

San Joaquin Valley Air Pollution Control District

2016 Air Monitoring Network Plan

August 4, 2016

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The District's Core Values Exhibited in the Air Monitoring Network

*** Protection of Public Health ***

The District uses data collected from the air monitoring network to provide real-time air quality data to the public through the real-time air advisory network (RAAN), generate daily air quality forecasts, and when needed, issue health advisories. The District also uses data collected from the Valley's air monitoring network as the basis for long-term attainment strategies and to track progress towards meeting federal health-based air quality standards.

*** Active and effective air pollution control efforts with minimal disruption to the Valley's economic prosperity ***

The District uses air monitoring data to help establish strategies for reaching attainment of federal health-based air quality standards.

*** Outstanding Customer Service ***

*** Accountability to the public ***

The District's website provides easy public access to data from the Valley's real-time air monitors, and through the RAAN system, provides notifications to the public when air quality reaches unhealthy levels. The public can also access historical air quality information through the District's website.

*** Open and transparent public processes ***

In addition to making air quality data available in real-time, the District uses air quality data in a variety of publicly available documents and reports. The District also conducts a public review period for annual monitoring network plans.

*** Respect for the opinions and interest of all Valley residents ***

The District has actively made daily air quality information available to Valley residents in a variety of formats, including the District website, the RAAN system, the daily air quality forecast, and the media. The District considers public interests in establishing new air monitoring stations.

*** Ingenuity and innovation ***

The District strives to use new and improved air monitoring techniques and equipment as approved by the EPA. The District uses the latest science when considering locations for air monitoring stations, and in turn, the data collected from the air monitoring network contributes to ongoing scientific evaluations.

*** Continuous improvement ***

Through the annual air monitoring network plan, the District evaluates the air monitoring network for opportunities for better data collection and greater efficiency. Throughout the year, the District continually seeks out opportunities to improve the air monitoring network and its service to the public while meeting federal requirements.

*** Recognition of the uniqueness of the San Joaquin Valley ***

The San Joaquin Valley is an expansive and diverse area. The District strives to site its air monitoring stations in locations that represent each region of the Valley.

*** Effective and efficient use of public funds ***

The District makes the most of limited resources by structuring the air monitoring network in a way that optimizes personnel time and funding for instruments. The result is a robust air monitoring network that helps the Valley reach its air quality goals without unnecessary expenditures.

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EXECUTIVE SUMMARY

The San Joaquin Valley Air Pollution Control District (SJVAPCD or District) operates an extensive network of air quality monitors throughout the San Joaquin Valley (Valley) to support its mission of improving and protecting public health. District staff uses the hourly readings from real-time monitors to communicate the state of the air quality to Valley residents. Through programs and venues such as the Real-time Air Advisory Network (RAAN), the daily air quality forecast, the District website, and Valley media, residents are able to obtain air quality information that can help them with their activity planning. The District also uses real-time air quality data to manage prescribed burning, agricultural burning, and residential wood combustion to ensure these activities do not result in adverse air quality impacts.

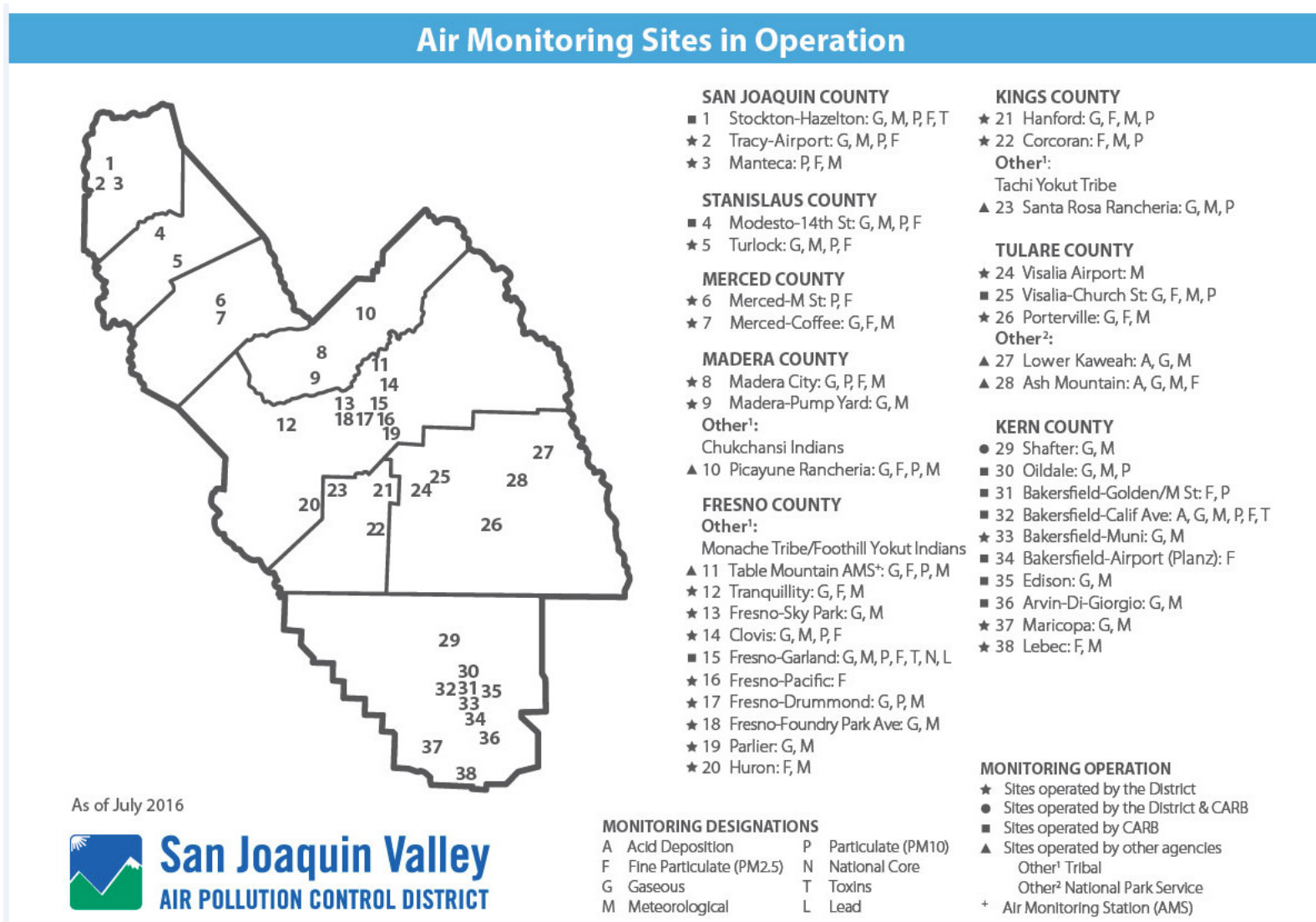
As part of the District's long-term efforts to improve public health, air monitors collect data that is rigorously analyzed by laboratory technicians and District staff. This monitoring data determines the Valley's air quality and is fundamental in the Valley's effort to improve air quality and achieve attainment of EPA's health-based ambient air quality standards as quickly as possible.

The San Joaquin Valley covers an area of 23,490 square miles, and is home to one of the most challenging air quality problems in the nation. The Valley is designated nonattainment for federal PM_{2.5} and ozone standards, and is in attainment of the federal standards for lead (Pb), Nitrogen Dioxide (NO₂), Sulfur Dioxide (SO₂), and Carbon Monoxide (CO). In addition, the Valley is an attainment/maintenance area for PM₁₀. The Valley is home to approximately 4 million residents, and includes several major metropolitan areas, vast expanses of agricultural land, industrial sources, highways, and schools. To address the air quality needs of this expansive and diverse region, the District maintains a robust air monitoring program that meets federal requirements while providing vital information to the public.

The air monitoring network in the Valley also includes air monitoring stations that are managed and operated by the California Air Resources Board (CARB), and the National Park Service. Additionally, there are three tribal air monitoring stations operating in the Valley. The Tachi Yokut Tribe operates a monitoring station at Santa Rosa Rancheria located in Kings County, the Monache Tribe and Foothill Yokut Indians operate the Table Mountain air monitoring station in Fresno County, and the Chukchansi Indians of California operate a monitoring station at the Picayune Rancheria located in Madera County. Since the tribal monitors are operated under the Tribal Authority Rule which is essential to tribal implementation of the Clean Air Act, and is not part of the District's jurisdiction, detailed site information for tribal monitors will not be provided in this plan.

A map of the air monitoring stations in the San Joaquin Valley is shown in Figure 1.

Figure 1: Map of Air Monitoring Sites in the San Joaquin Valley



AIR MONITORING NETWORK PLAN REQUIREMENTS

As specified in 40 CFR (Code of Federal Regulations) 58.10, and as required as a part of the District's EPA 105 Grant, this air monitoring network plan describes the current state of the District's monitoring network and changes that are planned for the network. The annual monitoring network plan is updated and submitted to the EPA Regional Administrator each year, and is made available for public inspection for at least 30 days prior to submission to EPA. Air monitoring network plans provide the establishment and maintenance of air monitoring networks that may include the types of stations and monitors listed in Table 1.

Table 1 Types of Air Monitoring Stations and Monitors

| Abbreviation | Full Name | Description |
|--------------|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ARM | Approved Regional Method | A method that has been approved within a specific region for comparison to federal air quality standards. <i>Currently, there are no ARM monitors in the San Joaquin Valley.</i> |
| FEM | Federal Equivalent Method | These monitors are considered to be equivalent to FRM monitors for the purpose of determining compliance with EPA's health-based air quality standards. |
| FRM | Federal Reference Method | EPA defines how these monitors are to work, how they are to be engineered, and how they are to measure pollutants. These monitors are used to determine compliance with EPA's health-based air quality standards. |
| NCore | National Core | Multipollutant monitoring stations; in California, these are operated by CARB. |
| PAMS | Photochemical Assessment Monitoring Station | VOC (volatile organic compounds) speciation sites used in serious, severe, or extreme ozone nonattainment areas for precursor evaluation. |
| SLAMS | State and Local Air Monitoring Station | Monitoring sites that are used for determinations of compliance with federal air quality standards, though they may be used for other purposes as well. |
| SPM | Special Purpose Monitor | Not included when showing compliance with the minimum air monitoring requirements; an example might include a temporary monitoring station set up in an area to measure short term air quality impacts of a source. Data collected from an SPM can be used for Regulatory purposes if the monitor has been operational for two years and if the monitor is an ARM, FEM, or FRM. |
| STN | Speciated Trends Network | PM _{2.5} speciation stations that provide chemical speciation data of PM. |

The monitoring network plan should include a statement of purpose for each monitor and evidence that siting and operation of each monitor meets the requirements of appendices A, C, D, and E of 40 CFR Part 58. The plan must contain the following information for each existing and proposed site (40 CFR 58.10 (b)):

- The MSA, CBSA, CSA, or other area represented by the monitor. MSA, CBSA, and CSA are statistical-based definitions for metropolitan areas provided by the Office of Management and Budget and the Census Bureau (see Table 2):
 - MSA: Metropolitan statistical area
 - CBSA: Core-based statistical area
 - CSA: Combined statistical area
- Air quality system (AQS) Aerometric Information Retrieval System (AIRS) Code site identification number (see Table 3).
- Locations: street address and geographical coordinates (see Appendix B).
- Sampling and analysis methods for each measured parameter (see Appendix B).
- Operating schedules for each monitor (see Appendix B).
- Monitoring objective and spatial scale of representativeness for each monitor (as defined in Appendix D to 40 CFR 58) (see Appendix B).
- Any proposals to remove or move a monitoring station within 18 months of a plan submittal. Any proposed additions and discontinuations of SLAMS monitors are subject to approval according to 40 CFR 58.14 (see planned changes section below).
- Each air monitor is sited to satisfy at least one of three specific criteria:
 - Population (see Table 4)
 - A specific geographic scale (Appendix B)
 - Generally consistent pollution concentrations

There are several network plan requirements that pertain specifically to PM_{2.5} monitoring:

- The monitoring network plan must identify which sites are suitable and which are not suitable for comparison against the annual PM_{2.5} national ambient air quality standards (NAAQS) as described in 40 CFR 58.30 (see PM_{2.5} Monitors in the Valley section below).
- The plan must also document how the District provides for public review of changes to the PM_{2.5} monitoring network when the change impacts the location of a violating PM_{2.5} monitor, or the creation/change to a community monitoring zone.
- The District should submit any public comments received on PM_{2.5} monitoring changes in the submittal of the network plan.
- On March 18, 2013, EPA finalized the rule to revoke the term “population-oriented.” The final rule states that PM_{2.5} monitors at neighborhood scale or larger, or smaller scales that represent many locations in the same CBSA, are the only monitors representative of “area-wide” air quality that can be compared to the PM_{2.5} NAAQS.

Table 2 San Joaquin Valley Areas of Representation

| TITLE | CODE |
|--------------------------------------------|------------------------------------------------|
| Metropolitan Statistical Area (MSA) | Core-Based Statistical Area (CBSA) Code |
| Stockton–Lodi | 44700 |
| Modesto | 33700 |
| Merced | 32900 |
| Madera | 31460 |
| Fresno | 23420 |
| Hanford–Corcoran | 25260 |
| Visalia–Porterville | 47300 |
| Bakersfield ¹ | 12540 |

¹ Monitors from both the District and the Eastern Kern County Air Pollution Control District can be counted when determining compliance with minimum monitoring requirements for the Bakersfield CBSA. However, only monitors located within the District's boundaries are included in this network plan.

Table 3 Site Identification

| | | |
|--------------------------------|---------------|-------------------------|
| MSA/CBSA: Stockton-Lodi | | |
| County: San Joaquin | | |
| Site Name | AQS ID | Operating Agency |
| Manteca | 06-077-2010 | SJVAPCD |
| Stockton–Hazelton | 06-077-1002 | CARB |
| Tracy–Airport | 06-077-3005 | SJVAPCD |
| MSA/CBSA: Modesto | | |
| County: Stanislaus | | |
| Site Name | AQS ID | Operating Agency |
| Modesto–14th St | 06-099-0005 | CARB |
| Turlock | 06-099-0006 | SJVAPCD |
| MSA/CBSA: Merced | | |
| County: Merced | | |
| Site Name | AQS ID | Operating Agency |
| Merced–Coffee | 06-047-0003 | SJVAPCD |
| Merced–M St | 06-047-2510 | SJVAPCD |
| MSA/CBSA: Madera | | |
| County: Madera | | |
| Site Name | AQS ID | Operating Agency |
| Madera–City | 06-039-2010 | SJVAPCD |
| Madera–Pump Yard | 06-039-0004 | SJVAPCD |

Table 3 Site Identification (continued)

| MSA/CBSA: Fresno | | |
|--------------------------------------|---------------|-------------------------|
| County: Fresno | | |
| Site Name | AQS ID | Operating Agency |
| Clovis–Villa | 06-019-5001 | SJVAPCD |
| Fresno–Drummond | 06-019-0007 | SJVAPCD |
| Fresno–Garland | 06-019-0011 | CARB |
| Fresno–Foundry | 06-019-2016 | SJVAPCD |
| Fresno–Pacific | 06-019-5025 | SJVAPCD |
| Fresno–Sky Park | 06-019-0242 | SJVAPCD |
| Huron | 06-019-2008 | SJVAPCD |
| Parlier | 06-019-4001 | SJVAPCD |
| Tranquillity | 06-019-2009 | SJVAPCD |
| MSA/CBSA: Hanford–Corcoran | | |
| County: Kings | | |
| Site Name | AQS ID | Operating Agency |
| Corcoran–Patterson | 06-031-0004 | SJVAPCD |
| Hanford–Irwin | 06-031-1004 | SJVAPCD |
| MSA/CBSA: Visalia–Porterville | | |
| County: Tulare | | |
| Site Name | AQS ID | Operating Agency |
| Porterville | 06-107-2010 | SJVAPCD |
| Sequoia–Ash Mountain | 06-107-0009 | National Park Service |
| Sequoia–Lower Kaweah | 06-107-0006 | National Park Service |
| Visalia–Airport | 06-107-3000 | SJVAPCD |
| Visalia–Church St | 06-107-2002 | CARB |
| MSA/CBSA: Bakersfield | | |
| County: Kern (Valley Portion) | | |
| Site Name | AQS ID | Operating Agency |
| Arvin–Di Giorgio | 06-029-5002 | CARB |
| Bakersfield–Golden / M St | 06-029-0010 | SJVAPCD |
| Bakersfield–California | 06-029-0014 | CARB |
| Bakersfield–Muni | 06-029-2012 | SJVAPCD |
| Bakersfield–Airport (Planz) | 06-029-0016 | CARB |
| Edison | 06-029-0007 | CARB |
| Lebec | 06-029-2009 | SJVAPCD |
| Maricopa | 06-029-0008 | SJVAPCD |
| Oildale | 06-029-0232 | CARB |
| Shafter | 06-029-6001 | Shared ¹ |

¹ Site operated by CARB and SJVAPCD.

Table 4 San Joaquin Valley 2016 Population

| County | Total County Population | Major Urban Area Pop > 100,000 | Urban Area Pop < 100,000 and > 50,000 |
|---------------------------------|-------------------------|--------------------------------|---------------------------------------|
| San Joaquin | 733,383 | Stockton | Lodi, Manteca, Tracy |
| Stanislaus | 540,214 | Modesto | Turlock |
| Merced | 271,579 | — | Merced |
| Madera | 155,349 | — | Madera |
| Fresno | 984,541 | Fresno, Clovis | — |
| Kings | 150,373 | — | Hanford |
| Tulare | 466,339 | Visalia | Porterville, Tulare |
| Kern (Entire County) | 886,507 | Bakersfield | Delano |
| Kern (Valley Portion) | 753,531* | Bakersfield | Delano |
| San Joaquin Valley Total | 3,301,778 | | |

Population estimate for Kern County (Valley Portion) was calculated using census tract data for the population living within the District's boundaries. The San Joaquin Valley Total includes the Kern (Valley Portion) population and not the Kern (Entire County) population.

Data from California Department of Finance E-1 Population Estimates for Cities, Counties and the State, January 1, 2016.
Released May 1, 2016

Monitoring Objectives and Spatial Scales

Appendix D to 40 CFR Part 58 identifies three **basic monitoring objectives** that define the purpose of each analyzer:

- Provide air pollution data to the general public in a timely manner (**timely/public**).
- Support compliance with ambient air quality standards and emissions strategy development (**NAAQS comparison**).
- Support for air pollution research studies (**research support**).

Appendix D then identifies several general monitoring **site types** to meet the objectives that define what the monitor is measuring:

- Sites located to determine the **highest concentrations** in the area covered by the network.
- **Population exposure** sites to measure typical concentrations in areas of high population density.
- **Source impact** sites to determine the impact of significant sources or source categories on air quality.
- **General Background** sites determine background concentration levels.
- **Regional transport** sites located to determine the extent of regional pollutant transport among populated areas and in support of secondary standards

- Sites located to measure air pollution impacts on visibility, vegetation damage, or other welfare–related impacts.

Appendix D also identifies several scales of spatial representativeness, described in terms of physical dimensions of the air parcel or zone where air quality is expected to be reasonably consistent around the monitor. The monitor thus represents that area, not just the point of the monitor. The **spatial scales** are:

- **Microscale:** An area ranging from several meters up to about 100 meters.
- **Middle scale:** An area covering between about 100 meters to 0.5 kilometers.
- **Neighborhood scale:** Covering an area between 0.5 and 4.0 kilometers in range.
- **Urban scale:** Covering an area of city–like dimensions, from about 4 to 50 kilometers.
- **Regional scale:** Covering a rural area of reasonably homogeneous geography without large sources, extending from tens to hundreds of kilometers.
- **National and global scales:** Representing concentrations characterizing the nation and the globe as a whole.

New monitoring stations and new monitors that are intended to be compared to the NAAQS must meet EPA siting criteria. A particular site might be appropriate for one or more pollutants. Some sites may be appropriate for all air pollutant monitoring, while other sites are only appropriate for a particular pollutant. The District balances a wide range of pollutant siting criteria, spatial scales, monitoring objectives, and practical concerns as it plans and operates its monitoring network. Table 5 summarizes the parameters measured at each air monitoring site in the San Joaquin Valley.

