air pollution control district
SANTA BARBARA COUNTY

Annual Air Monitoring Network Plan
Santa Barbara County
Public Draft

June 1, 2019

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. A draft plan was available for public review and comment from June 1 through June 30, 2019. This draft plan is available for public review and comment from June 1 through June 30, 2019.

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). Industrial and “other” monitors are also included in this plan. The Industrial and “other” monitors in Santa Barbara County consist of a number 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. The Industrial sites are designed to measure regional air quality in addition to criteria pollutants from these oil and gas facilities, the “other” sites are designed to measure odorous compounds from these facilities. Operating permits for the oil and gas facilities require the industrial and “other” monitors to be operated for the life of the permitted facility. These Industrial and “other” monitors are not utilized for NAAQS comparisons, counted in assessing minimum monitoring requirements, and are considered secondary monitors by EPA.

1.1 Network Design

The air monitoring network in Santa Barbara County consists of SLAMS and Industrial monitors 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 Primary Quality Assurance Organization (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

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; and,
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; and,
6) Air pollution impact on visibility, vegetation damage or other welfare-based impacts.

During 2018, SBCAPCD worked with CARB and EPA to modify the monitoring network in order to free up resources from redundant and non-essential monitors while maintaining one of the most extensive air monitoring networks in the state. In February 2019 the District received EPA approval to shut down some monitors, change some Industrial monitors approved for shutdown to Non-NAAQS compliant (relieving CARB and EPA oversight), and change the ozone monitors at Paradise Road, Carpinteria, and Las Flores Canyon #1 from Industrial to SLAMS monitors. (See Appendix D). Additionally, SBCAPCD agreed to develop a transition plan to take responsibility for the operation of the Santa Barbara and Santa Maria SLAMS monitoring sites that are currently operated by CARB. These changes to the monitoring network were implemented in March 2019. This report details the network prior to and following implementation of these network modifications. Calculations in Section 2 of this

report, comparing the minimum number of monitors required to the number of monitors in the network were performed using the network design prior to implementing the network modifications detailed above.

Prior to these changes in the network, there were 15 ambient air monitoring stations located in Santa Barbara County. The map in Figure 1.1 shows the location of each site. Table 1.1 lists the sites in Santa Barbara County and identifies the site's EPA AQS identification code, type of site, and operator prior to the network modification.

After the network modification, there are 12 ambient air monitoring stations located in Santa Barbara County. Table 1.2 lists the sites in Santa Barbara County after the network modification and identifies the site's EPA AQS identification code, type of site, and operator. These sites are operated for different objectives. The stations with SLAMS monitors are sited to measure the typical concentrations in areas of high population density and/or to monitor the impacts of regional pollution.

In the 1980's during a major expansion of oil and gas development in Santa Barbara County, sites were installed to comply with permit conditions for major sources to measure the impacts of these stationary sources and to measure regional air quality. These sites have been classified as Industrial. Ozone monitors at three of these sites (Carpinteria, Paradise Road, and Las Flores Canyon #1) have recorded the highest ozone concentrations in the county, prompting the change to SLAMS noted above.

There are three stations in Santa Barbara County which measure odor impacts from permitted sources. These sites are: Lompoc Odor, LFC Odor and West Campus. SBCAPCD considers these "odor sites" to be sites to meet only Santa Barbara County regulatory requirements, and for state and federal regulations considered non-regulatory. Information on these "odor sites" are being provided in this report for informational purposes only.

The Lompoc Odor site was destroyed by a wildfire on September 29, 2017, so no data was collected from this point until the site was re-started and began collecting data for record on February 1, 2018.

