Annual Air Monitoring Network Plan

Santa Barbara County

July 2014

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 plan was made available for public review and comment from June 1 through June 30, 2014. No comments were received.

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.

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 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

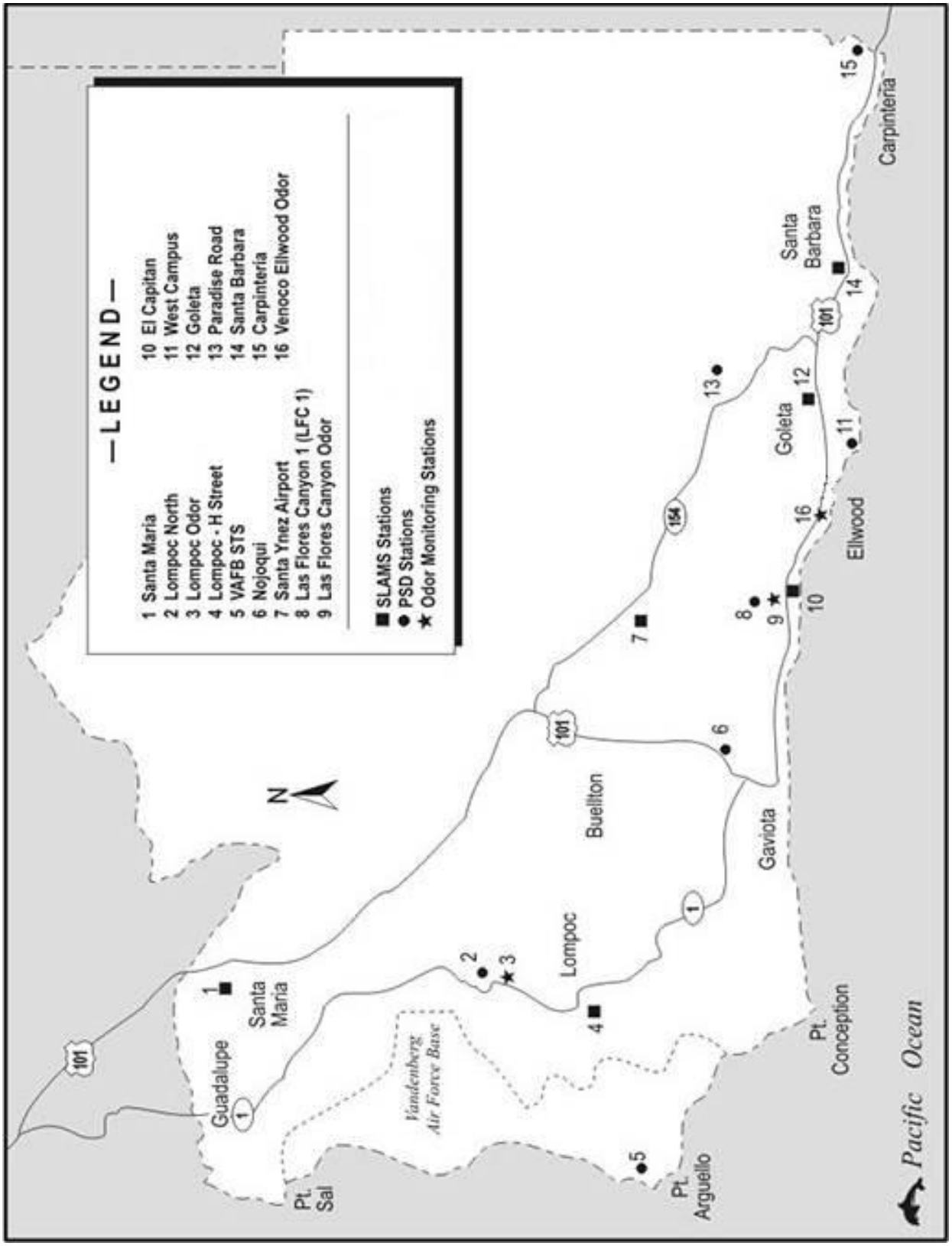


Table 1.1
Monitoring Network in Santa Barbara County

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

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 1.3. 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 FEM	PM-2.5 Non-Fem	PM-10	THC	H2S	TRS
AIRS Pollutant Code	44201	42602	42401	42101	88101	88501	81102	43101	42402	43911
Carpinteria	RS/HC	RS/BL								
El 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

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 431,249 based on the 2012 U.S. Census estimate.

2.1 Ozone (O3)

The minimum monitoring requirements for ozone are listed in Table 2.1. Santa Barbara County has 12 ozone monitors which meet the requirements of EPA. Santa Barbara County has a design value of .065 ppm based on 2011 – 2013 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. Only the Lompoc HSP site recorded concentrations of ozone in excess of the federal standards in 2013. The Lompoc HSP, Exxon LFC, Paradise Road, Vandenberg STS, Santa Ynez and Carpinteria sites measured concentrations of ozone in excess of the state standard in 2013. The other sites with ozone monitors are Santa Maria, El Capitan, Santa Barbara, and Lompoc H Street. 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)	Design Value Site (name, AQS ID)	Min. # Monitors Required	# Monitors Active	Monitors Needed
Santa Barbara – Santa Maria, CA	Santa Barbara County	431,249 (2012)	.065 ppm 2011 - 2013	Paradise Road, 060831014	2	12	0

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	431,249 (2012)	0	0	0

2.3 Nitrogen Dioxide (NO2)

On January 22, 2010, EPA strengthened the health-based NAAQS for NO2. 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 NO2 sites is required until discontinuation is approved by the EPA. There are five SLAMS NO2 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 NO2: 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	# Additional Area-wide needed
Santa Barbara Santa Maria, CA	431,249 (2012)	N/A (below pop. Threshold)	0	0	0	0	11	0

2.4 Sulfur Dioxide (SO2)

EPA strengthened the primary NAAQS for SO2 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 SO2 sites is required until discontinuation is approved by the EPA. There are two SLAMS SO2 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 SO2: 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 SO2 monitors must be operational by January 1, 2013. Table 2.4 lists the minimum monitoring requirements for SO2. 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 SO2 (Ton/yr)	Population Weighted Emissions Index	# Required Monitors	# Active Monitors	# Additional Monitors Required
Santa Barbara Santa Maria, CA	Santa Barbara	431,249 (2012)	1,068.5	452.9	0	7	0

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, El Capitan, Goleta, Lompoc H Street, and Santa Maria. Note that the Santa Barbara and Santa Maria sites operated by CARB began reporting data in standard conditions on 6/1/13; therefore their 2013 data set cannot be compared to NAAQS prior to this date. There are two PSD sites which measure PM10: 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 PM10

MSA	County	Pop. (year)	Max Concentration (ug/m3)	Max Concentration Site (name, AQS ID)	# Required Monitors	# Active Monitors	# Additional Monitors Needed
Santa Barbara – Santa Maria, CA	Santa Barbara County	431,249 (2012)	106 (10/4/13)	Santa Maria 060831008	0-1	5	0

2.6 Particulate Matter (PM2.5)

The minimum monitoring requirements for PM2.5 are listed in Tables 2.6a and b. Note that the Santa Barbara site did not meet completeness requirements in 2013.

There are four PM2.5 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 have real time samplers however, they are not FEM approved (Goleta monitor was switched to FEM on January 1, 2014). Because the PM2.5 monitors at Lompoc H Street and Goleta do not meet FEM

requirements, this data is reported to AQS utilizing the 88501 parameter code, indicating non-regulatory monitoring.

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)	Annual Design Value Site (name, AQS ID)	Daily Design Value (years)	Daily Design Value Site (name, AQS ID)	# Required SLAMS Monitors	# Active SLAMS Monitors	# Additional SLAMS Monitors Needed
Santa Barbara – Santa Maria, Ca	Santa Barbara County	431,249 (2012)	9.5 ug/m3 2011 – 2013	Santa Barbara 06-083-0011	18 ug/m3 2011 - 2013	Santa Barbara 06-083-0011	0	2	0

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

MSA	County	Pop. (year)	Annual Design Value (years)	Annual Design Value Site (name, AQS ID)	Daily Design Value (years)	Daily Design Value Site (name, AQS ID)	# Required Cont. Monitors	# Active Cont. Monitors	# Additional Cont. Monitors Needed
Santa Barbara – Santa Maria, Ca	Santa Barbara County	431,249 (2012)	9.5 ug/m3 2011 – 2013	Santa Barbara 06-083-0011	18 ug/m3 2011 - 2013	Santa Barbara 06-083-0011	0	2	0

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/m3 down to 0.15 ug/m3 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 0.4 tons per year. 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	431,249 (2012)	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	0.4 ton/yr	National Emissions Inventory	N/A	N/A	0	0	0

2.8 Recent or Proposed Modifications to the Network

As noted in the 2013 Network Plan, pepper trees had become overgrown to the north side of the Santa Ynez monitoring station and tree trimming was no longer able to meet probe siting requirements. An alternative site, 230 yards south of the original site in open terrain was identified and approved by the land owner (Santa Ynez Airport Authority).

Santa Barbara County APCD performed parallel ozone monitoring at both the original and new monitoring location from July 2013 through October 2013. Comparison of the parallel monitoring showed a very similar data set for the parallel monitoring period.

A formal request to shut down the original Santa Ynez monitoring station and continue monitoring at the new Santa Ynez location was submitted to EPA Region 9 on December 6, 2013. This request included summaries of the parallel monitoring as well as detailed description of the new location. EPA approved the request on February 12, 2014. Both the formal request and approval documents are provided in Appendix B of this document.

Data submissions to AQS from the new Santa Ynez monitoring station began on October 1, 2013. Per EPA guidance, the site number for the Santa Ynez monitoring station was not changed.

Santa Barbara County completed the transition for the monitoring methods utilized for PM10 from hi-volume samplers to continuous beta attenuation monitors. This transition was completed on January 1, 2013 with the El Capitan, Exxon LFC1, and VAFB STS sites switching from Hi-Vol to beta attenuation methods. This modification to the network did not require EPA approval as the monitoring method was the only change to the network. Eliminating the use of the hi-vol PM10 method also eliminated the co-location requirements for PM-10 as continuous FEM PM-10 monitors have no co-location requirements.

The Goleta site PM2.5 monitoring method was changed on January 1, 2014 from non-FEM (parameter 88501 method 731) to FEM (parameter 88101 method 170). Details of this change will be presented in the 2015 network review/assessment. As this modification changed only the method EPA approval was not required.

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 (H2S) 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: El Capitan, 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.

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 PSD stations 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.

