2017 Ambient Air Monitoring Network Plan

SLO COUNTY apcd | Air Pollution Control District San Luis Obispo County

Fiscal, Administrative & Technical Services

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List of Abbreviations

AADT	Annual Average Daily Traffic count
ANP	Annual Network Plan
AQS	Air Quality System
AQS ID	Air Quality System site identification number
ARB	California Air Resources Board
BAM	Beta Attenuation Monitor
CBSA	Core Based Statistical Area
CDF	California Department of Forestry
CFR	Code of Federal Regulations
CO	Carbon monoxide
EPA	United States Environment Protection Agency
FEM	Federal Equivalent Method
FRM	Federal Reference Method
MSA	Metropolitan Statistical Area
NAAQS	National Ambient Air Quality Standard(s)
NCore	National Core multipollutant monitoring station
NO	Nitrogen oxide
NO_2	Nitrogen dioxide
NO_x	Oxides of nitrogen
NRP	Nipomo Regional Park
O_3	Ozone
ODSVRA	Oceano Dunes State Vehicular Recreation Area
PAMS	Photochemical Assessment Monitoring Station
$PM_{2.5}$	Particulate Matter less than 10 microns in aerodynamic diameter
PM_{10}	Particulate Matter less than 2.5 microns in aerodynamic diameter
Pb	Lead
ppb	Parts per billion
PQAO	Primary Quality Assurance Organization
SIP	State Implementation Plan
SLAMS	State or Local Air Monitoring Station
SLOCAPCD	San Luis Obispo County Air Pollution Control District
SO_2	Sulfur dioxide
SPM	Special Purpose Monitor

Introduction

Every year the San Luis Obispo County Air Pollution Control District submits an ambient air monitoring network plan (ANP) to the United States Environmental Protection Agency; this document comprises the ANP for 2017. It is intended to fulfill the requirements of 40 CFR 58.10 and to provide information about local monitoring activities to the public.

Consistent with these goals and requirements, this ANP will be made available for public review and comment for at least 30 days prior to its submission to EPA. All comments received and any SLOCAPCD responses to those comments will be attached as Appendices D and E, respectively, and submitted to EPA as part of this ANP. The cover letter accompanying submission will note the beginning and ending dates of the comment period, whether any comments were received, and which comments were substantive. For any non-substantive comments, the cover letter will provide a rationale for deeming them as such. If public comments prompt changes to the ANP, these changes will be noted in the cover letter.

The ANP is a snapshot of the air monitoring network as it currently exists; it documents any changes since the last ANP (published May 2016) and any anticipated changes to the network over the next 18 months. This review and planning process helps ensure continued consistency with federal requirements and monitoring objectives. It also confirms and updates information in state and federal monitoring records. Information is provided for all ambient air pollution monitoring which occurred in the county, including sites operated by the California Air Resources Board. Data for ARB sites were obtained from that agency and are accurate to the best of our knowledge.

As detailed in subsequent sections, other than some temporary closures, there have been no significant changes to the San Luis Obispo County ambient air monitoring network since the last ANP, and no changes are planned for the foreseeable future. All pollutant monitors in the District's SLAMS network meet the requirements of 40 CFR 58 Appendices A, B, C, D, and E, where applicable, and the District-run SPM meets the requirements of Appendices A and E.

General Information on Air Monitoring Networks

Most ambient air quality monitoring stations operated by air quality agencies are classified as State and Local Air Monitoring Station. SLAMS are long-term monitoring stations and are generally considered to be permanent sites. Their primary objective is to collect data for comparison to the NAAQS. Stations may instead be classified as Special Purpose Monitors or Prevention of Significant Deterioration stations; these are generally short-term sites with objectives other than NAAQS comparison.

Appendix D of 40 CFR 58 specifies design criteria for SLAMS networks and states that networks must be designed to meet a minimum of three basic monitoring objectives: 1. Provide air pollution data to the public in a timely manner; 2. Support compliance with the NAAQS; and 3. Support air pollution research. A variety of site types are needed to support these basic objectives, including the six general types identified in the Appendix:

- **Highest Concentration**: Sites located to determine the highest concentration expected to occur in the area covered by the network;
- **Population Exposure**: Those located to determine representative concentrations in areas of high population density;
- **Source Oriented**: Sites located to determine the impact on ambient pollution levels of significant sources or source categories;
- **General/Background**: Those located to determine general background concentration levels;
- **Regional Transport**: Sites located to determine the extent of regional pollutant transport among populated areas, and in support of secondary standards; and
- **Welfare Related Impacts**: Sites located to determine the welfare-related impacts in more rural and remote areas (such as visibility impairment and effects on vegetation).

The physical siting of an air monitoring station must conform to the requirements of the Appendix, and its location must achieve a spatial scale of representativeness that is consistent with the monitoring objective and site type. The spatial scale results from the physical location of the site with respect to the pollutant sources and categories. It estimates the size of the area surrounding the monitoring site that experiences uniform pollutant concentrations. The categories of spatial scale defined in the Appendix are:

- **Microscale**: An area of uniform pollutant concentrations ranging from several meters up to 100 meters;
- **Middle Scale**: uniform pollutant concentrations in an area of about 110 meters to 0.5 kilometer;
- **Neighborhood Scale**: an area with dimensions in the 0.5 to 4 kilometer range;
- **Urban Scale**: Citywide pollutant conditions with dimensions from 4 to 50 kilometers;
- **Regional Scale**: An entire rural area of the same general geography (this area ranges from tens to hundreds of kilometers); and
- **National and Global Scales**.

The relationship between site type and spatial scale is summarized in Table 1, below, which is adapted from Table D-1 of the Appendix.

Table 1: Relationship between Site Type and Spatial Scale

Site Type	Appropriate Spatial Scale
Highest Concentration	Micro, middle, neighborhood, (sometimes urban or regional for secondary pollutants)
Population Exposure	Neighborhood, urban
Source Oriented	Micro, middle, neighborhood
General/Background	Neighborhood, urban, regional
Regional Transport	Urban, regional
Welfare Related Impacts	Urban, regional

Air Monitoring Stations in San Luis Obispo County

San Luis Obispo County comprises the San Luis Obispo-Paso Robles MSA. Air monitoring responsibilities for the MSA are divided between SLOCAPCD and ARB, as allowed by Section 2(e) of Appendix D to 40 CFR 58. SLOCAPCD acknowledges this joint responsibility and is a member of the ARB Primary Quality Assurance Organization. The roles and responsibilities of the two agencies with regard to fulfilling state and federal monitoring requirements are formalized in a "Roles and Responsibilities" document, which can be viewed on the ARB website.[1]

There are currently ten SLAMS stations in the county/MSA; their locations are shown in Figure 1. Eight of these stations are operated by the SLOCAPCD as part of our network. ARB operates the stations in Paso Robles and in San Luis Obispo as part of their network. Table 2 lists these stations, along with the pollutants and meteorological parameters monitored at each location, as well as the site type. Each criteria pollutant monitor at each of these ten SLAMS meets all applicable requirements in Appendices A, B, C, D, and E to 40 CFR 58.

In addition to these ten SLAMS, the District operates the Oso Flaco station for the California Department of Parks and Recreation. This site is located within the ODSVRA in an area where off-highway vehicle activity is not allowed. The $PM_{2.5}$ FEM monitor at the site is classified as an SPM and complies with 40 CFR 58.11(a)(2), meeting all applicable requirements of 40 CFR 58 Appendices A and E.

Finally, the District also has a data feed from the monitoring station at Freeport McMoran's Price Canyon Oilfield, but it does not play any role in data collection or validation. Table 3 summarizes the pollutant and meteorological parameters monitored at these non-SLAMS stations.

[1] Air Resources Board, "Quality Management Documents, Document Repository, Finalized Roles and Responsibilities," http://arb.ca.gov/aaqm/qa/pqao/repository/rr_docs.htm.

Table 2: Summary of Parameters Monitored at SLAMS in San Luis Obispo County

Site	Ozone [b]	Nitrogen Dioxide	Sulfur Dioxide	PM_{10}	$PM_{2.5}$	Wind [c]	Temp
Atascadero	P, C	P, C		P	P	X	X
Carrizo Plain	T, B					X	X
CDF				S, C	S, C	X	
Grover Beach						X	
Mesa2			S, C	S	S	X	X
Morro Bay	B					X	
Nipomo Regional Park	B	B		B		X	X
Paso Robles [a]	P			P		X	X
San Luis Obispo [a]	P			P	P	X	X
Red Hills	T, C					X	X

Site Types: B = General/Background, C = Highest Concentration, P = Population Exposure, T = Regional Transport, S = Source, X = Parameter measured at this site.

Notes: [a] Paso Robles and San Luis Obispo are operated by ARB; all other sites are operated by SLOCAPCD.

[b] Atascadero is the highest concentration site for the western county attainment area, while Red Hills is the highest concentration site for the eastern county nonattainment area. [c] Wind speed, wind direction, and sigma theta.

Table 3: Summary of Parameters Monitored at Non-SLAMS in San Luis Obispo County

Site	Hydrogen Sulfide	PM_{10}	Relative Humidity	Wind [a]	Temp
Oso Flaco		X	X	X	X
Price Canyon Oilfield	X		X	X	X

Note: [a] Wind speed, wind direction, and sigma theta.

