

# 2021 Ambient Air Monitoring Network Plan



**Planning, Monitoring & Grants Division**

**June 2021**



Air Pollution Control District  
San Luis Obispo County

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## List of Abbreviations and Symbols

AADT	Annual Average Daily Traffic count
AB	Assembly Bill
ANP	Annual Network Plan
AQMD	Air Quality Management District
AQS	Air Quality System
AQS ID	Air Quality System site identification number
BAM	Beta Attenuation Monitor
CARB	California Air Resources Board
CBSA	Core Based Statistical Area
CDF	California Department of Forestry
CFR	Code of Federal Regulations
CO	Carbon monoxide
E-BAM	Portable, non-FEM version of the BAM
EPA	United States Environment Protection Agency
FAA	Federal Aviation Administration
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 <sub>2</sub>	Nitrogen dioxide
NO <sub>x</sub>	Oxides of nitrogen
NRP	Nipomo Regional Park
O <sub>3</sub>	Ozone
ODSVRA	Oceano Dunes State Vehicular Recreation Area
PAMS	Photochemical Assessment Monitoring Station
PM <sub>2.5</sub>	Particulate Matter less than 10 microns in aerodynamic diameter
PM <sub>10</sub>	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 <sub>2</sub>	Sulfur dioxide
SPM	Special Purpose Monitor
ZAG	Zero Air Generator

## Introduction

Every year the San Luis Obispo County Air Pollution Control District submits an ambient air monitoring network plan to the United States Environmental Protection Agency; this document comprises the ANP for 2021. It is intended to fulfill the requirements of 40 CFR 58.10 and to provide information about local monitoring activities to the public. The focus of this ANP is the network of regulatory monitors in the County; non-regulatory monitoring is discussed in Appendix D.

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 E and F, 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, and it also documents any changes since the last ANP (published June 2020) and any modifications anticipated 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 CARB sites were obtained from that agency and are accurate to the best of our knowledge.

Several monitoring changes are discussed in the subsequent sections: The CARB San Luis Obispo station, which monitored Ozone, PM<sub>10</sub>, PM<sub>2.5</sub>, and meteorological parameters, was permanently closed in 2021. The San Luis Obispo APCD assumed monitoring of PM<sub>10</sub>, and PM<sub>2.5</sub> at the San Luis Obispo APCD office on Roberto Ct. Finally, to fulfill requirements of California Assembly Bill 1647, SLOCAPCD and the Phillips 66 Santa Maria Refinery are establishing a refinery-related community/fence-line monitoring network near the refinery. The network consists of new monitors for oxides of nitrogen, SO<sub>2</sub>, black carbon, and non-methane volatile organic compounds at the existing Mesa2 station and a new station on the north side of the refinery. The new monitors are funded and operated by the refinery and their data will be made publicly available in real-time. At this time, there is no plan to formally incorporate these monitors into the local SLAMS network or add the data to AQS. All equipment has been installed, and the refinery is in the final stages of commissioning the new monitors.

All pollutant monitors in SLOCAPCD's SLAMS network meet the requirements of 40 CFR 58 Appendices A, B, C, D, and E, where applicable, and SLOCAPCD-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). 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 & 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 CARB, as allowed by Section 2(e) of Appendix D to 40 CFR 58. SLOCAPCD acknowledges this joint responsibility and is a member of the CARB 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 CARB website.<sup>1</sup>

There are currently nine SLAMS stations in the county/MSA; their locations are shown in Figure 1. CARB operates the station in Paso Robles as part of their network, while the other eight are operated by the SLOCAPCD. Table 2 lists these stations, along with the pollutants and meteorological parameters monitored at each location and the site type. Every criteria pollutant monitor at each of these nine SLAMS meets all applicable requirements in Appendices A, B, C, D, and E to 40 CFR 58.

SLOCAPCD also operates the Oso Flaco monitoring 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<sub>10</sub> 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.

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

Site	Ozone <sup>b</sup>	Nitrogen Dioxide	Sulfur Dioxide	PM <sub>10</sub>	PM <sub>2.5</sub>	Wind <sup>c</sup>	Temp
Atascadero	P, C	P, C		P	P	X	X
Carrizo Plain	T, B					X	X
CDF				S, C	S, C	X	
Mesa2			S, C	S	S	X	X
Morro Bay	B					X	

<sup>1</sup> California Air Resources Board, “Quality Management Documents, Document Repository, Finalized Roles and Responsibilities,” [http://arb.ca.gov/aaqm/qa/pqao/repository/rr\\_docs.htm](http://arb.ca.gov/aaqm/qa/pqao/repository/rr_docs.htm).

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Site	Ozone <sup>b</sup>	Nitrogen Dioxide	Sulfur Dioxide	PM <sub>10</sub>	PM <sub>2.5</sub>	Wind <sup>c</sup>	Temp
Nipomo Regional Park	B	B		B		X	X
Paso Robles <sup>a</sup>	P			P		X	X
San Luis Obispo-Roberto Ct.				P	P		
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:** <sup>a</sup> Paso Robles is operated by CARB; all other sites are operated by SLOCAPCD.

<sup>b</sup> Atascadero is typically the highest concentration site for the western county attainment area, while Red Hills is the highest concentration site for the eastern county nonattainment area. <sup>c</sup> Wind speed, wind direction, and sigma theta.