Meteorology

A variety of meteorological parameters are measured for various District programs affected by weather. Such programs include air quality forecasting, PAMS, exceptional events, long–term planning, and pollutant trend assessment. These activities help protect public health and have made the public and media more aware of air quality and what can be done to reduce air pollution. See Table 6 for the meteorological parameters measured in the Valley.

State of the Air Monitoring Network

This Network Plan summarizes the state of the District’s air monitoring network during 2015. Additionally, changes that the District may initiate through December 2016 are described in the Improvements and Planned Changes section below.

Table 5 Parameters Monitored in the San Joaquin Valley

| Site Name | Ozone | PM2.5 | PM10 | NO ₂ | CO | SO ₂ | NMH | NO _y | PM2.5 Speciation | Lead | Toxics | RASS ¹ | Meteorology |
|-----------------------------|-------|-------|------|-----------------|----|-----------------|-----|-----------------|------------------|------|--------|-------------------|-------------|
| Stockton–Hazelton | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | | ✓ | | ✓ |
| Manteca | | ✓ | ✓ | | | | | | | | | | ✓ |
| Tracy–Airport | ✓ | ✓ | ✓ | ✓ | | | | | | | | ✓ | ✓ |
| Modesto–14th St | ✓ | ✓ | ✓ | | ✓ | | | | ✓ | | | | ✓ |
| Turlock | ✓ | ✓ | ✓ | ✓ | | | | | | | | | ✓ |
| Merced–Coffee | ✓ | ✓ | | ✓ | | | | | | | | | ✓ |
| Merced–M St | | ✓ | ✓ | | | | | | | | | | |
| Madera–City | ✓ | ✓ | ✓ | | | | | | | | | | ✓ |
| Madera–Pump Yard | ✓ | | | ✓ | | | ✓ | | | | | | ✓ |
| Tranquillity | ✓ | ✓ | | | | | | | | | | | ✓ |
| Fresno–Sky Park | ✓ | | | ✓ | | | | | | | | | ✓ |
| Clovis–Villa | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | | | | | | ✓ |
| Fresno–Garland | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | | ✓ |
| Fresno–Pacific | | ✓ | | | | | | | | | | | |
| Fresno–Foundry | | | | ✓ | | | | | | | | | ✓ |
| Fresno–Drummond | ✓ | | ✓ | ✓ | | | | | | | | | ✓ |
| Parlier | ✓ | | | ✓ | | | ✓ | | | | | | ✓ |
| Huron | | ✓ | | | | | | | | | | | |
| Hanford–Irwin | ✓ | ✓ | ✓ | ✓ | | | | | | | | | ✓ |
| Corcoran–Patterson | | ✓ | ✓ | | | | | | | | | | ✓ |
| Visalia–Airport | | | | | | | | | | | | ✓ | ✓ |
| Visalia–Church St | ✓ | ✓ | ✓ | ✓ | | | | | ✓ | | | | ✓ |
| Sequoia–Lower Kaweah | ✓ | | | | | | | | | | | | ✓ |
| Sequoia–Ash Mountain | ✓ | ✓ | | | | | | | | | | | ✓ |
| Porterville | ✓ | ✓ | | | | | | | | | | | ✓ |
| Shafter | ✓ | | | ✓ | | | ✓ | | | | | | ✓ |
| Oildale | ✓ | | ✓ | | | | | | | | | | ✓ |
| Bakersfield–Golden / M St | | ✓ | ✓ | | | | | | | | | | |
| Bakersfield–California | ✓ | ✓ | ✓ | ✓ | | | | | ✓ | | ✓ | | ✓ |
| Edison | ✓ | | | ✓ | | | | | | | | | ✓ |
| Bakersfield–Muni | ✓ | | | ✓ | ✓ | | ✓ | | | | | | ✓ |
| Bakersfield–Airport (Planz) | | ✓ | | | | | | | | | | | |
| Arvin–Di Giorgio | ✓ | | | | | | | | | | | | ✓ |
| Maricopa | ✓ | | | | | | | | | | | | ✓ |
| Lebec | | ✓ | | | | | | | | | | | ✓ |

¹ Radio acoustic sounding system (RASS)

Table 6 San Joaquin Valley Stations Monitoring Meteorology

| Site Name | Wind Speed | Wind Direction | Outdoor Temperature | Relative Humidity | Barometric Pressure | Solar Radiation |
|------------------------|------------|----------------|---------------------|-------------------|---------------------|-----------------|
| Stockton–Hazelton | ✓ | ✓ | ✓ | ✓ | | |
| Manteca | ✓ | ✓ | ✓ | | ✓ | |
| Tracy–Airport | ✓ | ✓ | ✓ | | ✓ | |
| Modesto–14th St | ✓ | ✓ | ✓ | | ✓ | |
| Turlock | ✓ | ✓ | ✓ | | ✓ | |
| Merced–Coffee | ✓ | ✓ | ✓ | | | |
| Madera–City | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Madera–Pump Yard | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Tranquillity | ✓ | ✓ | ✓ | | ✓ | |
| Fresno–Sky Park | ✓ | ✓ | ✓ | | | |
| Clovis–Villa | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Fresno–Garland | ✓ | ✓ | ✓ | ✓ | ✓ | |
| Fresno–Foundry | ✓ | ✓ | ✓ | ✓ | ✓ | |
| Fresno–Drummond | ✓ | ✓ | ✓ | | ✓ | |
| Parlier | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Huron | | | | | ✓ | |
| Hanford–Irwin | ✓ | ✓ | ✓ | | ✓ | |
| Corcoran–Patterson | ✓ | ✓ | ✓ | | ✓ | |
| Visalia–Airport | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Visalia–Church St | ✓ | ✓ | ✓ | | ✓ | |
| Sequoia–Lower Kaweah | ✓ | ✓ | ✓ | ✓ | | ✓ |
| Sequoia–Ash Mountain | ✓ | ✓ | ✓ | ✓ | | ✓ |
| Porterville | ✓ | ✓ | ✓ | | ✓ | |
| Shafter | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Oildale | ✓ | ✓ | ✓ | | | |
| Bakersfield–California | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Edison | ✓ | ✓ | ✓ | | | |
| Bakersfield–Muni | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Arvin–Di Giorgio | ✓ | ✓ | ✓ | | | |
| Maricopa | ✓ | ✓ | ✓ | | ✓ | |
| Lebec | ✓ | ✓ | ✓ | | ✓ | |

POLLUTANT MONITORING REQUIREMENTS

Ozone

Ozone is formed when its precursors (oxides of nitrogen (NO_x) and volatile organic compounds (VOC)) chemically react in the presence of heat and sunlight. The Valley's topography, high temperatures, subsidence inversions, and light winds are conducive to the formation of elevated ozone levels. Winds (at ground level or at higher altitudes) transport pollutants from other basins into the Valley, within the Valley to areas downwind, and from the Valley into other regions.

As specified in Table D–2 of Appendix D to Part 58, ozone monitoring site requirements are based on MSA population and design values (see Table 7). Table 8 shows that the Valley's ozone monitoring network meets these requirements. Sites are intended to represent population exposures and maximum concentrations, and so most ozone monitors are representative of neighborhood and regional scales. The Valley's SLAMS ozone monitors are continuous analyzers that detect ozone through ultraviolet absorption. As continuous devices, these monitors meet the "Timely/Public" objective, providing District staff with the data used in Air Quality Index (AQI) forecasting and reporting.

Table 7 SLAMS Minimum Ozone Monitoring Requirements
(Table D–2 of Appendix D to Part 58)

| MSA population, based on latest available census figures | Number of monitors required if: | |
|----------------------------------------------------------|------------------------------------------------------------------------------|------------------------------------------------------------------------|
| | Most recent 3–year design value concentrations \geq 85% of any ozone NAAQS | Most recent 3–year design value concentrations <85% of any ozone NAAQS |
| > 10 million | 4 | 2 |
| 4 – 10 million | 3 | 1 |
| 350,000 – < 4 million | 2 | 1 |
| 50,000 – < 350,000 | 1 | 0 |

Table 8 8–Hour Ozone Requirements for the San Joaquin Valley

| Metropolitan Statistical Area (MSA) | 2016 Population | Highest 2015 Ozone Design Value in MSA (ppb) | ≥85% of 2015 ozone NAAQS (70 ppb) | Number of SLAMS stations required | SLAMS stations in MSA |
|-------------------------------------|-----------------|----------------------------------------------|-----------------------------------|-----------------------------------|-----------------------|
| Stockton-Lodi | 733,383 | 76 | Yes | 2 | 2 |
| Modesto | 540,214 | 82 | Yes | 2 | 2 |
| Merced | 271,579 | 82 | Yes | 1 | 1 |
| Madera | 155,349 | 83 | Yes | 1 | 2 |
| Fresno | 984,541 | 93 | Yes | 2 | 5 |
| Hanford–Corcoran | 150,373 | 85 | Yes | 1 | 1 |
| Visalia– Porterville | 466,339 | 81 | Yes | 2 | 2 |
| Bakersfield | 753,531* | 90 | Yes | 2 | 7 |

Population estimate for Kern County (Valley Portion) was calculated using census tract data for the population living within the District's boundaries.

Photochemical Assessment Monitoring Stations

The monitoring objective of Photochemical Assessment Monitoring Stations (PAMS) is “research support”. Federal regulations (Clean Air Act Section 182 and 40 CFR 58) require serious, severe, and extreme ozone nonattainment areas to have PAMS sites to take speciated measurements of ozone precursors and allow for better understanding of the effect of precursors, control measures, and photochemistry on ozone formation. PAMS sites measure ozone, NO_x, total- and speciated-VOC, CO, and meteorology concurrently. Although the Valley does not exceed federal or state standards for NO₂, NO_x reductions contribute to air quality improvement for both ozone and PM.

There are four classifications of PAMS sites:

- Type 1: Background sites upwind of urban areas, where ozone concentrations are presumed not to be influenced by nearby urban emissions.
- Type 2: Maximum ozone precursor emissions sites, typically located in an urban center, where emissions strengths are the greatest.
- Type 3: Maximum ozone concentration sites, intended to show the highest ozone concentrations.
- Type 4: Downwind ozone monitoring sites intended to capture concentrations of transported ozone and precursor pollutants, and determine possible areas from which most of the transport may originate (Type 4 sites are currently not required for the San Joaquin Valley).

As shown in Table 9, the District has a total of six PAMS sites configured as two networks, one for the Fresno MSA and one for the Bakersfield MSA. In May 2016, the EPA approved the relocation of the ozone SLAMS monitor formerly at Arvin-Bear Mountain to the proposed Arvin – Di Giorgio location in Kern County. CARB has started the process of building a permanent site that should have enough space for all of the necessary PAMS equipment, should PAMS monitoring continue at Arvin given the

upcoming changes to PAMS program requirements (see discussion in the Planned Changes/Improvements section of this document).

Every year The PAMS program operates speciated VOC from June 1 through August 31 on a 1 in 3 day sampling schedule. At least four, three-hour integrated samples are collected each sampling day, which is referred to as a “Trend Day.” However, additional samples are collected on “Episode Days,” days that are forecasted to have high ozone concentrations. The goal is to sample on three to five multi-day episodes in an ozone season. All other PAMS parameters: CO, NO_x, NO₂, NO, ozone, NMOC, and meteorological equipment operate on an hourly basis year round.

Table 9 San Joaquin Valley PAMS Sites

| | | |
|------------------------|----------------------|--------------------------------------|
| Fresno MSA | Madera–Pump Yard | Type 1: Upwind/Background site |
| | Clovis–Villa | Type 2: Maximum precursor emissions |
| | Parlier ¹ | Type 3: Maximum ozone concentrations |
| Bakersfield MSA | Shafter | Type 1: Upwind/Background site |
| | Bakersfield–Muni | Type 2: Maximum precursor emissions |
| | Arvin ² | Type 3: Maximum ozone concentrations |

¹ The District is in the process of adding an NO_y monitor to the site.

² PAMS equipment for the Type 3 site at the Arvin–Di Giorgio site may be installed when space becomes available.

Nitrogen Dioxide

In 2010, EPA retained the annual average NO₂ standard of 53 parts per billion (ppb), and established a new 1-hour NO₂ standard at the level of 100 ppb. Recognizing that the current NO₂ network is not adequate for fully assessing compliance with the new NAAQS, EPA finalized a Three-Tier Network design that will represent NO₂ concentrations that occur near freeways, urban areas, and locations aimed at protecting susceptible and vulnerable communities. Per 40 CFR Part 58, the Three-Tier Network design is comprised of:

- (1) One monitor that represents highest NO₂ exposure with a neighborhood scale or larger in CBSAs with more than 1,000,000 people.

Even though the District is not required to have an area-wide NO₂ monitor, the District operates an extensive NO₂ monitoring network consisting of 16 monitors, including one near-road NO₂ monitor in Fresno (with a second being constructed in Bakersfield). The District locates NO₂ analyzers as required at PAMS sites and generally collocates NO₂ analyzers wherever an ozone monitor is required. Currently, 15 of the District’s NO₂ monitors are located accordingly and indicate that the District has low NO₂ levels that would be in compliance with both the NO₂ standards if the site met NAAQS siting criteria. Because these measurements are low and traffic volumes are also low when compared to other areas of the state, the District anticipates meeting the hourly standard once all of the near-road NO₂ monitors are added to the network and are collecting data.

- (2) Near-road monitoring at locations of expected maximum 1-hour NO₂ concentrations near heavily trafficked roads in urban areas.

Per Section 4 of Appendix D in 40 CFR Part 58, one microscale near-road monitor is required in each CBSA with a population of 500,000 and must be located adjacent to a road segment with a high annual average daily truck traffic (AADTT) count. An additional near-road monitor is required in CBSAs with populations of 2,500,000 or more; or in CBSAs with populations of 500,000 or more that have one or more road segments with 250,000 or more AADTT counts. Under these requirements and as shown in Table 10, the District is required to install one near-road NO₂ monitoring site in each of the Stockton, Modesto, Fresno, and Bakersfield CBSAs (four in total). The near-road air monitoring station required in Fresno was completed in late 2015 and became operational in January 2016. The District has also selected a site for the Bakersfield near-road NO₂ air monitoring station and construction is currently underway.

Table 10 Near-road NO₂ Monitoring in the San Joaquin Valley

| Metropolitan Statistical Area (MSA) | 2016 Population | Highest AADTT | Number of monitors required | SLAMS monitors in MSA |
|-------------------------------------|-----------------|---------------|-----------------------------|-----------------------|
| Stockton-Lodi | 733,383 | 40,128 | 1 | Pending |
| Modesto | 540,214 | 17,145 | 1 | Pending |
| Fresno | 984,541 | 14,945 | 1 | 1 |
| Bakersfield | 753,531* | 28,188 | 1 | Pending |

*Population estimate for Kern County (Valley Portion) was calculated using census tract data for the population living within the District's boundaries.

- (3) A NO₂ network consisting of 40 monitors designed by the Regional Administrators to protect susceptible and vulnerable communities.

The third network, the Regional Administrator Required Monitoring Network (RA40) will consist of 40 NO₂ sites located throughout the United States and their locations will be determined by the Regional Administrators. These 40 sites would be in addition to the minimum NO₂ monitoring requirements. EPA Region 9 has asked the District to choose two sites for RA40 purposes. The sites are Parlier and Arvin-Di Giorgio (once it is rebuilt and fully operational). Currently, Parlier is designated as an RA40 site, and Bakersfield-Muni is serving as an interim RA40 site until Arvin-Di Giorgio can accommodate NO₂ monitoring. These sites are located in towns with susceptible and vulnerable populations. In addition, they are downwind from urban areas.

On May 16, 2016 EPA proposed to amend the siting requirements for near-road NO₂ monitoring. In these changes, EPA plans to remove the requirement for CBSAs with populations greater than or equal to 500,000 to install a near-road monitor. Since

measured data from current near-road monitors with larger populations and high traffic counts are well below the federal standard, it was assumed that NO₂ levels in lower population areas would also fall below the standard threshold. Based on this, near-road NO₂ monitoring will not be required in the District until a CBSA exceeds a population of 1,000,000. In light of these monitoring requirement changes, and since the Fresno and Bakersfield CBSAs are relatively close to 1,000,000 in population already (using Kern County total population for the Bakersfield CBSA), the District is proceeding with establishing near-road stations in these areas. The District has placed on hold the siting and establishment of near-road stations in the Stockton and Modesto CBSAs since their populations are well below 1,000,000 and may not reach this threshold for many years.

Carbon Monoxide

On August 12, 2011 EPA issued the decision to retain the existing NAAQS for CO. The primary standards are 9 parts per million (ppm) measured over 8 hours, and 35 ppm measured over 1 hour. Monitoring requirements for CO are specified in 40 CFR Part 58 as follows:

- CO monitors are required at all NCore sites. At least one NCore site is required in every state.
- One CO monitor is required to be placed at a near-road NO₂ monitoring station in a CBSA with population of 1 million or more. Moving an existing monitor to a new location is acceptable.
- EPA is providing authority to EPA Regional Administrators to require additional monitoring in case-by-case circumstances, such as in areas impacted by major stationary CO sources, in urban downtown areas, or urban street canyons, or in areas adversely impacted by meteorological and/or topographical influences.
- CO must be monitored at PAMS Type 2 sites with a trace level CO monitor.

Currently, the CBSAs within the District are comprised of less than 1 million people, thus the District is not required to place a CO monitor at a near-road NO₂ monitoring station. Monitoring has shown that the Valley's CO concentrations have not exceeded the NAAQS for over a decade. As noted in Section 4.2 of Appendix D of 40 CFR Part 58, there are no minimum requirements of the number of CO monitoring sites. The District and CARB continue CO monitoring to meet the requirement at its PAMS Type 2 sites and NCore site, and to supplement related meteorological and criteria pollutant data.

Reactive Nitrogen Compounds (NO_y)

Reactive Nitrogen Compounds (NO_y) are among the precursors to ozone and PM_{2.5}. As part of the National Ambient Air Monitoring Strategy (NAAMS), EPA requires NO_y monitoring at 75 locations across the United States in support of a number of objectives. NCore site requirements and the PAMS program include monitoring NO_y in order to

meet that requirement. Measuring NO_y at NCore and PAMS sites is important for understanding ozone photochemistry.

Sulfur Dioxide

In 2010, EPA revised the SO₂ NAAQS and monitoring requirements in the Federal Register (40 CFR Part 58, Appendix D to Part 58 – Network Design Criteria of Ambient Air Quality Monitoring, Section 4.4). EPA established a new primary 1-hour standard of 75 ppb, and also revoked the previous 24-hour and annual primary standards. Under the revised SO₂ NAAQS, the monitoring requirements are determined by a Populations Weighted Emissions Index (PWEI) value in units of million persons–tons per year. The PWEI is calculated using each CBSA's updated census data and a combined total of the latest available county level SO₂ emissions data in the National Emissions Inventory for the counties in each CBSA. The population of a CBSA is multiplied with the total amount of SO₂ in tons per year emitted within a CBSA, and the resulting product is then divided by one million to produce the PWEI value. The Valley's PWEI values are shown in Table 11.

Table 11 San Joaquin Valley's Populations Weighted Emissions Index for 2016

| County | Total County 2016 Population | SO ₂ Tons per Year ¹ | PWEI |
|-------------|------------------------------|--------------------------------------------|-------|
| San Joaquin | 733,383 | 650 | 477 |
| Stanislaus | 540,214 | 431 | 233 |
| Merced | 271,579 | 128 | 35 |
| Madera | 155,349 | 197 | 31 |
| Fresno | 984,541 | 683 | 672 |
| Kings | 150,373 | 62 | 9 |
| Tulare | 466,339 | 840 | 392 |
| Kern | 886,507 | 2,219 | 1,967 |

Population estimates are for entire county.

¹ SO₂ Tons per Year includes the entire county. The SO₂ data is the most recent data for each county from 2014. Source: California Air Resources Board California Emission Inventory Development and Reporting System (CEIDARS) <http://www.arb.ca.gov/ei/drei/maintain/database.htm>.

As per 40 CFR Part 58, Appendix D to Part 58 – Network Design Criteria of Ambient Air Quality Monitoring, Section 4.4, at least three SO₂ monitors are required in CBSAs with a PWEI value equal to or greater than 1,000,000. CBSAs with a PWEI value equal to or greater than 100,000, but less than 1,000,000, are required to have at least two SO₂ monitors. A minimum of one SO₂ is required in CBSAs with a PWEI value equal to or greater than 5,000, but less than 100,000.