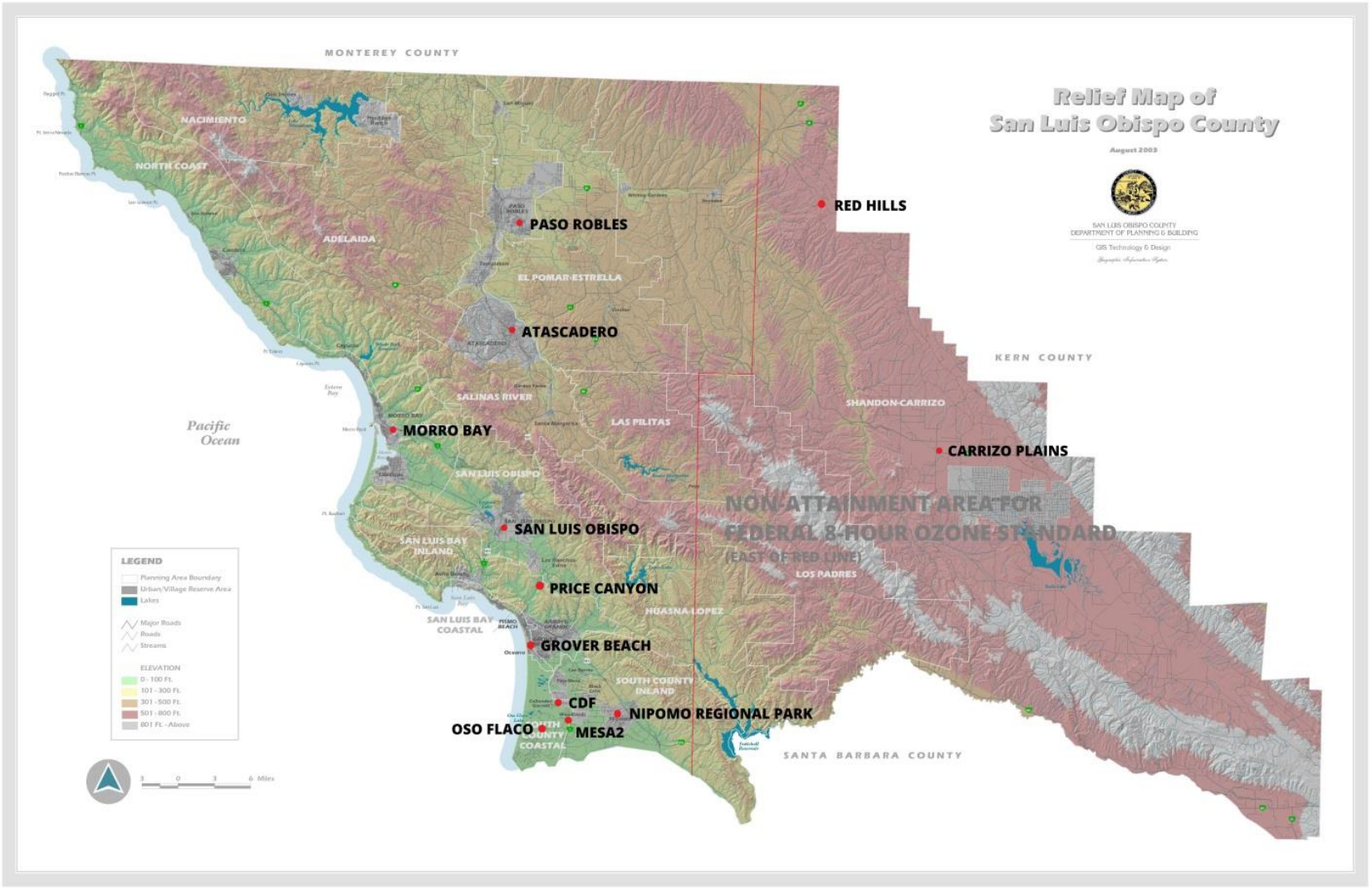

Figure 1: Locations of air monitoring stations in San Luis Obispo County as of May 2017. The thin red line depicts the boundary of the ozone nonattainment area.

Changes to Monitoring Network since the Previous ANP

Changes to the monitoring network since the publication of the last ANP are summarized below.

Opened, Closed, and Relocated Stations

No existing air monitoring stations in San Luis Obispo County have closed or relocated since the previous ANP; however, the Oso Flaco monitoring station in the ODSVRA was temporarily shut down by the California Department of Parks and Recreation between December 15, 2016 and March 25, 2017.

Ozone Monitoring Network Changes

The monitor at Morro Bay was upgraded from a Teledyne-API 400A to a T400 in May 2017.

Particulate Monitoring Network Changes

No new particulate monitors have been established since the last ANP and no existing monitors have been shut down or relocated, but particulate monitors were temporarily offline at two stations, as summarized in Table 4, below:

Table 4: Recent Temporary Closures of Particulate Monitors in San Luis Obispo County

Station	Monitor	Start Date of Temporary Shutdown	End Date of Temporary Shutdown
Oso Flaco	PM_{10}	December 15, 2016	March 25, 2017
San Luis Obispo	PM_{10}	September 7, 2015	June 24, 2016
San Luis Obispo	$PM_{2.5}$	September 7, 2015	July 1, 2016

Nitrogen Dioxide Monitoring Network Changes

No changes were made to the sulfur dioxide monitoring network.

Sulfur Dioxide Monitoring Network Changes

No changes were made to the sulfur dioxide monitoring network.

Detailed Descriptions of the Current Network

Ozone Monitoring Network

The SLAMS network in San Luis Obispo County features ozone monitors in Atascadero, Red Hills, Carrizo Plain, Paso Robles, Morro Bay, San Luis Obispo, and Nipomo Regional Park.

Atascadero – SLOCAPCD has operated an ozone monitor in Atascadero since 1988. The Atascadero station was moved in 2015 from the central business district to a nearby city property. The original location was bounded on two sides by public schools, and the current site is adjacent to a community center. The monitor is classified as population-oriented and neighborhood scale. It provides ozone measurements representative of the City of Atascadero. Ozone concentrations at this site exhibit strong diurnal fluctuations caused by the titration of ozone with oxides of nitrogen from nearby mobile and residential sources. Concentrations at this site are similar to those recorded at Paso Robles, and are often the highest among the five ozone monitors in the western portion of the county that is classified as attaining the federal ozone standard. The highest ozone concentrations at Atascadero occur when high pressure over the interior southwest U.S. causes transport of ozone and other pollutants into the county from the east. Under these infrequent conditions, transported ozone, enhanced by local pollutants, can cause highly elevated concentrations. Most of the time, prevailing winds from the west and northwest help keep ozone levels at Atascadero low.

Carrizo Plain – Operated by SLOCAPCD since January 2006, this regional scale station monitors background levels and ozone transport from the interior areas of the state. The monitor is located in an outbuilding at the Carrisa Plains Elementary School. The ozone concentrations recorded here are second only to Red Hills in concentration and persistence; this site is located within the Eastern San Luis Obispo County nonattainment area.

Morro Bay – Operated since 1975 by SLOCAPCD, this site provides regional scale and general/background ozone monitoring. Located in downtown Morro Bay, the monitor generally measures background levels of ozone from the predominant northwest winds blowing off the Pacific Ocean. Under unusual meteorological conditions, the site can record elevated ozone concentrations transported from urban areas as far south as the Los Angeles basin.

Nipomo Regional Park (NRP) – Operated by SLOCAPCD since 1998, this station provides monitoring of background levels of ozone on a regional scale. Previously (1979 to 1996) ozone had been monitored in Nipomo on Wilson Street, several miles away. The ozone concentrations measured at NRP are representative of interior portions of the Nipomo Mesa and are the highest recorded in the coastal region of San Luis Obispo County.

Paso Robles – Operated by ARB since 1974, this population-oriented, neighborhood scale ozone monitor provides a representative ozone concentration for the suburban areas of the City of Paso Robles. The conditions under which elevated ozone levels occur and the location's prevailing winds are similar to Atascadero.

Red Hills – Operated by SLOCAPCD since 2000, this station is located on the summit of Red Hills at an elevation of about 2,000 feet. It is in a very sparsely populated area near the community of Shandon. This

regional scale site is often influenced by ozone transport from distant source areas outside of the county, and it consistently records the highest and most persistent ozone concentrations in the network; its site type is thus regional and maximum concentration. In early 2012, the eastern portion of the county was designated as marginally nonattainment for the federal 8-hr ozone standard based on the design value from this site.

San Luis Obispo – ARB has operated a population-oriented, neighborhood scale ozone monitor in the City of San Luis Obispo since 1970. The monitor has been at its current site since 2005. It provides a representative ozone concentration for the City of San Luis Obispo. The monitor is located in the urban area where ozone concentrations are significantly depleted by titration with local mobile and stationary NO_x sources. As a result, the concentrations recorded here are often lower than at Morro Bay.