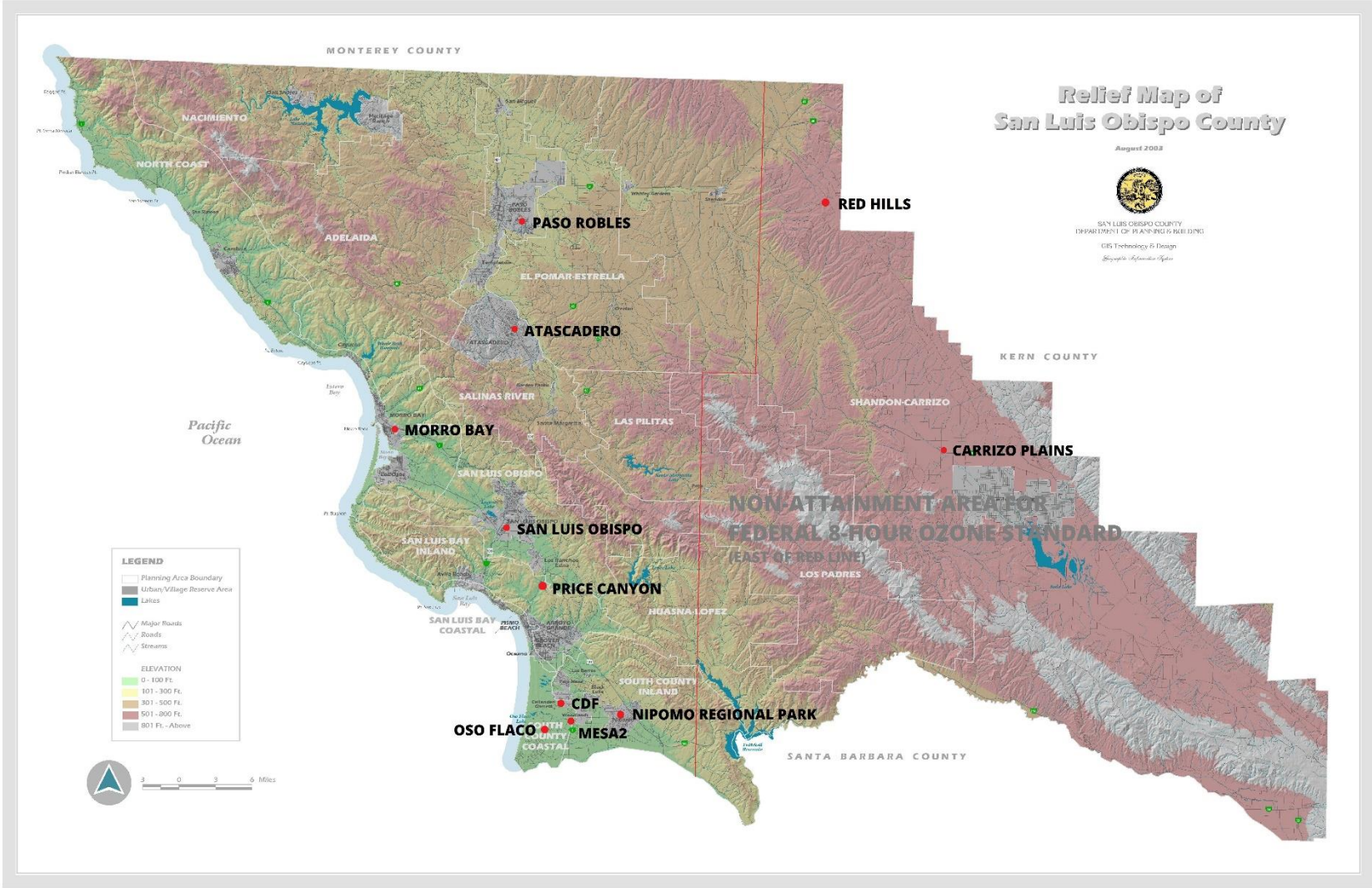


Figure 1: Locations of air monitoring stations in San Luis Obispo County as of May 2021. The thin red line depicts the boundary of the ozone nonattainment area.

## **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**

A new San Luis Obispo station at the SLOCAPCD office (06-079-2020) began collecting PM<sub>2.5</sub> and PM<sub>10</sub> data on January 1, 2021 in response to the anticipated January 31, 2021 closure of CARB's San Luis Obispo SLAMS (06-079-2006), as proposed in last year's ANP. The continuation of PM monitoring in San Luis Obispo is important because this city and the surrounding areas are the highest population centers in San Luis Obispo County. Monitoring of ozone and meteorology at the previous station will not continue at the new San Luis Obispo station. Ozone levels at the previous San Luis Obispo SLAMS location closely tracked those monitored 12 miles away in Morro Bay, and thus we believe timely ozone information and accurate forecasts for San Luis Obispo and the surrounding areas will not be compromised by the loss of the monitor. Meteorological conditions are well-represented by the existing FAA weather station (KSBP) at the San Luis Obispo County Regional Airport (McChesney Field), less than 2 miles away. For more details about this decision, see the [2020 ANP](#).

### **Ozone Monitoring Network Changes**

CARB operated the San Luis Obispo station (06-079-2006) which was shut down in early 2021. The ozone monitor was shut down, and ozone AQI is now drawn from the Morro Bay monitoring site. The closure of this station was proposed in last year's ANP.

### **Particulate Monitoring Network Changes**

PM<sub>2.5</sub> and PM<sub>10</sub> monitoring at the CARB operated San Luis Obispo station was discontinued in January 2021. The SLOCAPCD began sampling and collecting data on January 1, 2021. No PM data interruption has occurred. No other changes have been made to either the PM<sub>2.5</sub> or PM<sub>10</sub> monitoring networks since the previous ANP.

### **Nitrogen Dioxide Monitoring Network Changes**

No changes have been made to the nitrogen dioxide monitoring network since the previous ANP.

### **Sulfur Dioxide Monitoring Network Changes**

No changes have been made to the sulfur dioxide monitoring network since the previous ANP.

### **Infrastructure and Support Equipment Changes**

- In February 2020, the Teledyne API 701 ZAG at Atascadero was replaced with a Sabio 1001.
- In May 2020, the tilt-down meteorological tower at Atascadero was replaced with a crank-down telescopic tower.
- In May 2020, the cellular modem at the Oso Flaco was upgraded.

## Detailed Descriptions of the Current Network

### Ozone Monitoring Network

The SLAMS network features ozone monitors in Atascadero, Red Hills, Carrizo Plain, Paso Robles, Morro Bay, and Nipomo Regional Park. The eastern portion of San Luis Obispo County is designated as a marginal nonattainment area for the 8-hour ozone standard, and the Red Hills and Carrizo Plain monitors are located in this area. None of the county is designated as a moderate (or more severe) nonattainment area, therefore an Enhanced Monitoring Plan is not required (nor is one being prepared).

**San Luis Obispo** – Ozone monitoring at the CARB SLAM station continued until January 31, 2021 when the site was closed.