Table 5.1
Carpinteria Monitoring Station Details

Site Name	**Carpinteria**				
AQS ID	060831021				
GIS coordinates	Lat 34º 24' 10.97" Long 119º 27' 28.62"				
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	200 meters				
Traffic count	20 Vehicles per day				
Groundcover	Grass				
Representative area	MSA (Santa Barbara – Santa Maria, CA)				
Pollutant, POC	**O3,1**	**NO2,1**			
Monitor Type	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	360º	360º			
Probe material	Glass & Teflon	Glass & Teflon			
Residence time	8.8 s	8.4 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)	10/16/13	10/16/13			

Table 5.2
El Capitan Monitoring Station Details

Site Name	**El Capitan**				
AQS ID	060830008				
GIS coordinates	Lat 34º 27' 44.8" Long 120º 1' 31.8"				
Location	Behind maintenance yard of campground				
Address	US Hwy 101, El Capitan State Beach, CA 93117				
County	Santa Barbara County				
Dist. to road	100 meters				
Traffic count	50000 Vehicles per day				
Groundcover	Grass and dirt				
Representative area	MSA (Santa Barbara – Santa Maria, CA)				
Pollutant, POC	**O3,1**	**NO2,1**	**SO2,1**	**THC,1**	**PM10,3**
Monitor Type	SLAMS	SLAMS	SLAMS	SLAMS	SLAMS
Parameter Code	44201	42602	42401	43101	81102
Monitoring Objective	Public Info	Public Info	Public Info	Public Info	Public Info
Site type(s)	General Background	General Background	General Background	General Background	General Background
Mfg/ Model	TAPI 400e	TAPI 200e	TEI 43i	TEI 51i-LT	BAM 1020
Method Code	087	099	060	011	122*
FRM/FEM or other	FEM	FRM	FEM	N/A	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	Regional	Regional	Regional	Neighborhood
Start date	6/1/78	6/1/78	6/1/78	6/1/78	6/1/78
Operation schedule	Continuous	Continuous	Continuous	Continuous	Continuous
Sampling season	All Year	All Year	All Year	All Year	All Year
Probe height	3.8 m	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	1.2 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	360º	360º	360º	360º	360º
Probe material	Glass & Teflon	Glass & Teflon	Glass & Teflon	Glass & Teflon	N/A
Residence time	10.9 s	11.1 s	13.4 s	10.8 s	N/A
Will there be changes in next 18 months?	No	No	No	No	No
Frequency of flow rate verification for automated PM analyzers	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)	7/24/13	7/24/13	7/24/13	7/24/13	N/A
Last two semi-annual flow rate audits for PM monitors	N/A	N/A	N/A	N/A	1/25/16 7/24/13

*Note that PM10 method was changed from 064 to 122 on 1/1/13.

Table 5.3
Ellwood Odor Monitoring Station Details

Site Name	**Ellwood Odor**				
AQS ID	060831032				
GIS coordinates	Lat 34º 25' 49.30" Long 119º 53' 51.18"				
Location	Located in a vehicle storage lot				
Address	Hollister Ave, Goleta, CA				
County	Santa Barbara County				
Dist. to road	100 meters				
Traffic count	20000 Vehicles per day				
Groundcover	Asphalt				
Representative area	MSA (Santa Barbara – Santa Maria, CA)				
Pollutant, POC	**H2S,1**	**TRS,1**			
Monitor Type	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	360º	360º			
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)	10/17/13	10/17/13			

Table 5.4
Goleta Monitoring Station Details

Site Name	**Goleta**				
AQS ID	060832011				
GIS coordinates	Lat 34º 26' 43.8" Long 119º 49' 42"				
Location	In field behind Lutheran Church				
Address	380 N. Fairview Ave., Goleta, CA				
County	Santa Barbara County				
Dist. to road	150 meters				
Traffic count	14000 Vehicles per day				
Groundcover	Grass				
Representative area	MSA (Santa Barbara – Santa Maria, CA)				
Pollutant, POC	**O3,1**	**NO2,1**	**CO,1**	**PM10,1**	**PM2.5 ,1**
Monitor Type	SLAMS	SLAMS	SLAMS	SLAMS	SLAMS
Parameter Code	44201	42602	42101	81102	88501
Monitoring Objective	NAAQS, Public Info	NAAQS, Public Info	NAAQS, Public Info	NAAQS, Public Info	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	733
FRM/FEM or other	FEM	FRM	FRM	FEM	Non-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	360º	360º	360º	360º	360º
Probe material	Glass & Teflon	Glass & Teflon	Glass & Teflon	N/A	N/A
Residence time	8.4 s	9.1 s	9.3 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	N/A	N/A	N/A	Bi-Weekly	Bi-Weekly

automated PM analyzers					
Last annual performance evaluation (gaseous)	5/7/13	5/7/13	5/7/13	N/A	N/a
Last two semi-annual flow rate audits for PM monitors				5/7/13 10/16/13	5/7/13 10/16/13
Is it suitable for comparison against the annual PM2.5?	N/A	N/A	N/A	N/A	No

Table 5.5

Las Flores Canyon #1 Monitoring Station Details

Site Name	**Las Flores Canyon #1**				
AQS ID	060831025				
GIS coordinates	Lat 34º 29' 23.1" Long 120º 2' 48.9"				
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	3200 meters				
Traffic count	50000 Vehicles per day				
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	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	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	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	360º	360º	360º	360º	360º
Probe material	Glass & Teflon	Glass & Teflon	Glass & Teflon	Glass & Teflon	N/A
Residence time	9.6 s	12.6 s	14.5 s	9.9 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)	4/23/13	4/23/13	4/23/13	4/23/13	N/A
Last two semi-annual flow rate audits for PM monitors	N/A	N/A	N/A	N/A	4/23/13 10/16/13

*Note that PM10 method was changed from 064 to 122 on 1/1/13.

Table 5.6

Las Flores Canyon Odor Monitoring Station Details

Site Name	**Las Flores Canyon Odor**				
AQS ID	060831037				
GIS coordinates	Lat 34º 27' 52.3" Long 120º 02' 41.9"				
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	100 meters				
Traffic count	50000 Vehicles per day				
Groundcover	Gravel				
Representative area	MSA (Santa Barbara – Santa Maria, CA)				
Pollutant, POC	**H2S,1**				
Monitor Type	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	360º				
Probe material	Glass & Teflon				
Residence time	12.7 s				
Will there be changes in next 18 months?	No				
Frequency of one-point QC check (gaseous)	Weekly				
Last annual performance evaluation (gaseous)	4/23/13				

Table 5.7
Lompoc HS&P Monitoring Station Details

Site Name	**Lompoc HS&P**				
AQS ID	060831013				
GIS coordinates	Lat 34º 43' 31.19" Long 120º 25' 43.28"				
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	2000 meters				
Traffic count	100 Vehicles per day				
Groundcover	Dirt				
Representative area	MSA (Santa Barbara – Santa Maria, CA)				
Pollutant, POC	**O3,1**	**NO2,1**	**SO2,1**	**THC,1**	
Monitor Type	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	100	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	360º	360º	360º	360º	
Probe material	Glass & Teflon	Glass & Teflon	Glass & Teflon	Glass & Teflon	
Residence time	7.3 s	9.0 s	9.5 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)	10/23/13	10/23/13	10/23/13	10/23/13	

Table 5.8
Lompoc H Street Monitoring Station Details

Site Name	**Lompoc H Street**					
AQS ID	060832004					
GIS coordinates	Lat 34º 38' 16.2" Long 120º 27' 27"					
Location	Parking lot behind gas company					
Address	128 S. H Street, Lompoc CA 93436					
County	Santa Barbara County					
Dist. to road	13 meters					
Traffic count	10000 Vehicles per day					
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
Parameter Code	44201	42602	42401	42101	81102	88501
Monitoring Objective	NAAQS, Public	NAAQS, Public	NAAQS, Public	NAAQS, Public	NAAQS, Public	Public
Site type(s)	Population	Population	Population	Population	Population	Population
MFG/ Model	TAPI 400e	TAPI 200e	TEI 43i	TAPI 300	BAM 1020	BAM 1020
Method Code	087	099	060	93	122	731
FRM/FEM or other	FEM	FRM	FEM	FRM	FEM	Non-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	360º	360º	360º	360º	360º	360º
Probe material	Glass & Teflon	Glass & Teflon	Glass & Teflon	Glass & Teflon	N/A	N/A
Residence time	6.7 s	8.1 s	7.4 s	6.7 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)	4/24/13	4/24/13	4/24/13	4/24/13	N/A	N/A
Last two semi-annual flow rate audits for PM monitors	N/A	N/A	N/A	N/A	4/24/13 10/15/13	4/24/13 10/15/13
Is it suitable for comparison against the annual PM2.5?	N/A	N/A	N/A	N/A	N/A	No

Table 5.9
Lompoc Odor Monitoring Station Details

Site Name	**Lompoc Odor**				
AQS ID	060831022				
GIS coordinates	Lat 34º 43' 08.37" Long 120º 25' 57.94"				
Location	Located near an oil processing facility				
Address	2988 Harris Grade Rd, Lompoc, CA 93436				
County	Santa Barbara County				
Dist. to road	1000 meters				
Traffic count	100 Vehicles per day				
Groundcover	Dirt				
Representative area	MSA (Santa Barbara – Santa Maria, CA)				
Pollutant, POC	**H2S,1**	**TRS,1**			
Monitor Type	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	360º	360º			
Probe material	Glass & Teflon	Glass & Teflon			
Residence time	12.0 s	12.0 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)	10/15/13	10/15/13			

Table 5.10
Nojoqui Monitoring Station Details

Site Name	**Nojoqui**				
AQS ID	060831018				
GIS coordinates	Lat 34º 31' 38.9" Long 120º 11' 47.4"				
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	200 meters				
Traffic count	30000 Vehicles per day				
Groundcover	Grass				
Representative area	MSA (Santa Barbara – Santa Maria, CA)				
Pollutant, POC	**O3,1**	**NO2,1**			
Monitor Type	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	360º	360º			
Probe material	Glass & Teflon	Glass & Teflon			
Residence time	12.6 s	15.2 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)	7/23/13	7/23/13			

Table 5.11
Paradise Road Monitoring Station Details

Site Name	**Paradise Road**				
AQS ID	060831014				
GIS coordinates	Lat 34º 32' 39.97" Long 119º 47' 29.27"				
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	800 meters				
Traffic count	100 Vehicles per day				
Groundcover	Trees and brush				
Representative area	MSA (Santa Barbara – Santa Maria, CA)				
Pollutant, POC	**O3,1**	**NO2,1**			
Monitor Type	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	360º	360º			
Probe material	Glass & Teflon	Glass & Teflon			
Residence time	7.0 s	10.0 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)	10/22/13	10/22/13			

