



**Annual Air Monitoring Network Plan**  
**Santa Barbara County**  
***Public Draft***



**June 1, 2015**

**Prepared by the**

**Santa Barbara County**  
**Air Pollution Control District**

# Annual Air Monitoring Network Plan For Santa Barbara County

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## 1.0 Introduction

This report describes the network of ambient air quality monitors in Santa Barbara County. This report was prepared to meet the requirements for an annual network plan as listed in Title 40, Part 58, Section 10 of the Code of Federal Regulations (40 CFR 58.10). The language of 40 CFR 58.10 is included in Appendix A of this report. The regulations require that this annual monitoring network plan be submitted to the U.S. Environmental Protection Agency (EPA) by July 1 of each year. The plan must be made available for public inspections for at least 30 days prior to submission to EPA. This draft plan is available for public review and comment from June 1 through June 30, 2015.

This review is used to determine if the State and Local Air Monitoring Station (SLAMS) network in Santa Barbara County meets the U.S. Environmental Protection Agency (EPA) criteria for station siting based on the EPA monitoring objectives. This network review ensures that the data collected by the SLAMS air monitoring network in Santa Barbara County is representative and will satisfy the data needs of EPA, California Air Resources Board (CARB), and the Santa Barbara County Air Pollution Control District (SBCAPCD).

This network plan includes SLAMS monitors which are federal reference methods (FRM), federal equivalent methods (FEM), or approved regional methods (ARM). Special purpose monitors (SPM) are also included in this plan. The SPMs in Santa Barbara County consist of a number of Prevention of Significant Deterioration (PSD) sites operated by the SBCAPCD or private contractors. There are a number of major oil and gas developments in Santa Barbara County with permits for the production, processing and transportation of oil and gas. These oil and gas permits trigger the PSD monitoring requirements.

### 1.1 Network Design

The air monitoring network in Santa Barbara County consists of SLAMS and SPM operated by the SBCAPCD, California Air Resources Board (CARB) and private contractors. The monitoring network is designed to cover the diverse range of topography, meteorology, emissions and air quality in Santa Barbara County, while adequately representing the population in the county.

Santa Barbara County has agreed to coordinate the air monitoring network design with CARB through the joint PQAO Roles and Responsibilities agreement between the two agencies. Item 5 of this agreement stipulates that both agencies will coordinate any site changes in the network, assuring that requirements of the network design are met. Complete details of the Roles and Responsibilities can be obtained from the following link:  
[http://arb.ca.gov/aaqm/qa/pqao/repository/santa\\_barbara\\_rolesandresponsibilities.pdf](http://arb.ca.gov/aaqm/qa/pqao/repository/santa_barbara_rolesandresponsibilities.pdf)

This network review is used to determine if the monitoring system meets the monitoring objectives defined in 40 CFR 58 Appendix D. The three basic monitoring objectives as described in Appendix D are:

- 1) Provide air pollution data to the general public in a timely manner.
- 2) Support compliance with ambient air quality standards and emissions strategy development.
- 3) Support for air pollution research studies.

## **1.2 Stations**

In order to support the air quality management work indicated in the three basic air monitoring objectives, the network is designed with a variety of monitoring site types. There are six general site types:

- 1) Highest concentrations expected to occur in the area.
- 2) Typical concentrations in areas of high population density.
- 3) Impact of significant sources on air quality.
- 4) General background concentration levels.
- 5) Regional pollutant transport among populated areas.
- 6) Air pollution impact on visibility, vegetation damage or other welfare-based impacts.

There are 16 ambient air monitoring stations located in Santa Barbara County. The map in Figure 1.1 shows the location of each site. These sites are operated for different objectives. There are six SLAMS stations which are sited to measure the typical concentrations in areas of high population density or to monitor the impacts of regional pollution. Two of these sites (Santa Barbara and Santa Maria) are operated by CARB. The other four SLAMS sites (Goleta, El Capitan, Lompoc H Street, and Santa Ynez) are operated by SBCAPCD.

There are ten sites which were installed as part of the PSD network to measure the impacts of stationary sources and to measure regional air quality. These sites are classified as SPM. Carpinteria, Exxon LFC 1, Lompoc HS & P, Nojoqui, Paradise Road, and VAFB STS were installed with ozone monitors to measure regional air quality in Santa Barbara County. Of these sites, Paradise Road, Carpinteria and Exxon LFC 1 have measured the highest Ozone concentrations in the county. The Nojoqui monitoring station was located in a pass between the northern and southern portions of Santa Barbara County to measure transport between the two portions of the county. Exxon LFC 1, West Campus, Lompoc HS & P, and VAFB STS contain monitors to measure the impacts of nearby sources. Lompoc Odor, LFC Odor and Ellwood Odor are located near oil and gas processing facilities to monitor odorous compounds: hydrogen sulfide and

total reduced sulfur. Table 1.1 lists the sites in Santa Barbara County and identifies the site's EPA AQS identification code, type of site, and operator. The sites in the table are numbered to match the site numbers of the map shown in Figure 1.1.

Figure 1.1  
Map of Monitoring Network in Santa Barbara County

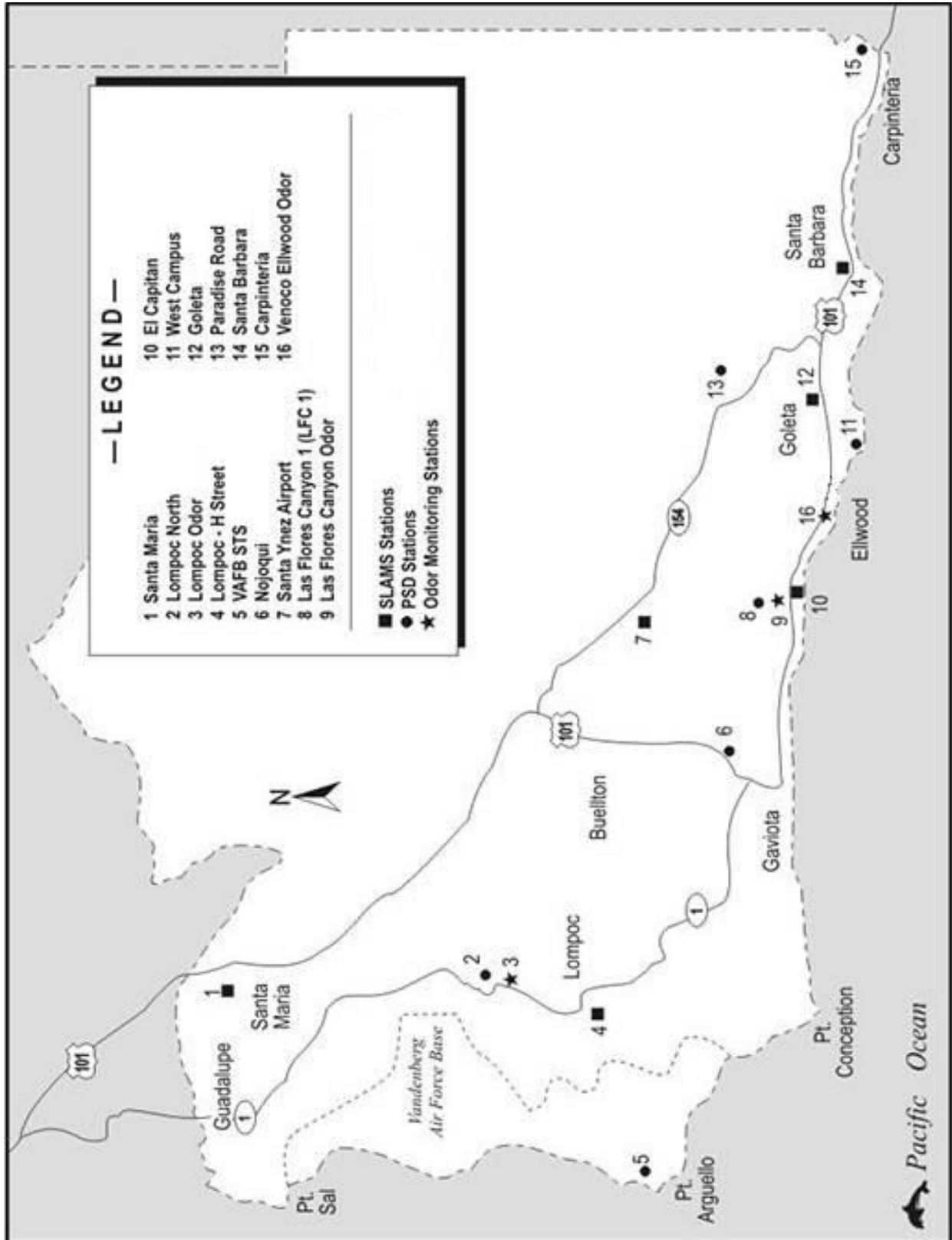


Table 1.1  
Monitoring Network in Santa Barbara County

No.	Site Name	Site Code	Type	Operator
1	Santa Maria	060831008	SLAMS	CARB
2	Lompoc HS & P	060831013	PSD	Contractor
3	Lompoc Odor	060831022	PSD	Contractor
4	Lompoc H Street	060832004	SLAMS	SBCAPCD
5	VAFB STS	060834003	PSD	SBCAPCD
6	Nojoqui	060831018	PSD	SBCAPCD
7	Santa Ynez	060833001	SLAMS	SBCAPCD
8	Exxon LFC 1	060831025	PSD	SBCAPCD
9	LFC Odor	060831037	PSD	SBCAPCD
10	El Capitan	060830008	SLAMS	SBCAPCD
11	West Campus	060831020	PSD	Contractor
12	Goleta	060832011	SLAMS	SBCAPCD
13	Paradise Road	060831014	PSD	Contractor
14	Santa Barbara – Canon Perdido	060830011	SLAMS	CARB
15	Carpinteria	060831021	PSD	Contractor
16	Ellwood Odor	060831032	PSD	Contractor

### 1.3 Monitors

Many of the sites in the monitoring network serve multi-purposes. They may be ideal for background concentration for one pollutant while also measuring the impact of transport for another pollutant. To clarify the nature of the link between the general monitoring objectives, site types, and physical location of a particular monitor, the concept of spatial scale of representativeness is defined. The goal of locating monitors is to correctly match the spatial scale represented by the sample of monitored air with the spatial scale most appropriate for the monitoring site type, air pollutant to be measured, and the monitoring objective. The scales of representativeness of most interest for the monitoring site types are described as follows:

- 1) Micro scale – Defines the concentrations in air volumes associated with area dimensions ranging from several meters up to about 100 meters.
- 2) Middle scale – Defines the concentration typical of areas up to several city blocks in size with dimensions ranging from about 100 meters to 0.5 kilometer.
- 3) Neighborhood scale – Defines concentrations within some extended area of the city that has relatively uniform land use with dimensions in the 0.5 to 4.0 kilometers range.