**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 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 or mixing of ozone with nitric oxide 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 CARB 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 near 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.

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 which is classified as attaining the ozone standard, Atascadero and Paso Robles measure the highest concentrations.
2. **Population Exposure** – The Paso Robles and Atascadero 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 into 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<sub>2</sub> monitors at Atascadero and Nipomo Regional Park. NO<sub>2</sub> levels have always been well below the state and federal standards at all locations in our county. For this reason, NO<sub>2</sub> monitoring is most useful as an indicator of depletion of ambient ozone through titration or mixing with nitric oxide. Having NO<sub>2</sub> 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<sub>2</sub> monitor in the Salinas River air

basin, and it records the highest NO, NO<sub>2</sub>, and NO<sub>x</sub> levels in the county. The monitor's downtown location has established a strong diurnal inverse relationship between ozone and NO<sub>2</sub> 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<sub>2</sub>.

The SLAMS sites in the existing NO<sub>2</sub> network are:

1. **Highest Concentration** – The Atascadero monitor historically has measured the highest NO<sub>2</sub> concentrations in the county. NO<sub>2</sub> levels are the result of titration or mixing 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<sub>2</sub> 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<sub>2</sub>.

Regional Transport and Welfare-Related impacts of NO<sub>2</sub> are not currently addressed by SLOCAPCD's SLAMS network and are not thought to be significant. 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<sub>2</sub> sites for vulnerable populations or near-road NO<sub>2</sub> monitoring sites.

### **Sulfur Dioxide Monitoring Network**

The SO<sub>2</sub> 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<sub>2</sub>. Since it is located close to and downwind of a major source of SO<sub>2</sub> 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<sub>2</sub> in the county, and during upsets this monitor has recorded concentrations approaching and sometimes exceeding the NAAQS. Exceedances of the federal SO<sub>2</sub> standard had never been recorded here until 2014, when maintenance activities at these facilities resulted in emissions exceeding the 1-hour standard of 75 ppb. (This standard was established in 2011.) In addition to meeting NAAQS compliance objectives, this site is also vital for public information and emergency response.

The SLAMS SO<sub>2</sub> monitoring objectives met by the network are:

1. **Highest Concentration** – The monitor at Mesa2 currently records the highest SO<sub>2</sub> levels in the county.
2. **Source Impact** – The monitor at Mesa2 is invaluable in determining the SO<sub>2</sub> impacts from the refinery upon the immediate region.

Monitoring objectives not addressed by the existing SO<sub>2</sub> network are: General/Background, Population Exposure, Regional Transport, and Welfare-Related. Historical SO<sub>2</sub> 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<sub>2</sub> in the county are believed to be negligible as the maximum hourly concentration measured here in 2020 was 2 ppb.

There are no sources within SLOCAPCD’s jurisdiction with annual SO<sub>2</sub> 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 permanent FEM PM<sub>10</sub> monitors (Paso Robles, Atascadero, San Luis Obispo<sup>2</sup>, Mesa2, CDF, and Nipomo Regional Park) and four permanent FEM PM<sub>2.5</sub> monitors (Atascadero, CDF, Mesa2, and San Luis Obispo<sup>2</sup>). The PM<sub>10</sub> network has been in place since 1988, and PM<sub>2.5</sub> sampling began in 1999 in response to the establishment of the federal standards for PM<sub>2.5</sub> in 1997. Originally, all particulate monitoring in the county was performed as part of CARB’s network, but eventually all monitors except those at Paso Robles became part of the SLOCAPCD network. Note that for quality assurance, SLOCAPCD remains part of the CARB PQAQ. SLOCAPCD, therefore, relies on CARB for performing federally required audits of its particulate monitors and for meeting 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 semi-real-time monitors that report hourly PM concentrations. The hourly data have greatly improved our ability to issue timely air quality forecasts and alerts, which is a significant benefit for the advancement of public health goals.

In addition to these SLAMS monitors, SLOCAPCD operates the Oso Flaco PM<sub>10</sub> SPM, which is located within the ODSVRA.

**Atascadero** – Operated by SLOCAPCD, PM<sub>10</sub> monitoring has been conducted in Atascadero since 1988, initially via an FRM and currently with a continuous FEM monitor. Collocated FRM PM<sub>2.5</sub> monitors began operation in 1999 and have since been replaced by a single FEM. The monitors are neighborhood or urban 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

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<sup>2</sup> San Luis Obispo has changed location from the CARB station on Higuera St. to the SLOCAPCD main office at 3433 Roberto Court, San Luis Obispo.

samplers for PM<sub>10</sub> and PM<sub>2.5</sub>, 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<sub>10</sub> levels.<sup>3</sup>

**Mesa2** – PM<sub>10</sub> 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<sub>10</sub> samplers that were replaced by a single continuous FEM PM<sub>10</sub> monitor in 2009. A continuous PM<sub>2.5</sub> 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<sub>10</sub> sampler was replaced with a continuous FEM sampler in 2010. The monitor is regional in scale and is representative of PM<sub>10</sub> concentrations on the Nipomo Mesa.

**Oso Flaco** – Operated by SLOCAPCD on behalf of the California Department of Parks and Recreation, this PM<sub>10</sub> 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 CARB since 1991, this PM<sub>10</sub> 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<sub>10</sub> sampler in August 2009.

**San Luis Obispo** – CARB operated a PM<sub>10</sub> sampler in San Luis Obispo from 1988 through early 2021 and a PM<sub>2.5</sub> sampler from 1999 through early 2021. CARB replaced their FRM samplers with continuous FEM instruments in 2011. These population-oriented monitors were neighborhood in scale and representative of particulate concentrations in the City of San Luis Obispo. This station was closed early 2021. On January 1, 2020, the SLOCAPCD began operating replacement PM<sub>10</sub> and PM<sub>2.5</sub> monitors at its office, approximately 2 miles from the closed CARB SLAMS site.

#### **Other Networks**

San Luis Obispo County, which comprises the San Luis Obispo-Paso Robles MSA, is not required to have, does not currently have, and does not plan to establish any NCore, PAMS, lead, carbon monoxide or near-road monitoring stations.