Figure 1.1
Map of Monitoring Network in Santa Barbara County

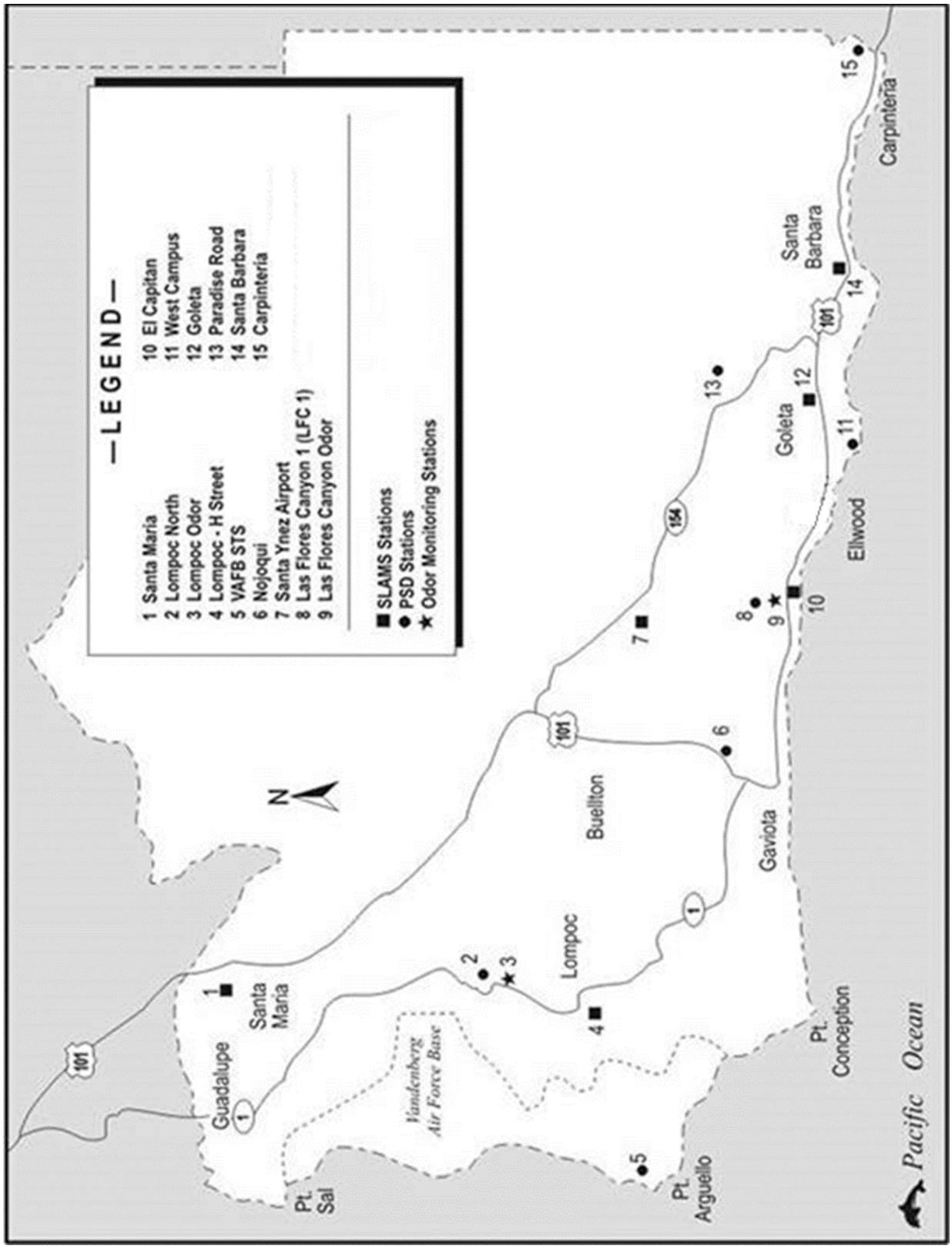

Table 1.1
Monitoring Network in Santa Barbara County Prior to Network Modification

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

Table 1.2
Monitoring Network in Santa Barbara County after Network Modification

No.	Site Name	Site Code	Type	Operator
1	Santa Maria	060831008	SLAMS	CARB/SBCAPCD[2]
2	Lompoc HS&P (North)	060831013	INDUSTRIAL	Contractor
3	Lompoc Odor	060831022	INDUSTRIAL	Contractor
4	Lompoc H Street	060832004	SLAMS	SBCAPCD
5	Santa Ynez	060833001	SLAMS	SBCAPCD
6	Exxon LFC 1	060831025	INDUSTRIAL/SLAMS[1]	SBCAPCD
7	LFC Odor	060831037	INDUSTRIAL	SBCAPCD
8	West Campus	060831020	INDUSTRIAL	Contractor
9	Goleta	060832011	SLAMS	SBCAPCD
10	Paradise Road	060831014	INDUSTRIAL/SLAMS[1]	Contractor
11	Santa Barbara	060830011	SLAMS	CARB/SBCAPCD[2]
12	Carpinteria	060831021	INDUSTRIAL/SLAMS[1]	Contractor

[1] Ozone monitor at these sites SLAMS, other monitors Industrial
[2] Responsibility for sites currently in transition, SBCAPCD scheduled to take responsibility by the end of 2019.

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; and,

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 1.3 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 1.3
Relationship between Site Types and Scales of Representativeness

Site Type	Appropriate Siting Scales
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 1.4 prior to network modification and Table 1.5 following network modification. The table includes the spatial scale and monitoring objective for each monitored pollutant.

Table 1.4
Measured Parameters with Spatial Scale and Monitoring Objective Prior to Network Modifications

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*							
El Capitan	**RS/BL**	**RS/BL**	**RS/BL**			**NS/BL**			
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**	**NS/PO**	**NS/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**	**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*

Note: Bold are SLAMS monitors, italic are Industrial or "Other".

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.

Table 1.5
Measured Parameters with Spatial Scale and Monitoring Objective after Network Modification

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*							
Goleta	**US/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**	**NS/PO**	**NS/PO**			
Lompoc HSP	*RS/BL*	*NS/IM*	*NS/IM*				*NS/IM*		
Lompoc Odor								*NS/IM*	*NS/IM*
Paradise Road	**RS/HC**	*RS/BL*							
Santa Barbara	**US/PO**				**NS/HC**	**NS/HC**			
Santa Maria	**US/PO**	**US/PO**		**MS/HC**	**NS/PO**	**NS/PO**			
Santa Ynez	**US/PO**								
West Campus			*NS/IM*				*NS/IM*	*NS/IM*	*NS/IM*

Note: Bold are SLAMS monitors, italic are Industrial or “Other”.

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.

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, PM2.5, and PM10, 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 446,527 based on the 2018 U.S. Census estimate. The number of monitors in the SBCAPCD monitoring network are based on the current network following the network approval.

All criteria pollutant monitors in Santa Barbara County are sited and operated to meet the requirements outlined in 40 CFR 58 Appendix A, B, C, D, and E where applicable.

2.1 Ozone (O3)

The minimum monitoring requirements for ozone are listed in Table 2.1. Santa Barbara County has 9 ozone monitors, with eight of these sites SLAMS sites, which meet the requirements of EPA. Santa Barbara County has a design value of 0.064 ppm based on 2016 – 2018 data which meets the new federal 8-hour ozone standard of 0.070 ppm. Santa Barbara County is classified non-attainment transitional for the state ozone standard based on the 2016 area designations. There were no sites in Santa Barbara County that recorded concentrations of ozone in excess of the new federal and state 8-hour ozone standard in 2018. The highest 8-hour ozone value recorded in Santa Barbara in 2018 was 0.070 ppm (meeting but not exceeding the state/federal standard) at the Carpinteria monitoring site on July 8, 2018. Data from ozone monitors in Santa Barbara County are utilized to inform the public on air quality through AQI reporting and air quality mapping. Additionally, the data from these sites are

compared to the NAAQS and state standards to assess attainment/non-attainment.