As determined by the above Network Design Criteria PWEI, the highest PWEI value

(Kern County) is only 1,967, far below the minimum of 5,000 that would require one monitor. Incidentally, the District does not exceed the federal standard for SO₂ and for CBSAs that do not exceed the federal SO₂ standard there is no required number of SO₂ monitors. As a result, there are no SO₂ monitoring requirements for the District. Despite not having any monitoring requirements, there is one SO₂ monitor operating within the District's network. This monitor is located at the Fresno–Garland AMS as part of the NCore Network.

Toxics

The airborne toxics program is run by CARB. Toxics measurements are collected at Stockton–Hazelton, Fresno–Garland, and Bakersfield–California. Periodic, 24-hour samples are analyzed for the following gases: benzene, Carbon tetrachloride, chloroform, ethylene dibromide, ethylene dichloride, methyl chloroform, methylene chloride, perchloroethylene, toluene, trichloroethylene, and m-, p-, and o-xylene. The samples are also analyzed for the following particulate metals: Arsenic and Hexavalent Chromium–6. CARB's Integrated NMHC (NMH) sampling program and the District's PAMS NMH sampling program also identify and quantify several toxic hydrocarbon species.

Detailed Site Information – Gaseous Monitors

Criteria such as monitoring methods, monitor types, spatial scales, site types, basic monitoring objectives, and current sampling frequencies, and other requirements being met by the District's gaseous pollutants monitoring network are shown in Tables 12, 13, 23 through 32, and Appendix B.

Table 12 Gaseous Monitors

| Site Name | FRM/FEM/ARM/Other | | | | |
|-------------------|-------------------|-----------------|-----|-------|---------------|
| | Ozone | NO ₂ | CO | NMH | Speciated VOC |
| Stockton–Hazelton | FEM | FRM | FRM | | |
| Tracy–Airport | FEM | FEM | | | |
| Modesto–14th St | FEM | | FRM | | |
| Turlock | FEM | FEM | | | |
| Merced–Coffee | FEM | FEM | | | |
| Madera–City | FEM | | | | |
| Madera–Pump Yard | FEM | FEM | | Other | Other |
| Tranquillity | FEM | | | | |
| Fresno–Sky Park | FEM | FEM | | | |
| Clovis–Villa | FEM | FEM | FEM | Other | Other |
| Fresno–Foundry | | FEM | | | |
| Fresno–Drummond | FEM | FEM | | | |
| Parlier | FEM | FEM | | Other | Other |
| Hanford–Irwin | FEM | FEM | | | |
| Visalia–Church St | FEM | FRM | | | |

Table 12 Gaseous Monitors (continued)

| Site Name | FRM/FEM/ARM/Other | | | | |
|------------------------|-------------------|-----------------|-----|-------|---------------|
| | Ozone | NO ₂ | CO | NMH | Speciated VOC |
| Porterville | FEM | | | | |
| Shafter | FEM | FRM | | Other | Other |
| Oildale | FEM | | | | |
| Bakersfield–California | FEM | FRM | | | |
| Edison | FEM | FRM | | | |
| Bakersfield–Muni | FEM | FEM | FEM | Other | Other |
| Arvin–Di Giorgio | FEM | | | | |
| Maricopa | FEM | | | | |

Monitoring method information for the Fresno-Garland NCore site is provided in Table 23

Table 13 Gaseous Monitors – Monitor Type

| Site Name | Monitor Type | | |
|------------------------|--------------|-----------------|-------|
| | Ozone | NO ₂ | CO |
| Stockton–Hazelton | SLAMS | SLAMS | SLAMS |
| Tracy–Airport | SLAMS | SLAMS | |
| Modesto–14th St | SLAMS | | SLAMS |
| Turlock | SLAMS | SLAMS | |
| Merced–Coffee | SLAMS | SLAMS | |
| Madera–City | SLAMS | | |
| Madera–Pump Yard | SLAMS | SLAMS | |
| Tranquillity | SPM | | |
| Fresno–Sky Park | SLAMS | SLAMS | |
| Clovis–Villa | SLAMS | SLAMS | SLAMS |
| Fresno–Foundry | | SLAMS | |
| Fresno–Drummond | SLAMS | SLAMS | |
| Parlier | SLAMS | SLAMS | |
| Hanford–Irwin | SLAMS | SLAMS | |
| Visalia–Church St | SLAMS | SLAMS | |
| Porterville | SLAMS | | |
| Shafter | SLAMS | SLAMS | |
| Oildale | SLAMS | | |
| Bakersfield–California | SLAMS | SLAMS | |
| Edison | SLAMS | SLAMS | |
| Bakersfield–Muni | SLAMS | SLAMS | SLAMS |
| Arvin–Di Giorgio | SLAMS | | |
| Maricopa | SLAMS | | |

Monitor type information for the Fresno-Garland NCore site is provided in Table 23

Particulate Matter (PM)

Particulate matter (PM) can be emitted directly as primary PM, and it can form in the atmosphere through chemical reactions of precursors to form secondary PM. Primary PM can be emitted either naturally: windblown dust and wildfires; or from human (anthropogenic) activity: agricultural operations, industrial processes, combustion of wood and fossil fuels, construction and demolition activities, and entrainment of road dust. The resulting ambient PM mixture includes aerosols consisting of components of nitrates, sulfates, elemental carbons, organic carbon compounds, acid aerosols, trace metals, geological materials, etc. Under current regulations, particulate matter is differentiated by particle size as opposed to composition. Federal air quality standards differentiate two size fractions of PM: PM that is 10 microns or less in diameter (PM₁₀) and the smaller subset that is 2.5 microns or less in diameter (PM_{2.5}).

The mountain ranges that surround the Valley contribute to trapping pollutants, including PM, in the Valley. During the winter, weather systems bring rainfall to the Valley, but the atmospheric environment also becomes conducive to secondary PM formation. The Valley's frequent and strong winter temperature inversions prevent air from rising and particulates remain trapped near the surface. During winters with little rainfall or the Valley's hot, dry summers, the dry soils contribute to PM emissions when disturbed.

The California Regional Particulate Air Quality Study (CRPAQS) is the Valley's comprehensive particulate field study. CRPAQS monitoring occurred between December 1999 and February 2001 through the use of over 70 SPM PM₁₀ sites and 50 SPM PM_{2.5} sites. Researchers have used CRPAQS measurements for database development, analysis, and modeling. Data collection for the study has been completed but the data analysis is still ongoing. In addition to CRPAQS, other studies assess particulate emissions from agricultural operations, unpaved and paved road particulate emissions, and particulate formation in fog episodes. The design of the Valley's current PM network is an outgrowth of the results and analysis from CRPAQS.

The Valley's PM monitoring network includes Federal Reference Method (FRM) monitors, Federal Equivalent Method (FEM) monitors, and Non-FRM/FEM monitors. FRM monitors for PM are manual filter-based monitors; samples are primarily collected on either a one-in-six day sampling schedule or a one-in-three day sampling schedule. FRM monitors meet the "NAAQS Comparison" objective, helping agencies determine the Valley's attainment status and helping shape the strategies for reaching or maintaining PM attainment. FRM filters can also be analyzed for PM speciation, lending to their usage for "Research Support" objectives as well.

Beta Attenuation Monitors (BAM) and Tapered Element Oscillating Microbalance (TEOM) monitors are continuous, near real-time monitors that provide the hourly PM data used in AQI and Smoke Management System (SMS) burn allocations. Data from these monitors are also used in hazard reduction burning allocations and in residential wood burning declarations. As such, these monitors help meet the "Timely/Public" objective.

Not all real-time monitors meet the “NAAQS Comparison” objective because they do not meet the rigorous engineering design, quality assurance, and quality control standards necessary for comparison to the NAAQS. An FEM monitor is often a real-time monitor that has been designated by EPA as being equivalent to FRM monitors. FEMs satisfy both the “NAAQS Comparison” objective and the “Timely/Public” objective. All of the Valley’s TEOMs are FEMs, and some of the Valley’s BAMs are FEMs.

Several PM_{2.5} analyzers within the District’s network are located at sites that are not required by EPA. The District operates these sites for various reasons such as complying with state laws (Huron), settlement to a law suit (Tracy-Airport), and for the purposes of helping the District’s RAAN and forecasting programs (Porterville and Lebec). The Lebec site was donated to the District. Additionally, settlements of CEQA lawsuits between a private company and a private citizen required the company to give the District specific air monitoring equipment to be operated at specific sites. All of these sites and/or equipment are not required for NAAQS purposes.

The District operates four (4) PM_{2.5} analyzers (parameter code 88502) as SPM. These analyzers have not been certified by EPA as comparable to the PM_{2.5} NAAQS and do not meet all of the certification requirements. Specifically, EPA requires a runtime of 42 minutes per hour with an 8 (eight) minute count and these analyzers operate with a runtime of 50 minutes per hour with a 4 minute count. Additionally these instruments use a Sharp Cut Cyclone PM_{2.5} inlet instead of a Very Sharp Cut Cyclone PM_{2.5} inlet. Finally, some of these analyzers do not support the approved software to run these analyzers in a manner comparable to the NAAQS. While these sites are non-FEMs, they produce valuable data that is of sufficient quality for their intended purposes. All other required PM_{2.5} analyzers, both SLAMS and SPM, are operated in compliance with 40 CFR Part 58 Appendix A and Appendix E, these instruments are comparable to the PM_{2.5} NAAQS.

Detailed Site Information – PM Monitors

As mentioned above, monitoring sites and monitors must meet siting, and operational criteria as outlined in 40 CFR Part 58. Criteria such as monitor types, spatial scales, site types, basic monitoring objectives, and current sampling frequencies, and other requirements being met by the District’s PM network are shown in Tables 20 through 32 and Appendix B.

PM Collocation Requirements

Per 40 CFR 58 Appendix A, Sections 3.2.5 and 3.2.6, the District’s Particulate Matter collocation requirements are met by the Primary Quality Assurance Organization (PQAO). CARB is the PQAO for the District as well as several other air districts. See CARB’s Air Monitoring Network Plans for details on how collocation requirements are met by the PQAO. Table 21 shows the collocated PM monitors currently operating in the District’s monitoring network.

Public Review of Changes to the PM_{2.5} Monitoring Network

Public input is required whenever the District proposes to move an existing violating PM_{2.5} monitor (40 CFR 58.10(c)). The District uses the annual Air Monitoring Network Plan to notify and seek public comment on any planned changes to the existing PM_{2.5} network. The public is provided 30 days to comment on the Air Monitoring Network Plan and any PM_{2.5} network changes. The plan is regularly posted on the District website, after which the public is notified of the availability of the document for the 30 day review. In the event of unanticipated changes to the PM_{2.5} network that occur outside the Air Monitoring Network Plan process, the District will post the required documentation on its website and seek public comment.

PM₁₀ Monitoring Requirements

The San Joaquin Valley has been redesignated to attainment for PM₁₀, and the District's 2007 PM₁₀ Maintenance Plan and ongoing PM₁₀ monitoring will assure continued compliance with the federal standard. According to 40 CFR Part 58 Appendix D Table D-4 the minimum number of PM₁₀ sites required per MSA is based on population (see Table 14). As shown in Table 15 the District's PM₁₀ monitoring network meets the requirements for the San Joaquin Valley. Additionally, the year 2015 24-hour PM₁₀ design values for each PM₁₀ monitoring site in the District's network are provided in Table 16.

Table 14 Minimum PM₁₀ Monitoring Requirements

| Population category | High concentration: Ambient concentrations exceed the PM ₁₀ NAAQS by 20% or more ($\geq 180 \mu\text{g}/\text{m}^3$) | Medium concentration: Ambient concentrations exceed 80% of the PM ₁₀ NAAQS ($\geq 120 \mu\text{g}/\text{m}^3$) | Low concentration: Ambient concentrations less than 80% of the PM ₁₀ NAAQS ($< 120 \mu\text{g}/\text{m}^3$), or no design value |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| > 1,000,000 | 6 – 10 | 4 – 8 | 2 – 4 |
| 500,000 – 1,000,000 | 4 – 8 | 2 – 4 | 1 – 2 |
| 250,000 – 500,000 | 3 – 4 | 1 – 2 | 0 – 1 |
| 100,000 – 250,000 | 1 – 2 | 0 – 1 | 0 |

A range is presented, and the actual number of stations per area is jointly determined by EPA, the State, and the local agency.

Table 15 PM₁₀ Monitoring requirements for the Valley

| MSA | County | 2016 Population | PM ₁₀ | | |
|---------------|-------------|-----------------|------------------------------------------------------------------------|-----------------------------------|-----------------------|
| | | | 24-hour 2015 Highest concentration in MSA ($\mu\text{g}/\text{m}^3$) | Number of SLAMS stations required | SLAMS stations in MSA |
| Stockton-Lodi | San Joaquin | 733,383 | 106 | 1 – 2 | 2 |
| Modesto | Stanislaus | 540,214 | 85 | 1 – 2 | 2 |
| Merced | Merced | 271,579 | 97 | 0 – 1 | 1 |

Table 15 PM10 Monitoring requirements for the Valley (continued)

| MSA | County | 2016 Population | PM10 | | |
|---------------------|--------|-----------------|------------------------------------------------------------------------|-----------------------------------|-----------------------|
| | | | 24-hour 2015 Highest concentration in MSA ($\mu\text{g}/\text{m}^3$) | Number of SLAMS stations required | SLAMS stations in MSA |
| Madera | Madera | 155,349 | 111 | 0 – 1 | 1 |
| Fresno | Fresno | 984,541 | 120 | 2 - 4 | 3 |
| Hanford–Corcoran | Kings | 150,373 | 136 | 0 – 1 | 2 |
| Visalia–Porterville | Tulare | 466,339 | 142 | 1 – 2 | 1 |
| Bakersfield* | Kern | 753,531* | 121 | 2 – 4 | 3 |

* Population estimate for Kern County (Valley Portion) was calculated using census tract data for the population living within the District's boundaries.

Table 16 24-Hour PM₁₀ design values at each site*

| MSA | Site Name | 2015 Design Value |
|---------------------|-------------------------------|-------------------|
| Stockton-Lodi | Stockton-Hazelton | 54 |
| | Manteca | 106 |
| | Tracy–Airport | 57 |
| Modesto | Modesto-14th St | 85 |
| | Turlock | 76 |
| Merced | Merced-M St | 97 |
| Madera | Madera-City | 111 |
| Fresno | Fresno-Garland [^] | 108 |
| | Fresno-Drummond | 120 |
| | Clovis-Villa | 105 |
| Hanford-Corcoran | Hanford-Irwin | 136 |
| | Corcoran-Patterson | 124 |
| Visalia-Porterville | Visalia-Church St | 142 |
| Bakersfield | Oildale | 121 |
| | Bakersfield-Golden State/M St | 100 |
| | Bakersfield-California | 104 |

* Current Sampling Frequency information is provided in Table 28.

[^] Current Sampling Frequency information for the Fresno-Garland NCore site is provided in Table 23.

PM2.5 Monitoring Requirements

The San Joaquin Valley is designated nonattainment for PM2.5. Per 40 CFR Part 58 Appendix D Table D-5 the minimum number of PM2.5 sites required per MSA is based on population (see Table 17). Table 18 shows that the District's PM2.5 monitoring network meets the PM2.5 monitoring requirements for the San Joaquin Valley. Additionally, the 2013 – 2015 annual and 24-hour PM2.5 design values for each site in the District's PM2.5 network are provided in Table 19.

Table 17 Minimum PM2.5 Monitoring Requirements

| MSA population | Most recent 3-year design value $\geq 85\%$ of any PM2.5 NAAQS (equivalent to an annual design value $\geq 10.2 \mu\text{g}/\text{m}^3$ or a 24-hour design value $\geq 29.8 \mu\text{g}/\text{m}^3$) | Most recent 3-year design value $< 85\%$ of any PM2.5 NAAQS (equivalent to an annual design value $< 10.2 \mu\text{g}/\text{m}^3$ or a 24-hour design value $< 29.8 \mu\text{g}/\text{m}^3$), or no design value |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| > 1,000,000 | 3 | 2 |
| 500,000 – 1,000,000 | 2 | 1 |
| 50,000 – < 500,000 | 1 | 0 |

Table 18 PM2.5 Monitoring Requirements for the Valley

| MSA | County | 2016 Population | PM2.5 ¹ | | | | |
|-------------------------------|-------------|-----------------|------------------------------------------------------------------|-------------------------------------------------------------------|-----------------------------------|---------------------------------|--------------------------------------------|
| | | | 24-hr 2013-2015 Design Value in MSA ($\mu\text{g}/\text{m}^3$) | Annual 2013-2015 Design Value in MSA ($\mu\text{g}/\text{m}^3$) | Number of SLAMS stations required | Number of SLAMS stations in MSA | Number of Continuous PM2.5 Monitors in MSA |
| Stockton-Lodi | San Joaquin | 733,383 | 47 | 14.2 | 2 | 2 | 3 |
| Modesto | Stanislaus | 540,214 | 51 | 13.8 | 2 | 2 | 2 |
| Merced | Merced | 271,579 | 51 | 12.5 | 1 | 2 | 1 |
| Madera | Madera | 155,349 | 51 | 15.2 | 1 | 1 | 1 |
| Fresno ² | Fresno | 984,541 | 61 | 15.4 | 2 | 3 | 3 |
| Hanford-Corcoran ³ | Kings | 150,373 | 67 | 17.4 | 1 | 2 | 1 |
| Visalia-Porterville | Tulare | 466,339 | 61 | 17.6 | 1 | 1 | 3 |
| Bakersfield ⁴ | Kern | 753,531 | 79 | 20.8 | 2 | 3 | 2 |

¹ Air quality data may include data influenced by exceptional events and/or data completeness and substitution requirements.

² The PM2.5 FRM monitor at Fresno-Garland is one of the monitors helping meet the number of PM2.5 SLAMS

- monitors required in the Fresno MSA.
- ³ Hanford design values are displayed for the MSA, unable to calculate Corcoran 2013-15 design values due to fire at site in early 2015 which resulted in data incompleteness.
- ⁴ Population estimate for Kern County (Valley Portion) was calculated using census tract data for the population living within the District's boundaries.

Table 19 24-Hour and Annual PM_{2.5} Maximum Design Values

| MSA | Site Name | 2013-2015 24-Hour Design Value | 2013-2015 Annual Design Value | Max Site in MSA | |
|---------------------|-----------------------------|--------------------------------------|-------------------------------------|-----------------|--------|
| | | | | 24-Hour | Annual |
| Stockton-Lodi | Stockton–Hazelton | 45 | 14 | ✓ | ✓ |
| | Manteca | 41 | 11.3 | | |
| Modesto | Modesto–14th St | 46 | 11.6 | | |
| | Turlock | 51 | 13.8 | ✓ | ✓ |
| Merced | Merced–M St | 51 | 12.5 | ✓ | ✓ |
| | Merced-Coffee | 41 | 11.7 | | |
| Madera | Madera–City | 51 | 15.9 | | |
| Fresno | Tranquility | 34 | 8.7 | | |
| | Clovis–Villa | 55 | 15.2 | | ✓ |
| | Fresno–Pacific | 58 | 14.6 | ✓ | |
| Hanford-Corcoran | Corcoran–Patterson* | -- | -- | | |
| | Hanford–Irwin | 67 | 17.4 | ✓ | ✓ |
| Visalia-Porterville | Visalia–Church St | 61 | 17.6 | | |
| Bakersfield | Bakersfield–Golden / M St | 79 | 17.4 | ✓ | |
| | Bakersfield–California | 70 | 18.3 | | |
| | Bakersfield–Airport (Planz) | 77 | 20.8 | | ✓ |

*Unable to calculate 2013-15 design values due to fire at site in early 2015 which resulted in data incompleteness.

PM_{2.5} Chemical Speciation Site Requirements

Per CFR 40 Part 58, each State must conduct chemical speciation monitoring and analysis at sites that have been designated part of the Speciation Trends Network (STN) and approved by the Administrator. Monitoring methods and sampling schedules used at the PM_{2.5} chemical speciation urban trends sites must be approved by the Administrator. Additionally, the sites must also include analysis for elements, selected

anions and cations, and carbon. Speciation data can be used to support a variety of efforts including:

- Air quality modeling analyses to help track NAAQS attainment progress and emissions controls.
- Aiding the interpretation of health studies by linking health effects to PM2.5 constituents.
- Understanding the effects of atmospheric elements on visibility.
- Assisting with air monitoring network design and siting adjustments.