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<sup>3</sup> San Luis Obispo County Air Pollution Control District, "South County Community Monitoring Project," January 2013. Available online: <https://www.slocleanair.org/library/air-quality-reports.php>

## **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<sup>4</sup> is not required to have any near-road NO<sub>2</sub>, carbon monoxide, or PM<sub>2.5</sub> monitors, and SLOCAPCD has no plans to establish any such monitors. Additionally, there are no sources in our jurisdiction with SO<sub>2</sub> emissions greater than 2,000 tons per year; therefore, no new SO<sub>2</sub> monitoring is needed nor planned to comply with the SO<sub>2</sub> Data Requirements Rule.

### **New Stations and Station Closures and Relocations**

**San Luis Obispo SLAMS** – On January 1, 2021, SLOCAPCD began PM<sub>10</sub> and PM<sub>2.5</sub> monitor at the new San Luis Obispo SLAMS discussed above. Necessary facility upgrades related to safe station access will be completed in 2021 with grant funding that SLOCAPCD secured from the EPA.

**Refinery-related community and fence-line monitoring** – California Assembly Bill 1647, which was signed into law in late 2017, mandates establishing both “refinery-related community air monitoring systems” and “fence-line monitoring systems” near or at petroleum refineries by 2020. The Phillips 66 Santa Maria Refinery is located in San Luis Obispo County and is subject to AB 1647 requirements. SLOCAPCD and Phillips 66 have been in discussion over the implementation of these requirements for several years, and on May 5, 2020, SLOCAPCD gave its partial, conditional approval of the monitoring plan submitted by the Refinery.

The conditionally approved plan is for a combined refinery-related community/fence-line monitoring network which will be funded, deployed, and operated by the refinery, with SLOCAPCD retaining oversight. The conditionally approved plan adds monitors for oxides of nitrogen, black carbon, and non-methane volatile organic compounds to the existing Mesa2 station and establishes a new station within the northern reaches of the refinery property with monitors for oxides of nitrogen, sulfur dioxide, black carbon, and non-methane volatile organic compounds. While the new monitors will be run by the refinery, SLOCAPCD will continue to operate the existing monitors at Mesa2. SLOCAPCD plans to work closely with the refinery to make any upgrades to site infrastructure that are necessary to accommodate the additional monitors, while minimizing any downtime for the current monitors. The new monitors are slated to begin providing data to the public later this year.

Per the requirements of AB 1647, all data generated by the network will be made available to the public in real-time on a website designed and maintained by the refinery. SLOCAPCD will approve the design of the website. These monitors will not be designated as SLAMS or SPMs, nor will the data generated be included in AQS.

### **Nitrogen Dioxide Network**

As noted above, to complete the refinery-related community/fence-line monitoring plan, one oxides of nitrogen monitor (which measure NO<sub>2</sub> along with NO and NO<sub>x</sub>) was added at the Mesa 2 station,

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<sup>4</sup> San Luis Obispo County, the San Luis Obispo-Paso Robles MSA, and the San Luis Obispo-Paso Robles CBSA have identical borders and populations.



and another will be added near the CDF station. These will be operated by the refinery and will report data to the public in real-time. They will not be formally incorporated into the county's SLAMS network and data will not be uploaded to AQS.

#### **Sulfur Dioxide Monitoring Network**

As noted above, to complete the refinery-related community/fence-line monitoring plan, an SO<sub>2</sub> monitor will be added near the CDF station. This will be operated by the refinery and will report data to the public in real-time. It will not be formally incorporated into the county's SLAMS network and data will not be uploaded to AQS.

#### **Infrastructure and Support Equipment Changes**

The following equipment upgrades are planned for the next 12 months:

- SLOCAPCD currently uses Met One 50.5 sonic anemometers to collect wind data at all District-run sites. Starting this year, we will begin replacing them with RM Young 81000 sonic anemometers. We anticipate replacing about 8 over the next year.

#### ***Statement Regarding Review of Changes to the PM<sub>2.5</sub> Network***

In the event that SLOCAPCD needs to change the location of a PM<sub>2.5</sub> monitor that records violations of the NAAQS, the agency will notify EPA Region 9 and CARB contact points immediately and work closely with CARB 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 CARB and EPA approval prior to making any changes to our PM<sub>2.5</sub> network, whether the changes affect monitors violating NAAQS or not; however, unforeseen circumstances (i.e. unexpected loss of site access) may preclude this.

## Accessing Air Quality Data

All SLAMS and SPM monitoring stations currently operating in the county are registered with the EPA and CARB and regularly report data to the EPA's AQS database, CARB's AQMIS2 website, and the AirNow 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 AQMIS2 and AirNow 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 this data.

SLOCAPCD, and where applicable CARB, 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 2020 data to EPA on April 15, 2021.

**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: <a href="https://www.slocleanair.org/pages/air-quality/lasthour.php">https://www.slocleanair.org/pages/air-quality/lasthour.php</a>  Map: <a href="http://www.slocleanair.org/air/AirForecasting_map3.php">www.slocleanair.org/air/AirForecasting_map3.php</a>	Raw data from last 24 to 48 hours for sites in San Luis Obispo County.
CARB	P.O. Box 2815 Sacramento, CA 95812	AQMIS2: <a href="https://www.arb.ca.gov/aqmis2/aqmis2.php">https://www.arb.ca.gov/aqmis2/aqmis2.php</a>  ADAM: <a href="http://www.arb.ca.gov/adam/">www.arb.ca.gov/adam/</a>	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: <a href="http://www.epa.gov/ttn/airs/airsaqsdetaildata">www.epa.gov/ttn/airs/airsaqsdetaildata</a>	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	<a href="http://www.airnow.gov">www.airnow.gov</a>	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 (283,111) is the official Census Bureau estimate for July 1, 2019.<sup>5</sup> The California Department of Finance estimate for January 1, 2020, is 277,259,<sup>6</sup> and the official figure from the most recent US Census (2010) is 269,637. Using either of these figures in lieu of the Census Bureau estimate for 2019 does not change the required number of sites for any pollutant.