Table 2.1
Minimum Monitoring Requirements for Ozone

MSA	County	Pop. (year)	8-hour Design Value (years)[2]	Design Value Site (name, AQS ID)	Min. # Sites Required	# Sites Active[1]	Sites Needed
Santa Barbara – Santa Maria, CA	Santa Barbara County	446,527 (2018)	.064 ppm 2016 - 2018	LFC1 060831025	2	5	0

[1]Only SLAMS monitors 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. Santa Maria ozone monitor does not currently meet traffic count/distance requirements, see Section 2.9 and Table 5.12 for more details.
[2] 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 three SLAMS CO monitors located at Lompoc H Street, Goleta and Santa Maria which are used to measure the impacts of high population exposure and are not near roadway monitors. There is also CO monitors located at Exxon LFC1 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	446,527 (2018)	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 (NO2)

Ambient air monitoring and reporting requirements for NO2 are based on EPA's 2010 rule. One "near road" monitor is 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 monitors are required. Continued operation of existing SLAMS NO2 sites is required until discontinuation is approved by the EPA. There are four SLAMS NO2 monitors, Lompoc H Street, Goleta, El Capitan, and Santa Maria are used to measure the impacts of population exposure. There are four other sites which measure NO2: Carpinteria, Exxon LFC 1, Paradise Road, and Lompoc HS & P. 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[1]	# Additional Area-wide needed
Santa Barbara Santa Maria, CA	446,527 (2018)	N/A (below pop. Threshold)	0	0	0	0	3	0

[1]Only SLAMS sites can be counted for minimum monitoring requirements. In addition, NO2 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. Santa Maria NO2 monitor does not currently meet traffic count/distance requirements, see Section 2.9 and Table 5.12 for more details.
Monitors required for SIP or Maintenance Plan: None
Monitors required for PAMS: None
EPA Regional Administrator-required monitors per 40 CFR 58, App. D 4.3.4:

2.4 Sulfur Dioxide (SO2)

Ambient air monitoring and reporting requirements for SO2 are based on EPA's 2010 rule. EPA strengthened the primary NAAQS for SO2 on June 2, 2010. Monitors are required based on Core Based Statistical Areas (CBSAs) based on a population weighted emissions index for the area. Three monitors will are required in CBSAs with index values of 1,000,000 or more. Two monitors are required in CBSAs with index values less than 1,000,000 but greater than 100,000; and 1 monitor is required in CBSAs with index values greater than 5,000. Continued operation of existing SLAMS SO2 sites is required until discontinuation is approved by the EPA. There are two SLAMS SO2 monitors at Lompoc H Street and El Capitan which is used to measure the impacts of population exposure. There are three other sites which measure SO2: Exxon LFC 1, UCSB West Campus, and Lompoc HS&P. 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. Table 2.4 lists the minimum monitoring requirements for SO2. No monitors are required in Santa Barbara County.

Table 2.4
Minimum Monitoring Requirements for Sulfur Dioxide

CBSA/MSA	County	Pop. (year)	Total SO2[1](Ton/yr)	Population Weighted Emissions Index[2]	Data Requirements Rule Source(s) using Monitoring	# Required Monitors	# Active Monitors[3]	# Additional Monitors Required
Santa Barbara Santa Maria, CA	Santa Barbara	446,527 (2018)	383.1	171.1	N/A below emissions threshold	0	2	0

[1]Using NEI data (2014)
[2]Calculated by multiplying CBSA population and total SO_2 and dividing product by one million
[3]Only SLAMS sites 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 (PM10)

The minimum monitoring requirements for PM10 are listed in Table 2.5. There are five SLAMS PM10 monitors located at Santa Barbara, Goleta, Lompoc H Street, El Capitan, and Santa Maria. There are two industrial sites which measure PM10: Exxon LFC 1 and Vandenberg STS. The LFC 1 and Vandenberg 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 PM10

MSA	County	Pop. (year)	Max 24 Hour Concentration (ug/m3)	2017 Max Concentration Site (name, AQS ID)	# Required Sites	# Active Sites[1]	# Additional SitesNeeded
Santa Barbara – Santa Maria, CA	Santa Barbara County	446,527 (2018)	122 (01/14/18)	Santa Barbara 060830011	1-2	5	0

[1]Only SLAMS sites can be counted for minimum monitoring requirement
Monitors required for SIP or Maintenance Plan: None

2.6 Particulate Matter (PM2.5)

The minimum monitoring requirements for PM2.5 are listed in Tables 2.6a and b. There are four SLAMS PM2.5 monitors located at Santa Barbara, Santa Maria, Goleta, and Lompoc H Street. The Santa Barbara PM2.5 monitor was not operational for all of 2016, and from January through July 2017 due to site safety issues (See Appendix B). The Lompoc H Street PM2.5 monitor experienced excessive downtime due to equipment problems in the first quarter of 2017. Because there is insufficient PM2.5 data for the period 2016-2018 the monitors at Santa Barbara and Lompoc H Street are not included in the design value calculations listed in Tables 2.6a and Tables 2.6b. Note that Goleta did not meet data completeness requirements for Q3 of 2016, but a valid annual and 24 hour

design data was calculated using the data substitution conventions outlined in 40 CFR 50 Appendix N Sections 4.1 and 4.2.

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[3] (years[1])	Annual Design Value Site (name, AQS ID)	Daily Design Value[3] (years)	Daily Design Value Site (name, AQS ID)	# Required SLAMS Sites	# Active SLAMS Sites[2]	# Additional SLAMS Sites Needed
Santa Barbara – Santa Maria, Ca	Santa Barbara County	446,527 (2018)	8.1 ug/m3 2016 – 2018	Goleta 06-083-2011	24 ug/m3 2016 - 2018	Goleta 06-083-2011	0	4	0

[1]DV Years = the three years over which the design value (DV) was calculated (e.g., 2008-2010)
[2]Only SLAMS sites can be counted for minimum monitoring requirement
[3] Santa Barbara and Lompoc H monitors did not meet completeness requirement for Design Day Calculations.