In addition to the STN requirement, EPA encourages air agencies to operate additional supplemental speciation monitors to meet needs independent of the requirement such as supporting health effects related studies, and developing State implementation plans. There are four PM2.5 speciation monitors operating in the District's network, two that meet the STN requirement and two supplemental monitors. Details on these PM2.5 speciation monitors are shown in Table 20 and Appendix B.

Table 20 PM2.5 Speciation Monitors

| Site Name | Network Affiliation | Monitor Type | FRM/FEM/ARM/Other | Site Type | Spatial Scale | Basic Monitoring Objective | Current Sampling Frequency | Monitor Collocation |
|------------------------|---------------------|--------------|-------------------|-----------|---------------|----------------------------|----------------------------|---------------------|
| Modesto–14th St | CSN (Supplemental) | SLAMS | Other | PE | N | RS | 1:6 | |
| Visalia–Church St | Supplemental | SLAMS | Non-FEM | PE, RT | N | RS, TP | Hourly | |
| Bakersfield–California | STN | SLAMS | Other | PE | N,U | RS | 1:3 | |
| | CSN STN | Other | Other | PE | N,U | RS | 1:3 | |
| | CSN STN | Other | Other | PE | N,U | RS | 1:6 | ✓ |

PM2.5 Speciation monitor information for the Fresno-Garland NCore site is provided in Table 23.

Per network plan requirements described above, Tables 21 and 22 show the types of monitoring methods, collocated monitors, and monitor types operating in the District's PM monitoring network.

Table 21 PM Monitors

| Site Name | FRM/FEM/ARM/Other | | | | Monitor Collocation | | | | |
|-------------------|-------------------|---------------|---------------------|----|---------------------|--------------|--------------|---------------|-------------|
| | PM2.5 (man.) | PM2.5 (cont.) | PM2.5 Annual NAAQS* | | PM10 (man.) | PM10 (cont.) | PM2.5 (man.) | PM2.5 (cont.) | PM10 (man.) |
| | | | Yes | No | | | | | |
| Stockton–Hazelton | | FEM | ✓ | | FRM | | | | |
| Manteca | | FEM | ✓ | | | FEM | | | |
| Tracy–Airport | | Non–FEM | | ✓ | | FEM | | | |
| Modesto–14th St | | FEM | ✓ | | | FEM | FRM | | |
| Turlock | | FEM | ✓ | | FRM | | | | |
| Merced–Coffee | | FEM | ✓ | | | | | | |
| Merced–M St | FRM | | ✓ | | FRM | | | | |

Table 21 PM Monitors (continued)

| Site Name | FRM/FEM/ARM/Other | | | | Monitor Collocation | | | | |
|-----------------------------|-------------------|---------------|---------------------|-------------|---------------------|--------------|--------------|---------------|-------------|
| | PM2.5 (man.) | PM2.5 (cont.) | PM2.5 Annual NAAQS* | | PM10 (man.) | PM10 (cont.) | PM2.5 (man.) | PM2.5 (cont.) | PM10 (man.) |
| Madera–City | | FEM | ✓ | | | FEM | FRM | | |
| Tranquillity | | FEM | ✓ | | | | | | |
| Clovis–Villa | FRM | | ✓ | | FRM | | | FEM | |
| Fresno–Pacific | FRM | | ✓ | | | | | | |
| Fresno–Drummond | | | | | FRM | | | | FRM |
| Huron | | Non–FEM | | ✓ | | | | | |
| Corcoran–Patterson | FRM | | | | | FEM | | | |
| Hanford–Irwin | | FEM | ✓ | | FRM | FEM | | | |
| Visalia–Church St | FRM | Non-FEM | | ✓ | | FEM | FRM | | |
| Porterville | | Non-FEM | | ✓ | | | | | |
| Oildale | | | | | FRM | | | | |
| Bakersfield–Golden / M St | FRM | | ✓ | | FRM | | | | |
| Bakersfield–California | FRM | Non–FEM | ✓ (FRM) | ✓ (Non-FEM) | FRM | | FRM | | FRM |
| Bakersfield–Airport (Planz) | FRM | | | | | | | | |
| Lebec | | Non–FEM | | ✓ | | | | | |

cont. = Continuous man. = Manual

* - PM2.5 monitors suitable for comparison to the PM2.5 Annual NAAQS.

Monitoring method and monitor collocation information for the Fresno-Garland NCore site is provided in Table 23.

Table 22 PM Monitors – Monitor Type

| Site Name | Monitor Type | | | | Monitor Collocation | | |
|-------------------|--------------|---------------|-------------|--------------|---------------------|---------------|-------------|
| | PM2.5 (man.) | PM2.5 (cont.) | PM10 (man.) | PM10 (cont.) | PM2.5 (man.) | PM2.5 (cont.) | PM10 (man.) |
| Stockton–Hazelton | | SLAMS | SLAMS | | | | |
| Manteca | | SLAMS | | SLAMS | | | |
| Tracy–Airport | | SPM | | SPM | | | |
| Modesto–14th St | SLAMS | SLAMS | | SLAMS | | SLAMS | |
| Turlock | | SLAMS | SLAMS | | | | |
| Merced–Coffee | | SLAMS | | | | | |
| Merced–M St | SLAMS | | SLAMS | | | | |

Table 22 PM Monitors – Monitor Type (continued)

| Site Name | Monitor Type | | | | Monitor Collocation | | |
|---------------------------------|-----------------|------------------|----------------|-----------------|---------------------|------------------|----------------|
| | PM2.5 (man.) | PM2.5 (cont.) | PM10 (man.) | PM10 (cont.) | PM2.5 (man.) | PM2.5 (cont.) | PM10 (man.) |
| Madera–City | | SLAMS | | SLAMS | SLAMS | | |
| Tranquillity | | SPM | | | | | |
| Clovis–Villa | SLAMS | | SLAMS | | | SLAMS | |
| Fresno–Pacific | SLAMS | | | | | | |
| Fresno– Drummond | | | SLAMS | | | | SLAMS |
| Huron | | SPM | | | | | |
| Corcoran– Patterson | SLAMS | | | SLAMS | | | |
| Hanford–Irwin | | SLAMS | SLAMS | SLAMS | | | |
| Visalia–Church St | SLAMS | SLAMS | | SLAMS | SLAMS | | |
| Porterville | | SPM | | | | | |
| Oildale | | | SLAMS | | | | |
| Bakersfield– Golden / M St | SLAMS | | SLAMS | | | | |
| Bakersfield– California | SLAMS | SLAMS | SLAMS | | SLAMS | SLAMS | SLAMS |
| Bakersfield– Airport (Planz) | SLAMS | | | | | | |
| Lebec | | SPM | | | | | |

cont. = Continuous man. = Manual

Reg = Regulatory

Non-Reg = Non-Regulatory

Monitor information for the Fresno-Garland NCore site is provided in Table 23.

Lead

Per the revised lead NAAQS and monitoring requirements which became effective on January 26, 2011, EPA requires monitoring agencies to install non-source oriented lead monitors at NCore sites in CBSAs with populations of 500,000 or greater. The Fresno–Garland air monitoring site (an NCore site) is the only site within the District’s network that meets these criteria. In December 2011, CARB began measuring lead at the Fresno-Garland site to satisfy this requirement. EPA also requires state monitoring agencies to use the emission threshold of 0.5 tons per year (tpy) when determining if a monitor should be placed near an industrial facility that emits lead. The emission threshold for airport sources is 1.0 tpy, except for airports that are included in special studies. The District has not identified any lead sources above the aforementioned thresholds, thus it is not required to monitor for that threshold at this time.

NCore

EPA’s October 2006 ambient air monitoring amendments established a requirement for NCore multi-pollutant monitoring stations to be operational by January 1, 2011. The Fresno–First site, which was operated by CARB, was selected by EPA to be an NCore

site. CARB submitted an NCore plan to EPA in November 2009. The Fresno–First site already met the NCore requirements for filter–based and continuous PM_{2.5}, speciated PM_{2.5}, ozone, and meteorology. In December 2010, CARB installed trace level CO, trace level SO₂, trace level NO_y, and continuous PM–Coarse monitors at this site. A gas dilution calibrator, a zero air generator, and digital data loggers were also installed to support NCore monitoring. In December 2011, CARB installed a TSP–lead sampler which completed all the pollutant monitoring requirements for the NCore program. Additionally, CARB moved the Fresno–First site two blocks north to Garland Avenue. The Fresno–Garland site continues to serve as an NCore site. Table 23 shows the different parameters collected at the NCore site.

Table 23 Fresno-Garland NCore Site

| Pollutant | Monitor Type | FRM/FEM/ARM/Other | Site Type | Spatial Scale | Basic Monitoring Objective | Current Sampling Frequency | Monitor Collocation |
|------------------------------------------|--------------|-------------------|-----------|---------------|----------------------------|----------------------------|---------------------|
| Ozone | SLAMS | FEM | HC,PE | U | NC,RS | Hourly | |
| NO ₂ | SLAMS | FRM | MxPEI | U | NC,RS | Hourly | |
| CO | SLAMS | FRM | PE | U | NC,RS | Hourly | |
| SO ₂ | SLAMS | FEM | PE | U | NC,RS | Hourly | |
| NO _y | SLAMS | Other | PE | U | NC,RS | Hourly | |
| Toxics | SLAMS | Other | PE | N | RS,TP | Hourly | |
| PM _{2.5} (manual) | SLAMS | FRM | HC | N | NC,RS | 1:1 | |
| PM _{2.5} (manual) | SLAMS | FRM | HC,PE,QA | N | RS | 1:6 | ✓ |
| PM _{2.5} (continuous) | SLAMS | FEM | HC,QA | N | RS | Hourly | ✓ |
| PM _{2.5} Speciation (STN) | Other | Other | PE | N,U | RS | 1:3 | |
| | Other | Other | PE | N,U | RS | 1:3 | |
| PM ₁₀ STP (continuous) | SLAMS | FEM | PE | N | NC,RS | Hourly | |
| PM ₁₀ STP (Lead TSP) (manual) | SLAMS | Other | PE | N | NC | 1:6 | |
| PM ₁₀ LC (Lead TSP) (manual) | SLAMS | Other | PE | N | NC,RS,TP | 1:6 | |
| PM _{10-2.5} (continuous) | SLAMS | FEM | PE,QA | N | RS | Hourly | ✓ * |

PE – Population Exposure HC – Highest Concentration N – Neighborhood U – Urban RS – Research
MxPEI = Max Precursor Emissions Impact QA = QA Collocated NC – NAAQS Comparison TP = Timely/Public
Hourly = One sample every hour 1:1 = One sample per day 1:6 = 1 in 6 day sampling

* Serving as primary monitor

Non-EPA Federal Monitors

The National Park Service operates and maintains the Non-EPA Federal monitors located at Ash Mountain and Lower Kaweah. Details on these monitors are shown in Table 24 and Appendix B.

Table 24 Non-EPA Federal Monitors

| Sequoia–Ash Mountain | | | | | | |
|----------------------|-----------|-------------------|---------------|---------------------|----------------------------|----------------------------|
| Parameter | Site Type | FRM/FEM/ARM/Other | Spatial Scale | Network affiliation | Basic Monitoring Objective | Current Sampling Frequency |
| Ozone | HC, RT | Other | R | Castnet | NC, RS, TP | Hourly |
| PM2.5 (continuous) | RT | FEM | R | IMPROVE | NC, RS, TP | Hourly |
| Meteorology | GB | Other | R | Castnet | RS, TP | Hourly |
| Sequoia–Lower Kaweah | | | | | | |
| Parameter | Site Type | FRM/FEM/ARM/Other | Spatial Scale | Network affiliation | Basic Monitoring Objective | Current Sampling Frequency |
| Ozone | RT | Other | R | None | NC, RS, TP | Hourly |
| Meteorology | GB | Other | R | None | RS, TP | Hourly |

RT - Regional Transport GB – General Background R - Regional NC – NAAQS Comparison
 RS – Research TP – Timely/Public Hourly - One sample every hour

As previously noted, purpose, siting, and operational requirements for each monitor must be met as outlined in appendices A, C, D, and E of 40 CFR Part 58. Accordingly, this detailed site information is provided in the tables below as well as in Appendix B of this network plan.

Table 25 SLAMS – Site Type

| Site Name | Ozone | PM2.5 (man.) | PM2.5 (cont.) | PM10 (man.) | PM10 (cont.) | NO ₂ | CO | NMH |
|--------------------|-------------|--------------|---------------|-------------|--------------|-----------------|-------------|-----|
| Stockton–Hazelton | GB | | HC, PE | HC | | PE | PE | |
| Manteca | | | PE | | PE | | | |
| Tracy–Airport | RT | | | | | PE | | |
| Modesto–14th St | PE | PE | PE | PE | | | PE | |
| Turlock | PE | | HC, PE | PE | | PE | | |
| Merced–Coffee | PE | | PE | | | PE | | |
| Merced–M St | | HC, PE | | HC, PE | | | | |
| Madera–City | GB | HC, PE | HC, PE | | PE | | | |
| Madera–Pump Yard | GB | | | | | PE | | PE |
| Fresno–Sky Park | PE, RT | | | | | PE | | |
| Clovis–Villa | Max PEI, HC | HC | HC | PE | | HC | Max PEI, PE | HC |
| Fresno–Pacific | | PE | | | | | | |
| Fresno–Foundry | | | | | | HC | | |
| Fresno–Drummond | HC, PE, RT | | | PE, QA | | HC | | |
| Parlier | RT, HC | | | | | PE | | PE |
| Corcoran–Patterson | | HC | | | HC | | | |
| Hanford–Irwin | PE | | PE | PE | PE | PE | | |

Table 25 SLAMS – Site Type (continued)

| Site Name | Ozone | PM2.5 (man.) | PM2.5 (cont.) | PM10 (man.) | PM10 (cont.) | NO ₂ | CO | NMH |
|-----------------------------|--------|--------------|---------------|-------------|--------------|-----------------|----|-----|
| Visalia–Church St | GB | HC, PE | RT, PE | | PE | PE | | |
| Porterville | PE | | PE | | | | | |
| Shafter | GB, PE | | | | | PE | | PE |
| Oildale | HC, RT | | | SI | | | | |
| Bakersfield–Golden / M St | | HC | | HC | | | | |
| Bakersfield–California | GB | HC, PE | PE | PE | PE | PE | PE | |
| Edison | HC, RT | | | | | PE | | |
| Bakersfield–Muni | HC | | | | | HC | PE | PE |
| Bakersfield–Airport (Planz) | | HC, PE | | | | | | |
| Arvin–Di Giorgio | PE | | | | | | | |
| Maricopa | RT | | | | | | | |

cont. = Continuous man. = Manual PE – Population Exposure HC – Highest Concentration
 RT – Regional Transport GB – General/Background SO – Source Oriented cont. = Continuous
 Site Type information for the Fresno-Garland NCore site is provided in Table 23.

Table 26 SLAMS – Spatial Scale

| Site | Ozone | PM2.5 (man.) | PM2.5 (cont.) | PM10 (man.) | PM10 (cont.) | NO ₂ | CO | NMH |
|--------------------|-------|--------------|---------------|-------------|--------------|-----------------|----|-----|
| Stockton–Hazelton | N | | N | N | | N | N | |
| Manteca | | | N | | N | | | |
| Tracy–Airport | N | | N | | N | N | | |
| Modesto–14th St | N | N | N | | N | | N | |
| Turlock | N | | N | N | | N | | |
| Merced–Coffee | N | | N | | | N | | |
| Merced–M St | | N | | N | | | | |
| Madera–City | N | N | N | | N | | | |
| Madera–Pump Yard | N | | | | | N | | N |
| Fresno–Sky Park | N | | | | | N | | |
| Clovis–Villa | N | N | N | N | | N | N | N |
| Fresno–Pacific | | N | | | | | | |
| Fresno–Foundry | | | | | | MC | | |
| Fresno–Drummond | N | | | N | | N | | |
| Parlier | N | | | | | N | | N |
| Corcoran–Patterson | | N | | | N | | | |
| Hanford–Irwin | N | | N | N | N | N | | |
| Visalia–Church St | N | N | N | | N | N | | |
| Porterville | N | | N | | | | | |
| Shafter | N | | | | | N | | N |
| Oildale | N | | | N | | | | |

Table 26 SLAMS – Spatial Scale (continued)

| Site | Ozone | PM2.5 (man.) | PM2.5 (cont.) | PM10 (man.) | PM10 (cont.) | NO ₂ | CO | NMH |
|-----------------------------|-------|--------------|---------------|-------------|--------------|-----------------|----|-----|
| Bakersfield–Golden / M St | | N | | N | | | | |
| Bakersfield–California | N | N | N | N | | N | | |
| Edison | N | | | | | N | | |
| Bakersfield–Muni | N | | | | | N | N | N |
| Bakersfield–Airport (Planz) | | N | | | | | | |
| Arvin–Di Giorgio | N | | | | | | | |
| Maricopa | N | | | | | | | |

N = Neighborhood U = Urban MC = Microscale cont. = Continuous man. = Manual
 Spatial Scale information for the Fresno-Garland NCore site is provided in Table 23.

Table 27 SLAMS – Basic Monitoring Objective

| Site | Ozone | PM2.5 (man.) | PM2.5 (cont.) | PM10 (man.) | PM10 (cont.) | NO ₂ | CO | NMH |
|--------------------|----------|--------------|---------------|-------------|--------------|-----------------|----|-----|
| Stockton–Hazelton | NC | | NC | NC | | NC | NC | |
| Manteca | | | NC, RS, TP | | NC, RS, TP | | | |
| Tracy–Airport | NC,RS,TP | | TP | | NC,RS,TP | NC | | |
| Modesto–14th St | NC | RS | NC | | NC | | NC | |
| Turlock | NC,RS,TP | | NC,RS | NC,RS | | NC | | |
| Merced–Coffee | NC,RS,TP | | NC,RS,TP | | | NC | | |
| Merced–M St | | NC,RS | | NC, RS | | | | |
| Madera–City | NC,RS,TP | NC,RS,TP | NC,RS,TP | | NC, RS, TP | | | |
| Madera–Pump Yard | NC,RS,TP | | | | | NC, RS | | RS |
| Fresno–Sky Park | NC,RS,TP | | | | | PE | | |
| Clovis–Villa | NC,RS,TP | NC,RS | NC,TP | NC, RS | | NC, RS | NC | RS |
| Fresno–Pacific | | NC,RS | | | | | | |
| Fresno–Foundry | | | | | | NC,RS,TP | | |
| Fresno–Drummond | NC,RS,TP | | | NC, RS | | NC | | |
| Parlier | NC,RS,TP | | | | | NC, RS | | RS |
| Corcoran–Patterson | | NC,RS | | | NC, RS, TP | | | |
| Hanford–Irwin | NC,RS,TP | | NC, RS,TP | NC, RS | NC, RS | NC,RS,TP | | |
| Visalia–Church St | NC | NC | RS, TP | | NC | NC | | |
| Porterville | NC,RS,TP | | TP | | | | | |
| Shafter | NC | | | | | NC | | RS |
| Oildale | NC | | | NC | | | | |

Table 27 SLAMS – Basic Monitoring Objective (continued)

| Site | Ozone | PM2.5 (man.) | PM2.5 (cont.) | PM10 (man.) | PM10 (cont.) | NO ₂ | CO | NMH |
|-----------------------------|----------|--------------|---------------|-------------|--------------|-----------------|----|-----|
| Bakersfield–Golden / M St | | NC | | NC | | | | |
| Bakersfield–California | NC | NC | RS, TP | NC | | NC | | |
| Edison | NC | | | | | NC | | |
| Bakersfield–Muni | NC,RS,TP | | | | | NC, RS | NC | RS |
| Bakersfield–Airport (Planz) | | NC | | | | | | |
| Arvin–Di Giorgio | NC | | | | | | | |
| Maricopa | NC,RS,TP | | | | | | | |

NC – NAAQS Comparison RS – Research TP – Timely/Public cont. = Continuous man. = Manual
Basic Monitor Objective information for the Fresno–Garland NCore site is provided in Table 23.

