RM	PE	NS	BAM/FEM	TR/RM/CO	PE	NS
Temecula					BAM/NON-FEM	TP/RM	PE	NS
TOTAL Sites	14 FEM				9 NON-FEM 11 - FEM			

<sup>1</sup> Site is currently offline during transition to new location through Summer 2025.

<sup>2</sup> Site may be relocated in 2025-26.

<sup>3</sup> Site SMR for closure is included in Appendix D.

<sup>4</sup> Site SMR for relocation is included in Appendix D.

<sup>5</sup> Site is currently SPM.

A brief description of the criteria pollutant and program monitoring networks is provided below:

### OZONE (O<sub>3</sub>)

The South Coast AQMD operates 25 sites where O<sub>3</sub> measurements are made as part of the Air Monitoring Network. Ozone sites are spread throughout the Basin with highest concentrations measured inland. Figure 1 in Appendix A shows the spatial distribution of these sites and Table 14 shows the minimum monitoring requirements.

### PM<sub>10</sub>

Size-selective inlet manual high-volume samplers are operated at 7 sites, and continuous monitors at 14 sites to meet the requirements for PM<sub>10</sub> Federal Reference Method (FRM) daily sampling. The PM<sub>10</sub> monitoring network contains five sites within 20 percent of the Federal National Ambient Air Quality Standard (NAAQS) as shown in Table 6. The South Coast AQMD PM<sub>10</sub> monitoring network exceeds the minimum number of monitors required as shown in Table 18 and Figure 2.

PM<sub>10</sub> sampling frequency requirements specify a 24-hour sample must be taken from midnight to midnight (local standard time) to ensure national consistency. The minimum monitoring schedule for the site in the area of expected maximum concentration shall be based on the relative level of that monitoring site concentration with respect to the 24-hour standard.

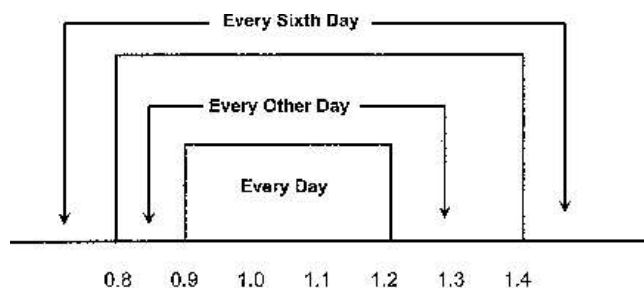


Figure 1 – Ratio to Standard

Evaluation of daily values show all PM<sub>10</sub> FRM monitors may operate on a schedule of one sample every six days (1-in-6) except for Anaheim, Long Beach (Hudson), Mira Loma (Van Buren), Rubidoux, and San Bernardino. The sampling frequency requirement for these sites is met by utilizing continuous FEM PM<sub>10</sub> monitors.

Quality control for Manual PM<sub>10</sub> requires 15 percent of the primary monitors to be collocated. Fifty percent of the collocated quality control monitors should be deployed at sites with daily concentrations estimated to be within plus or minus 20 percent of the applicable NAAQS and the remainder at the discretion of the Primary Quality Assurance Organization (PQAO). Guidance recommends, “if an organization has no sites with daily concentrations within plus or minus 20 percent of the NAAQS, 50 percent of the collocated quality control monitors should be deployed at those sites with the daily mean concentrations among the highest for all sites in the network and the remainder at the PQAOs discretion”. Collocated sites include Rubidoux, which is within 20% of NAAQS;

and Los Angeles (Main) which is collocated for quality control of NATTS program metals analysis. PM<sub>10</sub> collocated sites, sampling frequency, minimum and collocation requirements are shown in Tables 5, 6, 18 and 26.

Fourteen monitor locations make up the continuous PM<sub>10</sub> network. These real-time devices can produce hourly particulate concentration measurements for real-time reporting. Table 4 describes monitor type, site type, monitoring purpose and spatial scale for continuous particulate analyzers. Figure 2 in Appendix A shows the spatial distribution of the sampling sites. Real monitors are clustered in high concentration areas, with three located in the Coachella Valley desert area where wind-blown crustal material has caused exceedances of the 24-hour standard during exceptional events. In downwind areas of the Basin, a large fraction of particulate is formed in the atmosphere; PM<sub>10</sub> typically reaches maximum levels in the Basin during late summer through early winter months.

**TABLE 5. Manual PM<sub>10</sub> FRM Monitoring Stations Assigned Site Numbers**

	Location	Site Code	ARB No.	AQS No.	Start Date	Schedule
1	Anaheim	ANAH	30178	060590007	01/03/1999	1-in-6
2	Banning	BNAP	33164	060650012	04/01/1997	1-in-6
3	Central San Bernardino Mountains	CRES	36181	060710005	10/01/1973	1-in-6
4A	Los Angeles (Main St.) "A"	CELA	70087	060371103	01/03/1999	1-in-6
4B	Los Angeles (Main St.) "B" <sup>1</sup>	CELA	70087	060371103	01/03/1999	1-in-6
5	Redlands	RDLD	36204	060714003	09/01/1986	1-in-6
6A	Rubidoux "A"	RIVR	33144	060658001	01/03/1999	1-in-3
6B	Rubidoux "B" <sup>2</sup>	RIVR	33144	060658001	01/03/1999	1-in-6
7	Santa Clarita	SCLR	70090	060376012	05/01/2001	1-in-6

<sup>1</sup> Run as collocated NATTS.

<sup>2</sup> Run as collocated on 1-in-6 run day.

**TABLE 6. PM<sub>10</sub> Monitor Sampling Frequency for All Sites**

	Location	AQS No.	2024 Design Value <sup>2</sup>	Required Sampling Frequency	Sampling <sup>1</sup> Frequency	Monitor
1	Anaheim	060590007	120	1-in-2	1-in-1	FEM
2	Banning	060650012	50	1-in-6	1-in-6	FRM
3	Central San Bernardino Mountains	060710005	40	1-in-6	1-in-6	FRM
4	Fontana	060712002	100	1-in-6	1-in-1	FEM
5	Glendora	060370016	80	1-in-6	1-in-1	FEM
6	Indio (Amistad)	060652007	220	1-in-6	1-in-1	FEM
7	Lake Elsinore	060659001	90	1-in-6	1-in-1	FEM
8	Long Beach (Hudson)	060374006	120	1-in-6	1-in-1	FEM
9	Los Angeles (Main St.)	060371103	60	1-in-6	1-in-1	FEM
10	Mecca (Saul Martinez)	060652005	380	1-in-6	1-in-1	FEM
11	Mira Loma (Van Buren)	060658005	170	1-in-1	1-in-1	FEM
12	Mission Viejo	060592022	N/A	1-in-6	1-in-1	FEM
13	Palm Springs	060655001	300	1-in-6	1-in-1	FEM
14	Redlands	060714003	60	1-in-6	1-in-6	FRM
15	Rubidoux	060658001	130	1-in-2	1-in-1	FEM
16	San Bernardino	060719004	150	1-in-1	1-in-1	FEM
17	Santa Clarita	060376012	50	1-in-6	1-in-6	FRM
18	Signal Hill	060374009	80	1-in-6	1-in-1	FEM

<sup>1</sup> Sampling schedule per 40 CFR 58.12(e) <https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-58/subpart-B/section-58.12>

<sup>2</sup> The design value for the site is the third highest 24 hour concentration during the three year period rounded to the nearest 10 µg/m<sup>3</sup>

## NITROGEN DIOXIDE (NO<sub>2</sub>)

The NO<sub>2</sub> network consists of 20 area-wide monitoring sites and 4 source specific near-road sites. The area-wide monitoring sites measure NO<sub>2</sub> concentrations across neighborhood or larger spatial scales. Source specific near-road sites are located in areas with the highest expected NO<sub>2</sub> concentrations representing concentrations on a microscale, spatial scale. For specific details on spatial representation and site types, refer to Figure 3 in Appendix A, and Table 2.