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

MSA	County	Pop. (year)	Annual Design Value[4] (years[1])	Annual Design Value Site (name, AQS ID)	Daily Design Value (years)	Daily Design Value[4] Site (name, AQS ID)	# Required Cont. Monitors	# Active Cont. Monitors[3]	# Additional Cont. Monitors[2] Needed
Santa Barbara – Santa Maria, Ca	Santa Barbara County	446,527 (2018)	8.1 ug/m3 2016 – 2018	Goleta 06-083-2011	24 ug/m3 2016 - 2018	Goleta 06-083-2011	0	4	0

[1]DV Years = the three years over which the design value (DV) was calculated (e.g., 2008-2010)
[2] Only count one continuous monitor per site.
[3]Only SLAMS sites can be counted for minimum monitoring requirement
Monitors required for SIP or Maintenance Plan: None
[4] Santa Barbara and Lompoc H monitors did not meet completeness requirement for Design Day Calculations.

2.7 Lead (Pb)

The monitoring requirements for lead are based on EPA's 2008 rule. The level of the primary standard is set at 0.15 ug/m3 measured as total suspended particles (TSP). The secondary standard is 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 (2014 NEI). 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	446,527 (2018)	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 Near Roadway NO2, CO, and PM2.5 Monitors

40 CFR 58 Appendix D requires near roadway NO2, CO, and PM2.5 monitors for CBSA's with populations greater than 1,000,000. The Santa Barbara-Goleta-Santa Maria MSA/CBSA has a population of 446,527 (2018 census estimate), so no NO2, CO, or PM2.5 near roadway monitors are required.

Table 2.8
Near Roadway Monitor Requirements

CBSA	Population & Census year	Max AADT counts (year)	# Required NO_2 Mon.	# Active NO_2 Mon.	# Required $PM_{2.5}$ Mon.	# Active $PM_{2.5}$ Mon.	# Required CO Mon.	# Active CO Mon.	# Additional Monitors Needed
Santa Barbara -Goleta-Santa Maria	446,527 (2018)	N/A Below Pop. Threshold	0	0	0	0	0	0	0

2.9 Recent or Proposed Modifications to the Network

Permits held by Venoco, Inc. require the operation of Ellwood Odor and West Campus industrial sites. Venoco, Inc. declared bankruptcy, forfeited bond funds to the California State Lands Commission, and turned over the offshore lease associated with the permit to California State Lands Commission. The offshore facility will be decommissioned by the State Lands Commission. Monitoring is required to continue during the decommissioning of the offshore facilities, but at this time, it is unknown when monitoring would be discontinued at the West Campus odor site. All pollutants at these sites are non-criteria at West Campus.

The permit holders responsible for the operation of the LFC Odor site have negotiated approval from the District to temporary shutdown the site while production at the associated processing plants is shut down. The site was temporary shutdown in July 2018 and will be re-started when production at the associated processing plant resume. As this change is for a non-criteria pollutant (H2S), approval from EPA is not required.

SBCAPCD is considering adding a PM10 or PM2.5 monitor at the Santa Ynez Monitoring Station. The District would add this monitor as a “special purpose” monitor to provide an opportunity to better understand the range of PM concentrations in the area. Depending on the results, this monitor could be converted to a SLAMS monitor.

As noted in the EPA review of the 2018 Annual Network Review, the Santa Maria ozone/NO2 monitors do not meet the siting requirements for distance to roadway/traffic counts for neighborhood or larger spatial scale. As such, it was not included in the calculations of number of ozone/NO2 monitors in Tables 2-1 and 2-3. Once SBCAPCD takes full responsibility for this monitoring station from CARB, the District will investigate moving the site to a location that will meet the siting requirements or request an exemption.

There are two SLAMS CO monitors operating in Santa Barbara County while the minimum requirement is zero. The SBCAPCD will discuss with CARB the removal of the CO monitors currently operating at the Santa Maria and Lompoc H stations.

There are two SLAMS NO2 monitoris operating in Santa Barbara County while the minimum requirement is zero. The SBCAPCD will discuss with CARB the removal of the NO2 monitors currently operating at the Santa Maria and Lompoc H stations.

In 2017 and 2018 EPA, CARB and SBCAPCD discussed various options for changing the SBCAPCD monitoring network to free up SBCAPCD/CARB/EPA resources which could be used elsewhere, while still providing appropriate

monitoring to the community. In February 2019, EPA approved these proposed changes by approving the shut-down of the following monitors (See Appendix D):

Table 2.9
EPA Approved Monitor Shutdown

AQS#	Site Name	Site Type	CO	NO2	SO2	O3	PM10
06-083-0008	El Capitan	SLAMS		X	X	X	X
06-083-2011	Goleta	SLAMS	X				
06-083-1018	Nojoqui	Industrial		X		X	
06-083-1021	Carpinteria	Industrial		X		X	
06-083-1025	Las Flores Canyon #1	Industrial	X	X	X		X
06-083-1014	Paradise Road	Industrial		X			
06-083-1013	Lompoc HSP	Industrial		X	X	X	
06-083-4003	VAFB STS	Industrial	X	X	X	X	X
06-083-1020	West Campus	Industrial			X		

In addition to the EPA approval of the shut-down of the above monitors, EPA approved changing the ozone monitors at Carpinteria, Las Flores Canyon #1, and Paradise Road from Industrial to SLAMS monitors. This change was prompted by these ozone monitors historically recording the highest ozone concentrations in Santa Barbara County.

Some of the monitors approved by EPA for shutdown are now allowed to be classified non-NAAQS compliant Industrial monitors and will continue operation, while eliminating the non-essential or redundant Industrial and SLAMS monitors. The resulting non-NAAQS compliant Industrial/“other” odor site monitoring network in Santa Barbara County is listed below:

Table 2.10
Non-NAAQS Compliant Industrial/"Other" Monitors

AQS#	Site Name	CO	NO2	SO2	O3	PM10	THC	H2S	TRS
06-083-1021	Carpinteria		X						
06-083-1025	Las Flores Canyon #1	X	X	X		X	X		
06-083-1014	Paradise Road		X						
06-083-1013	Lompoc HSP		X	X	X		X		
06-083-1020	West Campus			X				X	X
06-083-1022	Lompoc Odor							X	X
06-083-1037	Las Flores Canyon Odor							X	

2.10 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 three stations which are set up near oil and gas processing facilities to monitor for two odorous compounds: Hydrogen sulfide (H2S) and total reduced sulfur (TRS). These monitors are located at the following stations: Lompoc Odor, LFC Odor, and UCSB West Campus.