- 4) Urban scale – Defines concentrations within an area of city like dimensions, on the order of 4 to 50 kilometers.
- 5) Regional scale – Defines usually a rural area of reasonably homogeneous geography without large sources, and extends from tens to hundreds of kilometers.

Classification of the monitor by its type and spatial scale of representativeness aids in the interpretation of the monitoring data for a particular monitoring objective. Table 1.2 illustrates the relationship between the various site types that can be used to support the three basic monitoring objectives and the scales of representativeness that are generally most appropriate for that type of site.

Table 1.2  
Relationship between Site Types and Scales of Representativeness

<b>Site Type</b>	<b>Appropriate Siting Scales</b>
Highest concentration	Micro, middle, neighborhood (sometimes urban or regional for secondarily formed pollutants)
Population oriented	Neighborhood, urban
Source Impact	Micro, middle, neighborhood
General/background and regional transport	Urban, regional
Welfare-related impacts	Urban, regional

The sites and the monitors located at each site in Santa Barbara County are listed in Table 1.3. The table includes the spatial scale and monitoring objective for each monitored pollutant.

Table 1.3  
Measured Parameters with Spatial Scale and Monitoring Objective

Parameter	O3	NO2	SO2	CO	PM-2.5	PM-10	THC	H2S	TRS
AIRS Pollutant Code	44201	42602	42401	42101	88101	81102	43101	42402	43911
Carpinteria	RS/HC	RS/BL							
EI Capitan	RS/BL	RS/BL	RS/BL			NS/BL	RS/BL		
Ellwood Odor								NS/IM	NS/IM
Goleta	US/PO	US/PO		NS/PO	NS/PO	NS/PO			
Las Flores Cyn 1	RS/HC	NS/IM	NS/IM	NS/IM		NS/IM	NS/IM		
LFC Odor								NS/IM	
Lompoc H St.	NS/PO	NS/PO	NS/PO	NS/PO	MI/PO	MI/PO			
Lompoc HSP	RS/BL	NS/IM	NS/IM				NS/IM		
Lompoc Odor								NS/IM	NS/IM
Nojoqui	RS/BL	RS/BL							
Paradise Road	RS/HC	RS/BL							
Santa Barbara	US/PO	NS/HC		MS/HC	NS/HC	NS/HC			
Santa Maria	US/PO	US/PO		MS/HC	NS/PO	NS/PO			
Santa Ynez	US/PO								
VAFB STS	RS/BL	NS/IM	NS/IM	NS/IM		NS/IM	NS/IM		
West Campus			NS/IM				NS/IM	NS/IM	NS/IM

Spatial Scale:

MI - Microscale  
 MS - Middle Scale  
 NS - Neighborhood Scale  
 US - Urban Scale  
 RS - Regional Scale  
 NG - National and Global scale

Monitoring Objective:

HC - Highest concentration  
 PO - Population Oriented  
 IM - Source Impact  
 BL - Background Levels  
 WR - Welfare-related impacts

Note: Las Flores Canyon#1 PM10 monitor is classified as Neighborhood Scale due to the dominant source being the large nearby oil and gas facility. VAFB STS PM10 spatial scale is classified as Neighborhood Scale due to the dominate source being the nearby power plant. PM2.5 was changed from NON-FEM to FEM SLAMS at the Goleta site on January 1, 2014 and at the Lompoc H Street site on January 1, 2015. This change to the network was approved by EPA on May 22, 2015 (see Appendix B).

## **2.0 Monitoring Requirements**

EPA regulations specify the minimum number of sites at which state and local air agencies must deploy monitors. Santa Barbara County meets or exceeds EPA's minimum requirements. In practice, the state and local agencies find they need to deploy more monitors than required by the law. The additional monitors are needed to fulfill state and local purposes for monitoring that are in addition to the federal purposes. A number of monitors are required by permits issued to operate stationary emission sources. California State air quality standards are more stringent than national standards and require more monitors to show compliance with the state standards. Monitors are also used to keep the public informed of the actual air quality conditions where they live and work. Also, due to the complex topography in Santa Barbara County, more monitors than the minimum required by EPA are needed to properly characterize the air quality in the county.

The requirements for numbers of monitors appear in Appendix D of Part 58 of the CFR. For ozone, PM<sub>2.5</sub>, and PM<sub>10</sub>, 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 other pollutants, no monitoring is required unless an area exceeds or is close to exceeding a national ambient air quality standard. For purposes of the minimum requirements, the areas are defined by the metropolitan statistical areas (MSAs) developed by the U.S. Census Bureau. Santa Barbara County is part of the Santa Barbara – Santa Maria MSA. It covers the major cities in our county and has a population count of 440,668 based on the 2014 U.S. Census estimate.

### **2.1 Ozone (O<sub>3</sub>)**

The minimum monitoring requirements for ozone are listed in Table 2.1. Santa Barbara County has 12 ozone monitors, although only six of these sites are SLAMS sites, which meet the requirements of EPA. Santa Barbara County has a design value of .068 ppm based on 2012 – 2014 data which meets the federal 8-hour ozone standard of 0.075 ppm. Santa Barbara County is non-attainment for the state 8-hour ozone standard. The El Capitan, Santa Barbara, Carpinteria, Las Flores Canyon #1, and Goleta sites recorded concentrations of ozone in excess of the federal standards in 2014. All sites with ozone monitors measured concentrations of ozone in excess of the state standard in 2014, except Santa Maria and Santa Ynez. These sites are used to keep the public informed of air quality in areas of major population. The data are used in air quality index (AQI) reporting and air quality mapping.

Table 2.1  
Minimum Monitoring Requirements for Ozone

MSA	County	Pop. (year)	8-hour Design Value (years) <sup>2</sup>	Design Value Site (name, AQS ID)	Min. # Sites Required	# Sites Active <sup>1</sup>	Sites Needed
Santa Barbara – Santa Maria, CA	Santa Barbara County	440,668 (2014)	.068 ppm 2012 - 2014	Carpinteria, 060831021	2	9	0

<sup>1</sup>Only SLAMS monitors (or PSD monitors operated by the District that comply with SLAMS requirements) are eligible to be counted towards meeting minimum monitoring requirements. In addition, ozone monitors that do not meet traffic count/distance requirements to be neighborhood or urban scale (40 CFR 58 Appendix E, Table E-1) cannot be counted towards minimum monitoring requirements.

<sup>2</sup>DV Years = the three years over which the design value (DV) was calculated (e.g., 2008-2010)

Monitors required for SIP or Maintenance Plan: Santa Barbara County has a maintenance plan for ozone that requires any modification to the existing ozone network to be approved by EPA.

## 2.2 Carbon Monoxide (CO)

There are no EPA minimum requirements for the number of CO monitoring sites for CBSA's with a population less than one million. For CBSA's with a population of one million or greater, near roadway CO monitors are required. Continued operation of existing SLAMS CO sites is required until discontinuation is approved by the EPA. There are four SLAMS CO monitors located at Goleta, Lompoc H Street, Santa Barbara and Santa Maria which are used to measure the impacts of high population exposure and are not near roadway monitors. There are also CO monitors located at Exxon LFC1 and VAFB STS which are required by operating permit conditions issued to nearby sources.

Table 2.2  
Near Roadway Monitoring Requirements

CBSA/MSA	Pop. (year)	# Required Near Roadway Monitors	# Active Near Roadway Monitors	# Additional Monitors Needed
Santa Barbara Santa Maria, CA	440,668 (2014)	0	0	0

Monitors required for SIP or Maintenance Plan: None

EPA Regional Administrator-required monitors per 40 CFR 58, App.D 4.2.2:

## 2.3 Nitrogen Dioxide (NO<sub>2</sub>)

On January 22, 2010, EPA strengthened the health-based NAAQS for NO<sub>2</sub>. The rule also established new ambient air monitoring and reporting requirements. One "near road" monitor will be required in urban areas with a population greater than or equal to 500,000 people. A second monitor is required near another major road in areas with either a population greater than or equal to 2.5 million people or a road segment with an annual average daily traffic count greater than or equal to 250,000 vehicles. One community wide monitor is required in urban areas with a population of greater than or equal to 1 million people. Santa

Barbara does not meet any of these criteria so no additional monitors will be required. Continued operation of existing SLAMS NO<sub>2</sub> sites is required until discontinuation is approved by the EPA. There are five SLAMS NO<sub>2</sub> monitors. Goleta, Lompoc H Street, Santa Barbara, and Santa Maria are used to measure the impacts of high population exposure and El Capitan monitors the pollutant on a regional scale. There are six other sites which measure NO<sub>2</sub>: Carpinteria, Exxon LFC 1, Nojoqui, Paradise Road, Lompoc HS & P, and VAFB STS. These monitors are required by operating permit conditions of nearby sources and are used to measure the impact of sources on regional ozone formation. Table 2.3 lists the minimum monitoring requirements for Nitrogen Dioxide.