The Near Road monitoring network consists of four sites established in January of 2014 and 2015. These sites were established based upon the U.S. EPA Near Road Technical Assistance Document and approved by U.S. EPA. The implementation plan was presented publicly at a Near Road Workshop to solicit input on site selection from the public. Near Road sites are adjacent to the most heavily traveled roadways identified in the basin where peak hourly NO<sub>2</sub> concentrations occur within the near-road environment. Site selection took into consideration satisfying siting criteria, site logistics (e.g., gaining access to property and safety) and population exposure for those who live, work, play, go to school, or commute within the near-roadway environment. The spatial distribution of NO<sub>2</sub> monitors is shown in Figure 3 in Appendix A and minimum monitoring requirements are shown in Table 19.

Additionally, the Regional Administrator (RA) identified 40 NO<sub>2</sub> sites nationwide with a primary focus on siting these monitors in locations to protect susceptible and vulnerable populations. The RA in collaboration with South Coast AQMD identified the Los Angeles (Main St.) and San Bernardino sites from the existing area-wide criteria pollutant monitoring network to meet this requirement (58.10 [a][5]). On September 30, 2013, Compton was additionally designated by U.S. EPA as an RA 40 site in place of the former North Long Beach air monitoring site. RA 40 sites are shown in Table 2; a review of 1992 through 2024 NO<sub>2</sub> data shows the State and Federal standards for NO<sub>2</sub> were not violated.

### **CARBON MONOXIDE (CO)**

Area wide CO monitors measure concentrations at 17 ambient locations and 2 near road locations within the South Coast AQMD ambient air monitoring network. The area-wide monitoring sites measure CO concentrations across neighborhood or larger spatial scales. Source specific near-road sites are located in areas with the highest expected CO concentrations representing concentrations on a microscale, spatial scale. For specific details on spatial representation and site types, refer to Figure 4 in Appendix A, and Table 2.

During March 2022 Antelope Valley APCD advised South Coast AQMD it was discontinuing CO monitoring at the Lancaster AMS and requested an agreement of shared CO monitoring responsibilities for the 31080 Los Angeles-Long Beach-Anaheim MSA\CBSA.

Additionally, in March 2022, Mojave Desert AQMD requested shared MSA\CBSA responsibility for the San Bernardino 40140 Riverside-San Bernardino-Ontario MSA\CBSA to have one near road CO monitor necessary to meet U.S. EPA minimum monitoring requirement.

South Coast AQMD agrees to share CO monitoring responsibilities and notify Antelope Valley APCD and/or Mojave Desert AQMD of any site closures that impact the minimum monitoring requirement for CO.

A review of data for 2024 shows State and Federal standards for CO were not exceeded.

### **SULFUR DIOXIDE (SO<sub>2</sub>)**

SO<sub>2</sub> monitors are located at 3 sites. Figure 5 in Appendix A shows the spatial distribution of the sites. Most SO<sub>2</sub> emissions result from federally regulated transportation sources such as marine vessels. The monitors are largely clustered in the areas where sources are located.

On June 22, 2010, U.S. EPA strengthened the SO<sub>2</sub> NAAQS. Network design requirements included new minimum requirements be determined by the Population Weighted Emissions Index (PWEI).

The PWEI shall be calculated by States for each Core Based Statistical Area (CBSA) they contain or share with another State or States for use in the implementation of or adjustment to the SO<sub>2</sub> monitoring network. The PWEI shall be calculated by

multiplying the population of each CBSA, using the most current census data or estimates and the total amount of SO<sub>2</sub> in tons per year emitted within the CBSA area, using an aggregate of the most recent county level emissions data available in the National Emissions Inventory (NEI) for each county in each CBSA. The resulting product shall be divided by one million, providing a PWEI value, the units of which are million person-tons per year. For any CBSA with a calculated PWEI value equal to or greater than 1,000,000, a minimum of three SO<sub>2</sub> monitors are required within that CBSA. For any CBSA with a calculated PWEI value equal to or greater than 100,000, but less than 1,000,000, a minimum of two SO<sub>2</sub> monitors are required within that CBSA and for any CBSA with a calculated PWEI value equal to or greater than 5,000, but less than 100,000, a minimum of one SO<sub>2</sub> monitor is required within that CBSA.

**TABLE 7. PWEI Calculation and Minimum Required SO<sub>2</sub>**

CBSA	Population Estimate <sup>1</sup>	NEI SO <sub>2</sub> Emissions <sup>2</sup>	PWEI Value	Minimum Required SO <sub>2</sub>
31080	12,927,614	5,593.36	72,309	1
40140	4,744,214	1,889.95	8,966	1

<sup>1</sup>2024 is the most recent Census estimate available for download at [Metropolitan and Micropolitan Statistical Areas Totals: 2020-2024 \(census.gov\)](https://www.census.gov/data/tables/time-series/total.html)

<sup>2</sup> 2020 NEI Data most recent available at <https://www.epa.gov/air-emissions-inventories/national-emissions-inventory>

During February 2022 Mojave Desert AQMD advised South Coast AQMD it was discontinuing SO<sub>2</sub> monitoring at the Victorville and Trona AMS and requested an agreement of shared SO<sub>2</sub> monitoring responsibilities for the 40140 Riverside-San Bernardino-Ontario MSA\CBSA. South Coast AQMD agrees to share SO<sub>2</sub> monitoring responsibilities and notify Antelope Valley APCD of any site closures that impact the minimum monitoring requirement for SO<sub>2</sub>.

South Coast Air Quality Management District exceeds the minimum required number of SO<sub>2</sub> monitors as outlined in Tables 7 and 20. An analysis of 2024 data reveals that the State and Federal standards for SO<sub>2</sub> have not been violated; the annual and federal standards were last exceeded in the 1960s.

## **PARTICULATE LEAD**

Total Suspended Particulate (TSP) Pb measurements are conducted at seven sites within the particulate network. These include two sites designated as Source Impact monitoring of Pb, two NCore sites, and three sites for ambient Pb measurement. The required minimum monitoring and collocation requirements are outlined in Tables 8, 9, 22, 23, 24, and 26. The spatial distribution of these sites is illustrated in Figure 6 of Appendix A.

U.S. EPA regulation requires local agencies to conduct ambient air Pb monitoring near Pb sources which are expected to or have been shown to contribute to a maximum Pb concentration in ambient air in excess of the NAAQS, considering the logistics and potential for population exposure. At a minimum, there must be one source-oriented SLAMS site located to measure the maximum Pb concentration in ambient air resulting from each non-airport Pb source which emits 0.50 (1000 lb.) or more tons per year (TPY) and from each airport which emits 1.0 (2000 lb.) or more TPY based the most recent data from the National

Emissions Inventory (NEI) (<https://www.epa.gov/air-emissions-inventories/national-emissions-inventory>) data or other scientifically justifiable methods (such as improved emissions factors or site-specific data). The most recent data from the NEI indicates that within the South Coast AQMD jurisdiction, there are no non-airport Pb sources emitting 0.50 TPY or more, nor any airports that exceeded the 1.0 TPY threshold that would necessitate a monitoring plan. Despite this, South Coast AQMD has operated source specific Pb monitoring sites at Rehrig (Exide) and Closet World (Quemetco). It should be noted that on August 17, 2024, operations at the Rehrig site associated with Exide were terminated due to the sale of the property to BNSF, which necessitated the removal of the Pb monitor. South Coast AQMD participates in the Exide Technical Advisory Group (ETAG) ([Exide Meetings/Advisory Group | Department of Toxic Substances Control](#)), where monitoring updates are provided to the community surrounding Exide. As part of this group, we note that activities related to the cleanup of the Exide facility are nearing completion. We anticipate that the facility will soon apply for the cessation of required monitoring, in accordance with South Coast AQMD Rule 1420.1. A detailed SMR concerning this site closure is included in Appendix D. To provide further context, the principal Pb sources under South Coast AQMD jurisdiction are shown in Table 8.