As noted in Table 2, the SLAMS site types employed by the existing ozone network are:

1. **Highest Concentration** – The Red Hills station typically records the highest ozone concentrations in the county. The high ozone levels tend to occur in the interior areas of the county during summer, either following long periods of wind stagnation, or as a result of offshore winds which can transport pollutants from interior regions of the state from distant sources to the northeast. Among the sites in the western portion of the county that is classified as attaining the ozone standard, Atascadero and Paso Robles measure the highest concentrations.
2. **Population Exposure** – The Paso Robles, Atascadero, and San Luis Obispo monitors provide good representations of the ozone levels in the larger cities of the county.
3. **Source Impact** – Because ozone is a secondary pollutant, the effect of emissions from any single source are experienced five to seven hours later and often many miles distant. As a regional pollutant, monitoring for specific sources of ozone is not performed.
4. **General/Background** – The monitors at Morro Bay, Carrizo Plain, and Nipomo Regional Park provide regional background ozone levels.
5. **Regional Transport** – The stations located at Carrizo Plain and Red Hills provide excellent surveillance of regional transport of ozone in the interior part of the county. Coastal monitoring stations have provided evidence in the past of regional transport of ozone over the Pacific Ocean from distant urban sources.

Nitrogen Dioxide Monitoring Network

The SLAMS network in San Luis Obispo County features NO_2 monitors at Atascadero and Nipomo Regional Park. NO_2 was also measured at Morro Bay until March 31, 2016. NO_2 levels have always been well below the state and federal standards at all locations in our county. For this reason, NO_2 monitoring is most useful as an indicator of depletion of ambient ozone through titration with nitric oxide. Having NO_2 monitors in North and South County also serves a long-term air quality surveillance role.

Atascadero – Operated by SLOCAPCD since 1990 and relocated in 2015, this population-oriented monitor is considered neighborhood scale. This is the only NO_2 monitor in the Salinas River air basin, and it records the highest NO, NO_2 and NO_x levels in the county. The monitor's downtown location has established a strong diurnal inverse relationship between ozone and NO_2 levels caused by local mobile sources and residential and commercial combustion of natural gas.

Nipomo Regional Park – Operated by the SLOCAPCD since 1998, this monitor is regional in scale and is representative of background concentrations on the Nipomo Mesa. The site's location in a large natural area away from local or mobile sources makes it ideal for regional surveillance of NO_2.

The SLAMS sites in the existing NO_2 network are:

1. **Highest Concentration** – The Atascadero monitor historically has measured the highest NO_2 concentrations in the county. NO_2 levels are the result of titration of ambient ozone by local sources of nitric oxide and as a result values are always relatively low. Levels have never exceeded the 1-hour NO_2 standard (100 ppb), with annual maximum 1-hour concentrations typically around 50% of the standard.
2. **General/Background** – With no significant local sources present, the monitor at Nipomo Regional Park provides excellent information on coastal background levels of NO_2.

Regional Transport and Welfare-Related impacts of NO_2 are not currently addressed by the District's SLAMS network and are not thought to be significant. With the closure of the Morro Bay Power Plant in 2014, the County's only potentially significant point source of NO_2, no monitors in the network are considered to be source-oriented. The San Luis Obispo-Paso Robles MSA, does not have, nor per Appendix D, Section 4.3 of 40 CFR 58 is it required to have, any NO_2 sites for vulnerable populations, near-road NO_2 monitoring sites, or area-wide NO_2 sites.

Sulfur Dioxide Monitoring Network

The SO_2 monitoring network in San Luis Obispo County currently consists of one station: Mesa2.

Mesa2 – Established in 1989 and operated by the SLOCAPCD since 2006, this monitor performs surveillance of a nearby oil refinery. It is considered middle scale and highest concentration for SO_2. Since it is located close to and downwind of a major source of SO_2 emissions, it is representative only of the immediate area. The station was sited to optimize surveillance of the refinery's nearby coke calciner, which has since been shut down. Nonetheless, the refinery remains the largest point source of SO_2 in the county, and during upsets this monitor can record concentrations approaching and sometimes exceeding the NAAQS. In addition to meeting NAAQS compliance objectives, this site is also vital for public information and emergency response.

The SLAMS SO_2 monitoring objectives met by the network are:

1. **Highest Concentration** – The monitor at Mesa2 currently records the highest SO_2 levels in the county.
2. **Source Impact** – The monitor at Mesa2 is invaluable in determining the SO_2 source impact upon the immediate region.

Monitoring objectives not addressed by the existing SO_2 network are: General/Background, Population, Regional Transport, and Welfare-Related. Historical SO_2 monitoring performed elsewhere in the county (at NRP from 1998-2006; Morro Bay, 1979-1995; Grover Beach, 1982-2004; and at decommissioned stations in Arroyo Grande "Ralcoa" (06-079-1005; 1991-2002), and "Mesa1" (06-079-3002; 1987-94) has provided good evidence that monitoring for these objectives is not needed. Furthermore, background levels of SO_2

in the county are believed to be negligible, since more than 98.3 % of hourly SO_2 levels from Mesa2 were 1 ppb or less in 2016.

There are no sources within SLOCAPCD's jurisdiction with annual SO_2 emissions greater than 2000 tons; therefore, no monitoring is required to fulfill the "Data Requirements Rule" (40 CFR 51.1203).

Particulate Monitoring Network

The particulate SLAMS network in San Luis Obispo County consists of six FEM PM_{10} monitors (Paso Robles, Atascadero, San Luis Obispo, Mesa2, CDF, and Nipomo Regional Park) and four FEM $PM_{2.5}$ monitors (Atascadero, CDF, Mesa2, and San Luis Obispo). The PM_{10} network has been in place since 1988, and PM2.5 samplers began operation in 1999 in response to the establishment of a new federal standard for $PM_{2.5}$ in 1997. Originally, all particulate monitoring in the county was performed as part of ARB's network, but eventually all monitors except those at Paso Robles and San Luis Obispo became part of the SLOCAPCD network. Note that for quality assurance, the District remains part of the ARB PQAO. SLOCAPCD, therefore, relies on ARB to perform federally required audits of its particulate monitors and to meet federal collocation requirements.

Initially all particulate sampling was conducted by filter-based FRM monitors. With the advent of continuous monitoring technologies, all the FRM monitors in the county have been replaced with FEM monitors in recent years. Currently these are Met One Instruments BAM 1020 continuous, semi-real time monitors that report hourly PM concentrations. The hourly data have greatly improved our ability to issue timely air quality forecasts, which is a significant benefit for the advancement of public health goals.

In addition to these SLAMS monitors, the District operates the Oso Flaco PM_{10} SPM, which is located within the ODSVRA.

Atascadero – Operated by SLOCAPCD, PM_{10} monitoring has been conducted in Atascadero since 1988, initially via a FRM and currently with a continuous FEM monitor. Collocated FRM $PM_{2.5}$ monitors began operation in 1999 and have since been replaced by a single FEM. All monitors are neighborhood in scale and representative of particulate concentrations in the City of Atascadero. As previously noted, the station was moved about 400 meters north of its original location in February 2015.

CDF – Originally established for the SLOCAPCD's Nipomo Mesa Phase 2 Particulate Study, this site has become a permanent part of the SLAMS particulate network. The site features continuous FEM samplers for PM_{10} and $PM_{2.5}$, which are neighborhood in scale and measure source impacts from the ODSVRA. These monitors record the highest particulate levels in the county and are strongly influenced by the ODSVRA, located directly upwind. In 2012, extensive temporary monitoring on the Nipomo Mesa confirmed that this site is located within the 1 square mile sector of the study area that experiences the highest PM_{10} levels.[2]

Mesa2 – PM_{10} sampling began at this site in 1991, and the monitors have been operated by the SLOCAPCD since 2006. This site initially featured collocated FRM PM_{10} samplers that were replaced by a

[2] San Luis Obispo County Air Pollution Control District, "South County Community Monitoring Project," January 2013. Available online: http://www.slocleanair.org/air-quality/oceano-dunes/south-county-pm-study.php

single continuous FEM PM_{10} monitor in 2009. A continuous $PM_{2.5}$ FEM monitor was installed at the same time. This site monitors source impacts from the nearby oil refinery and coastal dunes, and the monitors are neighborhood in scale. These monitors record some of the highest particulate levels in the county and are strongly influenced by the extensive coastal sand dunes and the ODSVRA located upwind.

Nipomo Regional Park – Operated at this location by SLOCAPCD since 1998, it replaced a site at Wilson Street in Nipomo that operated from 1990-96. The 1-in-6 day FRM PM_{10} sampler was replaced with a continuous FEM sampler in 2010. The monitor is regional in scale and is representative of PM_{10} concentrations on the Nipomo Mesa.

Oso Flaco – Operated by SLOCAPCD on behalf of the California Department of Parks and Recreation, this PM_{10} monitor was established in July 2015 to fulfill a requirement of SLOCAPCD Rule 1001. It is classified as an SPM rather than a SLAMS monitor. It is located within the Oso Flaco area of the ODSVRA; off-road vehicular activity is not permitted upwind of the monitor. It is considered neighborhood in scale, and representative of the non-riding areas of the dunes complex.

Paso Robles – Operated by ARB since 1991, this PM_{10} monitor is neighborhood in scale and representative of the City of Paso Robles. The FRM sampler at this site was replaced with an FEM PM_{10} sampler in August 2009.

San Luis Obispo – ARB has operated a PM_{10} sampler in San Luis Obispo since 1988 and a $PM_{2.5}$ sampler since 1999. ARB replaced the FRM samplers with continuous FEM instruments in 2011. These population-oriented monitors are neighborhood in scale and representative of particulate concentrations in the City of San Luis Obispo.