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

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 SLAMS and industrial monitors meet the requirements of 40 CFR 58.

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 in Santa Barbara County are audited on an annual basis by the CARB. The industrial and "other" odor stations operated by the District and 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 SLAMS 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 industrial sites 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.
5. Distance to Trees entries represent the distance from the probe to the tree dripline.

Table 5.1
Carpinteria Monitoring Station Details

Site Name	**Carpinteria**				
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)				
Pollutant, POC	**O3,1**	**NO2,1**			
Monitor Type	SLAMS[1]	INDUSTRIAL NON-NAAQS[1]			
Network Affiliation	NA	NA			
Parameter Code	44201	42602			
Monitoring Objective	NAAQS	Public			
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	4.3 m	4.3 m			
Distance from supporting structure	1.5 m	1.5 m			
Distance from obstructions on roof	None	None			
Distance from obstructions not on roof	13m/3m-tree	13m/3m-tree			
Distance from trees	13m	13m			
Distance to furnace or incinerator	None	None			
Unrestricted airflow	360^{o}	360^{o}			
Probe material	Glass & Teflon	Glass & Teflon			
Residence time	13.6 s	13.9 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)	12/3/2018	12/3/2018			

[1] Ozone changed from Industrial to SLAMS and NO2 changed to Non-NAAQS on February 26, 2019

Table 5.2
El Capitan Monitoring Station Details
SHUT DOWN ON March 31, 2019

Site Name	**El Capitan**				
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)				
Pollutant, POC	**O3,1**	**NO2,1**	**SO2,1**	**PM10,3**	
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	TEI 42i	TEI 43i	BAM 1020	
Method Code	087	074	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	3.6 m	3.6 m	3.6 m	4.6 m	
Distance from supporting structure	1.1 m	1.1 m	1.1 m	2.1 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 (meters) and instrument(s).	NA	NA	NA	No	

Probe material	Glass & Teflon	Glass & Teflon	Glass & Teflon	N/A	
Residence time	14.3 s	15.1 s	11.7 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)	9/6/2018	9/6/2018	9/6/2018	N/A	
Last two semi-annual flow rate audits for PM monitors	N/A	N/A	N/A	3/6/2018 9/6/2018	

Table 5.3
Goleta Monitoring Station Details

Site Name	**Goleta**				
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)				
Pollutant, POC	**O3,1**	**NO2,1[1]**	**CO,1[1]**	**PM10,1**	**PM2.5 ,1**
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	4.1 m	4.1 m	4.1 m	4.5 m	4.5 m
Distance from supporting structure	1.6 m	1.6 m	1.6 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

Residence time	16.1 s	13.8 s	12.5 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)	4/4/2018	4/4/2018	4/4/2018	N/A	N/a
Last two semi-annual flow rate audits for PM monitors				4/4/2018 10/9/2018	4/4/2018 10/9/2018
Is it suitable for comparison against the annual PM2.5?	N/A	N/A	N/A	N/A	Yes

[1] NO2 and CO monitors shut down on February 28, 2019

Table 5.4
Las Flores Canyon #1 Monitoring Station Details

Site Name	**Las Flores Canyon #1**				
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)				
Pollutant, POC	**O3,1**	**NO2,1**	**SO2,1**	**CO,1**	**PM10,3**
Monitor Type	SLAMS[1]	INDUSTRIAL NON-NAAQS[1]	INDUSTRIAL NON-NAAQS[1]	INDUSTRIAL NON-NAAQS[1]	INDUSTRIAL NON-NAAQS[1]
Network Affiliation	NA	NA	NA	NA	NA
Parameter Code	44201	42602	42401	42101	81102
Monitoring Objective	NAAQS, public	Public	Public	Public	Public
Site type(s)	Max O3 conc.	Source	Source	Source	Source
MFG/ Model	TAPI 400e	TEI42i[2]	TEI 43i	TEI 48i	BAM 1020
Method Code	087	074[2]	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	4.6 m
Distance from supporting structure	1.2 m	1.2 m	1.2 m	1.2 m	2.1 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	Glass & Teflon	N/A
Residence time	7.3 s	9.5 s	9.4 s	7.4 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)	Bi-Weekly or more often	Bi-Weekly or more often	Bi-Weekly or more often	Bi-Weekly or more often	N/A
Last annual performance evaluation (gaseous)	4/10/2018	4/10/2018	4/10/2018	4/10/2018	N/A
Last two semi-annual flow rate audits for PM monitors	N/A	N/A	N/A	N/A	4/10/2018 10/9/2018

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

[1] Ozone changed from Industrial to SLAMS and NO2, SO2, CO, and PM10 changed to Non-NAAQS on February 26, 2019

[2] NOx analyzer changed from TAPI 200E to TEI 42i on 5/15/18

Table 5.5

Las Flores Canyon Odor Monitoring Station Details

(Temporarily Shut Down)

Site Name	**Las Flores Canyon Odor**				
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)				
Pollutant, POC	**H2S,1**				
Monitor Type	Other				
Network Affiliation	NA				
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^{o}				
Probe material	Glass & Teflon				
Residence time	12.3 s				
Will there be changes in next 18 months?	No				
Frequency of one-point QC check (gaseous)	Bi-Weekly or more often				
Last annual performance evaluation (gaseous)	Did Not Operate				

Table 5.6
Lompoc HS&P Monitoring Station Details

Site Name	**Lompoc HS&P**				
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)				
Pollutant, POC	**O3,1**	**NO2,1**	**SO2,1**	**THC,1**	
Monitor Type	INDUSTRIAL NON-NAAQS[1]	INDUSTRIAL NON-NAAQS[1]	INDUSTRIAL NON-NAAQS[1]	INDUSTRIAL NON-NAAQS[2]	
Network Affiliation	NA	NA	NA	NA	
Parameter Code	44201	42602	42401	43101	
Monitoring Objective	Public	Public	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	4.9	4.9	4.9	4.9	
Distance from supporting structure	1.7	1.7	1.7	1.7	
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	11.7 s	12.5 s	14.3 s	13.8 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)	12/14/2018	12/14/2018	12/14/2018	12/14/2018	

[1] O3, NO2, SO2, and CO changed to Non-NAAQS on February 26, 2019.
[2] THC not a criteria pollutant.