Table 2.3  
Minimum Monitoring Requirements for Nitrogen Dioxide

CBSA/MSA	Pop. (year)	Max AADT	# Required Near Roadway	# Active Near Roadway	# Additional Near Roadway needed	# Required Area-wide	# Active Area-wide <sup>1</sup>	# Additional Area-wide needed
Santa Barbara Santa Maria, CA	440,668 (2014)	N/A (below pop. Threshold)	0	0	0	0	8	0

<sup>1</sup>Only SLAMS sites (or PSD monitors operated by the District that comply with SLAMS requirements) can be counted for minimum monitoring requirements

Monitors required for SIP or Maintenance Plan:

Monitors required for PAMS:

EPA Regional Administrator-required monitors per 40 CFR 58, App. D 4.3.4:

## 2.4 Sulfur Dioxide (SO<sub>2</sub>)

EPA strengthened the primary NAAQS for SO<sub>2</sub> on June 2, 2010. The rule established a new 1 hour standard and revised the monitoring requirements. Monitors will be required based on Core Based Statistical Areas (CBSAs) based on a population weighted emissions index for the area. Three monitors will be required in CBSAs with index values of 1,000,000 or more. Two monitors will be required in CBSAs with index values less than 1,000,000 but greater than 100,000; and 1 monitor will be required in CBSAs with index values greater than 5,000. Continued operation of existing SLAMS SO<sub>2</sub> sites is required until discontinuation is approved by the EPA. There are two SLAMS SO<sub>2</sub> monitors at El Capitan and Lompoc H Street which are used to measure the impacts of high population exposure. There are four other sites which measure SO<sub>2</sub>: Exxon LFC 1, UCSB West Campus, Lompoc HS&P, and VAFB STS. These monitors are required by operating permit conditions of nearby sources and are used to measure the impact of sources on the surrounding air quality. New SO<sub>2</sub> monitors must be operational by January 1, 2013. Table 2.4 lists the minimum monitoring requirements for SO<sub>2</sub>. No additional monitors will be required in Santa Barbara County.

Table 2.4  
Minimum Monitoring Requirements for Sulfur Dioxide

CBSA/MSA	County	Pop. (year)	Total SO <sub>2</sub> <sup>1</sup> (Ton/yr )	Population Weighted Emissions Index <sup>2</sup>	# Required Monitors	# Active Monitors <sup>3</sup>	# Additional Monitors Required
Santa Barbara Santa Maria, CA	Santa Barbara	440,668 (2014)	441.5	194.6	0	4	0

<sup>1</sup>Using NEI data (2011)

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

<sup>3</sup>Only SLAMS sites (or PSD monitors operated by the District that comply with SLAMS requirements) can be counted for minimum monitoring requirement

Monitors required for SIP or Maintenance Plan: None

EPA Regional Administrator-required monitors per 40 CFR 58, App. D 4.4.3:

## 2.5 Particulate Matter (PM<sub>10</sub>)

The minimum monitoring requirements for PM<sub>10</sub> are listed in Table 2.5. There are five SLAMS PM<sub>10</sub> monitors located at Santa Barbara, El Capitan, Goleta, Lompoc H Street, and Santa Maria. There are two PSD sites which measure PM<sub>10</sub>: Exxon LFC 1 and VAFB STS. These monitors are required by operating permit conditions of nearby sources and are used to measure the impact of nearby sources on the surrounding air quality.

Table 2.5  
Minimum Monitoring Requirements for PM<sub>10</sub>

MSA	County	Pop. (year)	Max 24 Hour Concentration (ug/m <sup>3</sup> )	Max Concentration Site (name, AQS ID)	# Required Sites	# Active Sites <sup>1</sup>	# Additional Sites Needed
Santa Barbara – Santa Maria, CA	Santa Barbara County	440,668 (2014)	95 (09/26/14)	El Capitan 060830008	0-1	7	0

<sup>1</sup>Only SLAMS sites (or PSD monitors operated by the District that comply with SLAMS requirements) can be counted for minimum monitoring requirement

Monitors required for SIP or Maintenance Plan:None

## 2.6 Particulate Matter (PM<sub>2.5</sub>)

The minimum monitoring requirements for PM<sub>2.5</sub> are listed in Tables 2.6a and b. Note that the Santa Barbara site did not meet completeness requirements in 2013.

There are four PM<sub>2.5</sub> monitors located at Santa Barbara, Santa Maria, Goleta, and Lompoc H Street. Santa Barbara and Santa Maria had FRM samplers but were removed in June 2010 and were replaced with FEM real time samplers. Lompoc H Street and Goleta had Non-FEM real time samplers that were switched to FEM real time samplers (Goleta was switched on January 1, 2014

and Lompoc H Street was switched on January 1, 2015). Santa Barbara County received approval of this change in status from EPA on May 22, 2015 (See Appendix B). Because there is insufficient FEM PM2.5 data for the period 2012-2014 the monitors at Lompoc H Street and Goleta are not included in the design value calculations listed in Tables 2.6a and Tables 2.6b.

PM2.5 colocation requirements are based on the primary quality assurance organization (PQAO) network. Santa Barbara County is part of the CARB PQAO. See the CARB annual network plan for details on meeting the PM2.5 colocation requirements.

Table 2.6a  
Minimum Monitoring Requirements for PM2.5 Monitors

MSA	County	Pop. (year)	Annual Design Value (years <sup>1</sup> )	Annual Design Value Site (name, AQS ID)	Daily Design Value (years)	Daily Design Value Site (name, AQS ID)	# Required SLAMS Sites	# Active SLAMS Sites <sup>3,4</sup>	# Additional SLAMS Sites Needed
Santa Barbara – Santa Maria, Ca	Santa Barbara County	440,668 (2014)	8.8 ug/m3 2012 – 2014	Santa Barbara 06-083-0011	17 ug/m3 2012 - 2014	Santa Barbara 06-083-0011	0	4	0

<sup>1</sup>DV Years = the three years over which the design value (DV) was calculated (e.g., 2008-2010)

<sup>3</sup>As of January 1, 2015

<sup>4</sup>Only SLAMS sites (or PSD monitors operated by the District that comply with SLAMS requirements) can be counted for minimum monitoring requirement

Table 2.6b  
Minimum Monitoring Requirements for Continuous PM2.5 Monitors

MSA	County	Pop. (year)	Annual Design Value (years <sup>1</sup> )	Annual Design Value Site (name, AQS ID)	Daily Design Value (years)	Daily Design Value Site (name, AQS ID)	# Required Cont. Monitors	# Active Cont. Monitors <sup>3,4</sup>	# Additional Cont. Monitors <sup>2</sup> Needed
Santa Barbara – Santa Maria, Ca	Santa Barbara County	440,668 (2014)	8.8 ug/m3 2012 – 2014	Santa Barbara 06-083-0011	17 ug/m3 2012 - 2014	Santa Barbara 06-083-0011	0	4	0

<sup>1</sup>DV Years = the three years over which the design value (DV) was calculated (e.g., 2008-2010)

<sup>2</sup> Only count one continuous monitor per site.

<sup>3</sup>As of January 1, 2015

<sup>4</sup>Only SLAMS sites (or PSD monitors operated by the District that comply with SLAMS requirements) can be counted for minimum monitoring requirement

Monitors required for SIP or Maintenance Plan:None

## 2.7 Lead (Pb)

EPA substantially strengthened the NAAQS for lead on October 15, 2008. The level of the primary standard was revised from 1.5 ug/m<sup>3</sup> down to 0.15 ug/m<sup>3</sup> measured as total suspended particles (TSP). The secondary standard was revised to be identical to the primary standard. Source oriented Monitors are required in areas with airport sources that emit one ton or more per year of lead or non-airport sources that emit one half ton per year of lead. Additionally, non-source lead monitoring is required at NCORE sites in a CBSA with a population greater than 500,000. The population of Santa Barbara County is below the 500,000 threshold and there are no NCORE sites required in Santa Barbara County; therefore non-source lead monitors are not required. The highest emission inventory of lead in Santa Barbara County is the Santa Barbara Municipal airport with 0.35 tons per year (2013). Since this is below the threshold, no source oriented lead monitors are required.

Table 2.7a  
Minimum Monitoring Requirements for Pb at NCORE sites

CBSA/MSA	Pop. (year)	# Required Near Road Monitors	# Active Near Road Monitors	# Additional Monitors Needed
Santa Barbara – Santa Maria, Ca	440,668 (2014)	0	0	0

Table 2.7b  
Minimum Monitoring Requirements for Source Oriented Pb Monitoring

Source Name	Address	Pb Emissions	Emissions Source (year)	Max Design Value	Desing Value Date	# Required Monitors	# Active Monitors	# Additional Monitors Needed
Santa Barbara Municipal Airport	601 Firestone Rd. Santa Barbara, CA	0.35 ton/yr	National Emissions Inventory	N/A	N/A	0	0	0

Monitors required for SIP or Maintenance Plan:None  
EPA Regional Administrator-required monitors per 40 CFR 58, App. D 4.5(c):

## 2.8 Recent or Proposed Modifications to the Network

The Goleta site PM<sub>2.5</sub> monitoring method was changed on January 1, 2014 from non-FEM (parameter 88501 method 731) to FEM (parameter 88101 method 170). The Lompoc H Street site PM<sub>2.5</sub> monitoring method was changed on January 1, 2015 from non-FEM (parameter 88501 method 731 to FEM (parameter 88101 method 170). While this modification changed the method that normally does not require EPA approval, this change also changed the monitor from a SPM to SLAMS, requiring EPA approval. SBCAPCD received approval from EPA of this change on May 22, 2015 (see Appendix B).



Total hydrocarbon measurements at El Capitan were discontinued on January 1, 2015. As this change is for a non-criteria pollutant, approval from EPA is not required.

There are no plans to modify the network over the next 18 months. However, the source triggering the requirement for the West Campus Site may be retired, which would eliminate the permit condition requiring the West Campus Site and would therefore eliminate this site. If and when this occurs, EPA will be consulted.

## **2.9 Additional Monitors**

Santa Barbara County operates some monitors which are not required by 40 CFR 58.10. These sites and monitors are included in the network review for reference only and not to show compliance with any requirements even though they are operated under the same quality assurance/control guidelines as the FRM monitors.