Other Networks

San Luis Obispo County, which comprises the San Luis Obispo-Paso Robles MSA, is not required to have, nor does it have any, NCore, PAMS, lead, carbon monoxide or near-road monitoring stations.

Proposed Network Changes and Improvements

The following sections list any modifications that are planned for the 18-month period after the publication of this ANP. Note that with a population well below 500,000, the San Luis Obispo-Paso Robles MSA/CBSA[3] is not required to have any near-road NO_2, carbon monoxide, or $PM_{2.5}$ monitors, and therefore, SLOCAPCD has no plans to establish any such monitors. Additionally, there are no sources in our jurisdiction with SO_2 emissions greater than 2,000 tons per year, therefore no new SO_2 monitoring is needed nor planned to comply with the SO_2 Data Requirements Rule.

New Stations and Station Closures and Relocations

Currently, there are no plans to establish any new SLAMS or SPMs or to close or relocate any existing stations within the next 18 months.

Ozone Monitoring Network

No changes to the nitrogen dioxide monitoring network are anticipated.

Nitrogen Dioxide Network

No changes to the nitrogen dioxide monitoring network are anticipated.

Sulfur Dioxide Monitoring Network

No changes to the sulfur dioxide monitoring network are anticipated.

Particulate Monitoring Network

No changes to the particulate monitoring network are anticipated.

Statement Regarding Review of Changes to the $PM_{2.5}$ Network

In the event that SLOCAPCD needs to change the location of a $PM_{2.5}$ monitor that records violations of the NAAQS, the agency will notify EPA Region 9 and ARB contact points immediately, and work closely with ARB to formulate a plan for moving the site. The public will be notified of the plan and provided with an opportunity to comment for at least 30 days. Finally, the agency will submit formal notification to EPA. The SLOCAPCD intends to discuss and receive ARB and EPA approval prior to making any changes to our $PM_{2.5}$ network, whether the changes affect monitors violating NAAQS or not; however, unforeseen circumstances (e.g. unexpected loss of site access) may preclude this.

[3] San Luis Obispo County, the San Luis Obispo-Paso Robles MSA, and the San Luis Obispo-Paso Robles CBSA have identical borders and populations.

Accessing Air Quality Data

All of the SLAMS and SPM monitoring stations currently operating in the county are registered with the EPA and ARB and regularly report data to the EPA's AQS database, ARB's AQMIS2 website, and the airnow.gov website. Validated data from SLAMS and SPM sites operated by SLOCAPCD are typically submitted to AQS by end of the quarter following the quarter in which they were collected. Usually data is submitted well before this deadline. Raw data is uploaded automatically to AQMIS and airnow.gov within an hour after being generated in the field. In addition, raw data for the current day and previous day is available on the SLOCAPCD website. All data generated at these stations are public information and are available in various formats. Table 3, below, lists some popular sources for these data.

SLOCAPCD, and where applicable ARB, regularly submit precision and accuracy data to AQS for all gaseous and particulate pollutants measured in the SLAMS network. Additionally, in accordance with 40 CFR 58.15, SLOCAPCD certifies its AQS dataset for the previous year every spring. SLOCAPCD submitted a certification package for calendar year 2016 data to EPA on April 19, 2017.

Table 3: Sources for Air Quality Data from San Luis Obispo

Agency	Address for Data Requests	Website for Data Access	Data Available Online
SLOCAPCD	3433 Roberto Court, San Luis Obispo, CA 93401	Table: www.slocleanair.org/air/lasthour.php Map: http://www.slocleanair.org/air/AirForcasting_map3.php	Raw data from last 24 to 48 hours for sites in San Luis Obispo County.
ARB	P.O. Box 2815 Sacramento, CA 95812	AQMIS2: www.arb.ca.gov/aqmis2/aqdselect.php ADAM: www.arb.ca.gov/adam/	Most California sites, including all sites in San Luis Obispo County. Real-time raw data and archived validated data.
EPA	Ariel Rios Building 1200 Pennsylvania Ave NW Washington, DC 20460	AQS: www.epa.gov/ttn/airs/airsaqs/detaildata	Validated data from across the U.S. Typically one to several months behind current date.
AirNow.gov	U.S. EPA – OAQPS – ITG Mail Code E143-03 Research Triangle Park, NC 27711	www.airnow.gov	Current air quality conditions, nationwide. Based on real-time raw data.

Appendix A: Minimum Monitoring Requirements

The SLOCAPCD monitoring network meets the minimum monitoring requirements for all criteria pollutants as established in 40 CFR 58. The tables below list the criteria used to determine compliance with Federal regulations. The county population cited in these tables (278,917) is the California Department of Finance estimate for July 1, 2016.[4] The official figure from the most recent US Census (2010) is 269,637. Using this figure in lieu of the Department of Finance estimate does not change the required number of sites for any pollutant.

Minimum Monitoring Requirements for Ozone (O_3)

MSA	County	Population (Census Year)	8-hour Design Value (years) [a]	Design Value Site Name (AQS ID)	Number of Required Sites [b]	Number of Active Sites	Number of Additional Sites Needed
San Luis Obispo-Paso Robles	San Luis Obispo	278,917 (2016)	73 ppb (2014-16)	Red Hills (06-079-8005)	1	7	0

[a] This Design Value is for eastern San Luis Obispo County, which in early 2012 was designated as marginally nonattainment for the 2008 8-hour ozone standard. The design value for the rest of the county is either 62 ppb (2014-16) from Paso Robles (06-079-0005) or 63 ppb (2014-16) if data from the two Atascadero locations (06-079-8001 & 06-079-8002) are combined.
[b] Refer to section 4.1 and Table D-2 of Appendix D to 40 CFR Part 58 for requirements.

Monitors required for SIP or Maintenance Plan: None

[4] State of California, Department of Finance, E-2. California County Population Estimates and Components of Change by Year — July 1, 2010–2016, December 2016. http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-2/2010-16/index.html

Minimum Monitoring Requirements for $PM_{2.5}$ SLAMS

MSA	County	Population (Census Year)	Annual Design Value (years)	Annual Design Value Site (AQS ID)	Daily Design Value (years)	Daily Design Value Site Name (AQS ID)	Number of Required SLAMS Sites[a]	Number of Active SLAMS Sites	Number of Additional SLAMS Sites Needed
San Luis Obispo-Paso Robles	San Luis Obispo	278,917 (2016)	10.7 μg/m^3 (2014-16)	CDF (06-079-2007)	26 μg/m^3 (2014-16)	CDF (06-079-2007)	1	4	0

[a] Refer to section 4.7.1 and Table D-5 of Appendix D to 40 CFR Part 58 for requirements.

Monitors required for SIP or Maintenance Plan: None

Minimum Monitoring Requirements for Continuous $PM_{2.5}$ Monitors

MSA	County	Population (Census Year)	Annual Design Value (years)	Annual Design Value Site (AQS ID)	Daily Design Value (years)	Daily Design Value Site Name (AQS ID)	Number of Required Continuous Monitors [a]	Number of Active Continuous Monitors	Number of Additional Continuous Monitors Needed
San Luis Obispo - Paso Robles	San Luis Obispo	278,917 (2016)	10.7 μg/m^3 (2014-16)	CDF (06-079-2007)	26 μg/m^3 (2014-16)	CDF (06-079-2007)	1	4	0

[a] Refer to section 4.7.2 and Table D-5 of Appendix D to 40 CFR Part 58 for requirements.

Monitors required for SIP or Maintenance Plan: None

Minimum Monitoring Requirements for PM_{10}

MSA	County	Population (Census Year)	Maximum Concentration (Year)	Maximum Concentration Site Name (AQS ID)	Number of Required Sites [a]	Number of Active Sites	Number of Additional Sites Needed
San Luis Obispo-Paso Robles	San Luis Obispo	278,917 (2016)	144 $\mu g/m^3$ (2016)	CDF (06-079-2007)	1-2	6 [b]	0

[a] Refer to section 4.6 and Table D-4 of Appendix D to 40 CFR Part 58 for requirements.
[b] In addition to these 6 SLAMS, there is also a PM_{10} SPM.
Monitors required for SIP or Maintenance Plan: None

Minimum Monitoring Requirements for Nitrogen Dioxide (NO_2)

CBSA	Population (Census Year)	Maximum AADT Count (Years)	Number of Required Near-road Monitors [b]	Number of Active Near-road Monitors	Number of Additional Near-road Monitors Needed	Number of Required Area-wide Monitors [b]	Number of Active Area-wide Monitors	Number of Additional Area-wide Monitors Needed
San Luis Obispo-Paso Robles	278,917 (2016)	78,800 (2015) [a]	0	0	0	0	2	0

[a] US Hwy 101 in Pismo Beach
[b] Refer to section 4.3 of Appendix D to 40 CFR Part 58 for requirements.
Monitors required for SIP or Maintenance Plan: None
Monitors required for PAMS: None
EPA Regional Administrator-required monitors per 40 CFR 58, App. D 4.3.4: None

Minimum Monitoring Requirements for Sulfur Dioxide (SO_2)

CBSA	County	Population (Census Year)	Total SO_2 [a] (Tons/year)	Population Weighted Emissions Index (million person-tons/year) [b]	Data Requirements Rule Source(s) Using Monitoring [c]	Number of Required Monitors [d]	Number of Active Monitors	Number of Additional Monitors Needed
San Luis Obispo-Paso Robles	San Luis Obispo	278,917 (2016)	263	73	NA	0	1	0

[a] From the 2014 National Emissions Inventory: https://www.epa.gov/air-emissions-inventories/2014-national-emissions-inventory-nei-data

[b] Product of CBSA population and SO_2 emissions, divided by one million.