**TABLE 8. NEI Pb Sources**

	Location	Data Source <sup>1</sup>	Emissions (lb.)	Type	Meet Threshold
1	Long Beach Daugherty	NEI	1135	Airport	No
2	Van Nuys	NEI	933	Airport	No
3	John Wayne	NEI	859	Airport	No
4	Chino	NEI	793	Airport	No
5	Riverside	NEI	511	Airport	No
6	Zamperini Field	NEI	503	Airport	No
7	Desert Resorts Regional	NEI	491	Airport	No
8	Whiteman Airport	NEI	438	Airport	No

<sup>1</sup> 2020 NEI Data most recent available at <https://www.epa.gov/air-emissions-inventories/national-emissions-inventory>

Existing urban Pb monitoring sites include Compton, Pico Rivera, and San Bernardino. Los Angeles (Main St.) and Rubidoux are designated NCore Pb sites, however, U.S. EPA proposed removing the requirement for Pb monitoring at NCore sites (79 FR 54395, September 11, 2014). Therefore, South Coast AQMD may request a reduction in monitoring network through the established U.S. EPA system modification process. Despite reductions, South Coast AQMD will continue to meet or exceed the minimum monitoring requirements for Pb. During 2024, South Coast AQMD was not in violation of the Pb NAAQS.



**TABLE 9. Manual Pb FRM Monitor Sampling Frequency**

	Location	AQS No.	Type	Required Sampling Frequency
1	Closet World (Quemetco)	060371404	Source Oriented	1-in-6
2A	Compton “A”	060371302	Non-Source Oriented	1-in-6
2B	Compton “B” <sup>2</sup>	060371302	Non-Source Oriented	1-in-6
3A	Los Angeles (Main St.) <sup>1</sup>	060371103	NCore	1-in-6
3B	Los Angeles (Main St.) <sup>1, 2</sup>	060371103	NCore Collocated	1-in-6
4	Pico Rivera #2	060371602	Non-Source Oriented	1-in-6
5A	Rehrig (Exide) <sup>3</sup>	060371405	Source Oriented	1-in-6
5C	Rehrig (Exide) <sup>3</sup>	060371405	Source Oriented	1-in-6
6	Rubidoux <sup>1</sup>	060658001	NCore	1-in-6
7	San Bernardino	060719004	Non-Source Oriented	1-in-6

<sup>1</sup> U.S. EPA proposed removing the requirement for Pb monitoring at NCore sites (79 FR 54395, September 11, 2014).

<sup>2</sup> Run as collocated on 1-in-6 run day, max values in Tables 22, 23, 24.

<sup>3</sup> Site ceased operation on August 17, 2024.

Note: Sampling frequency requirement per 58.12 (b)

### Photochemical Assessment Monitoring Stations (PAMS)

On October 1, 2015, U.S. EPA revised PAMS guidance and required State air monitoring agencies begin PAMS measurements at their NCore locations by June 1, 2019. The South Coast AQMD PAMS network consists of the following:

#### Network Locations

NCore sites at Los Angeles (Main St.) and Rubidoux, serve as the required PAMS sites and measure the following parameters described below.

#### Auto GC

Volatile Organic Compounds (VOCs) – A complete list of the targeted compounds is found in Table 10. South Coast AQMD measures hourly speciated VOC measurements with an auto-gas chromatograph (GC) using an Agilent/Markes model 7890A/Unity Air Server 2.

#### Meteorology Measurements

South Coast AQMD measures wind direction, wind speed, temperature, humidity, atmospheric pressure, solar radiation, ultraviolet radiation, and mixing height. South Coast AQMD has elected to use the following instrumentation to measure the parameters described above: RM Young 5305VP anemometer, Rotronic HC2-S3 ambient temperature/humidity, Vaisala PTB 110 barometer, Kipp and Zonen CMP6 Pyranometer, Eppley TUVB Total Ultraviolet Radiometer and Vaisala CL51 Ceilometers.

#### Other Measurements

Carbonyls – South Coast AQMD monitors Carbonyls at a frequency of three 8-hour samples on a one in-three-day basis during the months of June, July, August, and September (~120 samples per PAMS sampling season) using ATEC model 8000 Automated Sampler. A complete list of the target carbonyl compounds may be found in Table 10.



Nitrogen Oxides – South Coast AQMD monitors NO/NO<sub>x</sub> and NO<sub>y</sub> (total oxides of nitrogen) in addition to true NO<sub>2</sub>. The true NO<sub>2</sub> is measured utilizing Teledyne CAPS T500U for the true NO<sub>2</sub> measurement. NO and NO<sub>y</sub> are measured using Thermo 42i and Thermo 42i-Y.

Ozone – South Coast AQMD operates a network of 25 O<sub>3</sub> monitors throughout the South Coast jurisdiction.

**Table 10 PAMS Target Compound List<sup>a</sup>**

Priority Compounds				Optional Compounds			
1	1,2,3-trimethylbenzene <sup>a</sup>	19	n-hexane <sup>b</sup>	1	1,3,5-trimethylbenzene	19	m-diethylbenzene
2	1,2,4-trimethylbenzene <sup>a</sup>	20	n-pentane	2	1-pentene	20	methylcyclohexane
3	1-butene	21	o-ethyltoluene <sup>a</sup>	3	2,2-dimethylbutane	21	methylcyclopentane
4	2,2,4-trimethylpentane <sup>b</sup>	22	o-xylene <sup>a, b</sup>	4	2,3,4-trimethylpentane	22	n-decane
5	Acetaldehyde <sup>b, c</sup>	23	p-ethyltoluene <sup>a</sup>	5	2,3-dimethylbutane	23	n-heptane
6	acetone <sup>c, d</sup>	24	Propane	6	2,3-dimethylpentane	24	n-nonane
7	benzene <sup>a, b</sup>	25	propylene	7	2,4-dimethylpentane	25	n-octane
8	c-2-butene	26	styrene <sup>a, b</sup>	8	2-methylheptane	26	n-propylbenzene <sup>a</sup>
9	ethane <sup>d</sup>	27	toluene <sup>a, b</sup>	9	2-methylhexane	27	n-undecane
10	ethylbenzene <sup>a, b</sup>	28	t-2-butene	10	2-methylpentane	28	p-diethylbenzene
11	Ethylene			11	3-methylheptane	29	t-2-pentene
12	formaldehyde <sup>b, c</sup>			12	3-methylhexane	30	α/β-pinene
13	Isobutane			13	3-methylpentane	31	1,3 butadiene <sup>b</sup>
14	Isopentane			14	Acetylene	32	benzaldehyde <sup>c</sup>
15	Isoprene			15	c-2-pentene	33	carbon tetrachloride <sup>b</sup>
16	m&p-xylenes <sup>a, b</sup>			16	cyclohexane	34	Ethanol
17	m-ethyltoluene <sup>a</sup>			17	cyclopentane	35	Tetrachloroethylene <sup>b</sup>
18	n-butane			18	isopropylbenzene <sup>b</sup>		

Source: Revisions to the Photochemical Assessment Monitoring Stations Compound Target List. U.S. EPA, November 20, 2013

<sup>a, n</sup> Important SOAP (Secondary Organic Aerosols Precursor) Compounds

<sup>b</sup> HAP (Hazardous Air Pollutant) Compounds

<sup>c</sup> Carbonyl compounds

<sup>d</sup> non-reactive compounds, not considered to be VOC for regulatory purposes

The PAMS network monitoring objectives and requirements are summarized in Table 11, Table 25 and Figure 7 in Appendix A which show the distribution of the PAMS network.