Table 28 SLAMS – Current Sampling Frequency

| Site Name | Ozone | PM2.5 (man.) | PM2.5 (cont.) | PM10 (man.) | PM10 (cont.) | NO ₂ | CO | NMH |
|--------------------|--------|--------------|---------------|-------------|--------------|-----------------|--------|--------|
| Stockton–Hazelton | Hourly | | Hourly | 1:6 | | Hourly | Hourly | |
| Manteca | | | Hourly | | Hourly | | | |
| Tracy–Airport | Hourly | | Hourly | | Hourly | Hourly | | |
| Modesto–14th St | Hourly | 1:12 | Hourly | | Hourly | | Hourly | |
| Turlock | Hourly | | Hourly | 1:6 | | Hourly | | |
| Merced–Coffee | Hourly | | Hourly | | | Hourly | | |
| Merced–M St | | 1:3 | | 1:6 | | | | |
| Madera–City | Hourly | 1:12 | Hourly | | Hourly | | | |
| Madera–Pump Yard | Hourly | | | | | Hourly | | Hourly |
| Fresno–Sky Park | Hourly | | | | | Hourly | | |
| Clovis–Villa | Hourly | 1:3 | Hourly | 1:6 | | Hourly | Hourly | Hourly |
| Fresno–Pacific | | 1:3 | | | | | | |
| Fresno–Foundry | | | | | | Hourly | | |
| Fresno–Drummond | Hourly | | | 1:6 | | Hourly | | |
| Parlier | Hourly | | | | | Hourly | | Hourly |
| Corcoran–Patterson | | 1:3 | | | Hourly | | | |
| Hanford–Irwin | Hourly | | Hourly | 1:6 | Hourly | Hourly | | |
| Visalia–Church St | Hourly | 1:3 | Hourly | | Hourly | Hourly | | |
| Porterville | Hourly | | Hourly | | | | | |
| Shafter | Hourly | | | | | Hourly | | Hourly |
| Oildale | Hourly | | | 1:6 | | | | |

Table 28 SLAMS – Current Sampling Frequency

| Site Name | Ozone | PM2.5 (man.) | PM2.5 (cont.) | PM10 (man.) | PM10 (cont.) | NO ₂ | CO | NMH |
|-----------------------------|--------|--------------|---------------|-------------|--------------|-----------------|--------|--------|
| Bakersfield–Golden / M St | | 1:3 | | 1:6 | | | | |
| Bakersfield–California | Hourly | 1:1 | Hourly | 1:6 | | Hourly | | |
| Edison | Hourly | | | | | Hourly | | |
| Bakersfield–Muni | Hourly | | | | | Hourly | Hourly | Hourly |
| Bakersfield–Airport (Planz) | | 1:3 | | | | | | |
| Arvin–Di Giorgio | Hourly | | | | | | | |
| Maricopa | Hourly | | | | | | | |

cont. = Continuous man. = Manual Hourly = One sample every hour 1:1 = One sample per day 1:3 = 1 in 3 day sampling 1:6 = 1 in 6 day sampling

Current Sampling Frequency information for the Fresno-Garland NCore site is provided in Table 23.

Table 29 SPM – Site Type

| Site Name | Ozone | PM2.5 (continuous) | PM10 (continuous) |
|---------------|-------|--------------------|-------------------|
| Tracy–Airport | | RT | RT |
| Tranquillity | PE | PE | |
| Huron | | PE | |
| Porterville | | PE | |
| Lebec | | PE | |

PE – Population Exposure

HC – Highest Concentration

RT – Regional Transport

Table 30 SPM – Spatial Scale

| Site Name | Ozone | PM2.5 (continuous) | PM10 (continuous) |
|---------------|-------|--------------------|-------------------|
| Tracy–Airport | | N | N |
| Tranquillity | U | U | |
| Huron | | N | |
| Porterville | | N | |
| Lebec | | N | |

N – Neighborhood

U – Urban

Table 31 SPM – Basic Monitoring Objective

| Site | Ozone | PM2.5 (continuous) | PM10 (continuous) |
|---------------|------------|--------------------|-------------------|
| Tracy–Airport | | TP | TP |
| Tranquillity | NC, RS, TP | NC, RS, TP | |
| Huron | | TP | |
| Porterville | | TP | |
| Lebec | | TP | |

NC – NAAQS Comparison

RS – Research

TP – Timely/Public

Table 32 SPM – Current Sampling Frequency

| Site | Ozone | PM2.5 (continuous) | PM10 (continuous) |
|---------------|--------|-----------------------|----------------------|
| Tracy–Airport | | Hourly | Hourly |
| Tranquillity | Hourly | Hourly | |
| Huron | | Hourly | |
| Porterville | | Hourly | |
| Lebec | | Hourly | |

Hourly = One sample every hour

IMPROVEMENTS AND PLANNED CHANGES TO THE DISTRICT'S AIR MONITORING NETWORK

The Valley air monitoring network is continually being improved. MSA/CBSA-specific changes are generally described below. Before any action is taken on the planned changes noted in this section, the District will work with CARB and EPA, as appropriate, to address necessary requirements for documentation. A summary of the planned changes to the District's air monitoring network during 2015/2016 is provided in Table 33.

Network Changes during 2015/2016

AirVision

AirVision became operational on January 1, 2016. This software addressed current air monitoring needs while accommodating future technical innovation and has been a great benefit to the District. The most important benefits of using AirVision are saving time through remote control, examination of additional channels allowing staff to diagnose the health of the instruments, and automating a considerable amount of incoming data for quality assurance (QA) and quality control (QC).

Fresno-Foundry Near-Road NO₂

The Fresno-Foundry near-road NO₂ site became operational in January 1, 2016, measuring both NO₂ and meteorological parameters.

Bakersfield-California

The collocated non-FEM continuous PM_{2.5} monitor was shut down by CARB on 1/8/2016 at the Bakersfield-California air monitoring station. Two collocated FRM PM_{2.5} monitors and one non-FEM PM_{2.5} continuous monitor will continue to operate at the site.

Visalia-Church St

The FRM PM₁₀ monitor was shut down on 6/8/2015 and a continuous FEM PM₁₀ monitor began operation on 8/1/2015. The continuous monitor now operates as the primary monitor.

Termination of Carbon Monoxide Monitoring at Selected Sites

As proposed in the 2014 Air Monitoring Network Plan, the District closed the carbon monoxide (CO) analyzers at Turlock (06-099-0006), Fresno-Sierra Sky Park (06-019-0242), and Fresno-Drummond (06-019-0007) air monitoring sites in July 2015.

Closure of Stockton-Wagner/Holt PM10 Site

As proposed in the 2014 Air Monitoring Network Plan, the Stockton-Wagner/Holt PM10 site closed in July 2015.

Planned Improvements and Other Changes Scheduled for 2015/2016

Oildale

The Oildale FRM PM10 monitor was replaced with a FEM PM10 monitor in July 2015. However, operation of the FEM PM₁₀ monitor has been suspended as of 8/28/2015 due to rooftop safety issues. The FRM PM₁₀ monitor has been reinstalled. The FEM PM₁₀ monitor will resume operation and will replace the FRM monitor once the rooftop safety issues have been resolved.

Arvin-Di Giorgio PAMS Type 3 Station

The District is required to have a PAMS Type 3 air monitoring station in the Bakersfield MSA. The District has not been operating a PAMS Type 3 station since the Arvin-Bear Mountain site closed. A permanent air monitoring shelter of sufficient size to house the equipment can now be built at Arvin-Di Giorgio due to EPA's recent approval of CARB's relocation request¹. Once this construction is complete, the District may install PAMS Type 3 equipment to begin PAMS monitoring again in the Arvin area (see discussion below).

PAMS Network Design

EPA recently changed the monitoring requirements for areas currently required to operate and maintain PAMS networks. Under these changes, PAMS monitoring will

¹ Kurpius, Meredith. Letter to CARB. 2 May. 2016. TS

only be required at NCore sites in an area's network, which is the Fresno-Garland site for the San Joaquin Valley, and will no longer be required at sites currently measuring PAMS parameters, as defined in this network plan. These changes are designated to become effective in 2019 for affected areas. Based on these upcoming changing requirements, the District is considering discontinuing its PAMS monitoring in the network before the year 2019 to reduce the heavy workload during the PAMS monitoring season. Should the District take this approach, we will work closely with ARB and EPA during the PAMS monitoring transition from the current design to its future focus at the Fresno-Garland NCore site.

Lower Air Profilers

As a part of the upcoming changes to PAMS monitoring requirements, the operation of lower air profilers (LAP) will no longer be required in PAMS networks. The District currently operates two LAPs in support of the PAMS program, those being at the Tracy and Visalia-Airport air monitoring sites. With the operation of these units no longer being required, the District is also considering discontinuing the operation of the LAPs in the near future. Although the information the LAPs provided has been useful for air quality forecasting and modeling purposes, their operation and maintenance has proven to be cost prohibitive and burdensome. As an alternative, the District may invest in other measurement equipment that will provide similar information, but at a much lower cost.

Visalia-Airport Site

The Visalia-Airport site in Tulare County currently only measures meteorology as well as parameters measured by the LAP on site. Since the Visalia-Airport site exists primarily to support the PAMS program through the operation of its LAP, should the LAP be discontinued as discussed above, the District may also consider closing down the site in its entirety as it will no longer be required for the PAMS network or the network as a whole. Since meteorology is already measured at the nearby Visalia-Church air monitoring site, the data being collected could be considered redundant in nature. Should the District proceed with a plan to close the site, we will work closely with ARB and EPA through this process.

Progress report on Bakersfield-Westwind Near-Road NO₂ site

At this time, the District meets or exceeds all near-road NO₂ requirements. The District is being proactive by building a second near-road NO₂ site in the Bakersfield CBSA long before it is required considering the population growth rate. Construction of Bakersfield-Westwind near-road NO₂ site has started and is planned to be operational by the beginning of 2017.

Progress Report on the Corcoran Air Monitoring Station

An electrical fire in February 2015 destroyed the Corcoran air monitoring station. Subsequently the District installed a temporary trailer owned by ARB to continue air monitoring at the site until reconstruction of the site is completed. The new shelter is in the process of being built and placed at the site. Once the installation is complete, the instrumentation will be moved from the temporary trailer and placed in the new permanent shelter and will continue operating as normal. This transition is expected to happen before the end of this year.

Deployment of Teledyne 602 Units in Network

The District has been testing and evaluating the usage of a new particulate matter instrument that measures both PM10 and PM2.5 simultaneously on a real-time basis, called the Teledyne 602. The unit has received FEM designation for both PM10 and PM2.5. In the near future, the District may begin using the data collected from these units as data for record, replacing some of the Met One BAM units being used currently to collect real-time PM2.5, as well as a number of PM10 TEOMs in the network. The District is considering the strategic placement of the Teledyne 602 units in the network to consolidate PM sampling into one unit at a site, and to replace manual filter-based samplers at sites, which would assist in streamlining network operation activities. These units are being considered to be placed at the sites of Manteca, Tracy, Merced-Coffee, Clovis, Hanford, Corcoran, and Bakersfield-Golden/M. Should the District proceed with expanding the usage of the Teledyne 602 unit in the network, we will work closely with ARB and EPA through this process.

All other Sites

No other changes are proposed at this time to any other sites in the District.

Table 33 Summary of Proposed Changes to the Air Monitoring Network

| CBSA: Stockton | | County: San Joaquin | |
|----------------------------|-------------------------|-------------------------------------------------------------------------------------|--|
| Site Name | Operating Agency | Planned Changes | |
| Stockton–Hazelton | CARB | None | |
| Stockton–Wagner/Holt | SJVAPCD | Stockton-Wagner/Holt PM10 site closed in July 2015 | |
| Manteca | SJVAPCD | None | |
| Tracy–Airport | SJVAPCD | Potential LAP closure | |
| CBSA: Modesto | | County: Stanislaus | |
| Site Name | Operating Agency | Planned Changes | |
| Modesto–14th St | CARB | None | |
| Turlock | SJVAPCD | District closed CO analyzer in July 2015 | |
| CBSA: Merced | | County: Merced | |
| Site Name | Operating Agency | Planned Changes | |
| Merced–Coffee | SJVAPCD | None | |
| Merced–M St | SJVAPCD | None | |
| CBSA: Madera | | County: Madera | |
| Site Name | Operating Agency | Planned Changes | |
| Madera–City | SJVAPCD | None | |
| Madera–Pump Yard | SJVAPCD | None | |
| CBSA: Fresno | | County: Fresno | |
| Site Name | Operating Agency | Planned Changes | |
| Tranquillity | SJVAPCD | None | |
| Fresno–Sky Park | SJVAPCD | District closed CO analyzer in July 2015 | |
| Clovis–Villa | SJVAPCD | None | |
| Fresno–Garland | CARB | None | |
| Fresno–Drummond | SJVAPCD | District closed CO analyzer in July 2015 | |
| Fresno–Pacific | SJVAPCD | None | |
| Fresno–Foundry (near-road) | SJVAPCD | Fresno-Foundry near-road NO ₂ site became operational in January 1, 2016 | |
| Parlier | SJVAPCD | None | |

Table 33 Summary of Proposed Changes to the Air Monitoring Network (cont'd)

| CBSA: Hanford–Corcoran | | County: Kings |
|----------------------------------|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Site Name | Operating Agency | Planned Changes |
| Hanford–Irwin | SJVAPCD | None |
| Corcoran–Patterson | SJVAPCD | The new shelter is being built and once the installation is complete all the other instruments will be installed by early next year. |
| CBSA: Visalia–Porterville | | County: Tulare |
| Site Name | Operating Agency | Planned Changes |
| Visalia–Airport | SJVAPCD | Potential LAP and site closure |
| Visalia–Church St | CARB | The FRM PM ₁₀ monitor was shut down on 6/8/2015 and a continuous FEM PM ₁₀ monitor began operation on 8/1/2015. The continuous monitor now operates as the primary monitor. |
| Sequoia–Lower Kaweah | NPS | None |
| Sequoia–Ash Mountain | NPS | None |
| Porterville | SJVAPCD | None |
| CBSA: Bakersfield | | County: Kern (Valley Portion Only) |
| Site Name | Operating Agency | Planned Changes |
| Shafter | Shared | None |
| Oildale | CARB | Operation of the FEM PM ₁₀ and PM _{2.5} monitors has been suspended as of 8/28/2015. Since then the FRM PM ₁₀ monitor was reinstalled. CARB will replace the FRM PM ₁₀ monitor with a FEM PM ₁₀ monitor after the safety repair construction is completed. |
| Arvin–Di Giorgio | CARB | A permanent air monitoring shelter of sufficient size can now be built at Arvin-Di Giorgio since EPA approved CARB's relocation request. |
| Bakersfield–California | CARB | The collocated non-FEM continuous PM _{2.5} monitor was shut down by CARB on 1/8/2016. Two collocated FRM PM _{2.5} monitors and one non-FEM PM _{2.5} continuous monitor will continue to operate at the site. |
| Bakersfield-Golden State/M St | SJVAPCD | None |
| Bakersfield-Westwind (near-road) | SJVAPCD | Construction of this site has started and should become operational by early 2017 |
| Bakersfield–Muni | SJVAPCD | None |
| Bakersfield–Airport (Planz) | CARB | None |
| Edison | CARB | None |
| Maricopa | SJVAPCD | None |
| Lebec | SJVAPCD | None |

DATA SUBMISSION REQUIREMENTS

Air Quality and Precision data are required to be submitted to EPA 90 days after the end of the calendar quarter once all air quality assurance checks are completed. Accuracy data is submitted to EPA by CARB as part of their scheduled audits. CARB is responsible for certifying data from all CARB-operated air monitoring sites, as well as weighing and certifying filter-based measurements from District operated sites. The measurements are weighed at CARB's laboratory in Sacramento, CA. For information on CARB's data certification, see CARB's air monitoring network plan at <http://www.arb.ca.gov/agd/amnr/amnr.htm> . The District is responsible for certifying data from all District-operated air monitoring sites. The District certified the 2015 data on May 9, 2016.

ACRONYMS AND ABBREVIATIONS

| | |
|---------------------|----------------------------------------------------|
| AIRS: | Aerometric Information Retrieval System |
| AQI: | Air Quality Index |
| AQS: | Air Quality System |
| CARB: | California Air Resources Board |
| ARM: | Approved Regional Method |
| BAM: | Beta Attenuation Monitor |
| CAA: | Clean Air Act |
| CBSA: | Core-Based Statistical Area |
| CCOS: | Central California Ozone Study |
| CFR: | Code of Federal Regulations |
| CRPAQS: | California Regional Particulate Air Quality Study |
| CO: | Carbon Monoxide |
| CO ₂ : | Carbon Dioxide |
| CSA: | Combined statistical area |
| District: | San Joaquin Valley Air Pollution Control District |
| EBAM: | Environmental Beta Attenuation Monitor |
| EPA: | U.S. Environmental Protection Agency |
| FEM: | Federal Equivalent Method |
| FIPS: | Federal information processing standard |
| FR: | Federal Register |
| FRM: | Federal Reference Method |
| GHG: | Green House Gases |
| LAP: | Lower Air Profiler |
| MSA: | Metropolitan statistical area |
| NAAQS: | National Ambient Air Quality Standard |
| NCore: | National Core |
| NMOC: | Non-Methane Organic Compounds |
| NO ₂ : | Nitrogen Dioxide |
| NOAA: | National Oceanic and Atmospheric Administration |
| NO _x : | Oxides of Nitrogen |
| NO _y : | Reactive Nitrogen |
| NPS: | National Park Service |
| O ₃ : | Ozone |
| PAMS: | Photochemical Assessment Monitoring Station |
| Pb: | Lead |
| PM: | Particulate Matter |
| PM _{2.5} : | Particulate Matter 2.5 microns or less in diameter |
| PM ₁₀ : | Particulate Matter 10 microns or less in diameter |
| SLAMS: | State and Local Air Monitoring Station |
| SJV: | San Joaquin Valley |
| SJVAPCD: | San Joaquin Valley Air Pollution Control District |
| SMS: | Smoke Management System |
| SO ₂ : | Sulfur Dioxide |
| SPM: | Special Purpose Monitor |
| STN: | Speciated Trends Network |
| TEOM: | Tapered Element Oscillating Microbalance |
| TSP: | Total Suspended Particles |
| Valley: | San Joaquin Valley |
| VOC: | Volatile Organic Compounds |

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APPENDIX A:
Air Monitoring Site Descriptions

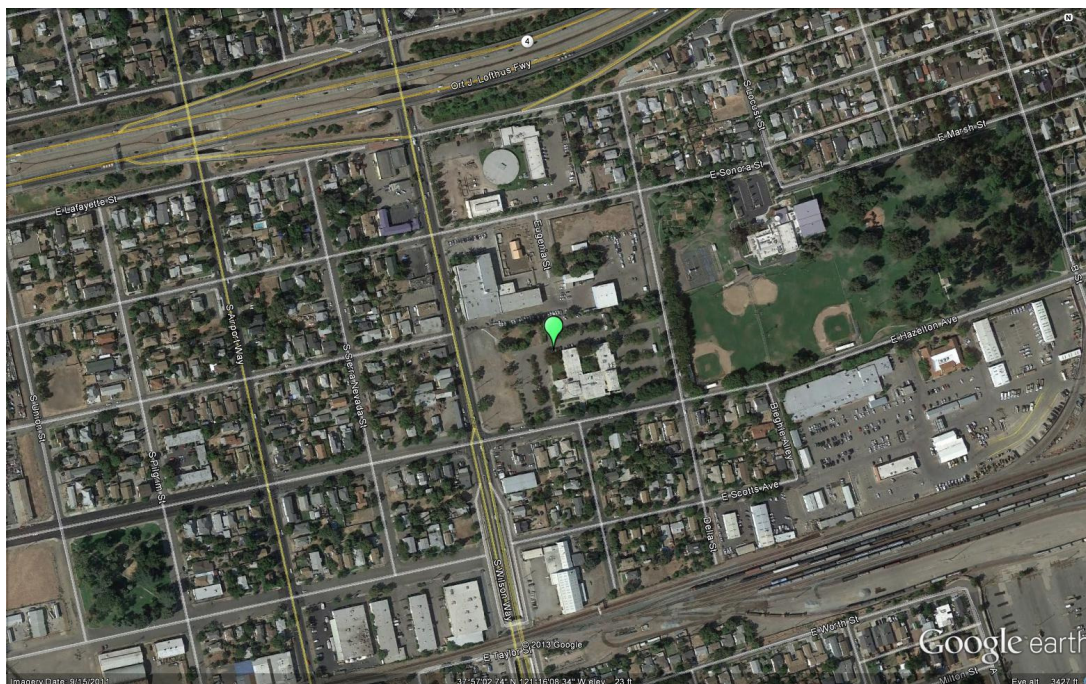
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Stockton-Hazelton