Table 5.12

Santa Barbara Monitoring Station Details

Site Name	**Santa Barbara**				
AQS ID	060830011				
GIS coordinates	Lat 34º 25' 39.76" Long 119º 41' 27.04"				
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	35 meters				
Traffic count	10000 Vehicles per day				
Groundcover	Asphalt				
Representative area	MSA (Santa Barbara – Santa Maria, CA)				
Pollutant, POC	**O3,1**	**NO2,1**	**CO,3**	**PM2.5,3**	**PM10,1**
Monitor Type	SLAMS	SLAMS	SLAMS	SLAMS	SLAMS
Parameter Code	44201	42602	42101	88101	85101
Monitoring Objective	NAAQS, public	NAAQS, public	NAAQS, public	NAAQS, public	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	Non-FEM
Collecting Agency	CARB	CARB	CARB	CARB	CARB
Reporting Agency	CARB	CARB	CARB	CARB	CARB
Spatial Scale	Urban	Neighborhood	Middle Scale	Neighborhood	Neighborhoo d
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	360º	360º	360º	360º	360º
Probe material	Glass & Teflon	Glass & Teflon	Glass & Teflon	N/A	N/A
Residence time	4.9 s	4.9 s	4.9 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)	4/19/13	4/19/13	4/19/13		
Last two semi-annual flow rate audits for PM monitors				4/18/13 10/16/13	4/18/13 10/16/13
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.

Table 5.13
Santa Maria Monitoring Station Details

Site Name	**Santa Maria**				
AQS ID	060831008				
GIS coordinates	Lat 34º 56 34.31Long 120º 26' 8.25"				
Location	Located on second floor of small office building				
Address	906 S. Broadway, Santa Maria CA 93454				
County	Santa Barbara County				
Dist. to road	60 meters				
Traffic count	30000 Vehicles per day				
Groundcover	Roof				
Representative area	MSA (Santa Barbara – Santa Maria, CA)				
Pollutant, POC	**O3,1**	**NO2,1**	**CO, 1**	**PM10,2**	**PM2.5, 3**
Monitor Type	SLAMS	SLAMS	SLAMS	SLAMS	SLAMS
Parameter Code	44201	42602	42101	85101	88101
Monitoring Objective	NAAQS, public	NAAQS, public	NAAQS, public	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	Non-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	360º	360º	360º	360º	360º
Probe material	Glass & Teflon	Glass & Teflon	Glass & Teflon	N/A	N/A
Residence time	6.1 s	6.1 s	6.1 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)	4/17/13	4/17/13	4/17/13		
Last two semi-annual flow rate audits for PM monitors				4/17/13 10/15/13	4/17/13 10/15/13
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

Table 5.14a

Original Santa Ynez Monitoring Station Details

Site Name	**Santa Ynez**				
AQS ID	060833001				
GIS coordinates	Lat 34º 36' 30.2" Long -120º 4' 29.0"				
Location	Santa Ynez airport office building				
Address	900 Airport Rd., Santa Ynez, CA				
County	Santa Barbara County				
Dist. to road	600 meters				
Traffic count	7000 Vehicles per day				
Groundcover	Grass				
Representative area	MSA (Santa Barbara – Santa Maria, CA)				
Pollutant, POC	**O3,1**				
Monitor Type	SLAMS				
Parameter Code	44201				
Monitoring Objective	NAQQS, public				
Site type(s)	Population				
MFG/ Model	TAPI 400e				
Method Code	087				
FRM/FEM or other	FEM				
Collecting Agency	Santa Barbara County				
Reporting Agency	Santa Barbara County				
Spatial Scale	Urban				
Start date	1/1/1980				
Operation schedule	Continuous				
Sampling season	All Year				
Probe height	5.5 m				
Distance from supporting structure	2.0 m				
Distance from obstructions on roof	None				
Distance from obstructions not on roof	None				
Distance from trees	5 m				
Distance to furnace or incinerator	None				
Unrestricted airflow	180º				
Probe material	Glass & Teflon				
Residence time	16.5 s				
Will there be changes in next 18 months?	Yes				
Frequency of one-point QC check (gaseous)	Weekly				
Last annual performance evaluation (gaseous)	5/13/13				

* Note: Data from the original site location was submitted to AQS for January 2013 through September 2013.

Table 5.14b

Relocated Santa Ynez Monitoring Station Details

Site Name	**Santa Ynez**				
AQS ID	060833001				
GIS coordinates	Lat 34º 36' 20.95" Long -120º 4' 30.25"				
Location	South side of Santa Ynez airport runway				
Address	900 Airport Rd., Santa Ynez, CA				
County	Santa Barbara County				
Dist. to road	550 meters				
Traffic count	9180 Vehicles per day (CAL Trans 2012 Traffic Volumes Book)				
Groundcover	Grass/Dirt				
Representative area	MSA (Santa Barbara – Santa Maria, CA)				
Pollutant, POC	**O3,1**				
Monitor Type	SLAMS				
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	360º				
Probe material	Teflon				
Residence time	16.5 s				
Will there be changes in next 18 months?	No				
Frequency of one-point QC check (gaseous)	Weekly				
Last annual performance evaluation (gaseous)	5/13/13 (original site)				

Table 5.15

UCSB West Campus Monitoring Station Details

Site Name	**UCSB West Campus**				
AQS ID	060831020				
GIS coordinates	Lat 34º 24' 53.79" Long 119º 52' 46.24"				
Location	Located West of Deverouix slough near UCSB				
Address	UCSB West Campus, Santa Barbara, CA				
County	Santa Barbara County				
Dist. to road	950 meters				
Traffic count	12,738 Vehicles per day				
Groundcover	Grass				
Representative area	MSA (Santa Barbara – Santa Maria, CA)				
Pollutant, POC	**SO2,2**	**H2S,1**	**TRS,1**	**THC,1**	
Monitor Type	PSD	PSD	PSD	PSD	
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	1.1	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	360º	360º	360º	360º	
Probe material	Glass & Teflon	Glass & Teflon	Glass & Teflon	Glass & Teflon	
Residence time	14.9 s	14.9 s	14.9 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)	10/21/13	10/21/13	10/21/13	10/21/13	

Table 5.16
VAFB STS Monitoring Station Details

Site Name	**VAFB STS**				
AQS ID	060834003				
GIS coordinates	Lat 34º 35' 45.10" Long 120º 37' 52.86"				
Location	Coastal hillside east of a gas turbine peaking power plant				
Address	South VAFB, Vandenberg AFB, CA				
County	Santa Barbara County				
Dist. to road	1000 meters				
Traffic count	1000 Vehicles per day				
Groundcover	Grass				
Representative area	MSA (Santa Barbara – Santa Maria, CA)				
Pollutant, POC	**O3,1**	**NO2,1**	**SO2,1**	**CO,1**	**PM10,3**
Monitor Type	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	TAPI 100e	TAPI 300	BAM 1020
Method Code	087	074	100	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	360º	360º	360º	360º	360º
Probe material	Glass & Teflon	Glass & Teflon	Glass & Teflon	Glass & Teflon	N/A
Residence time	11.2 s	11.5 s	10.6 s	10.0 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)	5/21/13	5/21/13	5/21/13	5/21/13	N/A
Last two semi-annual flow rate audits for PM monitors	N/A	N/A	N/A	N/A	5/21/13 11/7/13

*Note that PM10 method was changed from 064 to 122 on 1/1/13.

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 §58.14.

APPENDIX B
Santa Ynez Site Relocation Documents

Our Vision Clean Air

Santa Barbara County
Air Pollution Control District

December 6, 2013

Meredith Kurpius, Ph.D.
Air Quality Analysis Office, Manager
U.S. EPA Region 9
75 Hawthorne Street
Mail Code: AIR-7
San Francisco, California 94105

Dear Dr. Kurpius:

The Santa Barbara Air Pollution Control District (SBCAPCD) is requesting approval from U.S. EPA to move our air monitoring station at the Santa Ynez Airport in Santa Barbara County (AQS # 06-083-3001), based on 40 CFR Part 58.14 (6): *A SLAMS monitor not eligible for removal under any of the criteria in paragraphs (c)(1) through (c)(5) of this section may be moved to a nearby location with the same scale of representation if logistical problems beyond the State's control make it impossible to continue operation at its current site.*

This site has been measuring ozone concentrations since 1980. No other pollutants are measured at this site. We are requesting the relocation because the ozone sample probe no longer meets EPA's siting requirement listed in Part 58 Appendix E 5(a). Trees located around the site have grown and matured resulting in the probe being within 10 meters of the drip line of the trees.

The California Air Resources Board most recently conducted a performance audit on May 5, 2013 and noted the failure of the siting criteria. Prior audits have also noted the failure of siting criteria due to the location of the trees. In the past, the SBCAPCD would have the trees trimmed to meet the siting criteria. However, the trees have grown too big for tree trimming to be effective in meeting the siting criteria.

The SBCAPCD performed an analysis in accordance with 40 CFR Part 58.14 (c) to determine if the site could be discontinued. The site has shown attainment of the NAAQS for the last five years. However, there is a greater than 10% probability that the site could exceed 80% of the NAAQS in the next three years. The monitor at the site has also exceeded the NAAQS three of the last five years. The monitor therefore cannot be discontinued. Attachment 1 to this letter shows the calculation and results used to make this determination.

The SBCAPCD began searching for a suitable location with the same scale of representation. After an extensive search, an agreement was reached with the Santa Ynez Airport Authority to move the site approximately 320 yards south of the current location. A new shelter and new instrumentation were installed at the new location and began sampling on July 1, 2013.

The new site location is in open terrain free from trees and other obstructions in all directions. The predominant wind direction is westerly at both the old and new location. The old site was approximately 180 yards north of the airport runway edge while the new location is approximately 100 yards south of the runway edge. The runway is oriented east – west. Photo

documentation and a Google Earth siting schematic showing both the original Santa Ynez site and the newly located site are included with this letter as Attachment 2. A wind rose graph from data gathered from the Santa Ynez site for the year 2011 is included as Attachment 3. The wind pattern and dominant wind direction is assumed to be the same at the new location due to its immediate proximity to the existing site.

Parallel monitoring at the current and newly located site began July 1, 2013. However, August data was used as a starting point due to a calibration and adjustment to the ozone instrument at the end of July. A three month comparison of the ozone data for August through October 2013 shows similar results between the two sites supporting the acceptability of the proposed replacement site. Table 1 below shows summary statistics for ozone data gathered from the two sites while operated simultaneously between August and October 2013.