**TABLE 11. PAMS Network**

Date Established as PAMS	Site / AQS ID#	June 1 to August 31		Comments
		VOC	Carbonyl	
06/01/2009	Los Angeles (Main St)	Auto GC hourly averages	3 x 8-hr. sample every 3rd day	Direct Measure NO <sub>2</sub> , Barometric Pressure, UV Radiation, Solar Radiation, Precipitation and Upper Air Measurements are conducted year- round.
06/09/2009	Rubidoux	Auto GC hourly averages	3 x 8-hr. sample every 3rd day	Direct Measure NO <sub>2</sub> , Barometric Pressure, UV Radiation, Solar Radiation, Precipitation and Upper Air Measurements are conducted year- round.

**PM<sub>2.5</sub>**

South Coast AQMD operates a total of 17 FRM sites, exceeding the minimum number of required FRM PM<sub>2.5</sub> SLAMS sites per 40 CFR 58 Appendix D and shown in Tables 12, 13 and 15. These sites are located at NCore as well as Non-NCore SLAMS sites and designed to complement each other; both types are used to meet the minimum PM<sub>2.5</sub> network requirements.

FRM PM<sub>2.5</sub> SLAMS monitoring sites are selected to represent area-wide air quality and include monitors collocated with NCore/PAMS sites. Most monitoring sites are neighborhood scale, however, a few micro scale PM<sub>2.5</sub> monitoring sites are considered to represent area-wide air quality including the Long Beach Route 710 and Ontario Route 60 near road sites.

The Compton and Fontana monitors are designated as Design Value (DV) sites, as shown in Table 15. However, PM<sub>2.5</sub> data at the Fontana site in 2024 were affected by Fourth of July celebrations and wildfire smoke. An exceptional event exclusion is currently being prepared for submittal. In anticipation of this exclusion, the Mira Loma (Van Buren) site is expected to serve as the DV site. Minimum sampling frequencies are provided in Table 13. The Rubidoux and Los Angeles (Main St.) sites exceed the NCore 1-in-3 minimum sampling frequency requirement, and all remaining sites meet or exceed this standard. Overall, the South Coast AQMD PM<sub>2.5</sub> FRM monitoring network continues to meet or surpass the federal minimum monitoring requirements for PM<sub>2.5</sub>.

Collocated FRM PM<sub>2.5</sub> sites include Los Angeles (Main St.), Mira Loma (Van Buren), and Rubidoux. 40 CFR § 58 Appendix A, Section 3.2.3.4 (b) requires fifty percent of the collocated quality control monitors to be deployed at sites with annual average or daily concentrations estimated to be within plus or minus 20 percent of either the annual or 24-hour NAAQS and the remainder at the PQAOs discretion, the preceding sites meet this requirement. Supporting data is shown in Table 13 and Figure 9. A summary of 2024 data can also be found at:

(<http://www.aqmd.gov/home/air-quality/air-quality-data-studies/historical-data-by-year>).

Continuous PM<sub>2.5</sub> monitors, as required at two sites in each MSA\CBSA per 40 CFR 58 Appendix D and detailed in Table 27. To meet collocation requirements and conduct the FRM-FEM comparability assessment essential for ensuring data quality, Continuous FEM monitors are collocated with FRM PM<sub>2.5</sub> units on a 1-in-6 day schedule at Signal Hill, Palm Springs, Indio, and Big Bear Lake AMS. Additionally, 7 FEM continuous analyzers are collocated with daily FRM monitors. Additionally, 9 NON-FEM monitors are deployed at various monitoring stations to facilitate real-time reporting of the Air Quality Index (AQI) and to support air quality modeling efforts. Details of these monitors are provided in Table 4.

South Coast AQMD conducted a PM<sub>2.5</sub> Continuous Monitor Comparability Assessment in accordance with the PM NAAQS rule published on January 15, 2013 (78 FR 3086), consistent with the requirements of 40 CFR §58.10(b)(13) and §58.11(e). As shown in Appendix C, the assessment results indicate that the following sites did not meet the NAAQS comparability criteria for the years specified: Anaheim (2024), Los Angeles – Main Street (2022, 2023, and 2024), Compton (2024), Route 710 Near Road (2024), and Signal Hill (2024). Accordingly, South Coast AQMD requests a waiver to exclude PM<sub>2.5</sub> continuous monitor data from comparison to the NAAQS for these sites and time periods, due to failure to meet the required comparability criteria.

Where both 24-hour FRM PM<sub>2.5</sub> samplers and FEM PM<sub>2.5</sub> continuous analyzers are deployed together, they are sited as collocated for data comparison purposes. The FRM PM<sub>2.5</sub> sampler remains the primary analyzer used for attainment purposes and continuous analyzers are designated as duplicate monitors unless the primary 24-hour FRM PM<sub>2.5</sub> is offline then the continuous FEM analyzer data can be substituted if the FEM analyzer meets the acceptance criteria under 78 FR 3086.

Numerous sites within the South Coast AQMD FRM PM<sub>2.5</sub> network are in areas where PM<sub>2.5</sub> levels are higher than the NAAQS. Therefore, multiple sites are listed as population exposure and high concentration. If a PM<sub>2.5</sub> network modification were to be implemented for a site that was in exceedance of the PM<sub>2.5</sub> NAAQS levels, South Coast AQMD would notify U.S. EPA Region 9 via written communication. Public notice of network modifications occurs as part of the annual network plan process which is stated in the annual network plan as required in 40 CFR § 58.10 (c). All sites in the Network using FRM samplers are suitable for comparison against the annual PM<sub>2.5</sub> NAAQS.

PM<sub>2.5</sub> speciation sampling is also a part of the South Coast AQMD PM<sub>2.5</sub> program. Chemical speciation monitors are located at Los Angeles (Main St.) and Rubidoux sites as part of U.S. EPA PM<sub>2.5</sub> Chemical Speciation Network (CSN). These sites were selected and approved with the concurrence of the RA. The PM<sub>2.5</sub> CSN sites include analysis for elements, selected anions, cations, and carbon by a U.S. EPA contracted laboratory. Additional PM<sub>2.5</sub> Chemical speciation is conducted at Los Angeles (Main St.), Rubidoux, Anaheim, and Fontana as part of the South Coast AQMD monitoring network. These monitors are separate from CSN, and

samples are analyzed at the South Coast AQMD laboratory. Speciated data is used to develop implementation plans and support atmospheric/health effects related studies.

**TABLE 12. Manual PM<sub>2.5</sub> FRM Monitoring Stations Assigned Site Numbers**

	Location	Site Code	ARB No.	AQS No.	Start Date	Frequency
1	Anaheim	ANAH	30178	060590007	01/03/99	Daily
2	Big Bear <sup>1</sup>	BGBR	36001	060718001	02/08/99	1-in-6
3	Compton	COMP	70112	060371302	11/08	Daily
4	Fontana	FONT	36197	060712002	01/03/99	1-in-3
5	Indio (Amistad) <sup>1</sup>	INDI	33157	060652002	01/30/99	1-in-6
6	Long Beach Route 710 Near Road	W710	70032	060374008	01/01/15	Daily
7A	Los Angeles (Main St.) “A”	CELA	70087	060371103	01/03/99	Daily
7B	Los Angeles (Main St.) “B” <sup>1</sup>	CELA	70087	060371103	01/06/99	1-in-6
8A	Mira Loma (Van Buren) “A”	MLVB	33165	060658005	11/09/05	Daily
8B	Mira Loma (Van Buren) “B” <sup>1</sup>	MLVB	33165	060658005	03/08/12	1-in-6
9	Ontario Route 60 Near Road <sup>1</sup>	60NR	36036	060710027	01/01/15	Daily
10	Palm Springs	PLSP	33137	060655001	12/26/99	1-in-3
11	Pasadena	PASA	70088	060372005	03/04/99	1-in-3
12	Pico Rivera #2	PICO	70185	060371602	09/12/05	1-in-3
13	Reseda	RESE	70074	060371201	01/24/99	1-in-3
14A	Rubidoux “A”	RIVR	33144	060658001	01/03/99	Daily
14B	Rubidoux “B” <sup>1</sup>	RIVR	33144	060658001	01/03/99	1-in-6
15	San Bernardino	SNBO	36203	060719004	01/03/99	1-in-3
16	Signal Hill <sup>1</sup>	LBSH	36039	060374009	01/01/2020	1-in-6

<sup>1</sup> FRM runs as collocated on 1-in-6 run day.