[c] Refer to 40 CFR 51 Subpart BB. There are no sources within the county/CBSA/SLOCAPCD jurisdiction with annual emissions over 2,000 tons, therefore, neither monitoring nor modelling is required to meet the "Data Requirements Rule."

[d] Refer to section 4.4 of Appendix D to 40 CFR Part 58 for requirements.

Monitors required for SIP or Maintenance Plan: None

Minimum Monitoring Requirements for Carbon Monoxide (CO)

CBSA	Population (Census Year)	Number of Required Near-Road Monitors [a]	Number of Active Near-Road Monitors	Number of Additional Monitors Needed
San Luis Obispo-Paso Robles	278,917 (2016)	0	0	0

[a] Refer to section 4.2 of Appendix D to 40 CFR Part 58 for requirements.

Monitors required for SIP or Maintenance Plan: None

EPA Regional Administrator-required monitors per section 4.2.2. of Appendix D to 40 CFR 58: None

Minimum Monitoring Requirements for Lead at NCore

NCore Site	CBSA	Population (Census Year)	Number of Required Monitors [a]	Number of Active Monitors	Number of Additional Monitors Needed
none	San Luis Obispo-Paso Robles	278,917 (2016)	0	0	0

[a] Refer to section 4.5 of Appendix D to 40 CFR Part 58 for requirements.

Source-Oriented Lead Monitoring (Including Airports)

Source	Address	Pb Emissions (Tons/yr)	Emissions Inventory Source Data (Year)	Max 3-Month Design Value	Design Value Date	Number of Required Monitors [b]	Number of Active Monitors	Number of Additional Monitors Needed
none [a]	n/a	n/a	n/a	n/a	n/a	0	0	0

[a] According to the 2014 National Emissions Inventory, total lead emissions in the county are less than 0.50 tons, therefore no single source exceeds the 0.50 ton threshold.

[a] Refer to section 4.5 of Appendix D to 40 CFR Part 58 for requirements.

Monitors required for SIP or Maintenance Plan: None

EPA Regional Administrator-required monitors per section 4.5(c) of Appendix D to 40 CFR 58: None

Near-Road NO_2, $PM_{2.5}$, and CO Monitors

CBSA	Population (Census Year)	Maximum AADT Count (Years)	Number of Required NO_2 Monitors [a]	Number of Active NO_2 Monitors	Number of Required $PM_{2.5}$ Monitors [a]	Number of Active $PM_{2.5}$ Monitors	Number of Required CO Monitors [a]	Number of Active CO Monitors	Number of Additional Monitors Needed
San Luis Obispo-Paso Robles	278,917 (2016)	78,800 (2015)	0	0	0	0	0	0	0

[a] Refer to 40 CFR Part 58.13 and sections 4.2, 4.3, 4.7 of Appendix D to 40 CFR Part 58

Appendix B: Collocation Requirements

Particulate monitoring (PM_{10}, $PM_{2.5}$, and lead) is subject to the collocation requirements described in Section 3 of Appendix A to 40 CFR 58. The requirements apply at the PQAO level, and monitors are aggregated by method when determining the required number of collocated monitors. SLOCAPCD is part of the ARB PQAO and all particulate monitors in our network are Met One BAM 1020s, which are continuous FEM instruments (PM_{10} method code: 122; $PM_{2.5}$ method code: 170). While there are no collocated particulate monitors within the SLOCAPCD network, there are collocated monitors within the ARB PQAO.

Collocation requirements for $PM_{2.5}$ are met at the PQAO level and thus, by extension, for the District. According to ARB's most recent Annual Network Plan,[5] in 2015 there were 35 active $PM_{2.5}$ FEM BAM 1020 monitors (method 170) in the PQAO; thus five collocated monitors were needed: three FRM/FEM pairs and two FEM/FEM pairs. The report indicates that the ARB PQAO met these minimum collocation requirements. This is corroborated by an AQS Certification and Concurrence Report (AMP600) for the 2016 calendar year (executed in April 2017), which reported slightly different numbers of monitors, but nonetheless indicated that collocation requirements were met for 2016. See Table B-1 below.

With regard to PM_{10} monitoring, all monitors in the District are continuous, and thus there are no collocation requirements. Finally, lead monitoring is not done in the county, and therefore there is no collocation requirement.

Table B- 1: Collocation Requirements for $PM_{2.5}$, Method Code 170

Data Source (see text)	Number of Primary Monitors	Number of Required Collocated Monitors	Number of Active Collocated FRM Monitors	Number of Active Collocated FEM Monitors (same method designation as primary)
ARB	35	5	4	2
AMP600	36	5	7 total collocated monitors, type not indicated	

[5] Air Resources Board, "Annual Network Plan Covering Monitoring Operations in 25 California Air Districts," June 2016. http://www.arb.ca.gov/aqd/amnr/amnr2016.pdf.

Appendix C: Detailed Site Information

Local site name	**Paso Robles**	
AQS ID	06-079-0005	
GPS coordinates (decimal degrees)	35.61467, -120.65691	
Street Address	235 Santa Fe Ave, Paso Robles	
County	San Luis Obispo	
Distance to roadways (meters)	27 to Santa Fe Ave. 110 to Sherwood Rd. 180 to Creston Rd. 2700 to US 101	
Traffic count (AADT, year)	Santa Fe Ave.: 75 (estimated) [a] Sherwood Rd.: 9,985 (2008) [a] Creston Rd: 11, 386 (2015) US101: 67,000 (2015)	
Groundcover (e.g. asphalt, dirt, sand)	Asphalt	
Representative statistical area name (i.e. MSA, CBSA, other)	San Luis Obispo – Paso Robles (MSA)	
Pollutant, POC	Ozone, 1	PM_{10}, 2
Primary / QA Collocated / Other	N/A	Primary
Parameter code	44201	81102
Basic monitoring objective(s)	NAAQS Comparison	Public info, NAAQS Comparison
Site type(s)	Population Exposure	Population Exposure
Monitor type(s)	SLAMS	SLAMS
Network Affiliation	N/A	N/A
Instrument manufacturer and model	API 400E	Met One BAM 1020
Method code	087	122
FRM/FEM/ARM/other	FEM	FEM
Collecting Agency	ARB	ARB
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	N/A
Reporting Agency	ARB	ARB
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood
Monitoring start date (MM/DD/YYYY)	09/01/1991	06/01/2013 [b]
Current sampling frequency (e.g. 1:3, continuous)	continuous	continuous
Calculated sampling frequency (e.g. 1:3/1:1)	continuous	continuous
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31
Probe height (meters)	6.2	5.2
Distance from supporting structure (meters)	2.9	1.9
Distance from obstructions on roof (meters)	N/A	N/A
Distance from obstructions not on roof (meters)	N/A	N/A
Distance from trees (meters)	N/A	N/A
Distance to furnace or incinerator flue (meters)	N/A	N/A
Distance between monitors fulfilling a QA Collocation requirement (meters)	N/A	N/A
For low volume PM instruments, is any PM instrument within 1m of the instrument?	N/A	No

Local site name	**Paso Robles**	
For high volume PM instruments, is any PM instrument within 2m of the instrument?	N/A	N/A
Unrestricted airflow (degrees)	360	360
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon	N/A
Residence time for reactive gases (seconds)	11.8	N/A
Will there be changes within the next 18 months?	No	No
Is it suitable for comparison against the annual PM2.5?	N/A	N/A
Frequency of flow rate verification for manual PM samplers	N/A	N/A
Frequency of flow rate verification for automated PM analyzers	N/A	bi-weekly
Frequency of one-point QC check for gaseous instruments	daily	N/A
Date of 2016 Annual Performance Evaluation for gaseous parameters	12/7/2016	N/A
Dates of 2016 Semi-Annual Flow Rate Audits for PM monitors	N/A	6/30/2016 12/7/2016

[a] This is the most current AADT available for this segment. [b] This instrument did not begin reporting PM_{10}-standard (88102) until 06/01/2013, but has been reporting PM_{10}-actual (85101) since 08/11/2009.