Table 1 – Santa Ynez and Santa Ynez 2 Station Ozone Summary Statistics August-October 2013

	Maximum 1 hr (ppb)	**Maximum 8 hr (ppb)**	**Avg Daily 1 hr Max (ppb)**	**Avg Daily 8 hr Max (ppb)**
Santa Ynez	67	59	22.9	19.3
Santa Ynez 2	64	57	22.6	19.2

The summary statistics listed in Table 1 indicate a strong positive correlation between ozone data recorded at both sites from August to October 2013. Additional data including scatter plots of the daily maximum 1 hour and the daily maximum 8 hour average ozone readings for both sites and monthly reports are included with this letter as Attachment 4. The data between the two stations correlates closely during the concurrent sampling period. The slope and r^2 correlation for the data is shown on the scatter plots. The r^2 correlation between the daily maximum 1 hour ozone readings from both sites was 0.9578 for August through October 2013. The r^2 correlation between the daily maximum rolling 8 hour average ozone readings was 0.9709 between the two sites from August to October 2013.

The purpose for constructing the new Santa Ynez site was to meet the siting criteria of CFR part 58 while relocating to a nearby location which would provide comparable readings of ozone and meteorological patterns. The site information tables from the monitoring network plan are included as Attachment 5. The new site has been gathering data for several months now which has provided conclusive evidence that the monitoring of ozone is comparable between the two nearby locations. With approval from the EPA the SBCAPCD intends to shut down operation of the existing Santa Ynez airport monitoring site location and begin submitting data from the relocated site.

Sincerely,

Joel S. Cordes
Air Monitoring Supervisor

Attachment 1
System Modification Analysis 40 CFR 58.14

System modification Analysis 40 CFR 58.14

Site	Santa Ynez
Monitor	Ozone

Design Value (ppb)												
2012	**2011**	**2010**	**2009**	**2008**	**Shown Attainment of NAAQS for 5 Years?**	$\overline{X}$ **Avg Design Value (ppb)**	**s Std Dev.**	***t***	***n***	**90% Upper Confidence Interval (ppb) ***	**80% of NAAQS (ppb)**	**< 10% Prob of exceed 80% of NAAQS?**
59	62	65	64	64	Yes	62.8	2.387	2.13	5	62.8	60	No

Max 8-hour (ppb)					
2012	**2011**	**2010**	**2009**	**2008**	**Not Exceed NAAQS for 5 years?**
60	80	80	66	78	No

* Equation

$$\overline{X} + \frac{t * s}{\sqrt{n}} < 0.8 * NAAQS$$

Attachment 2
Site Schematic and Site Photo Documentation

Santa Ynez Original Site
34°36'30.20"N / 120° 4'29.00"W
320 Yards
SANTA YNEZ
Santa Ynez Relocated Site
34°36'20.95"N / 120° 4'30.25"W
Google earth
1994
Imagery Date: 4/18/2013 34°36'25.65" N 120°04'26.72" W elev 669 ft eye alt 2374 ft

View of existing Santa Ynez site looking east.

View of existing Santa Ynez site looking south.

View of existing Santa Ynez site looking west.

View of existing Santa Ynez site looking north.

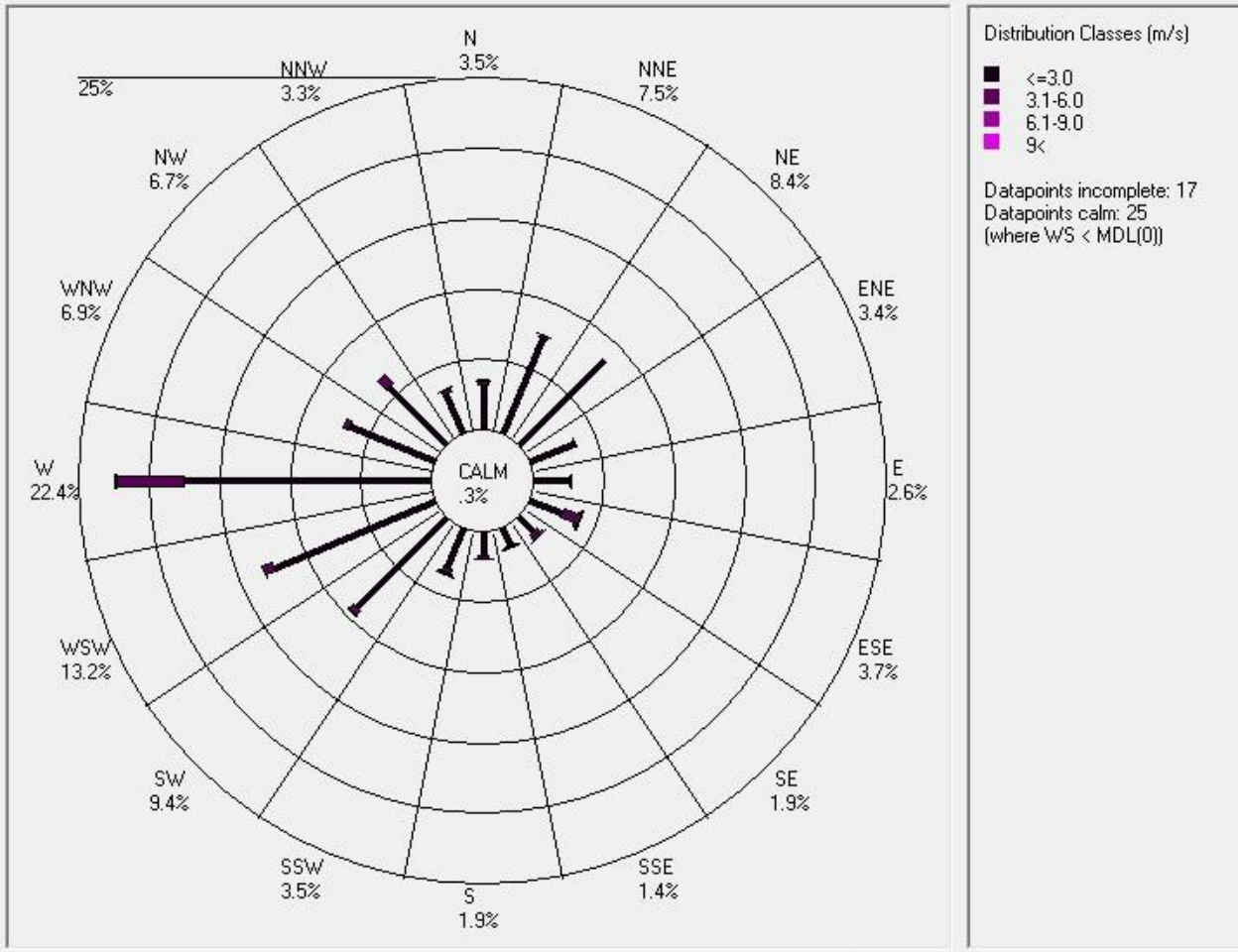
View of new Santa Ynez site looking north.

View of new Santa Ynez site looking east.

View of new Santa Ynez site looking south.

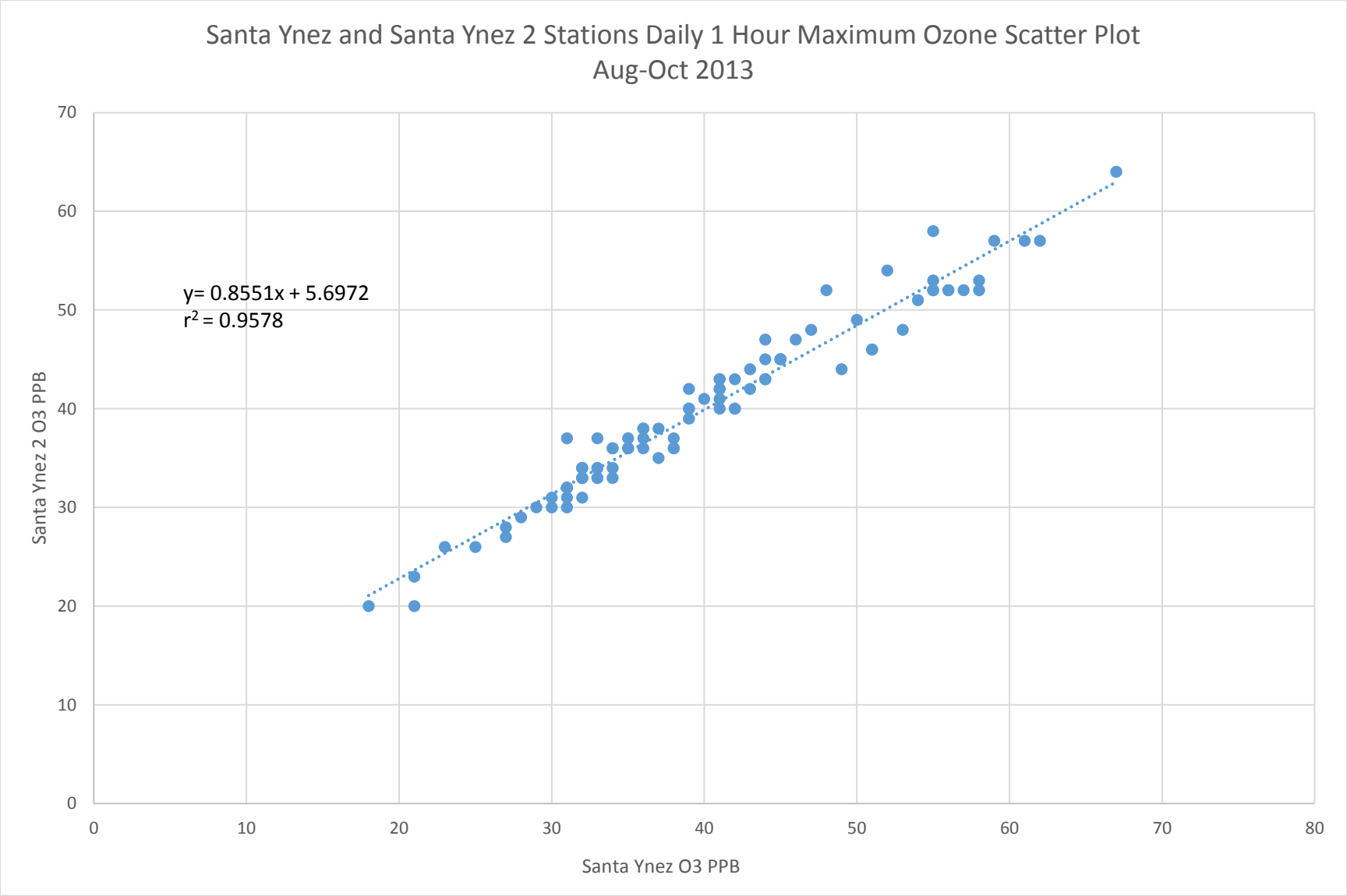
View of new Santa Ynez site looking west.