**TABLE 13. PM<sub>2.5</sub> Monitor Sampling Frequency Requirement**

	Location	AQS No.	24-hour Design Value	33-37 ug/m <sup>3</sup>	Annual Design Value	< 12 ug/m <sup>3</sup>	Required Frequency <sup>1</sup>	Current Frequency	Primary Monitor Type <sup>1</sup>
1	Anaheim	060590007	25	No	9.8	Yes	1-in-3	Daily	FRM
2A	Big Bear <sup>3</sup>	060718001	29	No	7.4	Yes	1-in-3	Daily	FEM
3	Compton <sup>4</sup>	060371302	<b>32</b>	No	<b>11.9</b>	Yes	1-in-3	Daily	FRM
4	Fontana <sup>5</sup>	060712002	<b>35</b>	Yes	11.9	Yes	Daily	1-in-3	FRM
5	Indio	060652007	21	No	9	Yes	1-in-3	Daily	FEM
6	Long Beach Route 710 Near Road <sup>4</sup>	060374008	26	No	11.5	Yes	1-in-6	Daily	FRM
7A	Los Angeles (Main St.) “A”	060371103	27	No	11.1	Yes	1-in-3	Daily	FRM
7B	Los Angeles (Main St.) “B” <sup>2</sup>	060371103	N/A	Collocated			1-in-12	1-in-6	FRM
8A	Mira Loma (Van Buren) “A” <sup>4</sup>	060658005	34	Yes	12.4	No	1-in-3	Daily	FRM
8B	Mira Loma (Van Buren) “B” <sup>2</sup>	060658005	N/A	Collocated			1-in-12	1-in-6	FRM
9	Mission Viejo	060592022	17	No	9.0	Yes	1-in-3	Daily	FEM
10	Ontario Route 60 Near Road <sup>4</sup>	060710027	31	No	<b>12.9</b>	No	1-in-3	Daily	FRM
11	Palm Springs	060655001	16	No	6.3	Yes	1-in-3	Daily	FEM
12	Pasadena	060372005	26	No	10.0	Yes	1-in-3	1-in-3	FRM
13	Pico Rivera #2	060371602	30	No	11.5	Yes	1-in-3	1-in-3	FRM
14	Reseda	060371201	26	No	9.2	Yes	1-in-3	1-in-3	FRM
15A	Rubidoux “A”	060658001	30	No	11.4	Yes	1-in-3	Daily	FRM
15B	Rubidoux “B” <sup>2</sup>	060658001	N/A	Collocated			1-in-12	1-in-6	FRM
16	San Bernardino	060719004	30	No	11.7	Yes	1-in-3	1-in-3	FRM
17	Signal Hill <sup>3</sup>	060374009	22	No	9.2	Yes	1-in-3	Daily	FEM

<sup>1</sup>Required SLAMS stations whose measurements determine the 24-hour design value for their area and whose data are within ±5 percent of the level of the 24-hour PM<sub>2.5</sub> NAAQS must have an FRM or FEM operate on a daily schedule if that area's design value for the annual NAAQS is less than the level of the annual PM<sub>2.5</sub> standard. Changes in sampling frequency attributable to changes in design values shall be implemented no later than January 1 of the calendar year following the certification of such data as described in §58.15.

<sup>2</sup>Partisol 2025i run as collocated on 1-in-6 run day.

<sup>3</sup>Partisol 2000i run as collocated on 1-in-6 run day.

<sup>4</sup>Expected maximum location.

<sup>5</sup>Fontana PM<sub>2.5</sub> was impacted by Fourth of July and Fire events in 2024. An exceptional event exclusion is in the process of being requested. It is anticipated that Mira Loma Van Buren will be the DV site.

### National Air Toxics Trends Station (NATTS)

The NATTS program was developed to fulfill the need for long-term Hazardous Air Pollutant (HAP) monitoring data of consistent quality nationwide and is considered part of the larger Urban Air Toxics Monitoring Program (UATMP). The program has allowed for the identification of compounds that are prevalent in ambient air and for participating agencies to screen air samples for concentrations of air toxics that could potentially result in adverse human health effects. South Coast AQMD has conducted several air toxics measurement campaigns in the past, which demonstrated the variety and spatial distribution of air toxics sources across the Basin. A single air toxics measurement site cannot reflect

the levels and trends of air toxics throughout the Basin. For this reason, two NATTS sites are used to characterize the Basin's air toxics levels. The first site is a central urban core site in Los Angeles that reflects concentrations and trends due primarily to urban mobile source emissions. A second, more rural, inland site in Rubidoux captures the transport of pollutants from a variety of upwind mobile and industrial sources in the most populated areas of the air basin. NATTS monitoring began in February 2007 and continues at the Los Angeles (Main St.) and Rubidoux air monitoring sites. During May 2023, an in-person system audit was conducted by U.S. EPA, which assessed the South Coast AQMD NATTS program. The audit found no significant issues with the operation of the network.

### **NCore**

NCore monitoring rules required that South Coast AQMD make NCore sites operational by January 1, 2011. To meet this goal, South Coast AQMD installed trace level analyzers for CO, NO<sub>y</sub> and SO<sub>2</sub> at the Rubidoux and Los Angeles (Main St.) sites. Both the Los Angeles (Main St.) and Rubidoux sites are NATTS and PAMS monitoring locations.

## **Special Programs**

Special monitoring programs are conducted for rule compliance purposes, to characterize the levels of toxic air contaminants and other criteria pollutants in sub-regional areas or communities in the Basin, or to support modeling and planning efforts. The following is a list of special monitoring programs that were active during the past year. Note, this is being provided for informational purposes only and not part of the criteria pollutant network.

### **Multiple Air Toxics Exposure Study (MATES)**

South Coast AQMD has been at the forefront of assessing air quality risks in a highly urbanized area, home to about seventeen million people and approximately eleven million motor vehicles. The study focuses on the cancer risk and chronic non-cancer risk from exposure to air toxics but does not estimate mortality or other health effects from air pollutant exposures.

MATES I (1986): The first study initiated to determine the Basin-wide risks associated with major airborne carcinogens, analyzing only ten known air toxic compounds due to technological limitations at the time.

MATES II (1998): Expanded to include a monitoring program for 40 known air toxic compounds, alongside an updated emissions inventory and a modeling effort to characterize health risks from hazardous air pollutants.

MATES III (April 2004): Focused on assessing the ambient levels of airborne compounds linked to adverse health effects in humans.

MATES IV (2012-2013): Marked the first inclusion of comprehensive continuous measurements of ultrafine particles (UFP) and black carbon (BC) in the series.

MATES V (2018-2019, Report published in 2021): Featured several improvements including an expanded air quality modeling domain to encompass the Coachella Valley; evaluation of health impacts from multiple exposure pathways; an exploratory analysis of chronic non-cancer health impacts; the use of advanced statistical methods to enhance data comparability and trend visualization from MATES III to MATES V; and new online tools to enhance public access to data and increase awareness of the health impacts of air toxics.

MATES VI is set to continue the tradition of rigorous air quality studies, including a fixed site monitoring program, an updated emissions inventory of toxic air contaminants, and a sophisticated modeling effort to characterize the risk across the South Coast Air Quality Management District.