Table 5.7
Lompoc H Street Monitoring Station Details

Site Name	**Lompoc H Street**					
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)					
Pollutant, POC	**O3,1**	**NO2,1**	**SO2,1**	**CO,1**	**PM10,2**	**PM2.5,1**
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	TEI 42i	TEI 43i	TEI 48i	BAM 1020	BAM 1020
Method Code	087	074	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	Neighborhood	Neighborhood
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	4.4 m	4.4 m	4.4 m	4.4 m	5.3 m	5.3 m
Distance from supporting structure	1.0 m	1.0 m	1.0 m	1.0 m	1.9 m	1.9 m
Distance from obstructions on roof	None	None	None	None	None	None
Distance from obstructions not on roof/Obs. Height above inlet	15m/1m-building 16m/2m-tree	15m/1m-building 16m/2m-tree	15m/1m-building 16m/2m-tree	15m/1m-building 16m/2m-tree	15m/1m-building 16m/2m-tree	15m/1m-building 16m/2m-tree
Distance from trees	16m	16m	16m	16m	16m	16m
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 lovol? If yes, please list distance	NA	NA	NA	NA	No	No

(meters) and instrument(s).						
Probe material	Glass & Teflon	Glass & Teflon	Glass & Teflon	Glass & Teflon	N/A	N/A
Residence time	8.6 s	10.1 s	10.3 s	14.1 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)	Bi-Weekly or more often	Bi-Weekly or more often	Bi-Weekly or more often	Bi-Weekly or more often	N/A	N/A
Last annual performance evaluation (gaseous)	4/11/2018	4/11/2018	4/11/2018	4/11/2018	N/A	N/A
Last two semi-annual flow rate audits for PM monitors	N/A	N/A	N/A	N/A	4/11/2018 10/9/2018	4/11/2018 10/9/2018
Is it suitable for comparison against the annual PM2.5?	N/A	N/A	N/A	N/A	N/A	Yes

Note: PM10 and PM2.5 spatial scale was incorrectly listed as micro in the 2015 ANP based on incorrect traffic counts/distances. Based on correct counts/distances these monitors are now correctly listed as neighborhood spatial scale.

Table 5.8
Lompoc Odor Monitoring Station Details

Site Name	**Lompoc Odor**				
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)				
Pollutant, POC	**H2S,1**	**TRS,1**			
Monitor Type	Other	Other			
Network Affiliation	NA	NA			
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	4.8	4.8			
Distance from supporting structure	2.0	2.0			
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^{o}	360^{o}			
Probe material	Glass & Teflon	Glass & Teflon			
Residence time	18.7 s	18.7 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)	11/27/2018	11/27/2018			

Note: The Lompoc Odor site was destroyed by a wildfire on 9/29/17 and was not operational until it was re-started in February 2018.

Table 5.9
Nojoqui Monitoring Station Details
SHUT DOWN ON March 31, 2019

Site Name	**Nojoqui**				
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)				
Pollutant, POC	**O3,1**	**NO2,1**			
Monitor Type	INDUSTRIAL	INDUSTRIAL			
Network Affiliation	NA	NA			
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	4.0 m	4.0 m			
Distance from supporting structure	1.4 m	1.4 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	16.1 s	18.3 s			
Will there be changes in next 18 months?	No	No			
Frequency of one-point QC check (gaseous)	Weekly	Weekly			
Last annual performance evaluation (gaseous)	9/4/2018	9/4/2018			

Table 5.10
Paradise Road Monitoring Station Details

Site Name	**Paradise Road**				
AQS ID	060831014				
GIS coordinates	34.54170 -119.79152				
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)				
Pollutant, POC	**O3,1**	**NO2,1**			
Monitor Type	SLAMS[1]	INDUSTRIAL NON-NAAQS[1]			
Network Affiliation	NA	NA			
Parameter Code	44201	42602			
Monitoring Objective	NAAQS, Public	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	5.2 m	5.2 m			
Distance from supporting structure	2.2 m	2.2 m			
Distance from obstructions on roof	None	None			
Distance from obstructions not on roof	20m/2m-tree	20m/2m-tree			
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	13.0 s	13.1 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)	12/4/2018	12/4/2018			

[1] Ozone changed from Industrial to SLAMS and NO2 changed to Non-NAAQS on February 26, 2019

Table 5.11
Santa Barbara Monitoring Station Details

Site Name	**Santa Barbara**		
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, 10 meters; 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) N. Nopal – 100 est.		
Groundcover	Asphalt		
Representative area	MSA (Santa Barbara – Santa Maria, CA)		
Pollutant, POC	**O3,1**	**PM2.5,3**	**PM10,3**
Monitor Type	SLAMS	SLAMS	SLAMS
Network Affiliation	NA	NA	NA
Parameter Code	44201	88101	81102
Monitoring Objective	NAAQS, public	NAAQS, public	NAAQS, public
Site type(s)	population	Highest concentration	population
MFG/ Model	TAPI 400	BAM 1020	BAM 1020
Method Code	087	170	122
FRM/FEM or other	FEM	FEM	FEM
Collecting Agency	CARB*	CARB*	CARB*
Reporting Agency	CARB*	CARB*	CARB*
Spatial Scale	Urban	Neighborhood	Neighborhood
Start date	5/1/02	7/1/10	5/1/02
Operation schedule	Continuous	Continuous	Continuous
Sampling season	All Year	All Year	All Year
Probe height	4.8 m	4.5 m	4.5 m
Distance from supporting structure	2.1 m	1.8 m	1.8 m
Distance from obstructions on roof	None	None	None
Distance from obstructions not on roof	10m/3m-tree	10m/3m-tree	10m/3m-tree
Distance from trees	10m	10m	10m
Distance to furnace or incinerator	None	None	None
Unrestricted airflow	360^{o}	360^{o}	360^{o}
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	No	No
Probe material	Glass & Teflon	N/A	N/A
Residence time	7.8 s	N/A	N/A

Will there be changes in next 18 months?	No	No	No
Frequency of one-point QC check (gaseous)	Bi-Weekly or more often		
Frequency of flow rate verification for automated PM analyzers		Bi-Weekly	Bi-Weekly
Last annual performance evaluation (gaseous)	4/18/2018		
Last two semi-annual flow rate audits for PM monitors		4/18/2018 10/11/2018	4/18/2018 10/11/2018
Is it suitable for comparison against the annual PM2.5?	N/A	Yes	N/A

Note:

* The operation of this site is currently in transition. SBCAPCD are planning on taking responsibility for operation and reporting before the end of 2019.