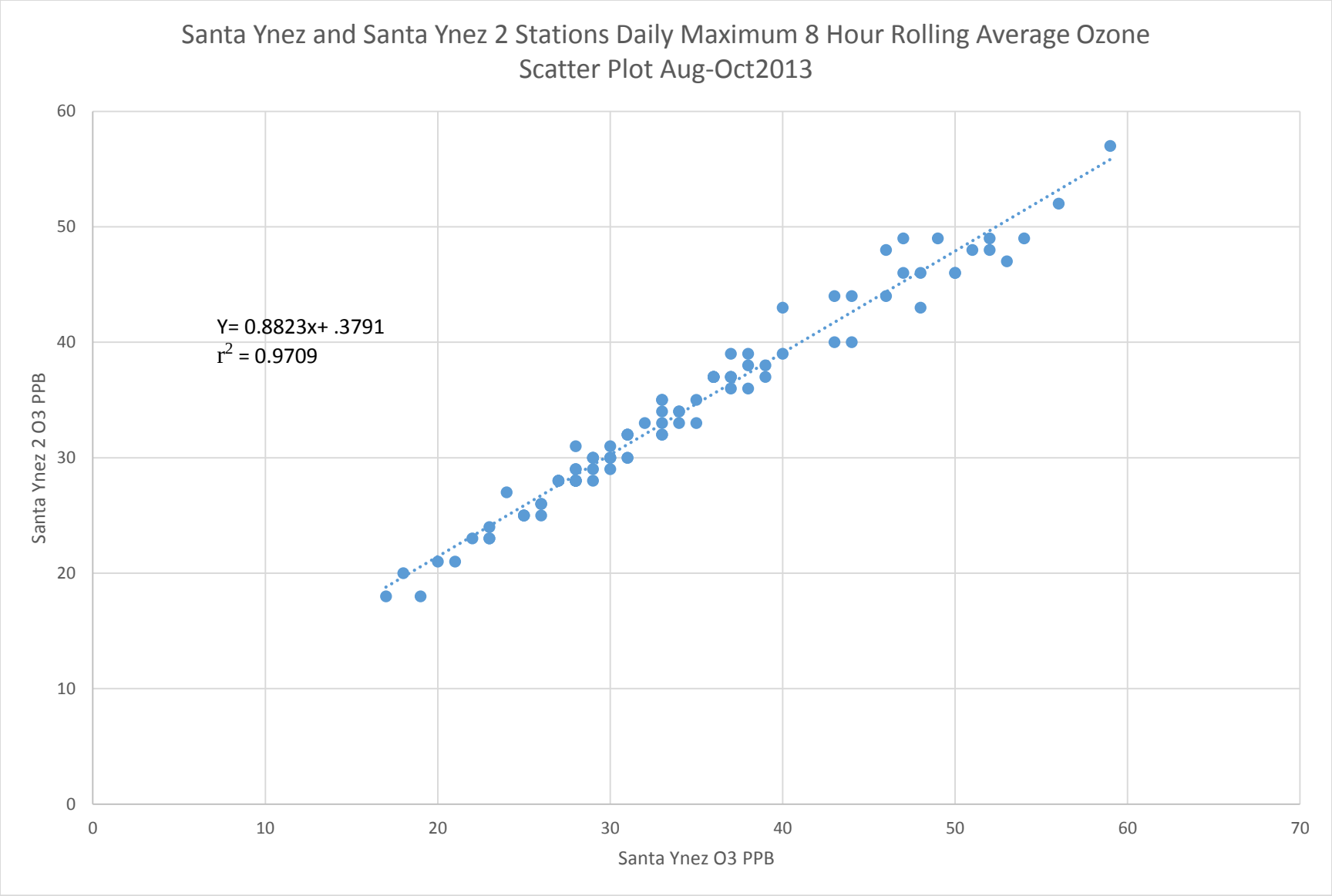
Attachment 3
Santa Ynez Station Wind Rose Data 2011



2011-01-01 00:00:00 to 2011-12-30 23:59:59 | Parm: SANTAYNEZ:WSR:WS | Met: SANTAYNEZ

Attachment 4
Concurrent Station Ozone Data Aug-October 2013


Santa Ynez and Santa Ynez 2 Stations Daily 1 Hour Maximum Ozone Scatter Plot
Aug-Oct 2013
y= 0.8551x + 5.6972
r² = 0.9578
Santa Ynez 2 O3 PPB
Santa Ynez O3 PPB
0
10
20
30
40
50
60
70
80


Santa Ynez and Santa Ynez 2 Stations Daily Maximum 8 Hour Rolling Average Ozone
Scatter Plot Aug-Oct2013
Y= 0.8823x+ .3791
r2 = 0.9709
Santa Ynez 2 O3 PPB
Santa Ynez O3 PPB
0
10
20
30
40
50
60
70

Current Date: 9/20/2013 2:41 PM

Monthly Report

Site Name: Santa Ynez 083 : 3001 August 2013 Avg Interval: 1 hour

Parameter: O3 44201 Units: PPB 008 Method: 087

Hours

Day	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Summary		
																									Max	Avg	RDS
01	17	14		16	16	15	15	15	17	18	21	22	22	23	22	22	22	22	21	21	19	17	16	14	23	18	23
02	13	13		9	12	11	11	11	13	19	24	27	29	30	31	26	24	21	19	18	17	15	13	13	31	18	23
03	13	12		12	10	10	10	9	12	15	24	33	36	35	31	28	25	23	23	21	19	18	17	14	36	19	23
04	7	10		13	12	12	11	11	13	17	25	29	32	32	29	28	27	27	26	25	23	22	20	16	32	20	23
05	15	13			13	13	11	11	12	17	25	30	31	30	29	29	28	25	24	22	19	19	18	16	31	20	22
06	14	14		13	13	12	12	12	14	18	22	28	29	31	28	28	28	26	24	23	21	18	17	18	31	20	23
07	19	17		16	15	13	13	13	14	17	23	28	27	24	22	22	21	19	19	18	16	13	13	14	28	18	23
08	13	13		12	12	11	12	12	13	16	20	20	17	18	20	20	21	20	20	20	19	18	19	17	21	16	23
09	14	15		16	15	16	15	16	16	19	25	30	31	29	26	25	22	20	16	14	13	12	12	12	31	18	23
10	11	11		10	10	10	10	12	13	17	24	26	26	27	21	22	22	21	19	18	18	17	16	18	27	17	23
11	17	16		14	16	16	15	16	15	16	21	25	23	21	20	19	20	22	22	21	19	17	16	15	25	18	23
12	12	14			12	12	12	13	14	19	23	28	33	29	25	24	22	21	21	21	20	18	16	15	33	19	22
13	13	8		12	8	7	8	10	14	21	31	36	38	39	37	34	31	26	22	18	17	16	15	13	39	20	23
14	13	12		8	6	4	3	5	14	25	35	41	43	40	38	35	34	30	21	17	14	11	9	8	43	20	23
15	8	7		3	2	1	2	6	13	26	39	47	50	50	51	52	48	41	41	46	27	13	13	11	52	25	23
16	8	7		5	5	4	4	7	15	41	54	55	55	50	45	38	33	21	17	13	10	9	8	7	55	22	23
17	7	7		7	5	4	4	4	9	16	26	30	27	26	27	25	22	19	16	14	13	13	12	11	30	14	23
18	10	9		9	10	10	9	10	11	14	23	31	32	32	29	27	25	22	19	17	16	14	12	10	32	17	23
19	8	5			5	9	12	13	17	23	28	33	40	46	50	44	34	29	25	21	18	16	15	13	50	22	22
20	13	13		14	12	9	5	9	14	20	30	41	36	33	32	35	33	28	25	23	20	19	18	14	41	21	23
21	12	6		8	5	8	3	10	12	16	22	28	31	32	32	31	29	24	20	18	17	16	15	15	32	17	23
22	7	6		3	4	2	1	9	14	19	28	33	32	31	28	26	26	26	25	25	23	19	17	15	33	18	23
23	13	11		3	3	7	7	10	12	16	23	29	29	28	29	28	27	26	23	20	18	17	15	13	29	17	23
24	12	9		10	9	10	8	9	12	19	32	40	45	43	32	24	20	17	14	13	13	12	11	11	45	18	23
25	10	9		5	7	4	4	6	11	20	25	27	26	19	18	16	16	15	14	14	14	13	11	11	27	13	23
26	9	7			3	3	4	5	9	14	22	29	33	31	27	21	21	20	19	16	14	13	12	12	33	15	22
27	11	10		8	7	6	6	7	10	18	28	32	30	30	29	30	26	22	20	17	15	14	12	11	32	17	23
28	11	10		8	6	4	4	5	8	15	28	35	41	36	33	28	25	21	19	16	13	12	10	8	41	17	23
29	9	8		4	2	2	2	3	8	18	27	32	25	22	21	22	20	18	17	14	12	10	9	9	32	13	23
30	9	8		6	5	2	2	5	12	25	38	48	48	45	41	41	39	43	41	37	37	32	23	19	48	26	23
31	15	15		10	11	5	12	20	25	29	31	31	24	18	17	16	17	17	16	16	16	15	16	17	31	17	23
Max	19	17		16	16	16	15	20	25	41	54	55	55	50	51	52	48	43	41	46	37	32	23	19	55		
Avg	11	10		9	8	8	7	9	13	19	27	32	32	31	29	27	26	23	21	19	17	15	14	13		18	
Count	31	31	0	27	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31			709