Local site name	**Grover Beach**
AQS ID	06-079-2001
GPS coordinates (decimal degrees)	35.12393, -120.63222
Street Address	9 Le Sage Drive, Grover Beach
County	San Luis Obispo
Distance to roadways (meters)	10 to Le Sage Drive 120 to US 1
Traffic count (AADT, year)	Le Sage: 300 (estimated) US 1: 11,600 (2015)
Groundcover (e.g. asphalt, dirt, sand)	Cement and dirt
Representative statistical area name (i.e. MSA, CBSA, other)	San Luis Obispo – Paso Robles (MSA)
Pollutant, POC	None (this is a meteorology-only station)

Local site name	**Mesa2**		
AQS ID	06-079-2004		
GPS coordinates (decimal degrees)	35.02079, -120.56389		
Street Address	1300 Guadalupe Rd., Nipomo		
County	San Luis Obispo		
Distance to roadways (meters)	40 to Guadalupe Rd. (US 1)		
Traffic count (AADT, year)	Guadalupe Rd. (US 1): 7500 (2015)		
Groundcover (e.g. asphalt, dirt, sand)	Vegetative		
Representative statistical area name (i.e. MSA, CBSA, other)	San Luis Obispo – Paso Robles (MSA)		
Pollutant, POC	SO_2, 1	$PM_{2.5}$, 1	PM_{10}, 3
Primary / QA Collocated / Other	N/A	Primary	Primary
Parameter code	42401	88101	81102
Basic monitoring objective(s)	NAAQS Comparison	NAAQS Comparison	NAAQS Comparison
Site type(s)	Source Oriented, Max Concentration	Source Oriented	Source Oriented
Monitor type(s)	SLAMS	SLAMS	SLAMS
Network Affiliation	N/A	N/A	N/A
Instrument manufacturer and model	API T100U	Met One BAM 1020	Met One BAM 1020
Method code	100	170	122
FRM/FEM/ARM/other	FEM	FEM	FEM
Collecting Agency	SLOCAPCD	SLOCAPCD	SLOCAPCD
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	N/A	N/A
Reporting Agency	SLOCAPCD	SLOCAPCD	SLOCAPCD
Spatial scale (e.g. micro, neighborhood)	Middle	Neighborhood	Neighborhood
Monitoring start date (MM/DD/YYYY)	05/01/1989	07/01/2009	07/01/2009
Current sampling frequency (e.g. 1:3, continuous)	continuous	continuous	continuous
Calculated sampling frequency (e.g. 1:3/1:1)	continuous	continuous	continuous
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31
Probe height (meters)	4.8	5.4	5.5
Distance from supporting structure (meters) [a]	1.3	1.9	2.0
Distance from obstructions on roof (meters)	N/A	N/A	N/A
Distance from obstructions not on roof (meters)	N/A	N/A	N/A
Distance from trees (meters)	N/A	N/A	N/A
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A
Distance between monitors fulfilling a QA Collocation requirement (meters)	N/A	N/A	N/A
For low volume PM instruments, is any PM instrument within 1 m of the instrument?	N/A	No	No
For high volume PM instruments, is any PM instrument within 2m of the instrument?	N/A	N/A	N/A
Unrestricted airflow (degrees)	360	360	360
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon	N/A	N/A

Local site name	**Mesa2**		
Residence time for reactive gases (seconds)	5.1	N/A	N/A
Will there be changes within the next 18 months?	No	No	No
Is it suitable for comparison against the annual PM2.5?	N/A	Yes	N/A
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A
Frequency of flow rate verification for automated PM analyzers	N/A	bi-weekly	bi-weekly
Frequency of one-point QC check for gaseous instruments	daily	N/A	N/A
Date of 2016 Annual Performance Evaluation for gaseous parameters	5/25/2016	N/A	N/A
Dates of 2016 Semi-Annual Flow Rate Audits for PM monitors	N/A	5/25/2016 11/29/2016	5/25/2016 11/29/2016

[a] This is the roof-to-probe distance. There are no walls, parapets, penthouses, or other potential obstacles on the roof.

Local site name	**San Luis Obispo**		
AQS ID	06-079-2006		
GPS coordinates (decimal degrees)	35.25651, -120.66945		
Street Address	3220 South Higuera St., San Luis Obispo		
County	San Luis Obispo		
Distance to roadways (meters)	50 to South Higuera St. 450 to US 101		
Traffic count (AADT, year)	South Higuera St.: 16,384 (2016) US 101: 65,000 (2015)		
Groundcover (e.g. asphalt, dirt, sand)	Vegetative (to the west and north), Asphalt (east and south)		
Representative statistical area name (i.e. MSA, CBSA, other)	San Luis Obispo – Paso Robles (MSA)		
Pollutant, POC	O_3, 1	$PM_{2.5}$, 3	PM_{10}, 2
Primary / QA Collocated / Other	N/A	Primary	Primary
Parameter code	44201	88101	81102
Basic monitoring objective(s)	NAAQS Comparison	NAAQS Comparison	NAAQS Comparison, Public Info
Site type(s)	Population Exposure	General/ Background	Population Exposure
Monitor type(s)	SLAMS	SLAMS	SLAMS
Network Affiliation	N/A	N/A	N/A
Instrument manufacturer and model	API T400	Met One BAM 1020	Met One BAM 1020
Method code	087	170	122
FRM/FEM/ARM/other	FEM	FEM	FEM
Collecting Agency	ARB	ARB	ARB
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	N/A	N/A
Reporting Agency	ARB	ARB	ARB
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood
Monitoring start date (MM/DD/YYYY)	09/21/2005	03/15/2011	06/01/2013 [a]
Current sampling frequency (e.g. 1:3, continuous)	continuous	continuous	continuous
Calculated sampling frequency (e.g. 1:3/1:1)	continuous	continuous	continuous
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31
Probe height (meters)	16.1	15.7	15.7
Distance from supporting structure (meters)	2.4	2.0	2.0
Distance from obstructions on roof (meters)	N/A	N/A	N/A
Distance from obstructions not on roof (meters)	N/A	N/A	N/A
Distance from trees (meters)	N/A	N/A	N/A
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A
Distance between monitors fulfilling a QA Collocation requirement (meters)	N/A	N/A	N/A
For low volume PM instruments, is any PM instrument within 1 m of the instrument?	N/A	No	No
For high volume PM instruments, is any PM instrument within 2m of the instrument?	N/A	N/A	N/A
Unrestricted airflow (degrees)	360	360	360

Local site name	**San Luis Obispo**		
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon	N/A	N/A
Residence time for reactive gases (seconds)	8.4	N/A	N/A
Will there be changes within the next 18 months?	No	No	No
Is it suitable for comparison against the annual PM2.5?	N/A	Yes	N/A
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A
Frequency of flow rate verification for automated PM analyzers	N/A	bi-weekly	bi-weekly
Frequency of one-point QC check for gaseous instruments	daily	N/A	N/A
Date of 2016 Annual Performance Evaluation for gaseous parameters	12/7/2016	N/A	N/A
Dates of 2016 Semi-Annual Flow Rate Audits for PM monitors	N/A	6/30/2016 12/7/2016	6/30/2016 12/7/2016

[a] This instrument did not begin reporting PM_{10}-standard (88102) until 06/01/2013, but has been reporting PM_{10}-actual (85101) since 03/15/2011.

Local site name	**CDF**	
AQS ID	06-079-2007	
GPS coordinates (decimal degrees)	35.04673, -120.58777	
Street Address	2391 Willow Rd., Arroyo Grande	
County	San Luis Obispo	
Distance to roadways (meters)	53 to Willow Rd. (US 1).	
Traffic count (AADT, year)	Willow Rd. (US1): 5,350 (2015)	
Groundcover (e.g. asphalt, dirt, sand)	Vegetative, Sand	
Representative statistical area name (i.e. MSA, CBSA, other)	San Luis Obispo – Paso Robles (MSA)	
Pollutant, POC	$PM_{2.5}$, 1	PM_{10}, 2
Primary / QA Collocated / Other	Primary	Primary
Parameter code	88101	81102
Basic monitoring objective(s)	NAAQS Comparison	NAAQS Comparison
Site type(s)	Max Concentration, Source Oriented	Max Concentration, Source Oriented
Monitor type(s)	SLAMS	SLAMS
Network Affiliation	N/A	N/A
Instrument manufacturer and model	Met One BAM 1020	Met One BAM 1020
Method code	170	122
FRM/FEM/ARM/other	FEM	FEM
Collecting Agency	SLOCAPCD	SLOCAPCD
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	N/A
Reporting Agency	SLOCAPCD	SLOCAPCD
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood
Monitoring start date (MM/DD/YYYY)	08/01/2010	01/01/2010
Current sampling frequency (e.g. 1:3, continuous)	continuous	continuous
Calculated sampling frequency (e.g. 1:3/1:1)	continuous	continuous
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31
Probe height (meters)	4.0	4.0
Distance from supporting structure (meters) [a]	1.4	1.4
Distance from obstructions on roof (meters)	N/A	N/A
Distance from obstructions not on roof (meters)	N/A	N/A
Distance from trees (meters)	N/A	N/A
Distance to furnace or incinerator flue (meters)	N/A	N/A
Distance between monitors fulfilling a QA Collocation requirement (meters)	N/A	N/A
For low volume PM instruments, is any PM instrument within 1 m of the instrument?	No	No
For high volume PM instruments, is any PM instrument within 2m of the instrument?	N/A	N/A
Unrestricted airflow (degrees)	360	360
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A
Residence time for reactive gases (seconds)	N/A	N/A
Will there be changes within the next 18 months?	No	No
Is it suitable for comparison against the annual PM2.5?	Yes	N/A
Frequency of flow rate verification for manual PM	N/A	N/A

Local site name	**CDF**	
samplers		
Frequency of flow rate verification for automated PM analyzers	bi-weekly	bi-weekly
Frequency of one-point QC check for gaseous instruments	N/A	N/A
Date of 2016 Annual Performance Evaluation for gaseous parameters	N/A	N/A
Dates of 2016 Semi-Annual Flow Rate Audits for PM monitors	5/25/2016 11/29/2016	5/25/2016 11/29/2016

[a] This is the roof-to-probe distance. There are no walls, parapets, penthouses, or other potential obstacles on the roof.