Now in the planning stage, MATES VI is expected to be conducted over the next several years. Until the new results are available, the MATES V study, published in the summer of 2021, remains the most current and comprehensive assessment of air toxics risk throughout the region.

For the latest updates on the program, visit the South Coast AQMD's dedicated MATES program page.

<https://www.aqmd.gov/home/air-quality/air-quality-studies/health-studies/mates-vi>

### **Assembly Bill 617 Community Air Initiatives (AB 617)**

AB 617 Community Air Monitoring is being conducted in selected communities as part of the AB 617 program. The locations and types of pollutants being monitored are unique to each community and was determined through close collaboration with stakeholders. Data collected from air monitoring can provide valuable information about sources of air pollution, types of pollutants, and air quality impacts in AB 617 communities. Monitoring data resulting from the implementation of the Community Air Monitoring Plans (or CAMPs) can be used to support and track air quality actions prioritized by the community to reduce local exposure to harmful air pollutants.

The goals and objectives of AB617 are to:

- Help provide critical information used to guide investigators or provide public information.
- Expand South Coast AQMD's understanding of air quality priorities in AB167 communities.
- Support the development and implementation of emission reduction strategies and enforcement action designed to improve local air quality and reduce exposure.
- Complement and enhance existing South Coast AQMD and community-led programs.

The most recent program updates can be found at:

<http://www.aqmd.gov/nav/about/initiatives/environmental-justice/ab617-134/ab-617-community-air-monitoring>



### **Rule 1180 Refinery Fenceline Air Monitoring**

Adopted in December 2017, Rule 1180 mandates the implementation of real-time observations of air quality at or near the fenceline of all major refineries in the Basin and in nearby communities.

The main objectives of Rule 1180 are to:

- Provide real-time information about air pollutant levels at the refinery fenceline and in nearby communities.
- Understand long-term variations and trends of refinery related emissions.
- Help communities understand potential air quality impacts of refinery emissions.
- Provide a notification to the community if emissions exceed pre-determined thresholds.
- Enable refineries to quickly address significant changes in emissions.

The most recent program updates can be found at: <http://www.aqmd.gov/home/rules-compliance/rules/support-documents/rule-1180-refinery-fenceline-monitoring-plans>.

### **Salton Sea Monitoring**

On Sunday, September 9, 2012, a strong thunderstorm over the Salton Sea caused odors to be released and transported to the northwest, across the Coachella Valley and through the Banning Pass into the Basin. The odors also crossed through the mountain passes west of the Salton Sea and into the Temecula Valley. The following day, South Coast AQMD received over 235 complaints of sulfur type odors.

As the Salton Sea recedes, the potential exists for more of these large-scale odor events to occur. South Coast AQMD installed and maintains PM<sub>10</sub> and H<sub>2</sub>S air monitors in Mecca (Saul Martinez Elementary School), Indio (Amistad High School) and at the Imperial Irrigation District's Torrez-Martinez site. The two sites monitor the type of expected nuisance pollutants which are released from the Salton Sea. The primary objective of this monitoring network is to place monitoring resources at a lakeside location where peak hydrogen sulfide concentrations are expected to occur and in the nearby community. Monitoring sites provide data that can be used to assess population exposures in case of odor events and for comparison to the state standard for hydrogen sulfide. The Mecca site has become part of the permanent ambient air monitoring network.

As the Salton Sea is projected to recede, these sites will be further enhanced for monitoring the predicted particulate matter (PM) emissions from the Salton Sea area that may influence the Coachella Valley and Basin PM levels. Large-scale odor events are announced as advisories at the following location: [Air Quality Advisories](#) or at <https://saltonseaodor.org/>



## **Recent or Proposed Modifications to Network**

Proposed modifications to the network included in this section are for public notification and information purposes. Any changes to the monitoring network will be completed through the approved system modification request process and in consultation with U.S. EPA.

### **System Modification Requests**

South Coast AQMD is submitting retroactive SMRs to U.S. EPA Region 9 due to unforeseen lease terminations and other circumstances beyond the control of South Coast AQMD. Formal SMRs, detailed for the now-closed Exide, Perris, and Upland monitoring sites, are included in Appendix D of this Monitoring Network Plan.

Additional SMRs, also included in Appendix D, include:

- Relocation of the monitoring site in Santa Clarita, necessitated by circumstances beyond the control of South Coast AQMD.
- Reduction in the number of CO monitors to levels beyond the minimum federal requirements.
- Closure of monitoring sites in Pomona and Hudson, and a request for a waiver from siting requirements for the Crestline site.

South Coast AQMD has received U.S. EPA approvals requested in the 2024 Annual Network Plan for:

- A waiver for the Compton and Mira Loma sites' continuous Fine Particulate Matter (FEM) monitors, based on the U.S. EPA's Continuous Monitor Comparability Assessment criteria.
- Relocation of a ceilometer from the Central Los Angeles site to North Hollywood. These approved waivers are documented in Appendix E.

South Coast AQMD and U.S. EPA Region 9 are collaboratively reviewing the network to identify criteria pollutant monitors that exceed the required minimum. Following this review, SMRs along with supporting documentation will be submitted for final approval by U.S. EPA Region 9 before any monitor removals are implemented.

The preceding summaries provided are for informational purposes only and are supported by formal requests detailed in Appendix D.

The following program updates and proposed modifications for the criteria pollutant network and are not official requests for approval.

### **Continuous PM<sub>2.5</sub> Acceptance Testing**

South Coast AQMD concluded acceptance testing of Met One BAM 1020 FEM PM<sub>2.5</sub> as part of ongoing assessment of continuous PM<sub>2.5</sub> monitors. Thermo Fisher Scientific 5014i EQPM-1102-150 monitors have performed below expectation and measurements have been erratic and required extensive maintenance. The manufacturer has been unable to resolve these issues. These monitors have been removed from the network and are in the process of being updated with newer Met One BAM 1020 monitors.

Comparison studies between Met One Instruments, Inc. BAM-1022, Real Time Beta Attenuation Mass Monitor EQPM-1013-209, BAM-1020 Real Time Beta Attenuation Mass Monitor EQPM-0308-170 and Teledyne API, Model T640 Mass Monitor EQPM-0516-236 continue. The assessments will focus on instrument performance, applicability for comparison to NAAQS, durability, and ease of operation/maintenance. If the comparisons meet the Continuous Monitor Comparability Assessment criteria, South Coast AQMD will reduce or remove manual FRM PM<sub>2.5</sub> sampling from selected air monitoring sites.

### **Proposed Anaheim Relocation**

The Anaheim site has been operational continuously since August 2001. Over the years, significant changes in the surrounding area may have affected the integrity of the data collected. Additionally, the site has experienced incidents of vandalism and break-ins to district vehicles during maintenance visits, heightening safety concerns. The vicinity of the site is now a designated loading/unloading zone for elementary school children, further compounding the safety issues. South Coast AQMD is working with the Anaheim Unified High School District to identify a suitable relocation site that meets the needs of both organizations. Evaluation of potential new sites is currently underway. Any decision to relocate the site will be made in consultation with the U.S. EPA, following the formal system modification request process to ensure compliance and minimal disruption to ongoing operations.

### **Proposed Anaheim Near Road Relocation**

The Anaheim Near Road site has been in operation since January 2014 and supports near-road monitoring for NO<sub>2</sub> and CO in compliance with federal monitoring requirements. Recently, the property owner proposed a lease agreement with substantially increased rent and terms that are not financially sustainable. South Coast AQMD has proposed a short-term lease extension while we actively search for a suitable alternative location. If a new site is identified, any relocation will be conducted in consultation with U.S. EPA and through the formal system modification request process to ensure continuity of data and regulatory compliance. A new location would also address ongoing site access and security concerns that have affected maintenance operations. Relocation planning is underway, with the intent of completing the transition within the next year.