There are four stations which are set up near oil and gas processing facilities to monitor for two odorous compounds: Hydrogen sulfide (H<sub>2</sub>S) and total reduced sulfur (TRS). These monitors are located at the following stations: Lompoc Odor, LFC Odor, Ellwood Odor, and UCSB West Campus.

Total Hydrocarbon monitors (THC) are also located at some of the PSD monitoring stations located near oil and gas processing facilities. These sites are: Exxon LFC 1, Lompoc HS&P, West Campus, and VAFBSTS.

All of the monitoring stations listed in this report also measure wind speed, wind directions and ambient temperature. These data are used for modeling and tracking.

### **3.0 Additional information on PM2.5 monitors**

This section includes information for a couple of elements required to be in the annual network plan that relate specifically to PM2.5. One required element relates to whether data for a PM2.5 monitor can be used to determine compliance with the national annual PM2.5 air quality standard. This is termed as the suitability for comparison to the annual standard. The other element requires information regarding the review process followed by air agencies when changes are made to the location of a PM2.5 monitor that is violating a PM2.5 NAAQS.

#### **3.1 Comparison to annual PM2.5 NAAQS**

Only data from a PM2.5 FRM or FEM can be used in regulatory determinations of compliance with the annual PM2.5 NAAQS and that the monitor be located at a neighborhood scale. For a PM2.5 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. Therefore the monitor should not be located too close to a hot spot of PM2.5 concentrations that extends over distances less than a few hundred meters. All of the PM2.5 FRM and FEM monitors in Santa Barbara County are sited to be representative of a neighborhood scale and meet this suitability requirement.

#### **3.2 Review of changes to PM2.5 network**

As required by regulation, prior to any changes to the PM2.5 network are made, a formal request is drafted outlining the reason for the change, when the change will occur, and any other relevant information about the proposed changes. The proposal (either as part of an annual network review or between reviews) will be posted on the District website for a 30 day public comment period. Following the comment period, the District will forward the request with comments and District responses to EPA for consideration. Only after EPA has granted approval of the proposed change, will the District make the changes to the PM2.5 monitoring network.

## **4.0 Quality Assurance and Data Submittal**

All data collected from the monitors in the Santa Barbara County network are reviewed for quality assurance by the SBCAPCD with the exception of the Santa Barbara and Santa Maria monitoring stations which are reviewed and processed by CARB. All special purpose monitors (SPM), including monitors in the PSD network meet the requirements of 40 CFR 58, appendix E as well as the requirements in 40 CFR 58, appendix A.

### **4.1 Annual performance evaluation**

Annual performance evaluations challenge the monitors with known concentrations of audit gases to evaluate the accuracy of the monitors. The SLAMS sites as well as the PSD sites operated by SBCAPCD in Santa Barbara County are audited on an annual basis by the CARB. The PSD stations operated by contractors are evaluated by an independent contractor who audits the monitors on a quarterly basis.

### **4.2 Data submittal**

Digital records of the data including precision and accuracy data are submitted to EPA by uploading the records to their air quality system data base (AQS). These records are submitted within 90 days following the end of each quarterly reporting period.

### **4.3 Annual certification**

The data are certified for their accuracy and completeness on an annual basis and a certification letter is submitted to the regional EPA administrator by May 1 of each year.

## **5.0 Detailed Site Information**

The tables in this section give detailed information relating to the sites and monitors. They are presented to show compliance with the monitoring requirements found in 40 CFR 58.10. Please note the following in relation to the detailed site information tables:

1. All glass used for inlet/manifold is borosilicate or equivalent.
2. There are no collocated monitors located in the SLAMS or PSD networks in Santa Barbara County, therefore information in detailed site information tables do not include fields relating to collocated monitors.
3. All collocation requirements are being met by CARB, see the CARB Annual Network Plan for details.
4. All sample probes, including low-vol PM samplers are separated horizontally from other station probes by at least one meter.

Table 5.1  
Carpinteria Monitoring Station Details

<b>Site Name</b>	<b>Carpinteria</b>				
AQS ID	060831021				
GIS coordinates	34.403047-119.45795				
Location	Located in a rural setting NE of the City of Carpinteria				
Address	Gobernador Road, Carpinteria, CA 93013				
County	Santa Barbara County				
Dist. To road	Gobernador Canyon Road, 115 meters				
Traffic count (AADT, year)	Gobernador Canyon Road - 50 est.				
Groundcover	Grass				
Representative area	MSA (Santa Barbara – Santa Maria, CA)				
<b>Pollutant, POC</b>	<b>O3,1</b>	<b>NO2,1</b>			
Monitor Type	SPM	SPM			
Network Affiliation	PSD	PSD			
Parameter Code	44201	42602			
Monitoring Objective	NAAQS	NAAQS			
Site type(s)	Highest conc.	Gen. background			
Mfg/Model	TAPI 400e	TEI 42C			
Method Code	087	074			
FRM/FEM or other	FEM	FRM			
Collecting Agency	Consultant	Consultant			
Reporting Agency	Santa Barbara County	Santa Barbara County			
Spatial Scale	Regional	Regional			
Start date	1/1/86	1/1/86			
Operation schedule	Continuous	Continuous			
Sampling season	All Year	All Year			
Probe height	4.1 m	4.1 m			
Distance from supporting structure	1.3 m	1.3 m			
Distance from obstructions on roof	None	None			
Distance from obstructions not on roof	None	None			
Distance from trees	None	None			
Distance to furnace or incinerator	None	None			
Unrestricted airflow	360°	360°			
Probe material	Glass & Teflon	Glass & Teflon			
Residence time	18.4 s	19.9 s			
Will there be changes in next 18 months?	No	No			
Frequency of one-point QC check (gaseous)	Bi-weekly	Bi-weekly			
Last annual performance evaluation (gaseous)	12/11/14	12/11/14			

Table 5.2  
El Capitan Monitoring Station Details

<b>Site Name</b>	<b>El Capitan</b>				
AQS ID	060830008				
GIS coordinates	34.462444-120.0255				
Location	Behind maintenance yard of campground				
Address	US Hwy 101, El Capitan State Beach, CA 93117				
County	Santa Barbara County				
Dist. to road	HWY 101, 100 meters				
Traffic count (AADT, year)	Hwy 101 - 30,200 (2013)				
Groundcover	Grass and dirt				
Representative area	MSA (Santa Barbara – Santa Maria, CA)				
<b>Pollutant, POC</b>	<b>O3,1</b>	<b>NO2,1</b>	<b>SO2,1</b>	<b>PM10,3</b>	
Monitor Type	SLAMS	SLAMS	SLAMS	SLAMS	
Network Affiliation	NA	NA	NA	NA	
Parameter Code	44201	42602	42401	81102	
Monitoring Objective	NAAQS, Public Info	NAAQS, Public Info	NAAQS, Public Info	NAAQS, Public Info	
Site type(s)	General Background	General Background	General Background	General Background	
Mfg/ Model	TAPI 400e	TAPI 200e	TEI 43i	BAM 1020	
Method Code	087	099	060	122	
FRM/FEM or other	FEM	FRM	FEM	FEM	
Collecting Agency	Santa Barbara County	Santa Barbara County	Santa Barbara County	Santa Barbara County	
Reporting Agency	Santa Barbara County	Santa Barbara County	Santa Barbara County	Santa Barbara County	
Spatial Scale	Regional	Regional	Regional	Neighborhood	
Start date	6/1/78	6/1/78	6/1/78	6/1/78	
Operation schedule	Continuous	Continuous	Continuous	Continuous	
Sampling season	All Year	All Year	All Year	All Year	
Probe height	3.8 m	3.8 m	3.8 m	4.1 m	
Distance from supporting structure	1.2 m	1.2 m	1.2 m	1.5 m	
Distance from obstructions on roof	None	None	None	None	
Distance from obstructions not on roof	None	None	None	None	
Distance from trees	None	None	None	None	
Distance to furnace or incinerator	None	None	None	None	
Unrestricted airflow	360°	360°	360°	360°	
For low volume PM instruments, is any PM instrument within 1 m of the lovol? If yes, please list distance	NA	NA	NA	No	

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(meters) and instrument(s).					
Probe material	Glass & Teflon	Glass & Teflon	Glass & Teflon	N/A	
Residence time	17.2 s	17.5 s	19.8 s	N/A	
Will there be changes in next 18 months?	No	No	No	No	
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	Bi-Weekly	
Frequency of one-point QC check (gaseous)	Weekly	Weekly	Weekly	N/A	
Last annual performance evaluation (gaseous)	8/27/14	8/27/14	8/27/14	N/A	
Last two semi-annual flow rate audits for PM monitors	N/A	N/A	N/A	3/3/14 8/27/14	

Note that THC was shut down on 1/1/15.