Current Date: 10/25/2013 9:39 AM

Monthly Report

Site Name: Santa Ynez 083 : 3001 September 2013 Avg Interval: 1 hour

Parameter: O3 44201 Units: PPB 008 Method: 087

Hours

Day	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Summary		
																									Max	Avg	RDS
01	15	15		9	7	9	5	12	17	18	18	18	18	17	16	16	16	16	14	13	13	13	15	17	18	14	23
02	16	16			10	10	10	14	16	20	20	21	21	20	17	16	16	15	13	14	13	12	11	10	21	15	22
03	10	9		10	9	8	8	10	13	17	20	28	29	30	34	34	33	31	30	28	25	23	21	20	34	20	23
04	18	17		15	12	14	16	16	20	27	33	34	31	30	30	30	29	26	23	21	20	19	17	17	34	22	23
05	16	15		14	13	13	11	12	15	21	32	35	35	34	33	31	29	25	21	18	17	15	15	14	35	21	23
06	14	13		7	6	1	2	8	13	28	34	38	39	41	45	43	38	35	29	25	23	19	17	15	45	23	23
07	14	15		7	9	3	4	11	23	34	42	45	45	42	42	38	32	29	25	21	19	18	16	14	45	23	23
08	13	12		10	9	8	5	7	12	20	27	30	31	32	31	30	28	24	22	20	19	19	16	16	32	19	23
09	15	14			9	9	7	8	11	17	26	31	35	33	27	27	26	23	20	18	17	16	15	15	35	19	22
10	15	14		10	11	10	8	11	14	18	26	33	38	39	39	39	37	35	32	31	27	24	23	21	39	24	23
11	20	16		13	11	13	17	17	19	23	26	32	35	38	40	39	37	35	32	30	27	25	23	21	40	25	23
12	16	10		12	13	13	7	11	14	21	30	38	41	38	31	30	27	25	24	23	21	18	16	11	41	21	23
13	12	15		13	12	10	8	10	12	16	25	34	34	31	30	29	27	26	22	21	21	19	18	17	34	20	23
14	18	15		11	10	9	9	10	13	20	25	31	32	33	32	31	29	28	26	26	26	24	22	21	33	21	23
15	21	20		17	15	11	13	15	17	22	28	32	29	29	30	29	28	25	22	20	18	17	16	16	32	21	23
16	11	14			9	9	7	7	10	16	25	32	37	34	33	29	26	23	19	18	18	18	16	13	37	19	22
17	13	14		13	10	5	10	10	9	12	18	27	30	28	28	29	29	30	29	28	26	24	21	20	30	20	23
18	12	12		16	14	11	8	9	14	21	30	40	44	37	38	37	37	35	31	27	22	22	20	15	44	24	23
19	12	12		9	6	5	4	11	18	38	49	56	59	54	51	46	43	37	36	35	28	23	18	16	59	28	23
20	14	13		10	9	9	11	16	22	28	34	40	41	43	44	44	42	37	33	25	20	21	20	18	44	25	23
21	18	18		17	16	15	14	15	18	21	22	22	25	27	33	34	33	31	29	28	27	25	23	24	34	23	23
22	23	22		22	24	24	23	23	28	34	37	40	41	42	40	40	39	36	33	34	34	35	39	40	42	32	23
23	34	26			20	14	15	22	30	37	44	49	52	54	54	49	43	40	37	30	27	18	10	12	54	32	22
24	9	14		10	11	6	12	22	31	41	49	52	55	51	40	37	34	31	31	30	29	27	27	27	55	29	23
25	28	28		26	25	24	18	18	24	26	34	36	35	35	33	33	33	32	31	30	29	27	25	23	36	28	23
26	23	11		9	5	5	10	15	16	21	28	36	38	36	38	37	36	33	29	27	25	21	15	10	38	22	23
27	10	9		8	7	5	3	6	12	27	39	45	48	49	47	42	41	40	40	37	37	22	20	16	49	26	23
28	20	16		17	17	20	17	22	25	32	45	49	52	51	52	53	52	48	46	41	34	27	22	24	53	34	23
29	24	21		24	25	20	19	23	28	38	49	52	55	53	49	41	33	28	23	20	17	14	12	10	55	29	23
30	9	7			4	1	0	4	11	22	31	39	34	30	30	28	25	23	23	20	17	18	18	15	39	18	22
Max	34	28		26	25	24	23	23	31	41	49	56	59	54	54	53	52	48	46	41	37	35	39	40	59		
Avg	16	15		13	11	10	10	13	17	24	31	36	37	37	36	34	32	30	27	25	23	20	18	17		23	
Count	30	30	0	25	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30			685

Current Date: 11/26/2013 10:43 AM

Monthly Report

Site Name: Santa Ynez 083 : 3001 October 2013 Avg Interval: 1 hour

Parameter: O3 44201 Units: PPB 008 Method: 087

Hours

Day	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Summary		
																									Max	Avg	RDS
01	17	17		14	13	11	9	9	12	19	26	33	36	35	35	34	33	32	31	27	26	24	21	19	36	23	23
02	17	19		15	5	6	8	10	13	20	32	39	38	37	38	39	35	31	28	25	21	21	18	12	39	22	23
03	18	13		17	15	13	12	11	12	16	28	33	41	42	41	40	40	39	35	33	28	23	16	17	42	25	23
04	16	15		12	10	5	8	13	20	31	44	50	53	54	56	55	53	48	42	39	32	26	21	24	56	31	23
05	26	20		18	16	17	12	19	21	27	40	49	51	49	50	50	48	47	43	42	37	28	25	25	51	33	23
06	25	24		21	20	21	24	24	26	35	47	54	54	56	58	57	52	48	45	47	26	25	21	15	58	35	23
07	25	22			14	21	14	17	21	36	42	52	55	54	49	44	42	39	36	31	28	26	15	22	55	32	22
08	14	14		10	10	12	11	9	16	19	29	38	45	46	38	34	34	32	29	27	26	29	28	30	46	25	23
09	30	31		29	25	25	24	24	30	31	30	32	33	36	37	36	26	22	20	18	15	13	7	4	37	25	23
10	1	2		1	1	0	0	2	8	16	26	35	37	38	37	37	35	29	26	24	22	14	7	8	38	17	23
11	9	18		18	14	13	11	12	16	18	25	32	37	41	39	37	34	29	26	25	23	22	12	9	41	22	23
12	10	8		15	10	9	8	10	8	13	22	35	44	44	36	35	32	30	28	24	22	21	17	17	44	21	23
13	15	13		15	15	12	12	14	15	14	20	26	32	32	32	31	30	29	26	23	23	11	9	5	32	19	23
14	6	8			1	1	1	4	8	16	34	50	55	56	55	52	49	45	41	37	32	22	24	19	56	28	22
15	19	20		21	23	17	18	19	26	34	47	56	57	56	56	55	54	53	48	42	33	29	30	27	57	36	23
16	23	26		25	22	26	17	13	24	28	44	51	52	55	58	58	55	50	41	43	37	28	28	27	58	36	23
17	24	23		23	24	21	19	19	27	37	47	60	62	61	57	56	53	51	48	39	31	29	32	26	62	37	23
18	25	26		22	23	20	18	23	31	39	51	62	66	67	63	60	57	48	38	31	31	22	26	25	67	38	23
19	24	25		25	27	27	28	24	32	38	49	58	61	58	57	52	43	35	32	28	26	22	15	11	61	34	23
20	13	10		7	5	6	4	2	6	11	24	37	39	43	42	39	37	34	31	28	26	25	15	14	43	21	23
21	17	18			11	11	9	6	9	14	23	35	42	47	42	41	39	34	28	27	25	23	22	15	47	24	22
22	12	13		4	5	3	3	1	5	14	26	34	40	41	41	40	36	30	26	24	23	22	19	16	41	20	23
23	13	12		11	11	12	11	11	12	15	18	25	34	36	35	35	36	34	31	29	27	23	25	22	36	22	23
24	21	24		25	24	23	22	20	23	25	29	30	33	37	42	40	39	36	35	31	29	17	17	23	42	28	23
25	26	24		22	22	21	18	19	19	20	22	27	34	41	41	40	34	29	25	23	21	17	14	11	41	24	23
26	8	10		14	15	13	8	8	11	16	26	35	43	44	44	41	36	30	30	25	24	18	17	13	44	23	23
27	10	15		12	10	12	8	10	14	14	19	26	30	34	35	34	31	30	29	26	26	28	29	30	35	22	23
28	30	30			21	21	18	20	23	27	33	33	30	29	26	25	26	27	20	21	15	11	12	10	33	23	22
29	12	14		7	3	0	0	1	5	10	18	24	30	30	31	29	27	23	21	16	14	12	10	9	31	15	23
30	12	8		0	-1	-1	0	3	4	7	14	23	33	37	37	38	32	28	24	19	11	0	3	0	38	14	23
31	0	0		0	5	2	1	2	5	11	26	39	45	49	51	49	46	38	34	32	15	10	11	10	51	20	23
Max	30	31		29	27	27	28	24	32	39	51	62	66	67	63	60	57	53	48	47	37	29	32	30	67		
Avg	16	16		14	13	12	11	12	16	21	31	39	43	44	43	42	39	35	32	29	25	20	18	16		26	
Count	31	31	0	27	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31			709