### **Proposed Palm Springs Relocation**

The Palm Springs site has been in operation since April 1971 and supports NO<sub>2</sub>, CO, O<sub>3</sub>, PM<sub>10</sub> and PM<sub>2.5</sub> monitoring. In November 2024, the City of Palm Springs proposed relocating the South Coast AQMD Palm Springs AMS due to the planned renovations to the existing site. Relocation planning is underway, with the intent of completing the transition within the next year. When a new site is identified, the relocation will be conducted in consultation with U.S. EPA and through the formal system modification request process to ensure continuity of data and regulatory compliance.

### **Proposed PM<sub>10</sub> FRM Monitor Discontinuation**

South Coast AQMD measures PM<sub>10</sub> by using FRM monitors at 7 sites throughout the basin. Two of these sites are collocated with PM<sub>10</sub> FEM monitors and 5 are FRM only. To reduce redundancy, and increase efficiency, South Coast AQMD will transition to continuous PM<sub>10</sub>

FEM monitors at Anaheim, Banning Airport, Central San Bernardino Mountains, Redlands and Santa Clarita. Sites will transition to continuous PM<sub>10</sub> as monitors become available.

The preceding summaries are not formal system modification requests and for information purposes only.

## **Minimum Monitoring Requirements**

The South Coast AQMD jurisdictional boundary encompasses two MSAs and two CBSAs whose boundaries and codes mirror those of the MSAs as defined by the U.S. Office of Management and Budget. Los Angeles - Long Beach - Anaheim MSA\CBSA (Code 31080) has an estimated population of 12,927,614 and the Riverside - San Bernardino - Ontario MSA\CBSA (Code 40140) has an estimated population of 4,744,214 according to the most recent U.S. Census estimates available. The minimum number of monitors for each pollutant is based on MSA\CBSA population as described in 40 CFR § 58 Appendix D. The South Coast AQMD is a PQAQ, and the network exceeds the minimum monitoring requirements for all criteria pollutants. Details are in the following tables.

**Table 14 Minimum Monitoring Requirements for O<sub>3</sub>.**

(Note: Refer to section 4.1 and Table D-2 of Appendix D of 40 CFR Part 58.)

MSA \CBSA	Counties	Population & Census Year <sup>1</sup>	8-hr DV (ppb) & Years <sup>2</sup>	DV Site (Name, AQS ID)	Monitors Required	Monitors Active	Monitors Needed
31080	Los Angeles Orange	12,927,614 2024	101 2022-2024	Glendora 060370016	4	14	0
40140	San Bernardino Riverside	4,744,214 2024	108 2022-2024	Redlands 060714003	3	11	0

<sup>1</sup>Population – 2024 is the most recent Census year available Metropolitan and Micropolitan Statistical Areas Totals: 2020-2023 ([census.gov](https://www.census.gov))

<sup>2</sup>DV Years – The three years over which the DV was calculated (AMP 480).

Monitors required for SIP or Maintenance Plan: 25

**Table 15 Minimum Monitoring Requirements for PM<sub>2.5</sub> SLAMS**

(Note: Refer to sections 4.71, 4.72 and Table D-5 of Appendix D of 40 CFR Part 58.)

MSA \CBSA	Counties	Population & Census Year	Annual DV [ug/m <sup>3</sup> ] & Years <sup>1</sup>	Annual DV Site (Name, AQS ID)	Daily DV [ug/m <sup>3</sup> ] & Years <sup>1,2</sup>	Daily DV Site (Name, AQS ID)	Required SLAMS Monitors	Active SLAMS Monitors	Additional SLAMS needed
31080	Los Angeles Orange	12,927,614 2024	11.9 2022-2024	Compton 060371302	32.0 2022-2024	Compton 060371302	3	9	0
40140	San Bernardino Riverside	4,744,214 2024	12.9 2022-2024	Ontario Route 60 Near Road 060710027	35.0 2022-2024	Fontana 060712002	3	8	0

<sup>1</sup> DV Years – The three years over which the DV was calculated (AMP 480).

<sup>2</sup>Fontana PM<sub>2.5</sub> was impacted by Fourth of July and Fire events in 2024. An exceptional event exclusion is in the process of being requested. It is anticipated that Mira Loma Van Buren will be the DV site.

Monitors required for SIP or Maintenance Plan: 18

**Table 16 Minimum Monitoring Requirements for Continuous PM<sub>2.5</sub> Monitors**

(FEM/ARM and non-FEM see 40 CFR 58 Appendix D Section 4.72.)

MSA \CBSA	Counties	Population & Census Year	Annual DV [ug/m3] & Years <sup>1</sup>	Annual DV Site (Name, AQS ID)	Daily DV [ug/m3] & Years <sup>1</sup>	Daily DV Site (name, AQS ID)	Required Continuous Monitors	Active Continuous Monitors	Additional Continuous needed
31080	Los Angeles Orange	12,927,614 2024	11.9 2022-2024	Compton 060371302	32.0 2022-2024	Compton 060371302	2	6-FEM 4-Non-FEM	0
40140	San Bernardino Riverside	4,744,214 2024	12.9 2022-2024	Ontario Route 60 Near Road 060710027	35.0 2022-2024	Fontana 060712002	2	5-FEM 5-Non-FEM	0

<sup>1</sup>DV Years – The three years over which the DV was calculated (AMP 480).

<sup>2</sup>Fontana PM<sub>2.5</sub> was impacted by Fourth of July and Fire events in 2024. An exceptional event exclusion is in the process of being requested. It is anticipated that Mira Loma Van Buren will be the DV site.

Monitors required for SIP or Maintenance Plan: 18

**Table 17 Minimum Monitoring Requirements for Speciated PM<sub>2.5</sub> Monitors**

(Note: Refer to sections 4.74 of Appendix D of 40 CFR Part 58.)

MSA \CBSA	Counties	Population & Census Year	Monitors Required <sup>1</sup>	Monitors Active <sup>2</sup>	Monitors Needed
31080	Los Angeles Orange	12,927,614 2024	1	4	0
40140	San Bernardino Riverside	4,744,214 2024	1	4	0

<sup>1</sup>Sites designated as part of the PM<sub>2.5</sub> CSN/STN.

<sup>2</sup>Active monitors does not include 2 additional collocated monitors.

Monitors required for SIP or Maintenance Plan: 8

**Table 18 Minimum Monitoring Requirements for PM<sub>10</sub>**

(Note: Refer to section 4.6 and Table D-4 of Appendix D of 40 CFR Part 58.)

MSA \CBSA	Counties	Population & Census Year	Daily DV [ug/m3]	DV Site (Name, AQS ID)	Required Monitors	Active Monitors	Additional Monitors Needed
31080	Los Angeles Orange	12,927,614 2024	120 <sup>1</sup> 2022-2024	Anaheim 060590007	4-8 Med Conc.	7	0
40140	San Bernardino Riverside	4,744,214 2024	380 <sup>1</sup> 2022-2024	Mecca (Saul Martinez) 060658005	6-10 High Conc.	11	0

Monitors required for SIP or Maintenance Plan: 18

<sup>1</sup>DV Years – The three years over which the DV was calculated.

**Table 19 Minimum Monitoring Requirements for NO<sub>2</sub>**

(Note: Refer to section 4.3 of Appendix D of 40 CFR Part 58.)

MSA \CBSA	Population & Census Year	Max AADT Counts (2019) <sup>1</sup>	Required Near Road Monitors	Active Near Road Monitors	Additional Near Road Monitors Needed	Required Area Wide Monitors	Active Area Wide Monitors	Additional Area wide Monitors Needed
31080	12,927,614 2024	386,600 2022	2	2	0	1	13	0
40140	4,744,214 2024	274,000 2022	2	2	0	1	7	0

<sup>1</sup>Max AADT Counts – 2022 latest data available from CA DOT; <https://dot.ca.gov/programs/traffic-operations/census>

Monitors required for SIP or Maintenance Plan: 23 (area wide, neighborhood-scale or larger), 4 (near road, micro-scale)

Monitors Required for PAMS: 2; U.S. EPA Regional Administrator-required monitors per 40 CFR 58, Appendix D 4.3.4: 2.