Table 5.3  
Ellwood Odor Monitoring Station Details

<b>Site Name</b>	<b>Ellwood Odor</b>				
AQS ID	060831032				
GIS coordinates	34.430361 -119.89755				
Location	Located in a vehicle storage lot				
Address	Hollister Ave, Goleta, CA				
County	Santa Barbara County				
Dist. to road	Hollister Ave, 75 meters; HWY101, 200 meters				
Traffic count (AADT, year)	Hollister Ave - 4937 (1999) Hwy 101 - 30,200 (2013)				
Groundcover	Asphalt				
Representative area	MSA (Santa Barbara – Santa Maria, CA)				
<b>Pollutant, POC</b>	<b>H2S,1</b>	<b>TRS,1</b>			
Monitor Type	SPM	SPM			
Network Affiliation	PSD	PSD			
Parameter Code	42402	43911			
Monitoring Objective	Public Info	Public Info			
Site type(s)	Source	Source			
MFG/ Model	ML 8850	TEI 43i			
Method Code	020	020			
FRM/FEM or other	N/A	N/A			
Collecting Agency	Consultant	Consultant			
Reporting Agency	Santa Barbara County	Santa Barbara County			
Spatial Scale	Neighborhood	Neighborhood			
Start date	4/1/00	4/1/00			
Operation schedule	Continuous	Continuous			
Sampling season	All Year	All Year			
Probe height	3.5	3.5			
Distance from supporting structure	1.1	1.1			
Distance from obstructions on roof	None	None			
Distance from obstructions not on roof	None	None			
Distance from trees	None	None			
Distance to furnace or incinerator	None	None			
Unrestricted airflow	360°	360°			
Probe material	Glass & Teflon	Glass & Teflon			
Residence time	14.9 s	14.9 s			
Will there be changes in next 18 months?	No	No			
Frequency of one-point QC check (gaseous)	Bi-Weekly	Bi-Weekly			
Last annual performance evaluation (gaseous)	12/16/14	12/16/14			



Table 5.4  
Goleta Monitoring Station Details

<b>Site Name</b>	<b>Goleta</b>				
AQS ID	060832011				
GIS coordinates	34.4455 -119.828333				
Location	In field behind Lutheran Church				
Address	380 N. Fairview Ave., Goleta, CA				
County	Santa Barbara County				
Dist. to road	Berkley Road, 60 meters; Fairview Ave, 200 meters; Alli Way 100 meters				
Traffic count (AADT, year)	Fairview - 12546 (2003); Berkley Rd - 3480 (2003); Ali Way - 25 est.				
Groundcover	Grass				
Representative area	MSA (Santa Barbara – Santa Maria, CA)				
<b>Pollutant, POC</b>	<b>O3,1</b>	<b>NO2,1</b>	<b>CO,1</b>	<b>PM10,1</b>	<b>PM2.5,1</b>
Monitor Type	SLAMS	SLAMS	SLAMS	SLAMS	SLAMS
Network Affiliation	NA	NA	NA	NA	NA
Parameter Code	44201	42602	42101	81102	88101
Monitoring Objective	NAAQS, Public Info	NAAQS, Public Info	NAAQS, Public Info	NAAQS, Public Info	NAAQS, public Info
Site type(s)	Population	Population	Population	Population	Population
MFG/ Model	TAPI 400e	TAPI 200e	TAPI 300e	BAM 1020	BAM 1020
Method Code	087	099	093	122	170
FRM/FEM or other	FEM	FRM	FRM	FEM	FEM
Collecting Agency	Santa Barbara County	Santa Barbara County	Santa Barbara County	Santa Barbara County	Santa Barbara County
Reporting Agency	Santa Barbara County	Santa Barbara County	Santa Barbara County	Santa Barbara County	Santa Barbara County
Spatial Scale	Urban	Urban	Neighborhood	Neighborhood	Neighborhood
Start date	1/1/1980	1/1/1992	5/1/1982	1/1/10	1/1/10
Operation schedule	Continuous	Continuous	Continuous	Continuous	Continuous
Sampling season	All Year	All Year	All Year	All Year	All Year
Probe height	4.5 m	4.5 m	4.5 m	7.0 m	7.0 m
Distance from supporting structure	2.1 m	2.1 m	2.1 m	2.0 m	2.0 m
Distance from obstructions on roof	None	None	None	None	None
Distance from obstructions not on roof	None	None	None	None	None
Distance from trees	None	None	None	None	None
Distance to furnace or incinerator	None	None	None	None	None
Unrestricted airflow	360°	360°	360°	360°	360°
For low volume PM instruments, is any PM instrument within 1 m of the lovol? If yes, please list distance (meters) and instrument(s).	NA	NA	NA	NA	No
Probe material	Glass & Teflon	Glass & Teflon	Glass & Teflon	N/A	N/A

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Residence time	12.8 s	11.1 s	12.8 s	N/A	N/A
Will there be changes in next 18 months?	No	No	No	No	No
Frequency of one-point QC check (gaseous)	Weekly	Weekly	Weekly	N/A	N/A
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	Bi-Weekly	Bi-Weekly
Last annual performance evaluation (gaseous)	5/6/14	5/6/14	5/6/14	N/A	N/a
Last two semi-annual flow rate audits for PM monitors				5/6/14 10/22/14	5/6/14 10/22/14
Is it suitable for comparison against the annual PM2.5?	N/A	N/A	N/A	N/A	Yes

Note: PM2.5 was changed from Non-FEM (88501) to FEM (88101) on January 1, 2014. EPA approved this network modification on May 22, 2015 (See Appendix B)

Table 5.5  
Las Flores Canyon #1 Monitoring Station Details

<b>Site Name</b>	<b>Las Flores Canyon #1</b>				
AQS ID	060831025				
GIS coordinates	34.48975 -120.046917				
Location	North end of canyon behind an oil and gas facility				
Address	Calle Real US Hwy 101, El Capitan, CA				
County	Santa Barbara County				
Dist. to road	HWY 101, 2860 meters				
Traffic count (AADT, year)	Hwy 101 - 30,200 (2013)				
Groundcover	Grass and dirt				
Representative area	MSA (Santa Barbara – Santa Maria, CA)				
<b>Pollutant, POC</b>	<b>O3,1</b>	<b>NO2,1</b>	<b>SO2,1</b>	<b>CO,1</b>	<b>PM10,3</b>
Monitor Type	SPM	SPM	SPM	SPM	SPM
Network Affiliation	PSD	PSD	PSD	PSD	PSD
Parameter Code	44201	42602	42401	42101	81102
Monitoring Objective	NAAQS, public	NAAQS, public	NAAQS, public	NAAQS, public	NAAQS, public
Site type(s)	Max O3 conc.	Source	Source	Source	Source
MFG/ Model	TAPI 400e	TAPI 200e	TEI 43i	TEI 48i	BAM 1020
Method Code	087	099	060	054	122
FRM/FEM or other	FEM	FRM	FEM	FRM	FEM
Collecting Agency	Santa Barbara County	Santa Barbara County	Santa Barbara County	Santa Barbara County	Santa Barbara County
Reporting Agency	Santa Barbara County	Santa Barbara County	Santa Barbara County	Santa Barbara County	Santa Barbara County
Spatial Scale	Regional	Neighborhood	Neighborhood	Neighborhood	Neighborhood
Start date	4/1/88	4/1/88	4/1/88	4/1/88	4/1/88
Operation schedule	Continuous	Continuous	Continuous	Continuous	Continuous
Sampling season	All Year	All Year	All Year	All Year	All Year
Probe height	3.5 m	3.5 m	3.5 m	3.5 m	4.0 m
Distance from supporting structure	1.2 m	1.2 m	1.2 m	1.2 m	1.0 m
Distance from obstructions on roof	None	None	None	None	None
Distance from obstructions not on roof	None	None	None	None	None
Distance from trees	None	None	None	None	None
Distance to furnace or incinerator	None	None	None	None	None
Unrestricted airflow	360°	360°	360°	360°	360°
For low volume PM instruments, is any PM instrument within 1 m of the lovol? If yes, please list distance (meters) and instrument(s).	NA	NA	NA	NA	No

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Probe material	Glass & Teflon	Glass & Teflon	Glass & Teflon	Glass & Teflon	N/A
Residence time	12.8 s	15.8 s	14.2 s	11.9 s	N/A
Will there be changes in next 18 months?	No	No	No	No	No
Frequency of flow rate verification for automated PM samplers	N/A	N/A	N/A	N/A	Bi-Weekly
Frequency of one-point QC check (gaseous)	Weekly	Weekly	Weekly	Weekly	N/A
Last annual performance evaluation (gaseous)	4/22/14	4/22/14	4/22/14	4/22/14	N/A
Last two semi-annual flow rate audits for PM monitors	N/A	N/A	N/A	N/A	4/22/14 10/22/14

Note: Las Flores Canyon#1 PM10 monitor is classified as Neighborhood Scale due to the dominant source being the nearby oil and gas facility.

Table 5.6  
Las Flores Canyon Odor Monitoring Station Details

<b>Site Name</b>	<b>Las Flores Canyon Odor</b>				
AQS ID	060831037				
GIS coordinates	34.464528 -120.044972				
Location	Located in a parking lot at the entrance to Las Flores Canyon				
Address	Calle Real US Hwy 101, El Capitan, CA				
County	Santa Barbara County				
Dist. to road	HWY 101,75 meters; Calle Real, 44 meters; Las Flores Canyon Rd???				
Traffic count (AADT, year)	Hwy 101 - 30,200 (2013)				
Groundcover	Gravel				
Representative area	MSA (Santa Barbara – Santa Maria, CA)				
<b>Pollutant, POC</b>	<b>H2S,1</b>				
Monitor Type	SPM				
Network Affiliation	PSD				
Parameter Code	42402				
Monitoring Objective	Public				
Site type(s)	Source				
MFG/ Model	API 101e				
Method Code	020				
FRM/FEM or other	N/A				
Collecting Agency	Santa Barbara County				
Reporting Agency	Santa Barbara County				
Spatial Scale	Neighborhood				
Start date	2/1/88				
Operation schedule	Continuous				
Sampling season	All Year				
Probe height	3.5				
Distance from supporting structure	1.1				
Distance from obstructions on roof	None				
Distance from obstructions not on roof	None				
Distance from trees	None				
Distance to furnace or incinerator	None				
Unrestricted airflow	360°				
Probe material	Glass & Teflon				
Residence time	16.1 s				
Will there be changes in next 18 months?	No				
Frequency of one-point QC check (gaseous)	Weekly				
Last annual performance evaluation (gaseous)	4/22/14				