### Minimum Monitoring Requirements for Ozone (O<sub>3</sub>)

MSA	County	Population (Census Year)	8-hour Design Value (years) <sup>a</sup>	Design Value Site Name (AQS ID)	Number of Required Sites <sup>b</sup>	Number of Active Sites	Number of Additional Sites Needed
San Luis Obispo - Paso Robles	San Luis Obispo	283,111 (2019)	73 ppb (2018-20)	Red Hills (06-079-8005)	1	6	0

<sup>a</sup> This Design Value is for eastern San Luis Obispo County, which is designated as marginally nonattainment for the 2008 8-hour ozone standard. The design value for the rest of the county is 65 ppb (2018-20) from Paso Robles (06-079-0005).

<sup>b</sup> 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

<sup>5</sup> United States Census Bureau, Quick Facts: San Luis Obispo County, California, <https://www.census.gov/quickfacts/fact/table/sanluisobispocountycalifornia,sanluisobispocitycalifornia#>

<sup>6</sup> State of California, Department of Finance, E-1 Cities, Counties, and the State Population Estimates with Annual Percent Change — January 1, 2019 and 2020. <http://www.dof.ca.gov/Forecasting/Demographics/Estimates/e-1/>

### Minimum Monitoring Requirements for PM<sub>2.5</sub> 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 <sup>a</sup>	Number of Active SLAMS Sites	Number of Additional SLAMS Sites Needed
San Luis Obispo - Paso Robles	San Luis Obispo	283,111 (2019)	8.0 µg/m <sup>3</sup> (2018-20)	CDF* (06-079-2007)	29 µg/m <sup>3</sup> (2018-20)	CDF (06-079-2007)	0	4	0

<sup>a</sup> Refer to section 4.7.1 and Table D-5 of Appendix D to 40 CFR Part 58 for requirements.

\* Mesa 2 (06-079-2004) also shared the exact same design value for 2018-2020 as CDF at 8.0 µg/m<sup>3</sup>

**Monitors required for SIP or Maintenance Plan:** None

### Minimum Monitoring Requirements for Continuous PM<sub>2.5</sub> 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 <sup>a</sup>	Number of Active Continuous Monitors	Number of Additional Continuous Monitors Needed
San Luis Obispo - Paso Robles	San Luis Obispo	283,111 (2019)	8.0 µg/m <sup>3</sup> (2018-20)	CDF (06-079-2007)	29 µg/m <sup>3</sup> (2018-20)	CDF (06-079-2007)	0	4	0

<sup>a</sup> 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<sub>10</sub>

MSA	County	Population (Census Year)	Maximum Concentration (Year)	Maximum Concentration Site Name (AQS ID)	Number of Required Sites <sup>a</sup>	Number of Active Sites	Number of Additional Sites Needed
San Luis Obispo - Paso Robles	San Luis Obispo	283,111 (2019)	124 µg/m <sup>3</sup> (2020)	Mesa 2 (06-079-2004)	1-2	6 <sup>b</sup>	0

<sup>a</sup> Refer to section 4.6 and Table D-4 of Appendix D to 40 CFR Part 58 for requirements.

<sup>b</sup> In addition to these 6 SLAMS, there is also a PM<sub>10</sub> SPM.

**Monitors required for SIP or Maintenance Plan:** None

### Minimum Monitoring Requirements for Nitrogen Dioxide (NO<sub>2</sub>)

CBSA	Population (Census Year)	Maximum AADT Count (Years)	Number of Required Near-road Monitors <sup>b</sup>	Number of Active Near-road Monitors	Number of Additional Near-road Monitors Needed	Number of Required Area-wide Monitors <sup>b</sup>	Number of Active Area-wide Monitors	Number of Additional Area-wide Monitors Needed
San Luis Obispo - Paso Robles	283,111 (2019)	83,300 (2018) <sup>a</sup>	0	0	0	0	2	0

<sup>a</sup> US Hwy 101 in Pismo Beach

<sup>b</sup> 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<sub>2</sub>)**

CBSA	County	Population (Census Year)	Total SO <sub>2</sub> <sup>a</sup> (Tons/year)	Population Weighted Emissions Index (million person-tons/year) <sup>b</sup>	Data Requirements Rule Source(s) Using Monitoring <sup>c</sup>	Number of Required Monitors <sup>d</sup>	Number of Active Monitors	Number of Additional Monitors Needed
San Luis Obispo - Paso Robles	San Luis Obispo	283,111 (2019)	206	58	NA	0	1	0

<sup>a</sup> From the 2017 National Emissions Inventory, which is the most year for which the Inventory is available: <https://www.epa.gov/air-emissions-inventories/2017-national-emissions-inventory-nei-data>.

<sup>b</sup> Product of CBSA population and SO<sub>2</sub> emissions, divided by one million.

<sup>c</sup> 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.”

<sup>d</sup> 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 <sup>a</sup>	Number of Active Near-Road Monitors	Number of Additional Monitors Needed
San Luis Obispo - Paso Robles	283,111 (2019)	0	0	0

<sup>a</sup> 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 <sup>a</sup>	Number of Active Monitors	Number of Additional Monitors Needed
none	San Luis Obispo-Paso Robles	283,111 (2019)	0	0	0

<sup>a</sup> 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 <sup>b</sup>	Number of Active Monitors	Number of Additional Monitors Needed
none <sup>a</sup>	n/a	n/a	n/a	n/a	n/a	0	0	0

<sup>a</sup> 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.

<sup>a</sup> 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<sub>2</sub>, PM<sub>2.5</sub>, and CO Monitors**

CBSA	Population (Census Year)	Maximum AADT Count (Years)	Number of Required NO <sub>2</sub> Monitors <sup>a</sup>	Number of Active NO <sub>2</sub> Monitors	Number of Required PM <sub>2.5</sub> Monitors <sup>a</sup>	Number of Active PM <sub>2.5</sub> Monitors	Number of Required CO Monitors <sup>a</sup>	Number of Active CO Monitors	Number of Additional Monitors Needed
San Luis Obispo - Paso Robles	283,111 (2019)	83,300 (2018) <sup>b</sup>	0	0	0	0	0	0	0

<sup>a</sup> Refer to 40 CFR Part 58.13 and sections 4.2, 4.3, 4.7 of Appendix D to 40 CFR Part 58

<sup>b</sup> US Hwy 101 in Pismo Beach.