**Table 20 Minimum Monitoring Requirements for SO<sub>2</sub>**

(Note: Refer to section 4.4 of Appendix D of 40 CFR Part 58.)

MSA \CBSA	Counties	Population & Census Year	Total SO <sub>2</sub> <sup>1</sup> [lbs./year]	Population Weighted Emissions Index <sup>2</sup> [million persons-tons per year]	Required Area Wide Monitors	Active Area Wide Monitors	Additional Area wide Monitors Needed
31080	Los Angeles Orange	12,927,614 2024	5593.36 2020	72,309	1	2	0
40140	San Bernardino Riverside	4,744,214 2024	1889.95 2020	8,966	1	1	0

<sup>1</sup>Using latest NEI data 2020, available on U.S. EPA website <https://www.epa.gov/air-emissions-inventories/national-emissions-inventory>

<sup>2</sup>Calculated by multiplying CBSA population and total SO<sub>2</sub> and dividing product by one million.

Monitors required for SIP or Maintenance Plan: 3

U.S. EPA Regional Administrator-required monitors per 40 CFR 58, Appendix D 4.4.3: 0

**Table 21 Minimum Monitoring Requirements for CO**

(Note: Refer to section 4.2 of Appendix D of 40 CFR Part 58.)

MSA \CBSA	Population & Census Year	Required Near Road Monitors <sup>1</sup>	Active Near Road Monitors <sup>2</sup>	Required Area Wide Monitors	Active Area Wide Monitors
31080	12,927,614 2024	1	1	0	11
40140	4,744,214 2024	1	1	0	6

<sup>1</sup>Began January 1, 2015

<sup>2</sup>Required sites active by January 1, 2015; collocated with near road NO<sub>2</sub> sites.

Monitors required for SIP or Maintenance Plan: 17 (area wide), 2 (near road)

U.S. EPA Regional Administrator-required monitors per 40 CFR 58, Appendix D 4.4.2: 0

**Table 22 Minimum Monitoring Requirements for Pb at NCore**

(Note: Refer to section 4.5 of Appendix D of 40 CFR Part 58.)

NCore Site (Name, AQS ID)	CBSA	Population & Census Year	Required Monitors <sup>1</sup>	Active Monitors	Additional Monitors Needed	Max 3-Month DV [ug/m <sup>3</sup> ]	DV Date (Third month, year)
Los Angeles <sup>2</sup> (Main St.) 060371103	30180	12,927,614 2024	0	2	0	0.01	1, 2024
Rubidoux 060658001	40140	4,744,214 2024	0	1	0	0.01	1, 2024

<sup>1</sup>– Requirement rescinded per 79 FR 54395, September 11, 2014.

<sup>2</sup>– Collocated Monitor.

**Table 23 Source Oriented Pb Monitoring**

(Note: Refer to section 4.5 of Appendix D of 40 CFR Part 58.)

Source Name	Address	Pb Emissions (lbs. per year)	Emission Inventory Source <sup>2</sup> & Data Year	Max 3-Month DV <sup>1</sup> [ug/m3]	DV Date (Third month, year)
Exide Technologies <sup>3</sup>	4010 E. 26th Street Vernon, CA 90058	0.0	NEI, 2020	0.04 <sup>4</sup>	4, 2022
Quemetco Inc.	720 S 7th Avenue City of Industry, CA 91746	5.3	NEI, 2020	0.02	6, 2024

<sup>1</sup>Consider data from past three years.

<sup>2</sup>Using latest NEI Data 2020 most recent available at <https://www.epa.gov/air-emissions-inventories/national-emissions-inventory>

<sup>3</sup>Exide facility is currently closed.

<sup>4</sup>Collocated site.

Monitors Required for SIP or Maintenance Plan: 2; U.S. EPA Regional Administrator required monitors per 40 CFR 58, Appendix D 4.5(C) c: 0.

**Table 24 Minimum Monitoring Requirements for Pb, Non-Source, Non-NCore Monitoring**

(Note: Refer to section 4.5 of Appendix D of 40 CFR Part 58.)

MSA \CBSA	Population & Census Year	Required Area Wide Monitors	Active Area Wide Monitors	Additional Monitors Needed	Max 3- Month DV <sup>1</sup> [ug/m3]	DV Date (Third month, year)
31080	12,927,614 2024	0	2	0	0.01	1, 2024
40140	4,744,214 2024	0	2	0	0.01	1, 2024

<sup>1</sup>DV Years – The three years over which the DV was calculated.

**Table 25 Minimum Monitoring Requirements for PAMS**

(Note: Refer to section 5.0 of Appendix D of 40 CFR Part 58.)

Area	Type	Required PAMS Sites	Active PAMS Sites	PAMS Sites Needed
South Coast AQMD Monitoring Area	NCore Collocated	2	2	0



**Table 26 Collocated Manual PM<sub>2.5</sub>, PM<sub>10</sub> and Pb Networks**

(Note: Refer to section 3.2.5, 3.3.5, 3.3.1 and 3.3.4.3 of Appendix A, 40 CFR Part 58.)

Pollutant	Method Code	Primary Monitors	Required Collocated Monitors	Active Collocated Monitors
PM <sub>2.5</sub> Partisol 2025	145	15	2	3
PM <sub>2.5</sub> Partisol 2000	143	0	0	2 <sup>1,2</sup>
PM <sub>10</sub> Tisch TE 6001	141	10	2	2
Pb (TSP Hi-Vol)	110 (non-Source)	3	1	1
Pb (Tsp Hi-Vol)	110 (Source)	1	0	0
Pb (Tsp Hi-Vol)	110 (non-source oriented NCore)	2	0	2

<sup>1</sup>Collocated with continuous PM<sub>2.5</sub> monitors Signal Hill.

<sup>2</sup>Collocated with continuous PM<sub>2.5</sub> monitors at Big Bear.

**Table 27 Collocated Automated (continuous) PM<sub>2.5</sub> Network**

(Note: Refer to section 3.2.3.1 & 3.3.5 of Appendix A, 40 CFR Part 58.)

Monitor	Method Code	Primary Monitors	Required Collocated Monitors	Active Collocated Monitors
Met One 1020 VSCC	170	1	1	1 <sup>1</sup>
Met One 1022 VSCC	209	1	1	1 <sup>2</sup>

<sup>1</sup> Collocated with FRM monitor at Signal Hill.

<sup>2</sup> Collocated with FRM monitor at Big Bear.

## **Data Submittal and Archiving Requirements**

As required in 40 CFR 58.16 (a), data is reported via AQS including all ambient air quality data and associated quality assurance data for SO<sub>2</sub>, CO, O<sub>3</sub>, NO<sub>2</sub>, NO, NO<sub>x</sub>, NR NO<sub>2</sub>, NO, NCore NO<sub>y</sub>, Pb-TSP mass concentration, Pb-PM<sub>10</sub> mass concentration, PM<sub>10</sub> mass concentration, PM<sub>2.5</sub> mass concentration, filter-based PM<sub>2.5</sub> FRM/FEM field blank mass, sampler-generated average daily temperature and sampler-generated average daily pressure, chemically speciated PM<sub>2.5</sub> mass concentration data, PM<sub>10-2.5</sub> mass concentration, meteorological data from NCore and PAMS sites, average daily temperature average daily pressure for Pb sites and metadata records\information as specified by the AQS Data Coding Manual through December 31, 2023.

A data certification letter was submitted to the RA on April 29, 2025, certifying applicable data collected at all SLAMS. This includes all FRM, FEM, Approved Regional Method (ARM) and Special Purpose Monitors (SPM) that meet criteria in Appendix A, to part 58, for January 1 through December 31, 2024.