Table 5.7  
Lompoc HS&P Monitoring Station Details

<b>Site Name</b>	<b>Lompoc HS&amp;P</b>				
AQS ID	060831013				
GIS coordinates	34.725331 -120.428689				
Location	Located North of Lompoc near an oil processing facility				
Address	2988 Harris Grade Rd, Lompoc, CA 93436				
County	Santa Barbara County				
Dist. to road	Harris Grade Road, 700 meters				
Traffic count (AADT, year)	Harris Grade Road - 100 est.				
Groundcover	Dirt				
Representative area	MSA (Santa Barbara – Santa Maria, CA)				
<b>Pollutant, POC</b>	<b>O3,1</b>	<b>NO2,1</b>	<b>SO2,1</b>	<b>THC,1</b>	
Monitor Type	SPM	SPM	SPM	SPM	
Network Affiliation	PSD	PSD	PSD	PSD	
Parameter Code	44201	42602	42401	43101	
Monitoring Objective	NAAQS, public	NAAQS, public	NAAQS, public	Public	
Site type(s)	General Background	Source	Source	Source	
MFG/ Model	TEI 49i	TEI 42c	TEI 43i	TEI 51 Clt	
Method Code	047	074	060	011	
FRM/FEM or other	FEM	FRM	FEM	N/A	
Collecting Agency	Consultant	Consultant	Consultant	Consultant	
Reporting Agency	Santa Barbara County	Santa Barbara County	Santa Barbara County	Santa Barbara County	
Spatial Scale	Regional	Neighborhood	Neighborhood	Neighborhood	
Start date	1/1/86	1/1/86	1/1/86	1/1/86	
Operation schedule	Continuous	Continuous	Continuous	Continuous	
Sampling season	All Year	All Year	All Year	All Year	
Probe height	4.7	4.7	4.7	4.7	
Distance from supporting structure	1.6	1.6	1.6	1.6	
Distance from obstructions on roof	None	None	None	None	
Distance from obstructions not on roof	None	None	None	None	
Distance from trees	None	None	None	None	
Distance to furnace or incinerator	None	None	None	None	
Unrestricted airflow	360°	360°	360°	360°	
Probe material	Glass & Teflon	Glass & Teflon	Glass & Teflon	Glass & Teflon	
Residence time	6.7 s	6.7 s	7.4 s	9.5 s	
Will there be changes in next 18 months?	No	No	No	No	
Frequency of one-point QC check (gaseous)	Bi-weekly	Bi-weekly	Bi-Weekly	Bi-Weekly	
Last annual performance evaluation (gaseous)	12/17/14	12/17/14	12/17/14	12/17/14	

Table 5.8  
Lompoc H Street Monitoring Station Details

<b>Site Name</b>	<b>Lompoc H Street</b>					
AQS ID	060832004					
GIS coordinates	34.637833 -120.4575					
Location	Parking lot behind gas company					
Address	128 S. H Street, Lompoc CA 93436					
County	Santa Barbara County					
Dist. to road	H Street, 28 meters; E. Cyprus, 57 meters; Ocean Ave, 120 meters; Alley, 13 meters					
Traffic count (AADT, year)	Ocean Ave (Hwy 246) - 11200 (2013); H Street 12900 (2010); Cyprus - 500 est.; Alley - 20 est.					
Groundcover	Asphalt					
Representative area	MSA (Santa Barbara – Santa Maria, CA)					
<b>Pollutant, POC</b>	<b>O3,1</b>	<b>NO2,1</b>	<b>SO2,1</b>	<b>CO,1</b>	<b>PM10,2</b>	<b>PM2.5,1</b>
Monitor Type	SLAMS	SLAMS	SLAMS	SLAMS	SLAMS	SLAMS
Network Affiliation	NA	NA	NA	NA	NA	NA
Parameter Code	44201	42602	42401	42101	81102	88101
Monitoring Objective	NAAQS, Public	NAAQS, Public	NAAQS, Public	NAAQS, Public	NAAQS, Public	NAAQS, public
Site type(s)	Population	Population	Population	Population	Population	Population
MFG/ Model	TAPI 400e	TAPI 200e	TEI 43i	TEI 48i	BAM 1020	BAM 1020
Method Code	087	099	060	054	122	170
FRM/FEM or other	FEM	FRM	FEM	FRM	FEM	FEM
Collecting Agency	Santa Barbara County	Santa Barbara County	Santa Barbara County	Santa Barbara County	Santa Barbara County	Santa Barbara County
Reporting Agency	Santa Barbara County	Santa Barbara County	Santa Barbara County	Santa Barbara County	Santa Barbara County	Santa Barbara County
Spatial Scale	Neighborhood	Neighborhood	Neighborhood	Neighborhood	Micro	Micro
Start date	1/1/84	5/1/91	1/1/84	1/1/84	8/1/09	9/1/08
Operation schedule	Continuous	Continuous	Continuous	Continuous	Continuous	Continuous
Sampling season	All Year	All Year	All Year	All Year	All Year	All Year
Probe height	5.3 m	5.3 m	5.3 m	5.3 m	5.4 m	5.4 m
Distance from supporting structure	1.3 m	1.3 m	1.3 m	1.3 m	1.4 m	1.4 m
Distance from obstructions on roof	None	None	None	None	None	None
Distance from obstructions not on roof/Obs. Height above inlet	15 m/1 m	15 m/1 m	15 m/1 m	15 m/1 m	15 m/1 m	15 m/ 1 m
Distance from trees	None	None	None	None	None	None
Distance to furnace or incinerator	None	None	None	None	None	None
Unrestricted airflow	360°	360°	360°	360°	360°	360°
For low volume PM instruments, is any PM instrument within 1 m of the loval? If yes, please list distance	NA	NA	NA	NA	No	No

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(meters) and instrument(s).						
Probe material	Glass & Teflon	Glass & Teflon	Glass & Teflon	Glass & Teflon	N/A	N/A
Residence time	14.1 s	16.4 s	17.2 s	14.9 s	N/A	N/A
Will there be changes in next 18 months?	No	No	No	No	No	No
Is it suitable for comparison against the annual PM2.5?	N/A	N/A	N/A	N/A	N/A	No
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	N/A	N/A	N/A
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	N/A	Bi-Weekly	Bi-Weekly
Frequency of one-point QC check (gaseous)	Weekly	Weekly	Weekly	Weekly	N/A	N/A
Last annual performance evaluation (gaseous)	4/23/14	4/23/14	4/23/14	4/23/14	N/A	N/A
Last two semi-annual flow rate audits for PM monitors	N/A	N/A	N/A	N/A	4/23/14 10/23/14	4/23/14 10/23/14
Is it suitable for comparison against the annual PM2.5?	N/A	N/A	N/A	N/A	N/A	No

Note: PM2.5 was changed from non-FEM (88501) to FEM (88101) on January 1, 2015. EPA approved this network modification on May 22, 2015 (See Appendix B)



Table 5.9  
Lompoc Odor Monitoring Station Details

<b>Site Name</b>	<b>Lompoc Odor</b>				
AQS ID	060831022				
GIS coordinates	34.718992 -120.432761				
Location	Located near an oil processing facility				
Address	2988 Harris Grade Rd, Lompoc, CA 93436				
County	Santa Barbara County				
Dist. to road	Harris Grade Rd., 100 meters				
Traffic count (AADT, year)	Harris Grade Road - 100 est				
Groundcover	Dirt				
Representative area	MSA (Santa Barbara – Santa Maria, CA)				
<b>Pollutant, POC</b>	<b>H2S,1</b>	<b>TRS,1</b>			
Monitor Type	SPM	SPM			
Network Affiliation	PSD	PSD			
Parameter Code	42402	43911			
Monitoring Objective	Public	Public			
Site type(s)	Source	Source			
MFG/ Model	TEI 45C	TEI 43i			
Method Code	020	020			
FRM/FEM or other	N/A	N/A			
Collecting Agency	Consultant	Consultant			
Reporting Agency	Santa Barbara County	Santa Barbara County			
Spatial Scale	Neighborhood	Neighborhood			
Start date	2/1/88	2/1/88			
Operation schedule	Continuous	Continuous			
Sampling season	All Year	All Year			
Probe height	3.5	3.5			
Distance from supporting structure	1.1	1.1			
Distance from obstructions on roof	None	None			
Distance from obstructions not on roof	None	None			
Distance from trees	None	None			
Distance to furnace or incinerator	None	None			
Unrestricted airflow	360°	360°			
Probe material	Glass & Teflon	Glass & Teflon			
Residence time	8.8 s	8.8 s			
Will there be changes in next 18 months?	No	No			
Frequency of one-point QC check (gaseous)	Bi-Weekly	Bi-Weekly			
Last annual performance evaluation (gaseous)	12/19/14	12/19/14			

Table 5.10  
Nojoqui Monitoring Station Details

<b>Site Name</b>	<b>Nojoqui</b>			
AQS ID	060831018			
GIS coordinates	34.527472 -120.1965			
Location	Located at the top of Nojoqui pass just off of US Hwy 101			
Address	US Hwy 101 & Nojoqui Pass, Gaviota Ca 93117			
County	Santa Barbara County			
Dist. to road	HWY 101,60 meters			
Traffic count (AADT, year)	Hwy 101 - 23700 (2013)			
Groundcover	Grass			
Representative area	MSA (Santa Barbara – Santa Maria, CA)			
<b>Pollutant, POC</b>	<b>O3,1</b>	<b>NO2,1</b>		
Monitor Type	SPM	SPM		
Network Affiliation	PSD	PSD		
Parameter Code	44201	42602		
Monitoring Objective	NAAQS, Public	NAAQS, Public		
Site type(s)	Transport, background	Transport, background		
MFG/ Model	TAPI 400e	TEI 42i		
Method Code	087	074		
FRM/FEM or other	FEM	FRM		
Collecting Agency	Santa Barbara County	Santa Barbara County		
Reporting Agency	Santa Barbara County	Santa Barbara County		
Spatial Scale	Regional	Regional		
Start date	7/1/87	7/1/87		
Operation schedule	Continuous	Continuous		
Sampling season	All Year	All Year		
Probe height	3.0 m	3.0 m		
Distance from supporting structure	1.0 m	1.0 m		
Distance from obstructions on roof	None	None		
Distance from obstructions not on roof	None	None		
Distance from trees	None	None		
Distance to furnace or incinerator	None	None		
Unrestricted airflow	360°	360°		
Probe material	Glass & Teflon	Glass & Teflon		
Residence time	17.6 s	19.3 s		
Will there be changes in next 18 months?	No	No		
Frequency of one-point QC check (gaseous)	Weekly	Weekly		

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Last annual performance evaluation (gaseous)	8/27/14	8/27/14			
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**Table 5.11**  
Paradise Road Monitoring Station Details