**Appendix B: Collocation Requirements**

Particulate monitoring (PM<sub>10</sub>, PM<sub>2.5</sub>, and lead) is subject to the collocation requirements described in Section 3 of Appendix A to 40 CFR 58. The requirements apply at the PQA level, and monitors are aggregated by method when determining the required number of collocated monitors. SLOCAPCD is part of the CARB PQA and all particulate monitors in our network are Met One BAM 1020s, which are continuous FEM instruments (PM<sub>10</sub> method code: 122; PM<sub>2.5</sub> method code: 170). While there are

no collocated particulate monitors within the SLOCAPCD network, there are collocated monitors within the CARB PQAO.

It could not be determined whether the collocation requirements for PM<sub>2.5</sub> are being met. According to CARB’s most recent Annual Network Plan,<sup>7</sup> in 2020 there were 37 active PM<sub>2.5</sub> FEM BAM 1020 monitors (method 170) in the PQAO; thus, six collocated monitors were needed: three FRM/FEM pairs and three FEM/FEM pairs. The CARB ANP indicates there were four FEM/FEM pairs but only two FRM/FEM pairs. On the other hand, an AQS Certification and Concurrence Report (AMP600) for the 2020 calendar year (executed in April 2021), indicates 49 monitors and 7 total collocated sites, but it does not specify the collocation type. If the additional site included in the AMP600 report is an FRM/FEM pair, then the PQAO meets the collocation requirements. Due to the COVID-19 pandemic CARB has changed many of their FRM samplers to continuous FEM monitors. The AMP600 for 2020 reflects this possible change, but the CARB 2020 ANP does not address this. See Table B-1 below.

With regard to PM<sub>10</sub> monitoring, all monitors in SLOCAPCD 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<sub>2.5</sub>, Method Code 170**

<b>Data Source (see text)</b>	<b>Number of Primary Monitors</b>	<b>Number of Required Collocated Monitors</b>	<b>Number of Active Collocated FRM Monitors</b>	<b>Number of Active Collocated FEM Monitors (same method designation as primary)</b>
CARB	37	6	2	4
AMP600	49	7	7 total collocated monitors, type not indicated	

<sup>7</sup> California Air Resources Board, “Annual Network Plan Covering Monitoring Operations in 25 California Air Districts,” July 2020. <https://ww3.arb.ca.gov/aqd/amnr/draftamnr2020.pdf>.



## Appendix C: Detailed Site Information

<b>Local site name</b>	<b>Paso Robles</b>	
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) Sherwood Rd.: 10,027 (2017) Creston Rd: 17,347 (2017) US101: 70,000 (2018)	
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 <sub>10</sub> , 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 T400	Met One BAM 1020
Method code	087	122
FRM/FEM/ARM/other	FEM	FEM
Collecting Agency	CARB	CARB
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	N/A
Reporting Agency	CARB	CARB
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood
Monitoring start date (MM/DD/YYYY)	09/01/1991	06/01/2013 <sup>a</sup>
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

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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)	12.9	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	monthly
Frequency of one-point QC check for gaseous instruments	daily	N/A
Date of 2020 Annual Performance Evaluation for gaseous parameters	8/11/2020	N/A
Dates of 2020 Semi-Annual Flow Rate Audits for PM monitors	N/A	8/11/2020 11/18/2020

<sup>a</sup> This instrument did not begin reporting PM<sub>10</sub>-standard (88102) until 06/01/2013, but it has been reporting PM<sub>10</sub>-actual (85101) since 08/11/2009.

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<b>Local site name</b>	<b>Mesa2</b>		
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): 7,150 (2018)		
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 <sub>2</sub> , 1	PM <sub>2.5</sub> , 1	PM <sub>10</sub> , 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) <sup>a</sup>	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

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Local site name	Mesa2		
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon	N/A	N/A
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 2020 Annual Performance Evaluation for gaseous parameters	5/8/2019*	N/A	N/A
Dates of 2020 Semi-Annual Flow Rate Audits for PM monitors	N/A	9/2/2020 11/17/2020	9/2/2020 11/17/2020

<sup>a</sup> This is the roof-to-probe distance. There are no walls, parapets, penthouses, or other potential obstacles on the roof.

\*COVID-19 protocols did not allow for QA Audits to be performed at some gaseous sites.

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<b>Local site name</b>	<b>San Luis Obispo (Closed 1/31/2021)</b>		
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.: 15,731 (2016) US 101: 65,700 (2018)		
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 <sub>3</sub> , 1	PM <sub>2.5</sub> , 3	PM <sub>10</sub> , 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	Population Exposure	Population Exposure
Monitor type(s)	SLAMS	SLAMS	SLAMS
Network Affiliation	N/A	N/A	N/A
Instrument manufacturer and model	API 400E	Met One BAM 1020	Met One BAM 1020
Method code	087	170	122
FRM/FEM/ARM/other	FEM	FEM	FEM
Collecting Agency	CARB	CARB	CARB
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	N/A	N/A
Reporting Agency	CARB	CARB	CARB
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood
Monitoring start date (MM/DD/YYYY)	09/21/2005	03/15/2011	06/01/2013 <sup>a</sup>
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)	14.6	14.6	14.6
Distance from supporting structure (meters)	2.0	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

SAN LUIS OBISPO COUNTY AIR POLLUTION CONTROL DISTRICT  
2021 AMBIENT AIR MONITORING NETWORK PLAN

Local site name	San Luis Obispo (Closed 1/31/2021)		
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon	N/A	N/A
Residence time for reactive gases (seconds)	16	N/A	N/A
Will there be changes within the next 18 months?	No	No	No
Is it suitable for comparison against the annual PM <sub>2.5</sub> ?	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	monthly	monthly
Frequency of one-point QC check for gaseous instruments	daily	N/A	N/A
Date of 2020 Annual Performance Evaluation for gaseous parameters	9/1/2020	N/A	N/A
Dates of 2020 Semi-Annual Flow Rate Audits for PM monitors	N/A	9/1/2020 11/18/2020	9/1/2020 11/18/2020

<sup>a</sup> This instrument did not begin reporting PM<sub>10</sub>-standard (88102) until 06/01/2013, but it has been reporting PM<sub>10</sub>-actual (85101) since 03/15/2011.