Local site name	**Morro Bay**	
AQS ID	06-079-3001	
GPS coordinates (decimal degrees)	35.36640, -120.84268	
Street Address	899 Morro Bay Blvd., Morro Bay	
County	San Luis Obispo	
Distance to roadways (meters)	37 to Morro Bay Blvd. 220 to CA 1	
Traffic count (AADT, year)	Morro Bay Blvd.: 12,388 (2015) CA 1: 25,100 (2015)	
Groundcover (e.g. asphalt, dirt, sand)	Paved	
Representative statistical area name (i.e. MSA, CBSA, other)	San Luis Obispo – Paso Robles (MSA)	
Pollutant, POC	O_3, 1	NO_2, 1
Primary / QA Collocated / Other	N/A	Primary
Parameter code	44201	42602
Basic monitoring objective(s)	NAAQS Comparison	NAAQS Comparison
Site type(s)	General/Background	General/Background
Monitor type(s)	SLAMS	SLAMS
Network Affiliation	N/A	N/A
Instrument manufacturer and model	API T400	API T200U
Method code	087	599 [a]
FRM/FEM/ARM/other	FEM	FRM
Collecting Agency	SLOCAPCD	SLOCAPCD
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	N/A
Reporting Agency	SLOCAPCD	SLOCAPCD
Spatial scale (e.g. micro, neighborhood)	Regional	Neighborhood
Monitoring start date (MM/DD/YYYY)	01/01/1981	06/01/2001
Monitoring end date (MM/DD/YYYY)	N/A	03/31/2016
Current sampling frequency (e.g. 1:3, continuous)	continuous	continuous
Calculated sampling frequency (e.g. 1:3/1:1)	continuous	continuous
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31
Probe height (meters)	4.2	4.2
Distance from supporting structure (meters)	1.1	1.1
Distance from obstructions on roof (meters)	N/A	N/A
Distance from obstructions not on roof (meters)	N/A	N/A
Distance from trees (meters)	N/A	N/A
Distance to furnace or incinerator flue (meters)	N/A	N/A
Distance between monitors fulfilling a QA Collocation requirement (meters)	N/A	N/A
For low volume PM instruments, is any PM instrument within 1 m of the instrument?	N/A	N/A
For high volume PM instruments, is any PM instrument within 2m of the instrument?	N/A	N/A
Unrestricted airflow (degrees)	360	360
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon	Teflon
Residence time for reactive gases (seconds)	6.6	5.9

Local site name	**Morro Bay**	
Will there be changes within the next 18 months?	No	No
Is it suitable for comparison against the annual PM2.5?	N/A	N/A
Frequency of flow rate verification for manual PM samplers	N/A	N/A
Frequency of flow rate verification for automated PM analyzers	N/A	N/A
Frequency of one-point QC check for gaseous instruments	daily	daily
Date of 2016 Annual Performance Evaluation for gaseous parameters	3/2/2016	3/2/2016
Dates of 2016 Semi-Annual Flow Rate Audits for PM monitors	N/A	N/A

[a] EPA, "AQS Memo - Changes to Oxides of Nitrogen Analyzer Method Codes," December 22, 2014. https://www.epa.gov/aqs/aqs-memo-changes-oxides-nitrogen-analyzer-method-codes

Local site name	**Nipomo Regional Park (NRP)**		
AQS ID	06-079-4002		
GPS coordinates (decimal degrees)	35.03150, -120.50101		
Street Address	W. Tefft St. and Pomeroy Rd., Nipomo		
County	San Luis Obispo		
Distance to roadways (meters)	500 to Tefft St. 350 to Camino Caballo 240 to Pomeroy Rd.		
Traffic count (AADT, year)	Tefft St.: 13,864 (2016) Camino Caballo: 2556 (2016) Pomeroy Rd.: 5833 (2014) [a]		
Groundcover (e.g. asphalt, dirt, sand)	Vegetative		
Representative statistical area name (i.e. MSA, CBSA, other)	San Luis Obispo – Paso Robles (MSA)		
Pollutant, POC	O_3, 1	NO_2, 1	PM_{10}, 2
Primary / QA Collocated / Other	N/A	Primary	Primary
Parameter code	44201	42602	81102
Basic monitoring objective(s)	NAAQS Comparison	NAAQS Comparison	NAAQS Comparison
Site type(s)	General/ Background	General/ Background	General/ Background
Monitor type(s)	SLAMS	SLAMS	SLAMS
Network Affiliation	N/A	N/A	N/A
Instrument manufacturer and model	API 400E	API T200U	Met One BAM 1020
Method code	087	599 [b]	122
FRM/FEM/ARM/other	FEM	FRM	FEM
Collecting Agency	SLOCAPCD	SLOCAPCD	SLOCAPCD
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	N/A	N/A
Reporting Agency	SLOCAPCD	SLOCAPCD	SLOCAPCD
Spatial scale (e.g. micro, neighborhood)	Regional	Regional	Regional
Monitoring start date (MM/DD/YYYY)	11/01/1998	11/01/1998	05/16/2010
Current sampling frequency (e.g. 1:3, continuous)	continuous	continuous	continuous
Calculated sampling frequency (e.g. 1:3/1:1)	continuous	continuous	continuous
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31
Probe height (meters)	4.0	4.0	4.7
Distance from supporting structure (meters) [c]	1.0	1.0	1.7
Distance from obstructions on roof (meters)	N/A	N/A	N/A
Distance from obstructions not on roof (meters)	N/A	N/A	N/A
Distance from trees (meters)	N/A	N/A	N/A
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A
Distance between monitors fulfilling a QA Collocation requirement (meters)	N/A	N/A	N/A
For low volume PM instruments, is any PM instrument within 1 m of the instrument?	N/A	N/A	No
For high volume PM instruments, is any PM instrument within 2m of the instrument?	N/A	N/A	N/A

Local site name	**Nipomo Regional Park (NRP)**		
Unrestricted airflow (degrees)	360	360	360
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon	Teflon	N/A
Residence time for reactive gases (seconds)	14.1	12.2	N/A
Will there be changes within the next 18 months?	No	No	No
Is it suitable for comparison against the annual PM2.5?	N/A	N/A	N/A
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	bi-weekly
Frequency of one-point QC check for gaseous instruments	daily	daily	N/A
Date of 2016 Annual Performance Evaluation for gaseous parameters	5/24/2016	5/24/2016	N/A
Dates of 2016 Semi-Annual Flow Rate Audits for PM monitors	N/A	N/A	5/24/2016 11/29/2016

[a] This is the most current AADT available for this segment.

[b] EPA, "AQS Memo - Changes to Oxides of Nitrogen Analyzer Method Codes," December 22, 2014. https://www.epa.gov/aqs/aqs-memo-changes-oxides-nitrogen-analyzer-method-codes

[c] This is the roof-to-probe distance. There are no walls, parapets, penthouses, or other potential obstacles on the roof.

Local site name	**Atascadero**			
AQS ID	06-079-8002			
GPS coordinates (decimal degrees)	35.49453, -120.66617			
Street Address	5599 Traffic Way, Atascadero, CA			
County	San Luis Obispo			
Distance to roadways (meters)	163 to Traffic Way 770 to US 101 330 to CA 41			
Traffic count (AADT, year)	Traffic Way: < 7400 (2014)[a] US 101: 62,200 (2015) CA 41: 12,900 (2015)			
Groundcover (e.g. asphalt, dirt, sand)	Vegetative			
Representative statistical area name (i.e. MSA, CBSA, other)	San Luis Obispo – Paso Robles (MSA)			
Pollutant, POC	O_3, 1	NO_2, 1	$PM_{2.5}$, 3	PM_{10}, 3
Primary / QA Collocated / Other	N/A	Primary	Primary	Primary
Parameter code	44201	42602	88101	81102
Basic monitoring objective(s)	NAAQS Comparison	NAAQS Comparison	NAAQS Comparison	NAAQS Comparison
Site type(s)	Population Exposure, Max Concentration	Population Exposure, Max Concentration	Population Exposure	Population Exposure
Monitor type(s)	SLAMS	SLAMS	SLAMS	SLAMS
Network Affiliation	N/A	N/A	N/A	N/A
Instrument manufacturer and model	API T400	API T200	Met One BAM 1020	Met One BAM 1020
Method code	087	099	170	122
FRM/FEM/ARM/other	FEM	FRM	FEM	FEM
Collecting Agency	SLOCAPCD	SLOCAPCD	SLOCAPCD	SLOCAPCD
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	N/A	N/A	N/A
Reporting Agency	SLOCAPCD	SLOCAPCD	SLOCAPCD	SLOCAPCD
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood	Neighborhood
Monitoring start date (MM/DD/YYYY)	02/25/2015	02/25/2015	02/25/2015	02/25/2015
Current sampling frequency (e.g. 1:3, continuous)	continuous	continuous	continuous	continuous
Calculated sampling frequency (e.g. 1:3/1:1)	continuous	continuous	continuous	continuous
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	01/01-12/31
Probe height (meters)	4.7	4.7	5.8	5.3
Distance from supporting structure (meters) [b]	1.1	1.1	2.2	1.7
Distance from obstructions on roof (meters)	N/A	N/A	N/A	N/A
Distance from obstructions not on roof (meters)	N/A	N/A	N/A	N/A
Distance from trees (meters)	N/A	N/A	N/A	N/A
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A
Distance between monitors fulfilling a QA Collocation requirement (meters)	N/A	N/A	N/A	N/A
For low volume PM instruments, is any PM instrument within 1 m of the instrument?	N/A	N/A	No	No

Local site name	**Atascadero**			
For high volume PM instruments, is any PM instrument within 2m of the instrument?	N/A	N/A	N/A	N/A
Unrestricted airflow (degrees)	360	360	360	360
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon	Teflon	N/A	N/A
Residence time for reactive gases (seconds)	10	14.6	N/A	N/A
Will there be changes within the next 18 months?	No	No	No	No
Is it suitable for comparison against the annual PM2.5?	N/A	N/A	Yes	N/A
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	N/A
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	bi-weekly	bi-weekly
Frequency of one-point QC check for gaseous instruments	daily	daily	N/A	N/A
Date of 2016 Annual Performance Evaluation for gaseous parameters	5/26/2016	5/26/2016	N/A	N/A
Dates of 2016 Semi-Annual Flow Rate Audits for PM monitors	N/A	N/A	5/26/2016 11/28/2016	5/26/2016 11/28/2016

[a] This is the most current AADT available for this segment. Traffic counts were conducted only during peak morning and afternoon hours along this street. Along this stretch of Traffic Way, a total of 1,233 vehicles were counted during these four hours, therefore, six times this figure (7,398) represents the likely maximum AADT.