The Stockton-Hazelton monitoring site is operated by CARB and is located in the Stockton, CA metropolitan area. It began operating in June 1976. The purpose of the site is to monitor representative concentrations of ozone, PM2.5, and PM10 in an urban area. The site also monitors CO, NO₂, toxics, and meteorology.

| | |
|-----------------------------------------|-----------------------------------------|
| Site name: | Stockton–Hazelton |
| AQS ID: | 06-077-1002 |
| County: | San Joaquin |
| Street Address: | 1601 E. Hazelton St., Stockton CA 95205 |
| Geographic Coordinates: | 37.9507 N, -121.2689 W |
| Distance to road (meters): | 62 m (north) |
| Traffic Count (AADT, Year): | 4,000 / 2014* |
| Ground Cover: | Paved |
| Representative Statistical Area (CBSA): | Stockton |

*- Traffic ADT volume estimated by City of Stockton Public Works Traffic Engineering Division



Manteca

The Manteca monitoring site is located in Manteca, CA and operated by SJVAPCD. It became operational in November 2010. The purpose of the site is to monitor transport and representative concentrations of PM2.5 and PM10 from upwind and nearby urban areas. The site also monitors meteorology.

| | |
|-----------------------------------------|------------------------------------|
| Site name: | Manteca |
| AQS ID: | 06-077-2010 |
| County: | San Joaquin |
| Street Address: | 530 Fishback Rd., Manteca CA 95337 |
| Geographic Coordinates: | 37.7933 N, -121.2477 W |
| Distance to road (meters): | 12 m (west) |
| Traffic Count (AADT, Year): | 13,383 / 2014* |
| Ground Cover: | Paved, vegetative |
| Representative Statistical Area (CBSA): | Stockton |

* - Average Daily Traffic count for nearest roads: Yosemite Ave and Airport Way
 Source: TJKM Transportation Consultants

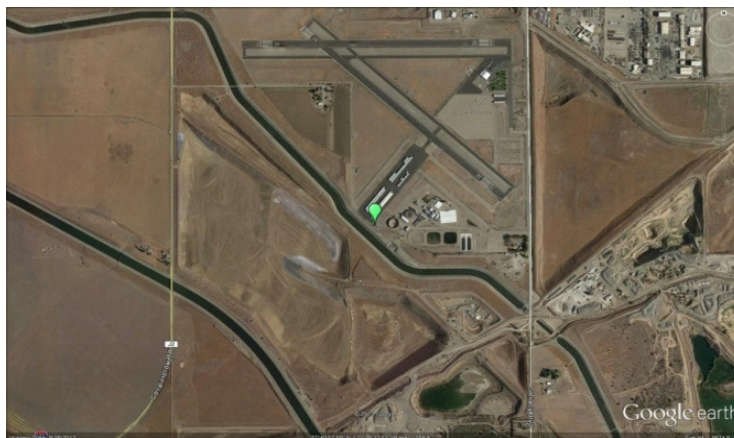


Tracy-Airport

The Tracy-Airport monitoring site, located in Tracy, CA, was part of a settlement from a lawsuit between the District and CARB that took place in 1995. This air monitoring station was installed for the purpose of monitoring transport of air pollution from the Bay Area to the San Joaquin Valley. The site became operational in 1994 and was operated by CARB until June 1995. The District began operating the site in 1996. The site has been moved several times over the years and became operational at its current location in 2006. The site monitors transport of ozone, NO₂, PM_{2.5}, and PM₁₀ from upwind and nearby urban areas and is not a NAAQS comparison site. Also, the site measures meteorology, which includes lower air profiler instrumentation.

| | |
|-----------------------------------------|-------------------------------------|
| Site name: | Tracy–Airport |
| AQS ID: | 06-077-3005 |
| County: | San Joaquin |
| Street Address: | 5749 S. Tracy Blvd., Tracy CA 95376 |
| Geographic Coordinates: | 37.6826 N, -121.4423 W |
| Distance to road (meters): | 700 m (east) |
| Traffic Count (AADT, Year): | 4,063 / 2014* |
| Ground Cover: | Dirt and Gravel |
| Representative Statistical Area (CBSA): | Stockton |

* - Average Daily Traffic count for nearest roads: Linne Rd, Corral Hollow Rd
 Source: TJKM Transportation Consultants

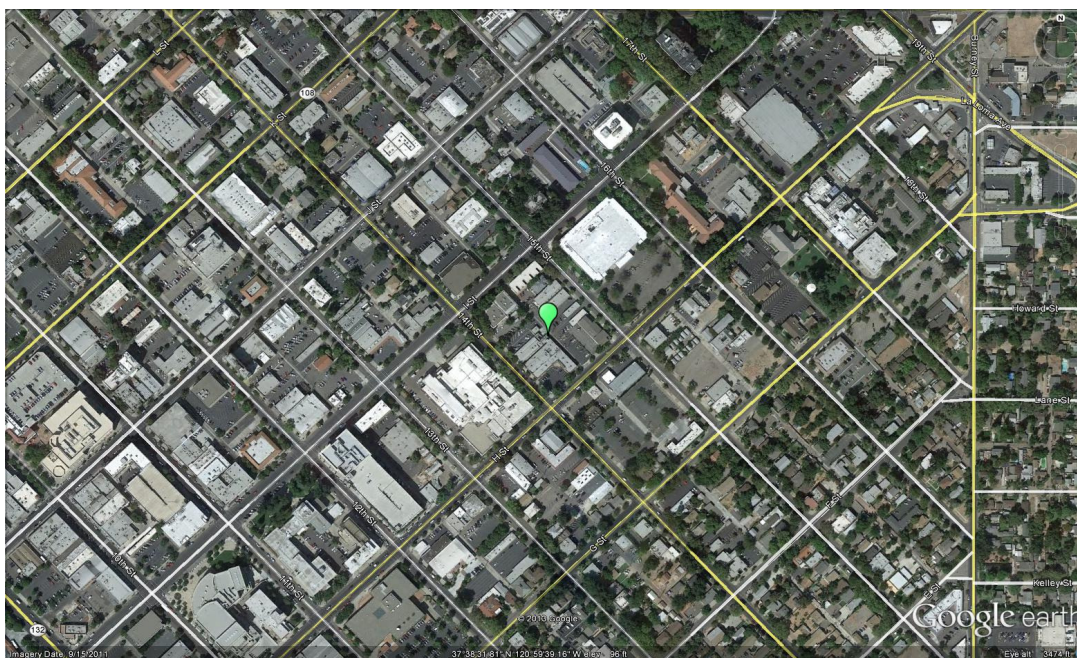


Modesto-14th St

The Modesto-14th St monitoring site is operated by CARB and is located in the Modesto, CA metropolitan area. It began operating in January 1981. The purpose of the site is to monitor representative concentrations of hourly ozone, PM2.5, and PM10 in local and upwind urban areas. The site also monitors CO and meteorology.

| | |
|-----------------------------------------|-----------------------------------|
| Site name: | Modesto-14 th St |
| AQS ID: | 06-099-0005 |
| County: | Stanislaus |
| Street Address: | 814 14th Street, Modesto CA 95354 |
| Geographic Coordinates: | 37.6421 N, -120.9942 W |
| Distance to road (meters): | 50 m (southwest) |
| Traffic Count (AADT, Year): | 124,000 / 2014* |
| Ground Cover: | Paved |
| Representative Statistical Area (CBSA): | Modesto |

* - Traffic count for nearest roads: H Street / Rte 99, Source: Caltrans 2014 AADDT

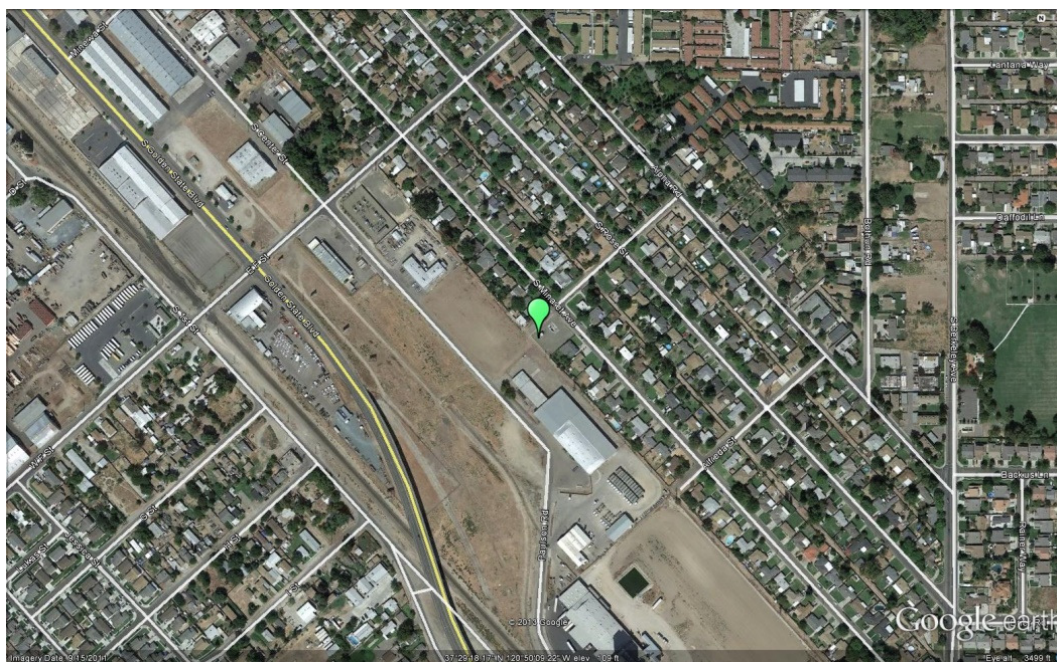


Turlock

The Turlock monitoring site is operated by SJVAPCD and is located in Turlock, CA. It began operating in April 1992. The purpose of the site is to monitor representative concentrations of hourly ozone, PM2.5, and PM10 from upwind urban areas. The site also monitors NO₂, and meteorology.

| | |
|-----------------------------------------|---------------------------------------|
| Site name: | Turlock |
| AQS ID: | 06-099-0006 |
| County: | Stanislaus |
| Street Address: | 1034 S. Minaret St., Turlock CA 95380 |
| Geographic Coordinates: | 37.4880 N, -120.8360 W |
| Distance to road (meters): | 40 m (northeast) |
| Traffic Count (AADT, Year): | 7,186 / 2015* |
| Ground Cover: | Gravel |
| Representative Statistical Area (CBSA): | Modesto |

* - Minaret Street/Golden State Blvd., Source: City of Turlock Engineering Division

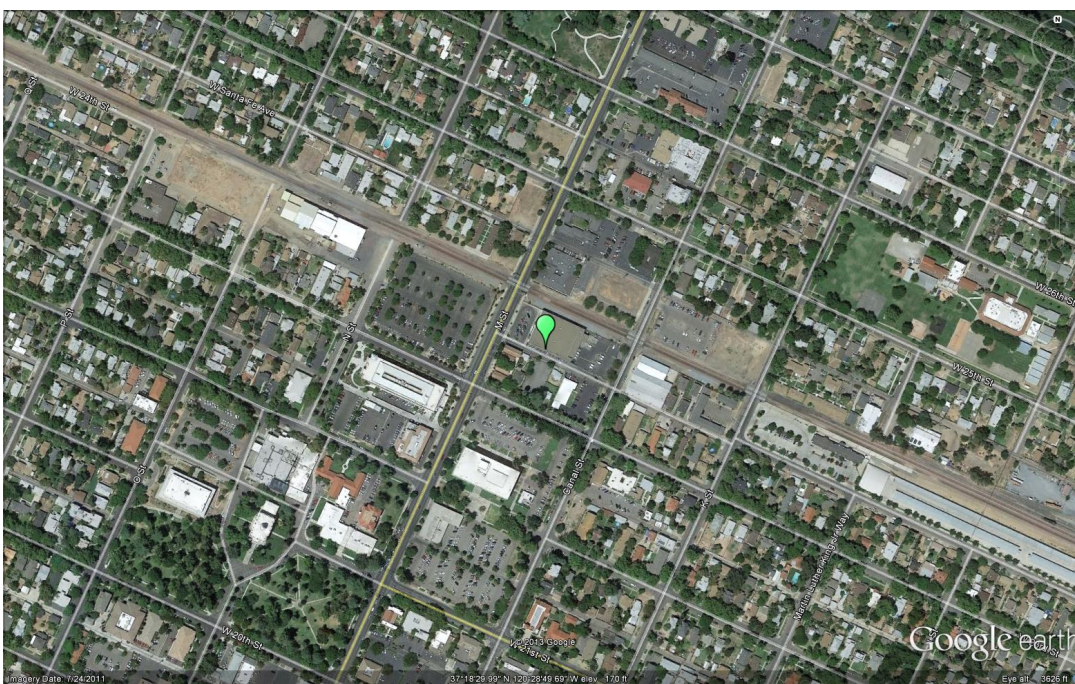


Merced-M St

The Merced-M St monitoring site is operated by SJVAPCD and is located in Merced, CA. It began operating in April 1999. The purpose of the site is to monitor representative concentrations of PM2.5 and PM10 responses from upwind urban areas.

| | |
|-----------------------------------------|--------------------------------|
| Site name: | Merced—M St |
| AQS ID: | 06-047-2510 |
| County: | Merced |
| Street Address: | 2334 M Street, Merced CA 95340 |
| Geographic Coordinates: | 37.3086 N, -120.4800 W |
| Distance to road (meters): | 55 m (northwest) |
| Traffic Count (AADT, Year): | 51,000 / 2014* |
| Ground Cover: | Paved, gravel |
| Representative Statistical Area (CBSA): | Merced |

* - Traffic count for nearest roads: R Street/Rte 99, Source: Caltrans 2014 AADT

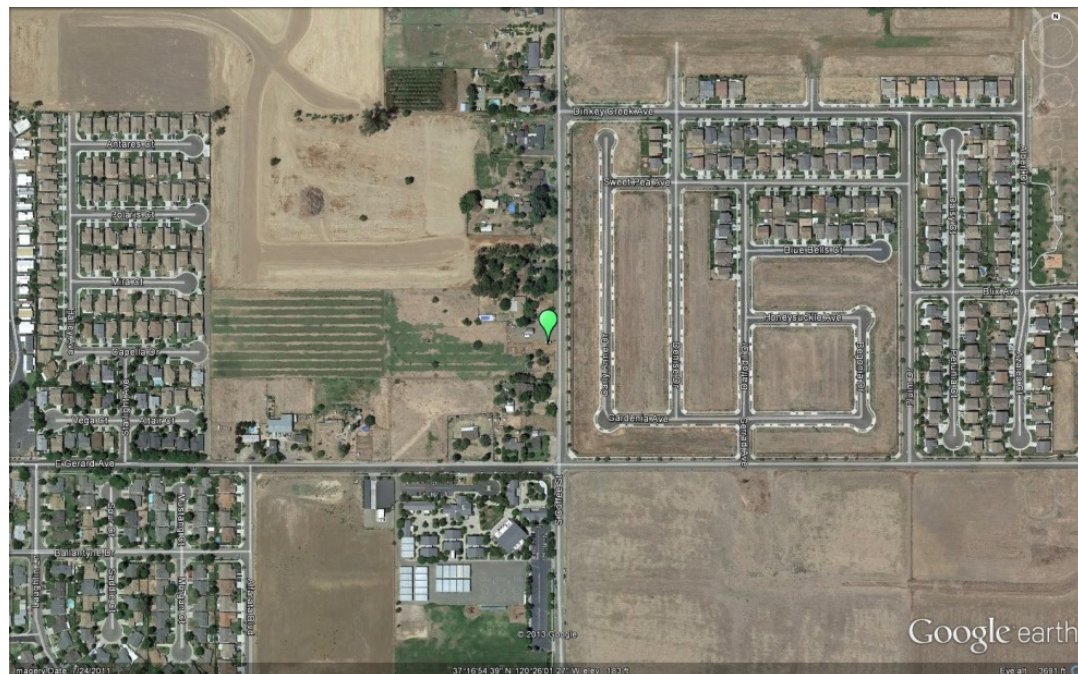


Merced-Coffee

The Merced-Coffee monitoring site is operated by SJVAPCD and is located in the Merced, CA. It began operating in October 1991. The purpose of the site is to monitor representative concentrations of hourly ozone responses from upwind urban areas. The site also monitors PM2.5, NO₂, and meteorology.

| | |
|-----------------------------------------|------------------------------------|
| Site name: | Merced-Coffee |
| AQS ID: | 06-047-0003 |
| County: | Merced |
| Street Address: | 385 S. Coffee St., Merced CA 95340 |
| Geographic Coordinates: | 37.2816 N, -120.4340 W |
| Distance to road (meters): | 15 m (east) |
| Traffic Count (AADT, Year): | 42,500 / 2014* |
| Ground Cover: | Vegetative, dirt and gravel |
| Representative Statistical Area (CBSA): | Merced |

*- Traffic count for nearest roads: Childs Avenue/Rte 99, Source: Caltrans 2014 AADT

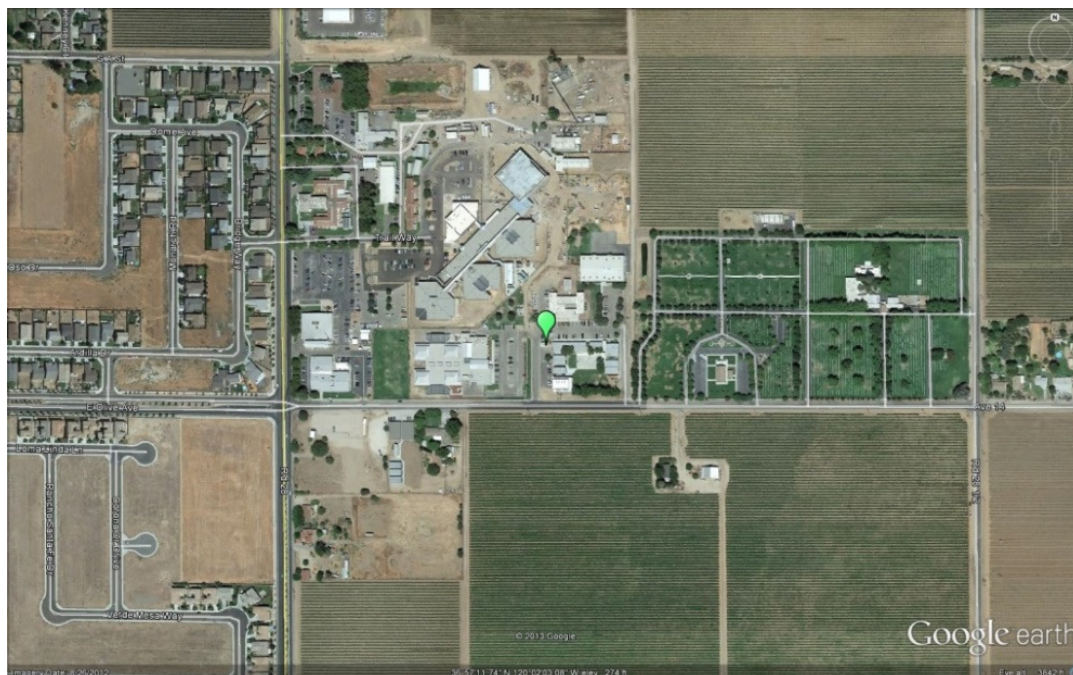


Madera-City

The Madera-City monitoring site is operated by the SJVAPCD and is located in the city of Madera. It began operating in June 2010. The purpose of the site is to monitor ozone, PM2.5, PM10, and meteorology.

| | |
|-----------------------------------------|----------------------------------|
| Site name: | Madera–City |
| AQS ID: | 06-039-2010 |
| County: | Madera |
| Street Address: | 28261 Avenue 14, Madera CA 93638 |
| Geographic Coordinates: | 36.9532 N, -120.0342 W |
| Distance to road (meters): | 70 m (south) |
| Traffic Count (AADT, Year): | 751 / 2015* |
| Ground Cover: | Paved, dirt, and vegetative |
| Representative Statistical Area (CBSA): | Madera |

* - Traffic count for nearest roads: Avenue14 west of Road 29, westbound trips per hour in 24 hours. Source: Madera County Transportation Commission 2015 Traffic Volumes Report.