SAN LUIS OBISPO COUNTY AIR POLLUTION CONTROL DISTRICT  
2021 AMBIENT AIR MONITORING NETWORK PLAN

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): 7,300 (2018)	
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 <sub>2.5</sub> , 1	PM <sub>10</sub> , 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) <sup>a</sup>	1.9	1.8
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 PM <sub>2.5</sub> ?	Yes	N/A

SAN LUIS OBISPO COUNTY AIR POLLUTION CONTROL DISTRICT  
2021 AMBIENT AIR MONITORING NETWORK PLAN

Local site name	CDF	
Frequency of flow rate verification for manual PM samplers	N/A	N/A
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 2020 Annual Performance Evaluation for gaseous parameters	N/A	N/A
Dates of 2020 Semi-Annual Flow Rate Audits for PM monitors	9/2/2020 11/17/2020	9/2/2020 11/17/2020

<sup>a</sup> This is the roof-to-probe distance. There are no walls, parapets, penthouses, or other potential obstacles on the roof.



SAN LUIS OBISPO COUNTY AIR POLLUTION CONTROL DISTRICT  
2021 AMBIENT AIR MONITORING NETWORK PLAN

<b>Local site name</b>	<b>Morro Bay</b>
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) <sup>a</sup> CA 1: 26,300 (2018)
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 <sub>3</sub> , 1
Primary / QA Collocated / Other	N/A
Parameter code	44201
Basic monitoring objective(s)	NAAQS Comparison
Site type(s)	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)	01/01/1981
Monitoring end date (MM/DD/YYYY)	N/A
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)	4.2
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)	12.9
Will there be changes within the next 18 months?	No

SAN LUIS OBISPO COUNTY AIR POLLUTION CONTROL DISTRICT  
2021 AMBIENT AIR MONITORING NETWORK PLAN

<b>Local site name</b>	<b>Morro Bay</b>
Is it suitable for comparison against the annual PM <sub>2.5</sub> ?	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 2020 Annual Performance Evaluation for gaseous parameters	9/24/2020
Dates of 2020 Semi-Annual Flow Rate Audits for PM monitors	N/A

<sup>a</sup> This is the most current AADT available for this segment.

SAN LUIS OBISPO COUNTY AIR POLLUTION CONTROL DISTRICT  
2021 AMBIENT AIR MONITORING NETWORK PLAN

<b>Local site name</b>	<b>Nipomo Regional Park (NRP)</b>		
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) <sup>c</sup> Camino Caballo: 2,556 (2016) <sup>c</sup> Pomeroy Rd.: 5,048 (2017) <sup>c</sup>		
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 <sub>3</sub> , 1	NO <sub>2</sub> , 1	PM <sub>10</sub> , 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 <sup>a</sup>	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)	4.5	4.5	4.8
Distance from supporting structure (meters) <sup>b</sup>	1.3	1.3	1.6
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

SAN LUIS OBISPO COUNTY AIR POLLUTION CONTROL DISTRICT  
2021 AMBIENT AIR MONITORING NETWORK PLAN

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)	14.0	12.5	N/A
Will there be changes within the next 18 months?	No	No	No
Is it suitable for comparison against the annual PM <sub>2.5</sub> ?	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 2018 Annual Performance Evaluation for gaseous parameters	9/2/2020	5/7/2019*	N/A
Dates of 2018 Semi-Annual Flow Rate Audits for PM monitors	N/A	N/A	9/2/2020 11/17/2020

<sup>a</sup> 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>

<sup>b</sup> This is the roof-to-probe distance. There are no walls, parapets, penthouses, or other potential obstacles on the roof.

<sup>c</sup> This is the most current AADT available for this segment.

\*COVID-19 protocols did not allow for QA Audits to be performed at some gaseous sites.

SAN LUIS OBISPO COUNTY AIR POLLUTION CONTROL DISTRICT  
2021 AMBIENT AIR MONITORING NETWORK PLAN

<b>Local site name</b>	<b>Atascadero</b>			
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) <sup>a</sup> US 101: 66,700 (2018) CA 41: 16,500 (2018)			
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 <sub>3</sub> , 1	NO <sub>2</sub> , 1	PM <sub>2.5</sub> , 3	PM <sub>10</sub> , 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)	4.6	4.6	5.7	5.2
Distance from supporting structure (meters) <sup>b</sup>	1.0	1.0	2.1	1.6
Distance from obstructions on roof (meters)	N/A	N/A	N/A	N/A

SAN LUIS OBISPO COUNTY AIR POLLUTION CONTROL DISTRICT  
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Local site name	Atascadero			
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
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)	7.9	11.3	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 2020 Annual Performance Evaluation for gaseous parameters	8/10/2020	5/14/2019*	N/A	N/A
Dates of 2020 Semi-Annual Flow Rate Audits for PM monitors	N/A	N/A	8/10/2020 11/18/2020	8/10/2020 11/18/2020

<sup>a</sup> 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.

<sup>b</sup> This is the roof-to-probe distance. There are no walls, parapets, penthouses, or other potential obstacles on the roof.

\*COVID-19 protocols did not allow for QA Audits to be performed at some gaseous sites.

SAN LUIS OBISPO COUNTY AIR POLLUTION CONTROL DISTRICT  
2021 AMBIENT AIR MONITORING NETWORK PLAN

<b>Local site name</b>	<b>Red Hills</b>
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 41/46
Traffic count (AADT, year)	Gillis Canyon Rd.: 24 (2016) <sup>a</sup> Bitterwater Rd.: 98 (2013) <sup>a</sup> CA 41/46: 17,200 (2018)
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 <sub>3</sub> , 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)	5.3
Distance from supporting structure (meters)	1.5
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)	17.5

SAN LUIS OBISPO COUNTY AIR POLLUTION CONTROL DISTRICT  
2021 AMBIENT AIR MONITORING NETWORK PLAN

<b>Local site name</b>	<b>Red Hills</b>
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 2020 Annual Performance Evaluation for gaseous parameters	9/23/2020
Dates of 2020 Semi-Annual Flow Rate Audits for PM monitors	N/A

<sup>a</sup> This is the most current AADT available for this segment.