<b>Site Name</b>	<b>Paradise Road</b>				
AQS ID	060831014				
GIS coordinates	34.544436 -119.791464				
Location	Located in Los Padres National Forest off of Paradise Rd				
Address	Paradise Road, Los Padres National Forrest CA 93105				
County	Santa Barbara County				
Dist. to road	Paradise Rd., 100 meters				
Traffic count (AADT, year)	Paradise Rd - 100 est.				
Groundcover	Trees and brush				
Representative area	MSA (Santa Barbara – Santa Maria, CA)				
<b>Pollutant, POC</b>	<b>O3,1</b>	<b>NO2,1</b>			
Monitor Type	SPM	SPM			
Network Affiliation	PSD	PSD			
Parameter Code	44201	42602			
Monitoring Objective	NAAQS, Public	NAAQS, Public			
Site type(s)	Max O3 Conc.	Background			
MFG/ Model	TEI 49i	TEI 42i			
Method Code	047	074			
FRM/FEM or other	FEM	FRM			
Collecting Agency	Consultant	Consultant			
Reporting Agency	Santa Barbara County	Santa Barbara County			
Spatial Scale	Regional	Regional			
Start date	1/1/86	1/1/86			
Operation schedule	Continuous	Continuous			
Sampling season	All Year	All Year			
Probe height	5.0 m	5.0 m			
Distance from supporting structure	1.8 m	1.8 m			
Distance from obstructions on roof	None	None			
Distance from obstructions not on roof	None	None			
Distance from trees	20 m	20 m			
Distance to furnace or incinerator	None	None			
Unrestricted airflow	360°	360°			
Probe material	Glass & Teflon	Glass & Teflon			
Residence time	15.6 s	14.1 s			
Will there be changes in next 18 months?	No	No			
Frequency of one-point QC check (gaseous)	Bi-weekly	Bi-weekly			
Last annual performance evaluation (gaseous)	12/15/14	12/15/14			

Table 5.12  
Santa Barbara Monitoring Station Details

<b>Site Name</b>	<b>Santa Barbara</b>				
AQS ID	060830011				
GIS coordinates	34.427711 -119.690844				
Location	In parking lot of the National Guard Armory				
Address	700 E. Canon Perdido, Santa Barbara CA 93103				
County	Santa Barbara County				
Dist. to road	De La Guerra, 7meters; N Quarantina, 85 meters; N. Nopal, 60 meters; E. Canon Perdido, 140 meters; N. Milpas, 200 meters				
Traffic count (AADT, year)	De La Guerra - 4500 (1996); Canon Perdido - 7300 (1996); Quarantina - 100 est.; Milpas - 14600 (1996)				
Groundcover	Asphalt				
Representative area	MSA (Santa Barbara – Santa Maria, CA)				
<b>Pollutant, POC</b>	<b>O3,1</b>	<b>NO2,1</b>	<b>CO,3</b>	<b>PM2.5,3</b>	<b>PM10,1</b>
Monitor Type	SLAMS	SLAMS	SLAMS	SLAMS	SLAMS
Network Affiliation	NA	NA	NA	NA	NA
Parameter Code	44201	42602	42101	88101	81102
Monitoring Objective	NAAQS, public	NAAQS, public	NAAQS, public	NAAQS, public	NAAQS, public
Site type(s)	population	High concentration	High concentration	Highest concentration	population
MFG/ Model	TAPI 400	TAPI 200	TAPI 300eu	BAM 1020	BAM 1020
Method Code	087	099	593	170	122
FRM/FEM or other	FEM	FRM	FRM	FEM	FEM
Collecting Agency	CARB	CARB	CARB	CARB	CARB
Reporting Agency	CARB	CARB	CARB	CARB	CARB
Spatial Scale	Urban	Neighborhood	Middle Scale	Neighborhood	Neighborhood
Start date	5/1/02	5/1/02	5/1/02	7/1/10	5/1/02
Operation schedule	Continuous	Continuous	Continuous	Continuous	Continuous
Sampling season	All Year	All Year	All Year	All Year	All Year
Probe height	6.0 m	6.0 m	6.0 m	7.0 m	7.0 m
Distance from supporting structure	2.5 m	2.5 m	2.5 m	2.0 m	2.0 m
Distance from obstructions on roof	None	None	None	None	None
Distance from obstructions not on roof	None	None	None	None	None
Distance from trees	None	None	None	None	None
Distance to furnace or incinerator	None	None	None	None	None
Unrestricted airflow	360°	360°	360°	360°	360°
For low volume PM instruments, is any PM instrument within 1 m of the lovol? If yes, please list distance (meters) and instrument(s).	NA	NA	NA	No	No
Probe material	Glass & Teflon	Glass & Teflon	Glass & Teflon	N/A	N/A

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Residence time	7.0 s	8.1 s	5.6 s	N/A	N/A
Will there be changes in next 18 months?	No	No	No	No	No
Frequency of one-point QC check (gaseous)	Weekly	Weekly	Weekly		
Frequency of flow rate verification for automated PM analyzers				Bi-Weekly	Bi-Weekly
Last annual performance evaluation (gaseous)	12/18/14	12/18/14	12/18/14		
Last two semi-annual flow rate audits for PM monitors				5/15/14 12/18/14	5/15/14 12/18/14
Is it suitable for comparison against the annual PM2.5?	N/A	N/A	N/A	Yes	N/A

Note: This site is owned and operated by CARB. Data in this table are provided for reference only. CARB added PM10 STP (81102 method 122) in June 2013.

Table 5.13  
Santa Maria Monitoring Station Details

<b>Site Name</b>	<b>Santa Maria</b>				
AQS ID	060831008				
GIS coordinates	34.942864 -120.435625				
Location	Located on second floor of small office building				
Address	906 S. Broadway, Santa Maria CA 93454				
County	Santa Barbara County				
Dist. to road	S. Broadway, 25 meters; W. Morrison, 25 meters; El Camino Colegio, 120 meters; McClelland St., 100 meters				
Traffic count (AADT, year)	S. Broadway - 24000 (2010); Morrison - 4016 (2010); El Camino Colegio 769 (2010); McClelland - 500 (est.)				
Groundcover	Roof				
Representative area	MSA (Santa Barbara – Santa Maria, CA)				
<b>Pollutant, POC</b>	<b>O3,1</b>	<b>NO2,1</b>	<b>CO, 1</b>	<b>PM10,2</b>	<b>PM2.5, 3</b>
Monitor Type	SLAMS	SLAMS	SLAMS	SLAMS	SLAMS
Network Affiliation	NA	NA	NA	NA	NA
Parameter Code	44201	42602	42101	81102	88101
Monitoring Objective	NAAQS, public	NAAQS, public	NAAQS, public	NAAQS, public	NAAQS, public
Site type(s)	Population	Population	Highest Conc.	Population	Population
MFG/ Model	TAPI 400	TAPI 200	TAPI T300eu	BAM 1020	BAM 1020
Method Code	087	099	593	122	170
FRM/FEM or other	FEM	FRM	FRM	FEM	FEM
Collecting Agency	CARB	CARB	CARB	CARB	CARB
Reporting Agency	CARB	CARB	CARB	CARB	CARB
Spatial Scale	Urban	Urban	Middle Scale	Neighborhood	Neighborhood
Start date	5/1/99	5/1/99	5/1/99	7/1/09	7/1/10
Operation schedule	Continuous	Continuous	Continuous	Continuous	Continuous
Sampling season	All Year	All Year	All Year	All Year	All Year
Probe height	9.0 m	9.0 m	9.0 m	7.0 m	9.0 m
Distance from supporting structure	3.0 m	3.0 m	3.0 m	2.0 m	2.0 m
Distance from obstructions on roof	None	None	None	None	None
Distance from obstructions not on roof	None	None	None	None	None
Distance from trees	None	None	None	None	None
Distance to furnace or incinerator	None	None	None	None	None
Unrestricted airflow	360°	360°	360°	360°	360°
For low volume PM instruments, is any PM instrument within 1 m of the loval? If yes, please list distance (meters) and instrument(s).	NA	NA	NA	No	No

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Probe material	Glass & Teflon	Glass & Teflon	Glass & Teflon	N/A	N/A
Residence time	8.2 s	10.5 s	5.0 s	N/A	N/A
Will there be changes in next 18 months?	No	No	No	No	No
Frequency of one-point QC check (gaseous)	Weekly	Weekly	Weekly		
Frequency of flow rate verification for automated PM analyzers				Bi-Weekly	Bi-Weekly
Last annual performance evaluation (gaseous)	11/19/14	11/19/14	12/18/14		
Last two semi-annual flow rate audits for PM monitors				5/14/14 11/19/14	5/14/14 11/19/14
Is it suitable for comparison against the annual PM2.5?	N/A	N/A	N/A	N/A	Yes

Note: This site is owned and operated by CARB. Data in this table are provided for reference only. CARB added PM10 STP (81102 method 122) in June 2013.