Madera-Pump Yard

The Madera-Pump Yard Street monitoring site is operated by SJVAPCD and is located in southern Madera County. It began operating in August 1997. This site was established as a PAMS Type 1 site, located in an area upwind of Fresno and not to be influenced by upwind or local ozone precursor emissions. In addition to ozone, this site also monitors NMH and speciated-VOC, and meteorology for the PAMS program.

| | |
|-----------------------------------------|-----------------------------------------|
| Site name: | Madera-Pump Yard |
| AQS ID: | 06-039-0004 |
| County: | Madera |
| Street Address: | Ave. 8 and Road 29 1/2, Madera CA 93637 |
| Geographic Coordinates: | 36.8672 N, -120.0100 W |
| Distance to road (meters): | 20 m (west) |
| Traffic Count (AADT, Year): | 2,040 / 2015* |
| Ground Cover: | Dirt, paved |
| Representative Statistical Area (CBSA): | Madera |

*. Traffic count for nearest roads: Avenue 7 west of Rte 99, westbound trips per hour in 24 hours. Source: Madera County Transportation Commission 2015 Traffic Volumes Report.

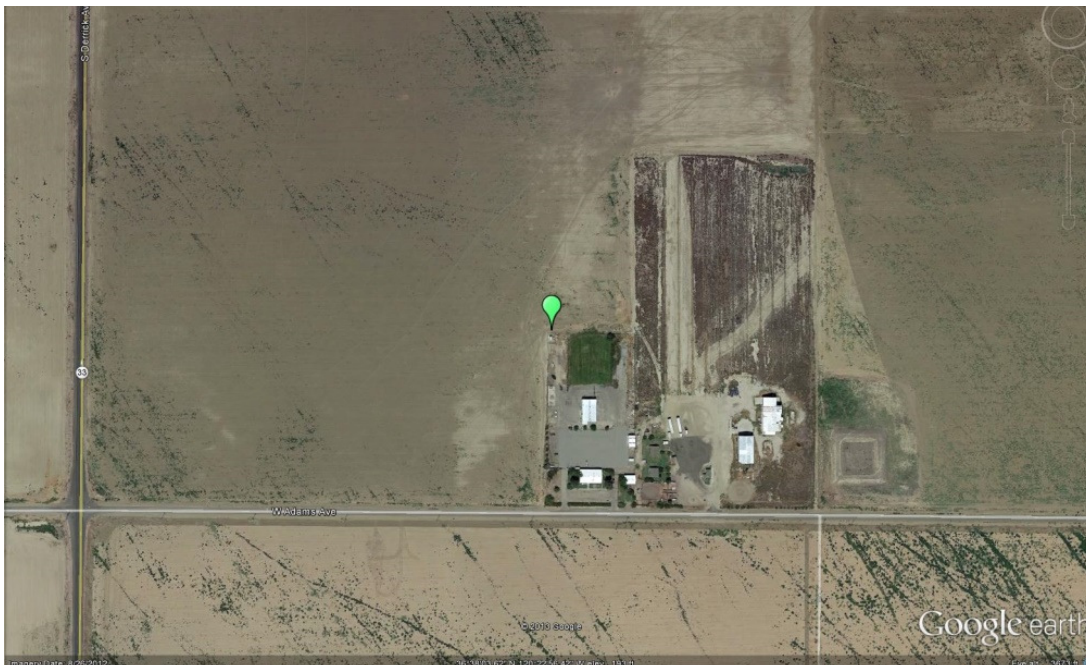


Tranquillity

The Tranquillity monitoring site is located in western Fresno County. It began operating in November 2009 and is operated by the SVAPCD. The site monitors representative background and rural pollutant concentrations of ozone and PM2.5 for research purposes and is not a NAAQS comparison site. The site also monitors meteorology.

| | |
|-----------------------------------------|---------------------------------------|
| Site name: | Tranquillity |
| AQS ID: | 06-019-2009 |
| County: | Fresno |
| Street Address: | 32650 W. Adams, Tranquillity CA 93668 |
| Geographic Coordinates: | 36.6008 N, -120.3822 W |
| Distance to road (meters): | 200 m (south) |
| Traffic Count (AADT, Year): | 680 / 2013* |
| Ground Cover: | Dirt, vegetative |
| Representative Statistical Area (CBSA): | Fresno |

*- Raw traffic count for nearest roads: Northbound Derrick Avenue north of Kamm Avenue, Source: Fresno COG Fresno County Regional Traffic Monitoring Report 2013.

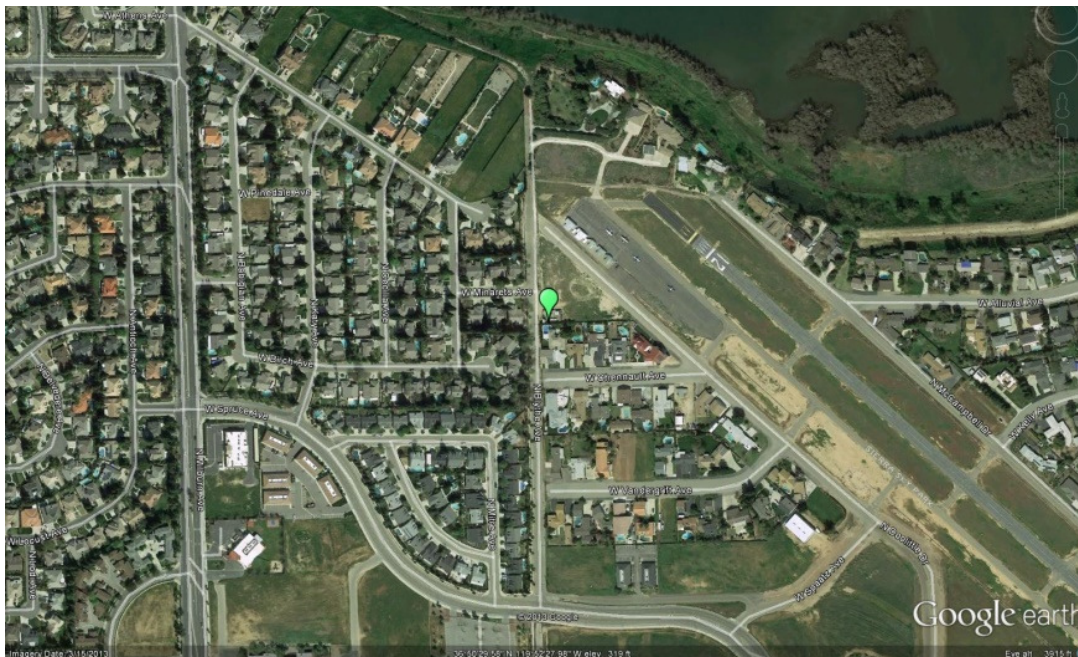
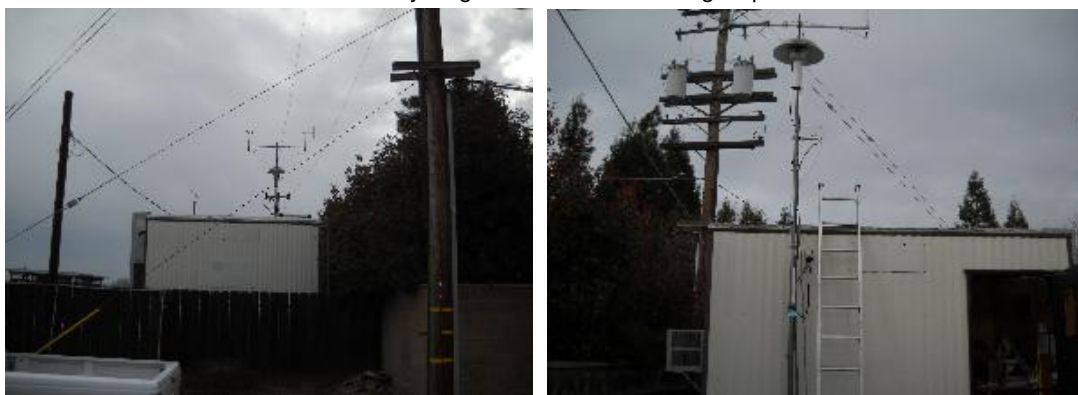


Fresno-Sky Park

The Fresno-Sky Park monitoring site is operated by SJVAPCD and is located in the Fresno, CA metropolitan area. It began operating in July 1986. The purpose of the site is to monitor representative concentrations of hourly ozone responses in an urban area. In addition to ozone, the site also monitors NO₂, and meteorology.

| | |
|-----------------------------------------|-------------------------------------|
| Site name: | Fresno–Sky Park |
| AQS ID: | 06-019-0242 |
| County: | Fresno |
| Street Address: | 4508 Chennault Ave, Fresno CA 93722 |
| Geographic Coordinates: | 36.8405 N, -119.8740 W |
| Distance to road (meters): | 12 m (west) |
| Traffic Count (AADT, Year): | 750 / 2012* |
| Ground Cover: | Gravel, dirt |
| Representative Statistical Area (CBSA): | Fresno |

*- Raw traffic count in a 24-hour period for nearest roads: Spruce Avenue east of Milburn Avenue. Source: Fresno COG Fresno County Regional Traffic Monitoring Report 2013.



Clovis-Villa

The Clovis-Villa monitoring site is operated by SJVAPCD and is located in the northeastern portion of the Fresno, CA metropolitan area. It began operating in September 1990. This site is a PAMS Type 2 site, a site intended to measure maximum ozone precursor emissions. In addition to ozone, the site also monitors PM2.5, PM10, CO, NO₂, NMH and speciated-VOC, and meteorology for the PAMS program.

| | |
|-----------------------------------------|------------------------------------|
| Site name: | Clovis-Villa |
| AQS ID: | 06-019-5001 |
| County: | Fresno |
| Street Address: | 908 N. Villa Ave., Clovis CA 93612 |
| Geographic Coordinates: | 36.8194 N, -119.7160 W |
| Distance to road (meters): | 260 m (east) |
| Traffic Count (AADT, Year): | 6,480 / 2008* |
| Ground Cover: | Paved |
| Representative Statistical Area (CBSA): | Fresno |

*- Raw traffic count in a 24-hour period: Villa Avenue south of Bullard Avenue, Source: Fresno COG Fresno County Regional Traffic Monitoring Report 2013.

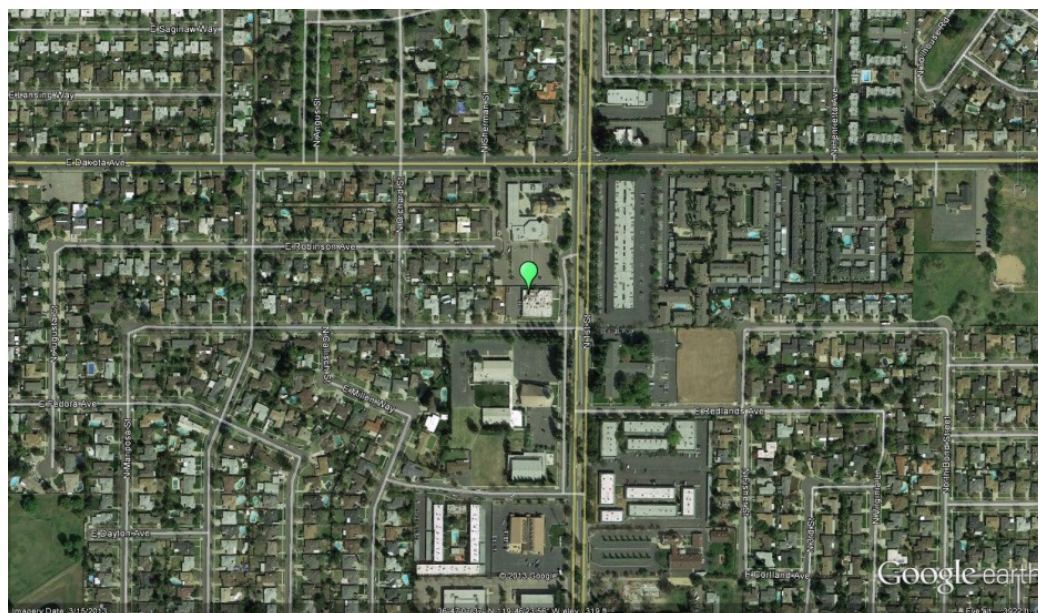


Fresno-Garland

The Fresno-Garland monitoring site is a National Core (NCore) site operated by CARB and is located in the Fresno, CA metropolitan area. The purpose of the site is to monitor representative concentrations of hourly ozone, PM2.5, and PM10 in an urban area. The site also monitors CO, NO₂, NO_y, SO₂, Lead, toxics, and meteorology.

| | |
|-----------------------------------------|----------------------------------------------------|
| Site name: | Fresno–Garland |
| AQS ID: | 06-019-0011 |
| County: | Fresno |
| Street Address: | 3727 N. First St., Ste.104, Fresno CA 93726 |
| Geographic Coordinates: | 36.7853 N, -119.7732 W |
| Distance to road (meters): | 30 m (south) |
| Traffic Count (AADT, Year): | 7,460 / 2011* |
| Ground Cover: | Gravel covered tar paper with wooden deck walkways |
| Representative Statistical Area (CBSA): | Fresno |

* - Raw traffic count in a 24-hour period for nearest roads: First Street near Dakota Avenue, Source: Fresno COG Fresno County Regional Traffic Monitoring Report 2013.



Fresno-Pacific

The Fresno-Pacific monitoring site is operated by SJVAPCD and is located in the Fresno, CA metropolitan area. It began operating in January 2000. The purpose of the site is to monitor representative PM2.5 concentrations in an urban area.

| | |
|-----------------------------------------|------------------------------|
| Site name: | Fresno-Pacific |
| AQS ID: | 06-019-5025 |
| County: | Fresno |
| Street Address: | 1716 Winery, Fresno CA 93727 |
| Geographic Coordinates: | 36.7263 N, -119.7330 W |
| Distance to road (meters): | 40 m (east) |
| Traffic Count (AADT, Year): | 5,350 / 2011* |
| Ground Cover: | Rubber roof coating |
| Representative Statistical Area (CBSA): | Fresno |

* - Raw traffic count in a 24-hour period for nearest roads: Butler Avenue east of Chestnut Avenue, Source: Fresno COG Fresno County Regional Traffic Monitoring Report 2013.

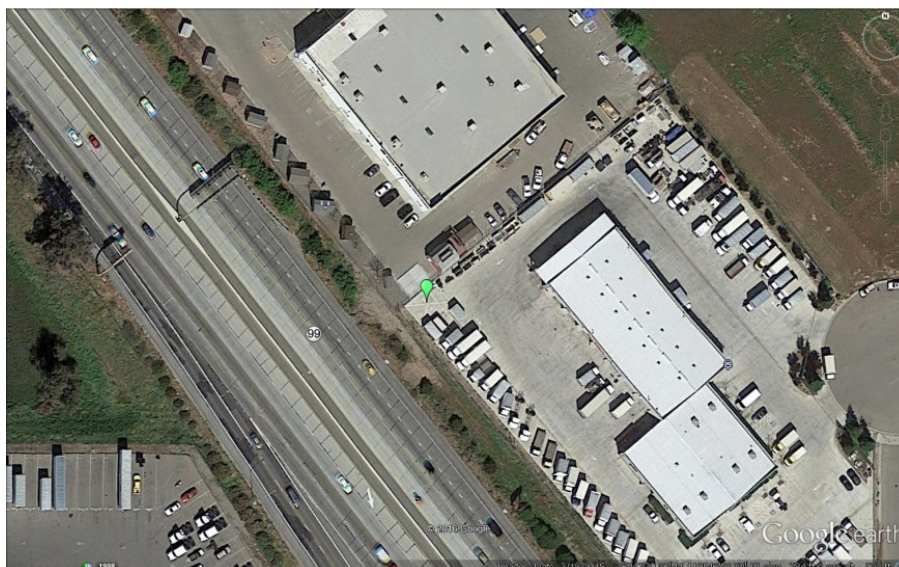
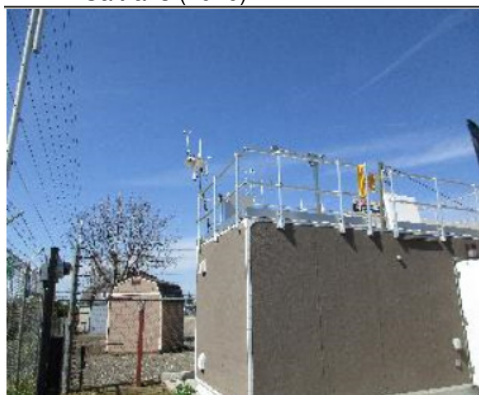


Fresno-Foundry

The Fresno-Foundry near-road NO₂ monitoring site is operated by SJVAPCD and is located adjacent to Highway 99 in the Fresno, CA metropolitan area. It began operating in January 2016. The purpose of the site is to monitor representative maximum 1-hour NO₂ concentrations near a highly traffic roadway in an urban area. In addition to NO₂, the site also monitors meteorology.

| | |
|-----------------------------------------|-----------------------------------------|
| Site name: | Fresno-Foundry |
| AQS ID: | 06-019-2016 |
| County: | Fresno |
| Street Address: | 2482 Foundry Park Ave, Fresno, CA 93706 |
| Geographic Coordinates: | N 36.710833, W -119.7775 |
| Distance to road (meters): | 16 to 19 meters |
| Traffic Count (AADT, Year): | 93,000 AADT (FEAADT 227,505) / 2010* |
| Ground Cover: | Paved |
| Representative Statistical Area (CBSA): | Fresno |

*- Traffic count for nearest roads: Rte 99 and Jensen Avenue off-ramp. Traffic count source: Caltrans (2010)

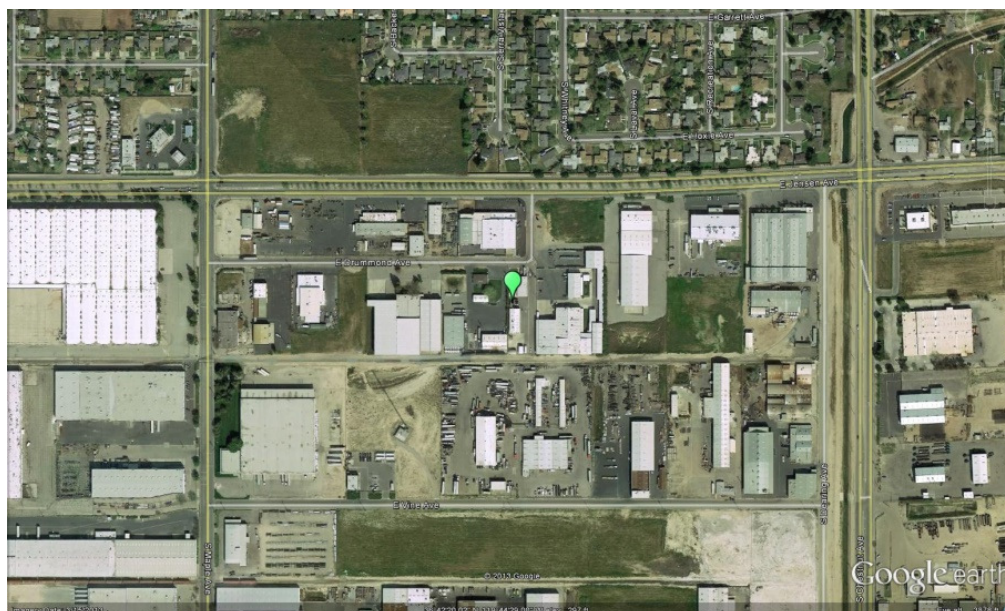


Fresno-Drummond

The Fresno-Drummond monitoring site is operated by SJVAPCD and is located in the Fresno, CA metropolitan area. It began operating in July 1984. The purpose of the site is to monitor representative concentrations of hourly ozone responses in an urban area. In addition to ozone, the site also monitors PM10, NO₂, and meteorology.

| | |
|-----------------------------------------|------------------------------------------|
| Site name: | Fresno-Drummond |
| AQS ID: | 06-019-0007 |
| County: | Fresno |
| Street Address: | 4706 E. Drummond Street, Fresno CA 93725 |
| Geographic Coordinates: | 36.7055 N, -119.7410 W |
| Distance to road (meters): | 50 m (north) |
| Traffic Count (AADT, Year): | 7,110 / 2010* |
| Ground Cover: | Paved |
| Representative Statistical Area (CBSA): | Fresno |

* - Raw traffic count in a 24-hour period for nearest roads: Jensen Avenue east of Chestnut Avenue, Source: Fresno COG Fresno County Regional Traffic Monitoring Report 2013.