SAN LUIS OBISPO COUNTY AIR POLLUTION CONTROL DISTRICT  
2021 AMBIENT AIR MONITORING NETWORK PLAN

<b>Local site name</b>	<b>Carrizo Plain</b>
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): 480 (2018)
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 <sub>3</sub> , 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)	14.2
Will there be changes within the next 18 months?	No

SAN LUIS OBISPO COUNTY AIR POLLUTION CONTROL DISTRICT  
2021 AMBIENT AIR MONITORING NETWORK PLAN

<b>Local site name</b>	<b>Carrizo Plain</b>
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 2020 Annual Performance Evaluation for gaseous parameters	9/23/2020
Dates of 2020 Semi-Annual Flow Rate Audits for PM monitors	N/A

SAN LUIS OBISPO COUNTY AIR POLLUTION CONTROL DISTRICT  
2021 AMBIENT AIR MONITORING NETWORK PLAN

<b>Local site name</b>	<b>Oso Flaco</b>
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.: 3000 (2018) Guadalupe Rd. (US 1): 5850 (2018)
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 <sub>10</sub> , 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

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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 2018 Annual Performance Evaluation for gaseous parameters	N/A
Dates of 2018 Semi-Annual Flow Rate Audits for PM monitors	5/8/2019* 11/13/2019*

\*COVID-19 protocols did not allow for QA Audits to be performed at some sites.

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Local site name	SAN LUIS OBISPO – ROBERTO CT.	
AQS ID	06-079-2020	
GPS coordinates (decimal degrees)	35.25944, -120.64477	
Street Address	3433 Roberto Ct	
County	San Luis Obispo	
Distance to roadways (meters)	18 to Roberto Ct.	
Traffic count (AADT, year)	US 101: 65,700 (2018)	
Groundcover (e.g. asphalt, dirt, sand)	asphalt	
Representative statistical area name (i.e. MSA, CBSA, other)	San Luis Obispo – Paso Robles (MSA)	
Pollutant, POC	PM <sub>2.5</sub> , 1	PM <sub>10</sub> , 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)	01/01/2021	01/01/2021
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)	2.75	2.75
Distance from supporting structure (meters) <sup>a</sup>	1.8	1.8
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)	11	11
Distance to furnace or incinerator flue (meters)	4	4
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 PM <sub>2.5</sub> ?	Yes	N/A

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Local site name	<b>SAN LUIS OBISPO - ROBERTO CT.</b>	
Frequency of flow rate verification for manual PM samplers	N/A	N/A
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 2020 Annual Performance Evaluation for gaseous parameters	N/A	N/A
Dates of 2020 Semi-Annual Flow Rate Audits for PM monitors	N/A	N/A

## Appendix D: Non SLAMS Network Operations

In addition to these SLAMS and SPM stations mentioned in the main report, SLOCAPCD also conducts temporary monitoring projects to support certain objectives. In 2016, SLOCAPCD received an EPA multipurpose grant for the construction of a mobile particulate monitoring platform to be used for further characterizing dust impacts downwind of the ODSVRA. The platform, which hosts meteorological sensors and PM<sub>10</sub> and PM<sub>2.5</sub> FEM BAM monitors, was completed in the spring of 2017. Since then, it has been deployed to various locations on the Nipomo Mesa.

Similarly, SLOCAPCD has conducted temporary PM<sub>10</sub> monitoring in Oceano and on the Nipomo Mesa using funding from Assembly Bill 617 Community Air Protection Implementation Grant Program, which was awarded to SLOCAPCD by CARB. In 2019, an FEM BAM was deployed in Oceano for a short duration and in 2021, on the Nipomo Mesa, the SLOCAPCD is continuing operation of temporary PM<sub>10</sub> monitoring with non-FEM BAMs near Dorothea Lange Elementary School and North View Avenue in Nipomo. Data collected with these temporary/mobile monitors are not uploaded to AQS but are shown on South County Particulate Matter Air Quality Index map on the [APCD's South County Air Quality](#) webpage. In 2021, SLOCAPCD plans to replace the North View Avenue BAM with an IQAir AirVisual sensor.

SLOCAPCD is also actively engaged in testing and deploying networks of non-FRM/non-FEM low-cost sensors. In collaboration with CARB, South Coast AQMD, residents, and a variety of community partners, we have deployed dozens of Purple Air sensors throughout the county. These are visible on the Purple Air website.<sup>8</sup> We have also deployed several IQAir AirVisual sensors, including four in Oceano as part of the Assembly Bill 617 Community Air Protection Implementation Grant Program. Purple Air sensors have been proven to be useful sensors in smoke and wildfire monitoring and IQAir AirVisual sensors are useful for PM<sub>10</sub> monitoring on the Nipomo Mesa/Oceano area.

Additionally, the SLOCAPCD has a data feed from the monitoring station at Sentinel Peak Resources' Arroyo Grande Oilfield in Price Canyon, 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.

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

Site/Station	Hydrogen Sulfide	PM <sub>10</sub>	PM <sub>2.5</sub>	Relative Humidity	Wind <sup>a</sup>	Temp
Oso Flaco (SPM)		X		X	X	X
Price Canyon Oilfield	X			X	X	X
Mobile Monitor <sup>b</sup>		X	X		X	X
Temporary PM <sub>10</sub> (North View Ave)		X				
Calle Cielo		X				

<sup>8</sup> Purple Air, "Map - Purple Air," <https://www.purpleair.com/map>.

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Site/Station	Hydrogen Sulfide	PM <sub>10</sub>	PM <sub>2.5</sub>	Relative Humidity	Wind <sup>a</sup>	Temp
Dorothea Lange		X				

**Note:** <sup>a</sup> Wind speed, wind direction, and sigma theta.

<sup>b</sup> No current plans for operation of the Mobile Monitor.

In response to wildfires in 2020, the SLOCAPCD has also decided to operate a non-FEM BAM at the Morro Bay site for the wildfire season to deliver smoke impacts information to the local community if there are future impacts from wildfires and may also be operated during other PM related events such as prescribed fires, etc. In addition the SLOCAPCD will deploy collocated Purple Air sensors or IQAir nodes at select sites to further strengthen smoke monitoring at critical sites.