[b] This is the roof-to-probe distance. There are no walls, parapets, penthouses, or other potential obstacles on the roof.

Local site name	**Red Hills**
AQS ID	06-079-8005
GPS coordinates (decimal degrees)	35.64366, -120.23134
Street Address	3601 Gillis Canyon Rd., Shandon
County	San Luis Obispo
Distance to roadways (meters)	100 to Gillis Canyon Rd. 1740 to Bitterwater Rd. 10,400 to CA 41
Traffic count (AADT, year)	Gillis Canyon Rd.: 24 (2016) Bitterwater Rd.: 93 (2013) [a] CA 41: 1450 (2015)
Groundcover (e.g. asphalt, dirt, sand)	Vegetative
Representative statistical area name (i.e. MSA, CBSA, other)	San Luis Obispo – Paso Robles (MSA)
Pollutant, POC	O_3, 1
Primary / QA Collocated / Other	N/A
Parameter code	44201
Basic monitoring objective(s)	NAAQS Comparison
Site type(s)	Regional Transport, Max Concentration
Monitor type(s)	SLAMS
Network Affiliation	N/A
Instrument manufacturer and model	API T400
Method code	087
FRM/FEM/ARM/other	FEM
Collecting Agency	SLOCAPCD
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A
Reporting Agency	SLOCAPCD
Spatial scale (e.g. micro, neighborhood)	Regional
Monitoring start date (MM/DD/YYYY)	07/01/2000
Current sampling frequency (e.g. 1:3, continuous)	continuous
Calculated sampling frequency (e.g. 1:3/1:1)	continuous
Sampling season (MM/DD-MM/DD)	01/01-12/31
Probe height (meters)	4.8
Distance from supporting structure (meters)	1.2
Distance from obstructions on roof (meters)	N/A
Distance from obstructions not on roof (meters)	N/A
Distance from trees (meters)	N/A
Distance to furnace or incinerator flue (meters)	N/A
Distance between monitors fulfilling a QA Collocation requirement (meters)	N/A
For low volume PM instruments, is any PM instrument within 1 m of the instrument?	N/A
For high volume PM instruments, is any PM instrument within 2m of the instrument?	N/A
Unrestricted airflow (degrees)	360
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon

Local site name	**Red Hills**
Residence time for reactive gases (seconds)	11.3
Will there be changes within the next 18 months?	No
Is it suitable for comparison against the annual PM2.5?	N/A
Frequency of flow rate verification for manual PM samplers	N/A
Frequency of flow rate verification for automated PM analyzers	N/A
Frequency of one-point QC check for gaseous instruments	daily
Date of 2016 Annual Performance Evaluation for gaseous parameters	3/1/2016
Dates of 2016 Semi-Annual Flow Rate Audits for PM monitors	N/A

[a] This is the most current AADT available for this segment.

Local site name	**Carrizo Plain**
AQS ID	06-079-8006
GPS coordinates (decimal degrees)	35.35474, -120.04013
Street Address	9640 Carrizo Highway (CA 58), California Valley
County	San Luis Obispo
Distance to roadways (meters)	38 to Carrizo Highway (CA 58)
Traffic count (AADT, year)	Carrizo Highway (CA 58): 880 (2015)
Groundcover (e.g. asphalt, dirt, sand)	Vegetative (to the west, north, and east) Asphalt (south)
Representative statistical area name (i.e. MSA, CBSA, other)	San Luis Obispo – Paso Robles (MSA)
Pollutant, POC	O_3, 1
Primary / QA Collocated / Other	N/A
Parameter code	44201
Basic monitoring objective(s)	NAAQS Comparison
Site type(s)	Regional Transport, General Background
Monitor type(s)	SLAMS
Network Affiliation	N/A
Instrument manufacturer and model	API T400
Method code	087
FRM/FEM/ARM/other	FEM
Collecting Agency	SLOCAPCD
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A
Reporting Agency	SLOCAPCD
Spatial scale (e.g. micro, neighborhood)	Regional
Monitoring start date (MM/DD/YYYY)	01/01/2006
Current sampling frequency (e.g. 1:3, continuous)	continuous
Calculated sampling frequency (e.g. 1:3/1:1)	continuous
Sampling season (MM/DD-MM/DD)	01/01-12/31
Probe height (meters)	4.7
Distance from supporting structure (meters)	1.1
Distance from obstructions on roof (meters)	N/A
Distance from obstructions not on roof (meters)	N/A
Distance from trees (meters)	N/A
Distance to furnace or incinerator flue (meters)	N/A
Distance between monitors fulfilling a QA Collocation requirement (meters)	N/A
For low volume PM instruments, is any PM instrument within 1 m of the instrument?	N/A
For high volume PM instruments, is any PM instrument within 2m of the instrument?	N/A
Unrestricted airflow (degrees)	360
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon
Residence time for reactive gases (seconds)	9.8
Will there be changes within the next 18 months?	No
Is it suitable for comparison against the annual	N/A

Local site name	**Carrizo Plain**
PM2.5?	
Frequency of flow rate verification for manual PM samplers	N/A
Frequency of flow rate verification for automated PM analyzers	N/A
Frequency of one-point QC check for gaseous instruments	daily
Date of 2016 Annual Performance Evaluation for gaseous parameters	3/1/2016
Dates of 2016 Semi-Annual Flow Rate Audits for PM monitors	N/A

Local site name	**Oso Flaco**
AQS ID	06-079-9001
GPS coordinates (decimal degrees)	35.00876, -120.59998
Street Address	Near intersection of Oso Flaco Lake & Beigle Rds., Nipomo
County	San Luis Obispo
Distance to roadways (meters)	1150 to Oso Flaco Lake Rd. 2800 to Guadalupe Rd. (US 1)
Traffic count (AADT, year)	Oso Flaco Lake Rd.: 639 (2014) [a] Guadalupe Rd. (US 1): 4100 (2015)
Groundcover (e.g. asphalt, dirt, sand)	Vegetative
Representative statistical area name (i.e. MSA, CBSA, other)	San Luis Obispo – Paso Robles (MSA)
Pollutant, POC	PM_{10}, 1
Primary / QA Collocated / Other	N/A
Parameter code	81102
Basic monitoring objective(s)	Public Information, Rule 1001 Compliance
Site type(s)	Background
Monitor type(s)	SPM
Network Affiliation	N/A
Instrument manufacturer and model	Met One BAM 1020
Method code	122
FRM/FEM/ARM/other	FEM
Collecting Agency	SLOCAPCD
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A
Reporting Agency	SLOCAPCD
Spatial scale (e.g. micro, neighborhood)	Neighborhood
Monitoring start date (MM/DD/YYYY)	07/01/2015
Current sampling frequency (e.g. 1:3, continuous)	continuous
Calculated sampling frequency (e.g. 1:3/1:1)	continuous
Sampling season (MM/DD-MM/DD)	01/01-12/31
Probe height (meters)	3.3
Distance from supporting structure (meters)	2.0
Distance from obstructions on roof (meters)	N/A
Distance from obstructions not on roof (meters)	N/A
Distance from trees (meters)	N/A
Distance to furnace or incinerator flue (meters)	N/A
Distance between monitors fulfilling a QA Collocation requirement (meters)	N/A
For low volume PM instruments, is any PM instrument within 1 m of the instrument?	No
For high volume PM instruments, is any PM instrument within 2m of the instrument?	N/A
Unrestricted airflow (degrees)	360
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A
Residence time for reactive gases (seconds)	N/A
Will there be changes within the next 18 months?	No

Local site name	**Oso Flaco**
Is it suitable for comparison against the annual PM2.5?	N/A
Frequency of flow rate verification for manual PM samplers	N/A
Frequency of flow rate verification for automated PM analyzers	bi-weekly
Frequency of one-point QC check for gaseous instruments	N/A
Date of 2016 Annual Performance Evaluation for gaseous parameters	N/A
Dates of 2016 Semi-Annual Flow Rate Audits for PM monitors	5/24/2016 11/29/2016

[a] This is the most current AADT available for this segment.