Current Date: 9/20/2013 2:41 PM

Monthly Report

Site Name: Santa Ynez 2 083 : 3002 August 2013 Avg Interval: 1 hour

Parameter: O3 44201 Units: PPB 008 Method: 087

Hours

Day	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Summary Max	Summary Avg	Summary RDS
01	17		16	16	16	15	15	15	17	23	26	26	24	24	23	23	22	22	21	21	18	15	14	11	26	19	23
02	11		8	11	12	11	11	11	13	19	26	28	31	31	31	25	23	20	18	16	15	13	10	11	31	17	23
03	12		13	12	11	10	9	9	11	15	24	34	37	35	31	27	24	23	22	20	17	15	13	11	37	18	23
04	11		14	13	13	12	12	11	13	17	25	29	33	32	30	28	27	27	26	25	23	20	18	15	33	20	23
05	13		14	14	14	13	12	11	12	17	25	30	32	30	28	29	28	25	23	22	17	18	16	13	32	19	23
06	14		14	13	13	12	12	12	13	17	22	28	30	32	29	28	28	26	23	22	19	15	15	18	32	19	23
07	19		17	17	15	14	13	13	14	17	24	29	27	24	21	21	20	18	18	17	13	10	11	13	29	17	23
08	13		13	12	11	11	11	11	13	16	18	19	16	17	19	19	20	19	19	18	17	17	18	17	20	15	23
09	13		17	15	15	15	15	15	16	19	25	30	32	29	26	25	21	18	14	12	11	10	10	11	32	18	23
10	10		9	9	9	9	10	11	12	17	24	27	27	27	21	22	22	20	19	17	17	15	15	18	27	16	23
11	18		15	14	15	15	16	16	15	16	21	26	23	21	20	18	20	22	22	21	18	16	15	15	26	18	23
12	13		16	14	12	12	12	12	13	18	23	28	34	29	25	24	22	20	21	20	19	17	15	12	34	18	23
13	13		11	12	9	8	8	9	13	22	33	39	40	40	36	33	31	26	21	17	16	14	13	11	40	20	23
14	10		7	7	6	4	3	5	15	27	37	43	44	41	39	35	33	29	20	15	12	10	7	7	44	19	23
15	7		5	2	1	0	1	5	15	29	41	49	52	52	53	54	49	42	40	48	26	12	12	10	54	26	23
16	7		4	4	2	1	2	6	15	42	58	58	57	51	47	38	33	20	16	12	9	8	6	5	58	21	23
17	5		6	6	4	3	2	3	8	15	27	31	28	26	27	26	22	18	15	13	13	12	11	11	31	14	23
18	9		9	9	9	9	9	9	10	14	24	31	34	34	30	27	25	21	19	17	15	12	10	8	34	17	23
19	6		7	2	3	11	13	14	18	24	29	35	42	46	49	44	34	29	24	20	17	15	14	11	49	22	23
20	12		17	15	12	9	4	9	14	20	30	43	37	32	32	36	33	28	24	22	18	16	15	12	43	21	23
21	11		3	6	8	9	4	11	14	16	23	30	33	33	31	30	28	23	19	17	16	13	12	13	33	17	23
22	8		4	3	0	0	0	8	17	22	29	33	33	31	28	26	26	25	24	23	20	17	16	14	33	17	23
23	12		8	3	3	7	7	10	13	16	24	30	30	29	30	29	28	26	22	20	18	17	14	11	30	17	23
24	12		11	10	9	10	8	9	12	19	34	41	45	43	32	24	19	17	13	12	12	11	9	9	45	18	23
25	8		10	7	7	4	3	5	11	20	26	28	26	19	18	16	16	15	13	14	14	12	10	10	28	13	23
26	9		10	4	3	3	3	4	8	14	23	31	33	31	26	22	21	20	18	16	14	12	12	12	33	15	23
27	12		10	8	6	5	6	7	10	19	30	33	31	30	29	30	25	22	20	17	15	13	11	10	33	17	23
28	10		9	8	4	4	3	4	8	15	29	36	40	36	32	28	25	21	19	16	13	11	8	7	40	16	23
29	8		6	3	0	1	1	2	8	18	29	34	27	22	22	22	21	19	17	13	11	9	8	8	34	13	23
30	8		7	5	4	2	1	4	13	28	43	52	49	46	41	43	41	44	41	39	38	34	26	19	52	27	23
31	13		12	9	7	5	11	20	27	35	37	35	28	20	18	17	18	18	16	16	16	15	14	14	37	18	23
Max	19		17	17	16	15	16	20	27	42	58	58	57	52	53	54	49	44	41	48	38	34	26	19	58		
Avg	11		10	9	8	7	7	9	13	20	28	33	34	32	29	28	25	23	20	19	16	14	12	11		18	
Count	31	0	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31			713

Current Date: 10/29/2013 1:29 PM

Monthly Report

Site Name: Santa Ynez 2 083 : 3002 September 2013 Avg Interval: 1 hour

Parameter: O3 44201 Units: PPB 008 Method: 087

Hours

Day	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Summary		
																									Max	Avg	RDS
01	13		6	7	6	8	5	12	18	20	20	19	19	18	17	16	16	16	14	13	12	12	14	15	20	13	23
02	14		20	10	9	9	11	14	17	21	22	23	23	21	17	16	16	14	13	13	12	11	10	9	23	15	23
03	8		9	9	8	7	7	9	12	18	21	29	30	30	33	33	31	29	28	26	22	21	19	17	33	19	23
04	17		15	13	11	12	16	18	20	27	33	36	33	31	31	30	29	25	22	21	19	18	16	15	36	22	23
05	14		15	14	13	13	11	12	15	21	34	37	36	35	33	31	29	24	20	18	16	14	13	12	37	20	23
06	10		11	11	8	3	1	7	16	28	34	38	39	41	45	42	38	33	28	23	21	16	13	13	45	22	23
07	11		11	6	5	0	4	14	23	33	42	45	43	41	41	38	32	29	25	20	19	17	15	12	45	22	23
08	11		10	10	9	9	5	8	11	20	26	29	30	31	30	29	27	23	21	19	19	18	15	15	31	18	23
09	13		16	7	7	9	8	8	11	16	25	31	36	33	27	27	26	23	20	17	16	15	14	14	36	18	23
10	15		14	12	12	11	8	10	13	18	26	35	39	40	40	39	38	36	33	31	27	24	20	19	40	24	23
11	18		16	15	12	15	20	19	21	24	28	34	37	39	41	41	38	35	33	31	27	23	19	18	41	26	23
12	16		14	11	12	13	9	12	16	22	31	40	42	40	32	30	27	26	24	23	21	17	15	14	42	22	23
13	14		15	14	13	11	8	9	12	16	26	36	35	32	30	29	27	25	22	21	20	18	17	16	36	20	23
14	18		16	12	11	9	9	11	14	21	26	31	33	34	32	32	29	27	26	26	25	24	21	18	34	21	23
15	17		19	18	17	14	14	16	18	23	30	34	29	30	30	29	28	25	21	19	17	16	14	16	34	21	23
16	17		18	10	9	10	8	7	9	17	25	33	38	34	33	30	26	23	19	17	17	18	16	14	38	19	23
17	14		13	12	11	6	11	10	10	12	19	28	30	28	28	29	28	28	27	26	24	23	19	19	30	19	23
18	12		20	19	15	12	8	9	14	22	31	41	43	37	37	36	36	34	29	25	21	19	18	14	43	24	23
19	13		8	6	2	4	7	10	21	39	49	54	57	55	50	46	43	36	35	33	27	21	12	13	57	27	23
20	11		11	11	11	8	11	18	23	31	37	42	44	46	47	46	44	38	32	23	19	20	21	19	47	26	23
21	18		19	17	17	16	16	16	19	21	23	24	26	27	32	34	33	31	30	29	28	26	24	25	34	23	23
22	23		23	22	23	23	22	24	29	34	36	38	39	40	39	38	38	35	32	33	32	34	36	37	40	31	23
23	32		28	24	22	16	18	18	30	37	43	47	50	50	51	47	42	39	35	30	28	21	12	14	51	31	23
24	9		11	9	8	6	11	22	30	42	48	50	52	49	41	38	35	31	31	30	29	27	26	27	52	28	23
25	30		31	29	26	24	18	19	24	27	33	36	35	34	32	32	31	30	30	28	27	25	23	21	36	28	23
26	24		12	9	5	9	13	18	20	23	28	34	36	34	35	34	33	30	27	25	23	20	18	10	36	22	23
27	10		7	7	6	5	5	8	16	28	37	41	44	44	42	39	38	35	35	33	34	22	18	15	44	24	23
28	17		13	12	16	15	16	19	24	30	42	46	48	47	47	48	47	44	40	38	33	28	23	24	48	31	23
29	21		18	23	24	16	17	22	26	37	47	49	52	50	46	39	33	27	23	19	16	14	12	9	52	27	23
30	9		11	9	5	0	0	8	14	24	31	39	33	29	29	27	25	23	23	19	17	17	20	17	39	18	23
Max	32		31	29	26	24	22	24	30	42	49	54	57	55	51	48	47	44	40	38	34	34	36	37	57		
Avg	15		15	12	11	10	10	13	18	25	31	36	37	36	35	34	32	29	26	24	22	19	17	16		23	
Count	30	0	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30			690

Current Date: 11/26/2013 10:45 AM

Monthly Report

Site Name: Santa Ynez 2 083 : 3002 October 2013 Avg Interval: 1 hour

Parameter: O3 44201 Units: PPB 008 Method: 087

Hours

Day	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Summary Max	Summary Avg	Summary RDS
01	18		19	17	14	12	9	9	12			35	38	35	35	34	33	31	29	26	24	21	17	16	38	23	21
02	15		19	16	9	10	13	11	15	22	34	42	41	39	39	40	34	31	26	24	20	20	15	13	42	23	23
03	19		19	18	17	15	14	13	13	17	29	34	40	40	39	37	37	35	32	30	26	23	17	17	40	25	23
04	15		14	14	9	5	9	12	18	30	43	49	50	51	52	52	49	44	39	38	31	27	22	23	52	30	23
05	23		20	17	16	18	12	18	20	27	37	44	46	44	44	45	43	43	38	37	34	28	24	24	46	30	23
06	24		22	20	20	19	20	23	24	31	44	49	49	50	52	51	47	40	39	41	26	23	19	15	52	32	23
07	25		7	11	17	17	13	19	20	33	41	49	53	52	48	45	43	40	36	32	28	27	19	24	53	30	23
08	22		18	13	13	14	13	12	19	24	31	41	47	47	38	35	34	30	28	28	27	29	28	31	47	27	23
09	31		33	31	27	26	25	26	32	32	31	32	32	34	35	34	29	27	23	17	13	12	8	4	35	25	23
10	2		4	1	1	0	-1	5	10	21	31	34	35	36	35	35	33	27	25	23	23	16	9	9	36	18	23
11	10		21	20	13	8	9	13	17	18	26	33	38	41	39	37	34	28	25	23	20	20	14	8	41	22	23
12	5		17	17	11	10	9	12	9	14	24	35	43	43	36	35	32	29	27	24	22	20	18	18	43	22	23
13	17		17	17	17	13	13	15	16	17	22	29	33	32	32	31	31	29	25	22	22	11	8	6	33	20	23
14	6		3	3	1	1	1	7	10	18	34	48	51	52	51	48	46	42	37	34	33	24	25	23	52	26	23
15	21		24	22	23	18	18	20	27	33	45	52	52	52	51	49	49	49	45	41	33	30	28	26	52	35	23
16	22		24	23	22	21	12	18	20	25	42	47	47	50	53	52	50	45	37	41	35	28	27	25	53	33	23
17	24		24	22	22	21	12	18	26	37	43	56	57	56	54	54	51	48	45	40	31	29	29	27	57	35	23
18	24		26	24	19	21	16	25	32	38	50	60	63	64	60	58	55	46	38	30	33	24	26	23	64	37	23
19	24		25	24	27	27	27	25	33	37	47	55	57	55	54	50	44	36	31	26	24	24	15	10	57	33	23
20	10		11	8	6	4	2	2	6	14	24	36	37	42	42	40	38	34	31	28	24	23	19	22	42	21	23
21	19		20	12	12	12	9	6	10	15	24	36	44	48	43	42	39	33	28	27	21	22	20	21	48	24	23
22	12		7	4	3	3	3	2	5	15	29	37	41	42	42	40	35	30	26	25	22	20	21	19	42	21	23
23	17		14	13	14	12	12	11	14	18	22	28	36	38	37	36	36	33	30	28	27	24	27	25	38	24	23
24	24		29	28	27	27	26	24	26	28	32	32	34	39	43	42	39	35	35	30	30	21	17	27	43	30	23
25	30		28	27	27	24	21	22	21	22	25	29	36	42	43	42	35	29	26	23	21	20	18	13	43	27	23
26	9		20	14	16	13	8	8	10	15	25	36	43	45	45	43	38	32	30	25	25	18	19	15	45	24	23
27	14		14	14	11	13	10	11	16	17	21	28	32	35	36	35	32	30	28	27	28	30	31	31	36	23	23
28	30		37	30	26	26	20	25	30	32	34	33	33	31	30	28	27	25	19	19	16	10	12	11	37	25	23
29	12		14	9	5	0	-1	2	6	12	25	27	29	30		27	27	23	15	13	11	7	8	10	30	14	22
30	15		0	-2	-3	-3	-1	3	4	7	14	24	33	36	35	37	31	27	22	16	13	2	0	-2	37	13	23
31	-2		0	-1	2	-2	-1	2	6	15	27	38	43	46	46	45	41	32	31	30	19	15	13	12	46	19	23
Max	31		37	31	27	27	27	26	33	38	50	60	63	64	60	58	55	49	45	41	35	30	31	31	64		
Avg	17		17	15	14	13	11	13	17	22	31	38	42	43	42	41	38	34	30	28	24	20	18	17		25	
Count	31	0	31	31	31	31	31	31	31	30	30	31	31	31	30	31	31	31	31	31	31	31	31	31			710