Table 5.12
Santa Maria Monitoring Station Details

Site Name	**Santa Maria**				
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	Parking lot paving				
Representative area	MSA (Santa Barbara – Santa Maria, CA)				
Pollutant, POC	**O3,1**	**NO2,1**	**CO, 3**	**PM10,2**	**PM2.5, 3**
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	8.4 m	8.2 m	8.2 m	8.0 m	8.0 m
Distance from supporting structure	2.2 m	2.2 m	2.2 m	1.8 m	2.0 m
Distance from obstructions on roof	None	None	None	None	None
Distance from obstructions not on roof	16m/2m-tree	16m/2m-tree	16m/2m-tree	16m/2m-tree	16m/2m-tree
Distance from trees	16m	16m	16m	16m	16m
Distance to furnace or incinerator	None	None	None	None	None
Unrestricted airflow	360^{o}	360^{o}	360^{o}	360^{o}	360^{o}
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
Residence time	7.8 s	9.6 s	4.8 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)	Bi-Weekly or more often	Bi-Weekly or more often	Bi-Weekly or more often		
Frequency of flow rate verification for automated PM analyzers				Bi-Weekly	Bi-Weekly
Last annual performance evaluation (gaseous)	5/3/2018	5/3/2018	9/18/2018		
Last two semi-annual flow rate audits for PM monitors				5/3/2018 10/17/2018	5/3/2018 10/17/2018
Is it suitable for comparison against the annual PM2.5?	N/A	N/A	N/A	N/A	Yes

Note: As noted in the EPA review of the 2018 ANP, the ozone/NO2 monitors traffic/roadway distance does not meet siting criteria and was not included in the minimum number of ozone monitors on Table 2.1. When SBCAPCD takes full responsibility for operation of this site from CARB, staff will consider re-locating to meet this requirement.

* The operation of this site is currently in transition. SBCAPCD are planning on taking responsibility for operation and reporting before the end of 2019.

Table 5.13
Santa Ynez Monitoring Station Details

Site Name	**Santa Ynez**				
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)				
Pollutant, POC	**O3,1**				
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^{o}				
Probe material	Teflon				
Residence time	3.4 s				
Will there be changes in next 18 months?	No				
Frequency of one-point QC check (gaseous)	Bi-Weekly or more often				
Last annual performance evaluation (gaseous)	4/17/2018				

Table 5.14
UCSB West Campus Monitoring Station Details

Site Name	**UCSB West Campus**				
AQS ID	060831020				
GIS coordinates	34.414942 -119.879511				
Location	Located West of Deverouix 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)				
Pollutant, POC	**SO2,2**	**H2S,1**	**TRS,1**	**THC,1**	
Monitor Type	INDUSTRIAL NON-NAAQS[1]	INDUSTRIAL NON-NAAQS[2]	INDUSTRIAL NON-NAAQS[2]	INDUSTRIAL NON-NAAQS[2]	
Network Affiliation	NA	NA	NA	NA	
Parameter Code	42401	42402	43911	43101	
Monitoring Objective	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	1.0	1.0	1.0	1.0	
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	16.1 s	15.3 s	15.3 s	9.7 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)	11/28/2018	11/28/2018	11/28/2018	11/28/2018	

[1] SO2 changed to Non-NAAQS on February 26, 2019.
[2] THC, H2S, and TRS not a criteria pollutant.

Table 5.15

VAFB STS Monitoring Station Details

SHUT DOWN ON March 31, 2019

Site Name	**VAFB STS**				
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)				
Pollutant, POC	**O3,1**	**NO2,1**	**SO2,1**	**CO,1**	**PM10,3**
Monitor Type	INDUSTRIAL	INDUSTRIAL	INDUSTRIAL	INDUSTRIAL	INDUSTRIAL
Network Affiliation	NA	NA	NA	NA	NA
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	099	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	3.5 m	3.5 m	3.5 m	3.5 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^{o}	360^{o}	360^{o}	360^{o}	360^{o}
For low volume PM instruments, is any PM instrument within 1 m of the lovol? If yes, please list distance	NA	NA	NA	NA	No

(meters) and instrument(s).					
Probe material	Glass & Teflon	Glass & Teflon	Glass & Teflon	Glass & Teflon	N/A
Residence time	12.7 s	9.9 s	10.1 s	12.2 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)	4/12/2018	4/12/2018	4/12/2018	4/12/2018	N/A
Last two semi-annual flow rate audits for PM monitors	N/A	N/A	N/A	N/A	Not operational for 2nd Q audit 10/8/2018

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
H2S	Hydrogen Sulfide
MSA	Metropolitan statistical area
NAAQS	National ambient air quality standard
NO2	Nitrogen dioxide
O3	Ozone
PM10	Particulate matter less than 10 microns in diameter
PM2.5	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
SO2	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 $PM_{2.5}$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 $PM_{2.5}$ monitoring network that impact the location of a violating $PM_{2.5}$ 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 $PM_{2.5}$ 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 PM2.5, 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 §58.1

APPENDIX B
EPA Shutdown Approval and Network Reconfiguration

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

FEB 26 2019

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

Dear Mr. Cordes:

This letter provides the Environmental Protection Agency's (EPA's) review and approval for Santa Barbara County Air Pollution Control District's (SBCAPCD's) discontinuation of the following State or Local Air Monitoring Station (SLAMS) or industrial monitors:

AQS ID	Site Name	SLAMS/ Industrial	carbon monoxide (CO)	nitrogen dioxide (NO_2)	sulfur dioxide (SO_2)	ozone (O_3)	particulate matter 10 microns or less in aerodynamic diameter (PM_{10})
06-083-0008	El Capitan	SLAMS		X[1]	X	X	X
06-083-2011	Goleta	SLAMS	X	X			
06-083-1018	Nojoqui	Industrial		X		X	
06-083-1021	Carpinteria	Industrial		X			
06-083-1025	Los Flores Canyon #1 (LFC1)	Industrial	X	X	X		X
06-083-1014	Paradise Road	Industrial		X			
06-083-1013	Lompoc HSP	Industrial		X	X	X	
06-083-4003	VAFB South Base (VAFB)	Industrial	X	X	X	X	X
06-083-1020	UCSB West Campus	Industrial			X		

[1] Discontinuations noted by X

On August 7, 2018, SBCAPCD sent the request letter to the EPA. Detailed conversations between SBCAPCD and the Primary Quality Assurance Organization, California Air Resources Board (CARB), followed. On December 4, 2018, EPA received a copy of a letter from CARB to SBCAPCD conveying CARB's support for SBCAPCD's August 7, 2018 request. We recognize that SBCAPCD requested an expedited review, and appreciate SBCAPCD's understanding as the EPA's response was delayed due to lack of staff over the holidays followed by the lengthy government shutdown.

Per 40 CFR 58.14, monitoring agencies are required to obtain EPA approval for the discontinuation of SLAMS monitors. Discontinuation of all NO_2, SO_2, and CO monitors listed above were reviewed by the EPA against criteria contained in 40 CFR 58.14(c)(1). According to data submitted to the EPA's Air Quality System (AQS), the aforementioned monitors were in attainment of the respective National Ambient Air Quality Standards (NAAQS) from 2013-2017. Based on these five design values, there is

less than 10 percent probability of exceeding 80 percent of the respective NAAQS during the next three years at these monitors. These monitors are not specifically required by an attainment or maintenance plan and are not the last monitors in a nonattainment or maintenance area. Furthermore, discontinuation of these monitors does not compromise data collection needed for implementation of the respective NAAQS and will not prevent SBCAPCD and CARB from meeting 40 CFR 58 Appendix D requirements. Based on these analyses, the EPA approves the discontinuation of the aforementioned NO_2, SO_2, and CO monitors. Please include these network modifications and the EPA's approval in your next Annual Network Plan.

Discontinuation of the El Capitan, Nojoqui, Lompoc HSP, and VAFB O_3 monitors was specifically reviewed under 40 CFR 58.14(c). All of these monitors were in attainment of the 2015 8-hour O_3 NAAQS for the period of 2013-2017 and were found to have lower 2017 design values than the highest monitoring site in the County, LFC1. With discontinuation of O_3 monitoring at these sites, SBCAPCD will continue to operate eight O_3 SLAMS monitors in the County. Based on these analyses, discontinuation of these monitors does not compromise data collection needed for implementation of the 2015 O_3 NAAQS and will not prevent SBCAPCD and CARB from meeting 40 CFR 58 Appendix D requirements.

Discontinuation of the El Capitan, LFC1, and VAFB PM_{10} monitors was also reviewed under 40 CFR 58.14(c). The El Capitan monitor was in attainment of the 1987 24-hour PM_{10} NAAQS for the years of 2013-2017. VAFB and LFC1 were in attainment of the 1987 24-hour PM_{10} NAAQS for years 2013-2015, but had violating design values in 2016 and 2017. Review of the 24-hour PM_{10} averages for all three of these monitors for the period 2013-2017 showed spikes in concentrations that appeared to correlate with the 2016 and 2017 wildfires noted in SBCAPCD's Exceptional Events Initial Notification submitted to the EPA on July 11, 2018. These monitors are not the PM_{10} design value monitors for the County based on review of the latest certified data (i.e. 2017 design values). Even with discontinuation of monitoring at these sites, SBCAPCD will still be operating four PM_{10} SLAMS monitors in the County. Based on these analyses, discontinuation of these monitors does not compromise data collection needed for implementation of the1987 24-hour PM_{10} NAAQS and will not prevent SBCAPCD and CARB from meeting 40 CFR 58 Appendix D requirements.

The EPA approves the discontinuation of the aforementioned O_3 and PM_{10} monitors per 40 CFR 58.14(c). Please include these network modifications and EPA's approval in your next Annual Network Plan. The EPA also approves reclassification of the O_3 monitors at Carpinteria, LFC1, and Paradise Road from industrial to SLAMS. This approval assumes that these monitors meet all 40 CFR 58 requirements.

In addition to approval of the proposed modifications discussed above, the EPA acknowledges that SBCAPCD will take over ownership and operation of the Santa Barbara (AQS ID: 06-083-0011) and Santa Maria (AQS ID: 06-083-1008) SLAMS sites from CARB.

The EPA also acknowledges that SBCAPCD has expressed the intention to operate non-regulatory monitoring at some of its sites. If SBCAPCD reports data from non-regulatory monitors to AQS, please let us know, and we will apply NAAQS exclusion flags to these monitors and associated data if it is not apparent from the parameter code that these are non-regulatory data.

We appreciate SBCAPCD's and CARB's efforts to utilize their resources effectively and efficiently, in support of understanding air quality and protecting public health and the environment in Santa Barbara County. If you have any questions regarding this letter or the enclosed comments, please feel free to contact me at (415) 947-4134 or Randall Chang (415) 947-4180.

Sincerely,

Gwen Yoshimura, Manager
Air Quality Analysis Office

cc (via email): Jin Xu, CARB
Kathy Gill, CARB
Michael Miguel, CARB
Michael Werst, CARB
Sylvia Vanderspek, CARB
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Andrea McStocker, CARB