**Table 5.14**  
Santa Ynez Monitoring Station Details

<b>Site Name</b>	<b>Santa Ynez</b>				
AQS ID	060833001				
GIS coordinates	34.605819 -120.075069				
Location	South side of Santa Ynez airport runway				
Address	900 Airport Rd., Santa Ynez, CA				
County	Santa Barbara County				
Dist. to road	HWY 246, 550 meters				
Traffic count (AADT, year)	Hwy 246 - 8050 (2013)				
Groundcover	Grass/Dirt				
Representative area	MSA (Santa Barbara – Santa Maria, CA)				
<b>Pollutant, POC</b>	<b>O3,1</b>				
Monitor Type	SLAMS				
Network Affiliation	NA				
Parameter Code	44201				
Monitoring Objective	NAQQS, public				
Site type(s)	Population				
MFG/ Model	TAPI T400				
Method Code	087				
FRM/FEM or other	FEM				
Collecting Agency	Santa Barbara County				
Reporting Agency	Santa Barbara County				
Spatial Scale	Urban				
Start date	7/1/2013				
Operation schedule	Continuous				
Sampling season	All Year				
Probe height	3.5 m				
Distance from supporting structure	1.0 m				
Distance from obstructions on roof	None				
Distance from obstructions not on roof	None				
Distance from trees	None				
Distance to furnace or incinerator	None				
Unrestricted airflow	360°				
Probe material	Teflon				
Residence time	2.6 s				
Will there be changes in next 18 months?	No				
Frequency of one-point QC check (gaseous)	Weekly				
Last annual performance evaluation (gaseous)	5/12/14				

Table 5.15  
UCSB West Campus Monitoring Station Details

<b>Site Name</b>	<b>UCSB West Campus</b>				
AQS ID	060831020				
GIS coordinates	34.414942 -119.879511				
Location	Located West of Deveroux slough near UCSB				
Address	UCSB West Campus, Santa Barbara, CA				
County	Santa Barbara County				
Dist. to road	Slough Road, 425 meters				
Traffic count (AADT, year)	Slough Road - 50 est				
Groundcover	Grass				
Representative area	MSA (Santa Barbara – Santa Maria, CA)				
<b>Pollutant, POC</b>	<b>SO<sub>2</sub>,2</b>	<b>H<sub>2</sub>S,1</b>	<b>TRS,1</b>	<b>THC,1</b>	
Monitor Type	SPM	SPM	SPM	SPM	
Network Affiliation	PSD	PSD	PSD	PSD	
Parameter Code	42401	42402	43911	43101	
Monitoring Objective	NAAQS, Public	Public	Public	Public	
Site type(s)	Source	Source	Source	Source	
MFG/ Model	TEI 43i	TEI 43i	TEI 43i	51i-HT	
Method Code	060	020	020	011	
FRM/FEM or other	FEM	N/A	N/A	N/A	
Collecting Agency	Consultant	Consultant	Consultant	Consultant	
Reporting Agency	Santa Barbara County	Santa Barbara County	Santa Barbara County	Santa Barbara County	
Spatial Scale	Neighborhood	Neighborhood	Neighborhood	Neighborhood	
Start date	6/1/99	6/1/99	6/1/99	6/1/99	
Operation schedule	Continuous	Continuous	Continuous	Continuous	
Sampling season	All Year	All Year	All Year	All Year	
Probe height	3.5	3.5	3.5	3.5	
Distance from supporting structure	1.1	1.1	1.1	1.1	
Distance from obstructions on roof	None	None	None	None	
Distance from obstructions not on roof	None	None	None	None	
Distance from trees	None	None	None	None	
Distance to furnace or incinerator	None	None	None	None	
Unrestricted airflow	360°	360°	360°	360°	
Probe material	Glass & Teflon	Glass & Teflon	Glass & Teflon	Glass & Teflon	
Residence time	18.1 s	19.9.9 s	19.9 s	14.9 s	
Will there be changes in next 18 months?	NO	No	No	No	
Frequency of one-point QC check (gaseous)	Bi-Weekly	Bi-Weekly	Bi-Weekly	Bi-Weekly	
Last annual performance evaluation (gaseous)	12/10/14	12/10/14	12/10/14	12/10/14	

Table 5.16  
VAFB STS Monitoring Station Details

<b>Site Name</b>	<b>VAFB STS</b>				
AQS ID	060834003				
GIS coordinates	34.595861 -120.63135				
Location	Coastal hillside east of a gas turbine peaking power plant				
Address	South VAFB, Vandenberg AFB, CA				
County	Santa Barbara County				
Dist. to road	Honda Ridge Road, 580 meters				
Traffic count (AADT, year)	Honda Ridge Road - 250 est				
Groundcover	Grass				
Representative area	MSA (Santa Barbara – Santa Maria, CA)				
<b>Pollutant, POC</b>	<b>O3,1</b>	<b>NO2,1</b>	<b>SO2,1</b>	<b>CO,1</b>	<b>PM10,3</b>
Monitor Type	SPM	SPM	SPM	SPM	SPM
Network Affiliation	PSD	PSD	PSD	PSD	PSD
Parameter Code	44201	42602	42401	42101	81102
Monitoring Objective	NAAQS, Public	NAAQS, Public	NAAQS, Public	NAAQS, Public	NAAQS, Public
Site type(s)	General Background	Source	Source	Source	Source
MRG/Model	TAPI 400e	TAPI 200e	TEI 43i	TAPI 300	BAM 1020
Method Code	087	074	060	093	122
FRM/FEM or other	FEM	FRM	FEM	FRM	FEM
Collecting Agency	Santa Barbara County	Santa Barbara County	Santa Barbara County	Santa Barbara County	Santa Barbara County
Reporting Agency	Santa Barbara County	Santa Barbara County	Santa Barbara County	Santa Barbara County	Santa Barbara County
Spatial Scale	Regional	Neighborhood	Neighborhood	Neighborhood	Neighborhood
Start date	6/1/88	6/1/88	6/1/88	6/1/88	6/1/88
Operation schedule	Continuous	Continuous	Continuous	Continuous	Continuous
Sampling season	All Year	All Year	All Year	All Year	All Year
Probe height	4.5 m	4.5 m	4.5 m	4.5 m	5.0 m
Distance from supporting structure	1.0 m	1.0 m	1.0 m	1.0 m	1.5 m
Distance from obstructions on roof	None	None	None	None	None
Distance from obstructions not on roof	None	None	None	None	None
Distance from trees	None	None	None	None	None
Distance to furnace or incinerator	None	None	None	None	None
Unrestricted airflow	360°	360°	360°	360°	360°
For low volume PM instruments, is any PM instrument within 1 m of the lovol? If yes, please list distance (meters) and instrument(s).	NA	NA	NA	NA	No

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Probe material	Glass & Teflon	Glass & Teflon	Glass & Teflon	Glass & Teflon	N/A
Residence time	7.0 s	8.2 s	7.7 s	6.9 s	N/A
Will there be changes in next 18 months?	No	No	No	No	No
Frequency of flow rate verification for automated PM samplers	N/A	N/A	N/A	N/A	Bi-Weekly
Frequency of one-point QC check (gaseous)	Weekly	Weekly	Weekly	Weekly	N/A
Last annual performance evaluation (gaseous)	5/14/14	5/14/14	5/14/14	5/14/14	N/A
Last two semi-annual flow rate audits for PM monitors	N/A	N/A	N/A	N/A	5/14/14 11/3/14

Note: VAFB STS PM10 spatial scale is classified as Neighborhood due to the dominate source being the nearby power plant.

## Glossary of Acronyms

AQS	Air quality system
ARB	Air Resources Board
ARM	Approved regional method
CARB	California Air Resources Board
CFR	Code of Federal Regulations
CO	Carbon monoxide
FEM	Federal equivalent method
FRM	Federal reference method
H <sub>2</sub> S	Hydrogen Sulfide
MSA	Metropolitan statistical area
NAAQS	National ambient air quality standard
NO <sub>2</sub>	Nitrogen dioxide
O <sub>3</sub>	Ozone
PM <sub>10</sub>	Particulate matter less than 10 microns in diameter
PM <sub>2.5</sub>	Particulate matter less than 2.5 microns in diameter
PSD	Prevention of significant deterioration
SBCAPCD	Santa Barbara County Air Pollution Control District
SLAMS	State and Local Air Monitoring Station
SO <sub>2</sub>	Sulfur dioxide
SPM	Special purpose monitor
THC	Total hydrocarbons
TRS	Total reduced sulfur
US EPA	United States Environmental Protection Agency

## 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 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, the Regional Administrator is not required to provide a separate opportunity for comment.

(3) The plan for establishing required NCore multi-pollutant 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.

(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<sub>2.5</sub>NAAQS as described in §58.30.

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

(c) The annual monitoring network plan must document how States and local agencies provide for the review of changes to a PM<sub>2.5</sub> monitoring network that impact the location of a violating PM<sub>2.5</sub> monitor or the creation/change to a community monitoring zone, including a description of the proposed use of spatial averaging for purposes of making comparisons to the annual PM<sub>2.5</sub> NAAQS as set forth in appendix N to part 50 of this chapter. 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. For PM<sub>2.5</sub>, the assessment also must identify needed changes to population-oriented sites. 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 first assessment is due 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

## EPA Approval of PM<sub>2.5</sub> Network Modification



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street

San Francisco, Ca. 94105-3901

MAY 21 2015

Mr. Joel Cordes  
Air Monitoring Supervisor  
Santa Barbara County Air Pollution Control District  
260 North San Antonio Road, Suite A  
Santa Barbara, California 93110-1315

Dear Mr. Cordes:

On March 19, 2015 we received Santa Barbara County Air Pollution Control District's (SBCAPCD) official request to change the monitor type for two Met One BAM 1020 PM<sub>2.5</sub> monitors from SPM to FEM SLAMS monitors; one monitor at the Lompoc H Street (AQ5 ID: 06-083-2004) site located at 128 S. H Street, Lompoc, CA and one monitor at the Goleta (06-083-2011) site located at 380 N. Fairview Ave., Goleta, CA. Upon our review of the documentation you have provided, pursuant to 40 CFR 58.10 and 58.14, we approve your conversions of the Goleta and Lompoc PM<sub>2.5</sub> SPM monitors to FEM SLAMS monitors beginning on January 1, 2014 and January 1, 2015, respectively.

We request that you submit data to AQS under the new parameter code 88101 and method code 170 as an FEM SLAMS PM<sub>2.5</sub> monitor for both sites. Please update the monitor information in the 2015 Annual Ambient Air Quality Monitoring Network Plan and 2015 Network Assessment and refer to and attach this approval letter to the 2015 Annual Ambient Air Quality Monitoring Network Plan.

Thank you for your cooperation throughout this process and please feel free to contact Dena Vallano (415) 972-3134 from my staff or myself (415) 947-4534 with any questions or concerns in regards to this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "Meredith Kurpius".

Meredith Kurpius, Manager  
Air Quality Analysis Office

cc: Dave Van Mullen, Director, Santa Barbara County Air Pollution Control District  
cc: (via email)  
Gayle Sweigert, California Air Resources Board  
Greg Gilani, California Air Resources Board  
Pheng Lee, California Air Resource Board

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