Attachment 5
Monitoring Plan Site Information Tables

Santa Ynez Monitoring Station Details

Site Name	**Santa Ynez**				
AQS ID	060833001				
GIS coordinates	Lat 34º 36' 30.2" Long -120º 4' 29.0"				
Location	Santa Ynez airport office building				
Address	900 Airport Rd., Santa Ynez, CA				
County	Santa Barbara County				
Dist. to road	600 meters				
Traffic count	7000 Vehicles per day				
Groundcover	Grass				
Representative area	MSA (Santa Barbara – Santa Maria, CA)				
Pollutant, POC	**O3,1**				
Parameter Code	44201				
Monitoring Objective	NAQQS, public				
Site type(s)	Population				
MFG/ Model	TAPI 400e				
Method Code	087				
FRM/FEM or other	FEM				
Collecting Agency	Santa Barbara County				
Reporting Agency	Santa Barbara County				
Spatial Scale	Urban				
Start date	1/1/1980				
Operation schedule	Continuous				
Sampling season	All Year				
Probe height	5.5 m				
Distance from supporting structure	2.0 m				
Distance from obstructions on roof	None				
Distance from obstructions not on roof	None				
Distance from trees	5 m				
Distance to furnace or incinerator	None				
Unrestricted airflow	180º				
Probe material	Glass & Teflon				
Residence time	16.5 s				
Will there be changes in next 18 months?	Yes				
Frequency of one-point QC check (gaseous)	Weekly				
Last annual performance evaluation (gaseous)	5/14/12				

Relocated Santa Ynez Monitoring Station Details

Site Name	**Santa Ynez**				
AQS ID	060833001				
GIS coordinates	Lat 34º 36' 20.95" Long -120º 4' 30.25"				
Location	South side of Santa Ynez airport runway				
Address	900 Airport Rd., Santa Ynez, CA				
County	Santa Barbara County				
Dist. to road	550 meters				
Traffic count	9180 Vehicles per day (CAL Trans 2012 Traffic Volumes Book)				
Groundcover	Grass/Dirt				
Representative area	MSA (Santa Barbara – Santa Maria, CA)				
Pollutant, POC	**O3,1**				
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	360º				
Probe material	Teflon				
Residence time	16.5 s				
Will there be changes in next 18 months?	No				
Frequency of one-point QC check (gaseous)	Weekly				
Last annual performance evaluation (gaseous)	TBD				

Attachment 7
40 CFR Part 58.14 Reference

Applicable regulatory text:
* Electronic reference to 40CFR Part 58.14: http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&SID=3f8e2a22f91bb882f5ded9d327f4d6ca&rgn=div8&view=text&node=40:6.0.1.1.6.2.1.5&idno=40

§ 58.14 System modification.

(a) The State, or where appropriate local, agency shall develop and implement a plan and schedule to modify the ambient air quality monitoring network that complies with the findings of the network assessments required every 5 years by § 58.10(e). The State or local agency shall consult with the EPA Regional Administrator during the development of the schedule to modify the monitoring program, and shall make the plan and schedule available to the public for 30 days prior to submission to the EPA Regional Administrator. The final plan and schedule with respect to the SLAMS network are subject to the approval of the EPA Regional Administrator. Plans containing modifications to NCore Stations or PAMS Stations shall be submitted to the Administrator. The Regional Administrator shall provide opportunity for public comment and shall approve or disapprove submitted plans and schedules within 120 days.

(b) Nothing in this section shall preclude the State, or where appropriate local, agency from making modifications to the SLAMS network for reasons other than those resulting from the periodic network assessments. These modifications must be reviewed and approved by the Regional Administrator. Each monitoring network may make or be required to make changes between the 5-year assessment periods, including for example, site relocations or the addition of PAMS networks in bumped-up ozone nonattainment areas. These modifications must address changes invoked by a new census and changes due to changing air quality levels. The State, or where appropriate local, agency shall provide written communication describing the network changes to the Regional Administrator for review and approval as these changes are identified.

(c) State, or where appropriate, local agency requests for SLAMS monitor station discontinuation, subject to the review of the Regional Administrator, will be approved if any of the following criteria are met and if the requirements of appendix D to this part, if any, continue to be met. Other requests for discontinuation may also be approved on a case-by-case basis if discontinuance does not compromise data collection needed for implementation of a NAAQS and if the requirements of appendix D to this part, if any, continue to be met.

(1) Any PM2.5 , O3 , CO, PM10 , SO2 , Pb, or NO2 SLAMS monitor which has shown attainment during the previous five years, that has a probability of less than 10 percent of exceeding 80 percent of the applicable NAAQS during the next three years based on the levels, trends, and variability observed in the past, and which is not specifically required by an attainment plan or maintenance plan. In a nonattainment or maintenance area, if the most recent attainment or maintenance plan adopted by the State and approved by EPA contains a contingency measure to be triggered by an air quality concentration and the monitor to be discontinued is the only SLAMS monitor operating in the nonattainment or maintenance area, the monitor may not be discontinued.

(2) Any SLAMS monitor for CO, PM10 , SO2 , or NO2 which has consistently measured lower concentrations than another monitor for the same pollutant in the same county (or portion of a county within a distinct attainment area, nonattainment area, or maintenance area, as applicable) during the previous five years, and which is not specifically required by an attainment plan or maintenance plan, if control measures scheduled to be implemented or discontinued during the next five years would apply to the areas around both monitors and have similar effects on measured concentrations, such that the retained monitor would remain the higher reading of the two monitors being compared.

(3) For any pollutant, any SLAMS monitor in a county (or portion of a county within a distinct attainment, nonattainment, or maintenance area, as applicable) provided the monitor has not measured violations of the applicable NAAQS in the previous five years, and the approved SIP provides for a specific, reproducible approach to representing the air quality of the affected county in the absence of actual monitoring data.

(4) A PM2.5 SLAMS monitor which EPA has determined cannot be compared to the relevant NAAQS because of the siting of the monitor, in accordance with § 58.30.

(5) A SLAMS monitor that is designed to measure concentrations upwind of an urban area for purposes of characterizing transport into the area and that has not recorded violations of the relevant NAAQS in the previous five years, if discontinuation of the monitor is tied to start-up of another station also characterizing transport.

(6) A SLAMS monitor not eligible for removal under any of the criteria in paragraphs (c)(1) through (c)(5) of this section may be moved to a nearby location with the same scale of representation if logistical problems beyond the State's control make it impossible to continue operation at its current site.

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

FEB 12 2014

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:

This letter is in response to Santa Barbara County Air Pollution Control District's (SBCAPCD's) request for approval for the discontinuation and subsequent relocation of State/Local Air Monitoring Station (SLAMS) O_3 monitoring at the Santa Ynez Airport site to the Santa Ynex 2 Airport site in Santa Barbara County (AQS ID 06-083-3001).

Per 40 CFR 58.14, monitoring agencies are required to obtain EPA approval for the discontinuation and relocation of SLAMS monitors. On December 6, 2014, we received your official request to relocate the Santa Ynez station because matured trees located around the station caused the O_3 sample probe to no longer meet EPA's siting requirements in 40 CFR 58 Appendix E 5(a) and trimming would not be effective in meeting the siting criteria. EPA has determined that your request meets the provisions under 40 CFR 58.14(c)(6), namely that logistical problems beyond SBCAPCD's control make it impossible to continue operation at the Santa Ynez site. SBCAPCD worked with the Santa Ynez Airport Authority to find a new location that meets requirements described in 40 CFR 58 and its associated appendices. The replacement site (Santa Ynez 2) is 0.18 miles south of the Santa Ynez site and is expected to be at the same scale of representation (i.e., measuring similar O_3 concentrations from similar sources).

Accordingly, SBCAPCD provided adequate supporting documentation that the new monitoring site is representative of ambient air, free from trees and other obstructions in all directions, and the predominant wind pattern and direction is assumed to be similar to the current site based on their close proximity. The new Santa Ynez 2 site was installed and began sampling on July 1, 2013, with parallel monitoring occurring at both sites from August 1 through October 2013. Daily maximum 1 hour and the daily maximum 8 hour average O_3 readings for both sites correlated closely during the concurrent sampling period. Based on the weight of evidence and pursuant to 40 CFR 58.14(c)(6), EPA concludes that the relocation does not compromise data collection needed for implementation of the O_3 NAAQS and that Appendix D and E siting requirements will still be met. We look forward to continuing to work with your agency in the effort to better understand O_3 concentrations in the area.

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Please include this correspondence and reflect the relocation in your next Annual Monitoring Network Plan. Should you have any questions, please feel free to contact me at (415) 947-4534 or Dena Vallano at (415) 972-3134.

Sincerely,

Meredith Kurpius, Manager
Air Quality Analysis Office

Enclosures

cc: Louis D. Van Mullem, Jr., Air Pollution Control Officer, Santa Barbara County Air Pollution Control District
Gayle Sweigert, California Air Resources Board