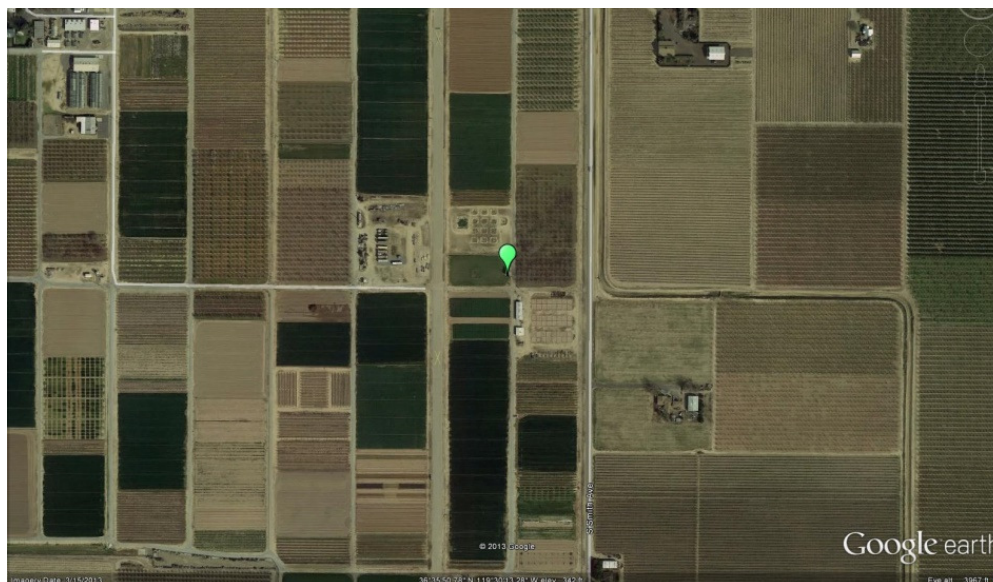


Parlier

The Parlier monitoring site is operated by SJVAPCD and is located 20 miles southeast of the Fresno, CA metropolitan area. It began operating in March 1983. The purpose of the site, as a PAMS Type 3 site, is to monitor maximum ozone concentrations and ozone responses from upwind urban areas. The site also monitors NO₂, NMH, and speciated-VOC, and meteorology for the PAMS program.

| | |
|-----------------------------------------|------------------------------------------|
| Site name: | Parlier |
| AQS ID: | 06-019-4001 |
| County: | Fresno |
| Street Address: | 9240 S. Riverbend Ave., Parlier CA 93648 |
| Geographic Coordinates: | 36.5972 N, -119.5040 W |
| Distance to road (meters): | 100 m (east) |
| Traffic Count (AADT, Year): | 1,570/2009* |
| Ground Cover: | Dirt, vegetative |
| Representative Statistical Area (CBSA): | Fresno |

* - Raw traffic count in a 24-hour period for nearest roads: Lac Jac Ave south of Manning Avenue, Source: Fresno COG Fresno County Regional Traffic Monitoring Report 2013.



Huron

Huron, CA is located in southwestern Fresno County, and is about 40 miles southwest of Fresno, CA, with the coastal mountain range just to the west. North-south air flow is virtually unobstructed. This monitoring site was established in January 2007 in order to comply with Assembly Bill (AB) 841. This site monitors PM2.5 and meteorology.

| | |
|-----------------------------------------|--------------------------------------------|
| Site name: | Huron |
| AQS ID: | 06-019-2008 |
| County: | Fresno |
| Street Address: | 16875 4 th St., Huron, CA 93234 |
| Geographic Coordinates: | 36.2363 N, -119.7656 W |
| Distance to road (meters): | 100 m (north) |
| Traffic Count (AADT, Year): | 3,250 / 2014* |
| Ground Cover: | Paved, vegetative |
| Representative Statistical Area (CBSA): | Fresno |

*- Traffic count for nearest roads: Rte 269/Rte 198, Source: Caltrans 2014

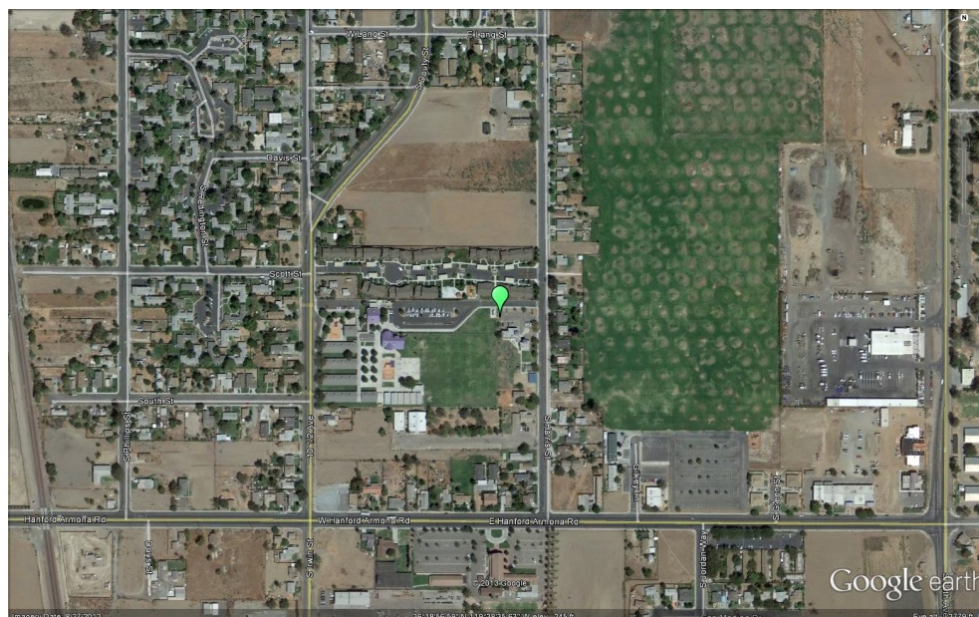


Hanford-Irwin

The Hanford-Irwin monitoring site is operated by SJVAPCD and is located 51 miles south of the Fresno, CA metropolitan area. The site began operating in October 1993. The purpose of the site is to monitor representative concentrations of hourly ozone, PM2.5, PM10, and NO₂ responses from upwind and nearby urban areas. The site also monitors meteorology.

| | |
|-----------------------------------------|----------------------------------|
| Site name: | Hanford-Irwin |
| AQS ID: | 06-031-1004 |
| County: | Kings |
| Street Address: | 807 S Irwin St, Hanford CA 93230 |
| Geographic Coordinates: | 36.3147 N, -119.6440 W |
| Distance to road (meters): | 60 m (east) |
| Traffic Count (AADT, Year): | 9,763 / 2013* |
| Ground Cover: | Paved, vegetative |
| Representative Statistical Area (CBSA): | Hanford – Corcoran |

* - Traffic count for nearest roads: Hanford-Armona Rd east of S. Williams St., Source: City of Hanford Administration/Engineering Documents.)

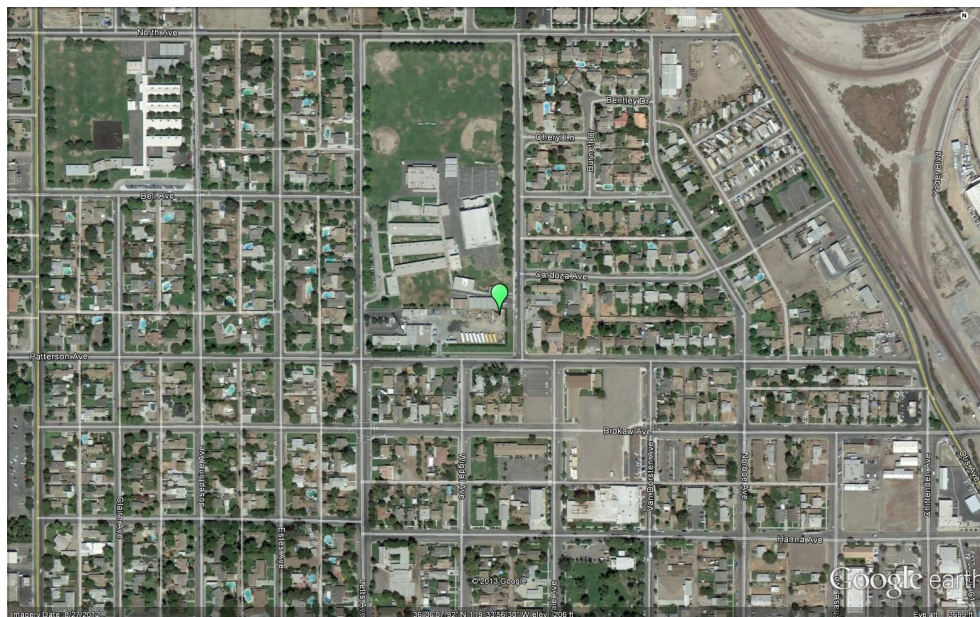


Corcoran-Patterson

The Corcoran-Patterson monitoring site is operated by SJVAPCD and is located 67 miles south of the Fresno, CA metropolitan area. It began operating in October 1996. The site measures representative concentrations of PM10 and PM2.5. This site also monitors meteorology.

| | |
|-----------------------------------------|---------------------------------------|
| Site name: | Corcoran–Patterson |
| AQS ID: | 06-031-0004 |
| County: | Kings |
| Street Address: | 1520 Patterson Ave, Corcoran CA 93212 |
| Geographic Coordinates: | 36.1022 N, -119.5660 W |
| Distance to road (meters): | 30 m (east) |
| Traffic Count (AADT, Year): | 2,965 / 2014* |
| Ground Cover: | Dirt, gravel |
| Representative Statistical Area (CBSA): | Hanford – Corcoran |

* - Traffic count for nearest roads: JCT. Rte 43/Rte 137, Source: Caltrans 2014.

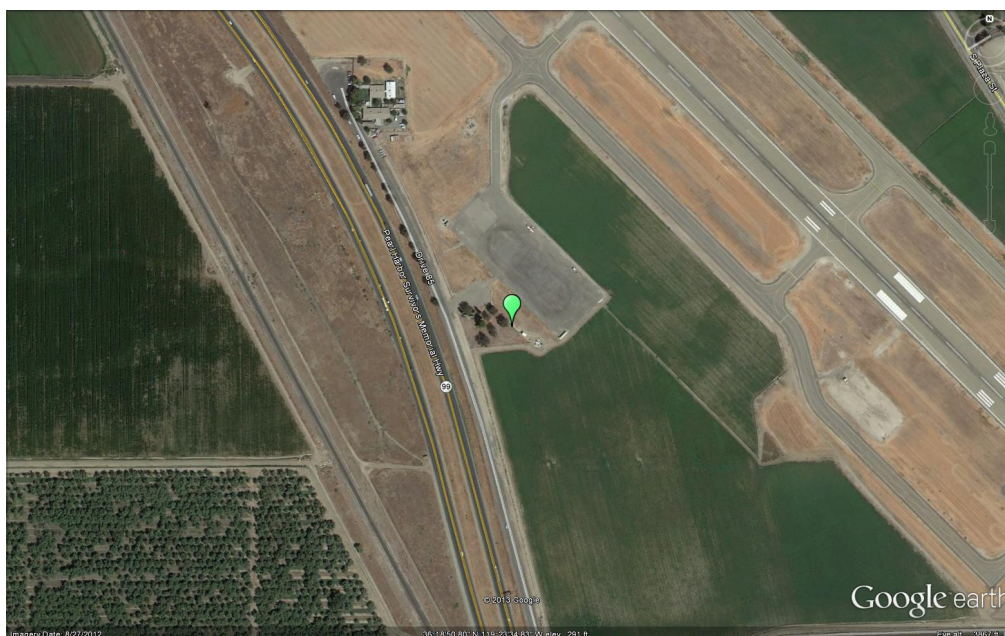


Visalia-Airport

The Visalia-Airport monitoring site is operated by SJVAPCD and serves as a meteorological site monitoring air temperature, and relative humidity at the surface. It began reporting official meteorological data in January 2001. A lower atmosphere profiler also operates at the site measuring wind speed and wind direction.

| | |
|-----------------------------------------|--------------------------------------------|
| Site name: | Visalia–Airport |
| AQS ID: | 06-107-3000 |
| County: | Tulare |
| Street Address: | 9501 West Airport Drive, Visalia, CA 93277 |
| Geographic Coordinates: | 39.3266 N, -119.3984 W |
| Distance to road (meters): | 100 m (west) |
| Traffic Count (AADT, Year): | 56,000 / 2014* |
| Ground Cover: | Dirt, vegetative |
| Representative Statistical Area (CBSA): | Visalia – Porterville |

* - Traffic count for nearest roads: JCT. Rte 99/Rte 198 East., Source: Caltrans 2014.

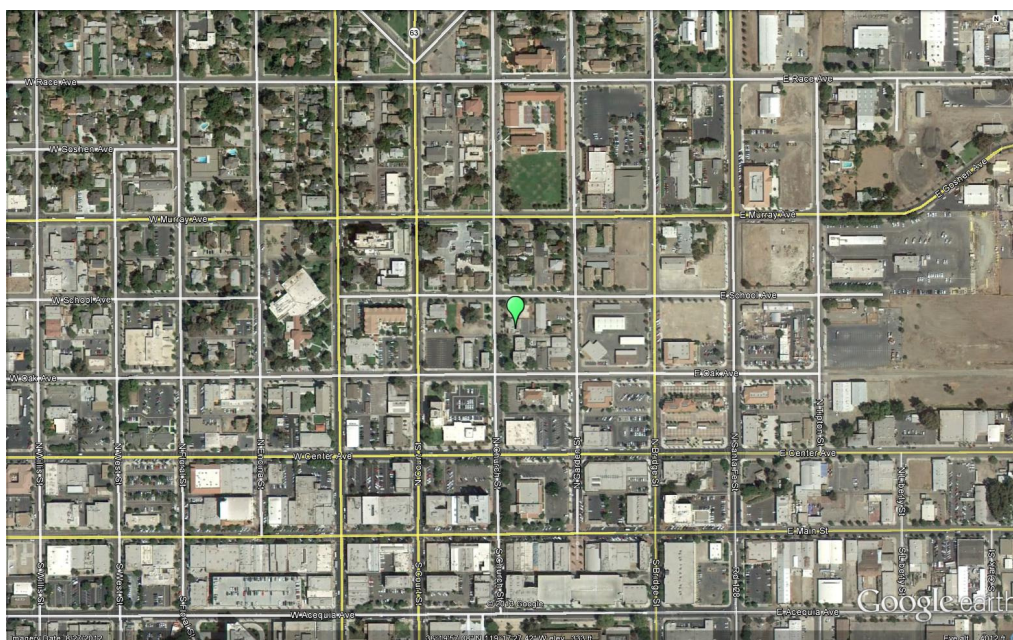


Visalia-Church St

The Visalia-Church St monitoring site is operated by CARB. It began operating in July 1979. The purpose of the site is to monitor representative concentrations of hourly ozone, PM2.5, and PM10 from upwind and nearby urban areas. The site also monitors NO₂ and meteorology.

| | |
|-----------------------------------------|-------------------------------------|
| Site name: | Visalia—Church St |
| AQS ID: | 06-107-2002 |
| County: | Tulare |
| Street Address: | 310 N. Church St., Visalia CA 93291 |
| Geographic Coordinates: | 36.3325 N, -119.2909 W |
| Distance to road (meters): | 25 m (west) |
| Traffic Count (AADT, Year): | 3,980 / 2014* |
| Ground Cover: | Paved |
| Representative Statistical Area (CBSA): | Visalia – Porterville |

* - Traffic count for nearest roads: W. Center Ave. between N. Court St. and N. Santa Fe St., Source: City of Visalia Traffic and Engineering.

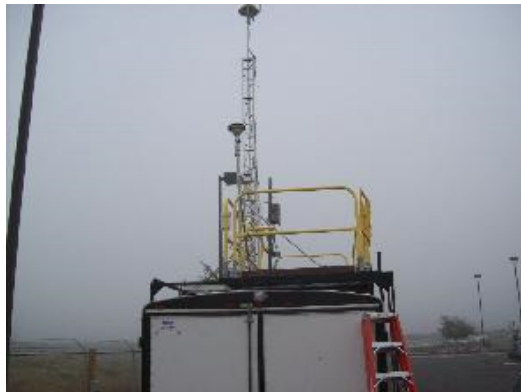


Porterville

The Porterville air monitoring site became operational in March 2010 and is operated by the SJVAPCD. The purpose of this site is to monitor ozone, PM2.5, and meteorology, and represent air quality levels present near the foothills of the southeastern portion of the Valley.

| | |
|-----------------------------------------|-------------------------------------------|
| Site name: | Porterville |
| AQS ID: | 06-107-2010 |
| County: | Tulare |
| Street Address: | 1839 S. Newcomb St., Porterville CA 93257 |
| Geographic Coordinates: | 36.0310 N, -119.0550 W |
| Distance to road (meters): | 100 m (south) |
| Traffic Count (AADT, Year): | 2,953 / 2013* |
| Ground Cover: | Paved, vegetative |
| Representative Statistical Area (CBSA): | Visalia-Porterville |

* - Traffic count average for two 24-hour periods for nearest roads: Ave 128 west of Road 238, Source: Tulare County Association of Governments

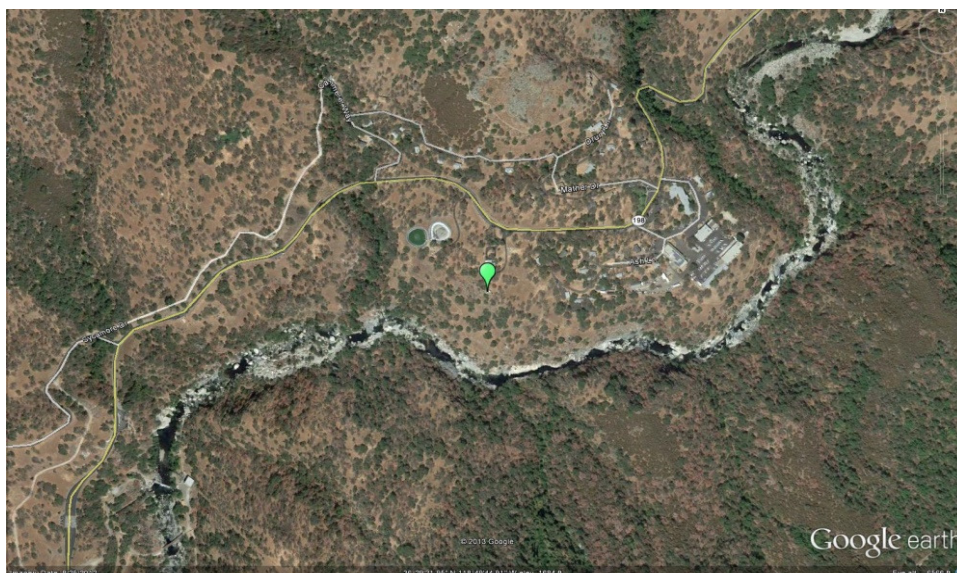


Sequoia-Ash Mountain

The Ash Mountain monitoring station is operated by Sequoia and Kings Canyon National Park and is located at the southern entrance of the Park at 1,500-foot elevation. It originally began operating in 1985, though the site has been relocated several times over the years. The site demonstrates the hourly ozone concentrations in the foothills. The site also monitors PM2.5 and meteorology.

| | |
|-----------------------------------------|----------------------------------------------------------------------------------------------------|
| Site name: | Sequoia–Ash Mountain |
| AQS ID: | 06-107-0009 |
| County: | Tulare |
| Street Address: | Ash Mountain, Sequoia and Kings Canyon National Park 47050 Generals Hwy, Three Rivers, CA 93271 |
| Geographic Coordinates: | 36.4894 N, -118.8290 W |
| Distance to road (meters): | 120 m (north) |
| Traffic Count (AADT, Year): | 1,550 / 2014* |
| Ground Cover: | Dirt, vegetative |
| Representative Statistical Area (CBSA): | Visalia – Porterville |

* - Rte 198 / Sequoia National Park boundary, Source: Caltrans Back AADT 2014

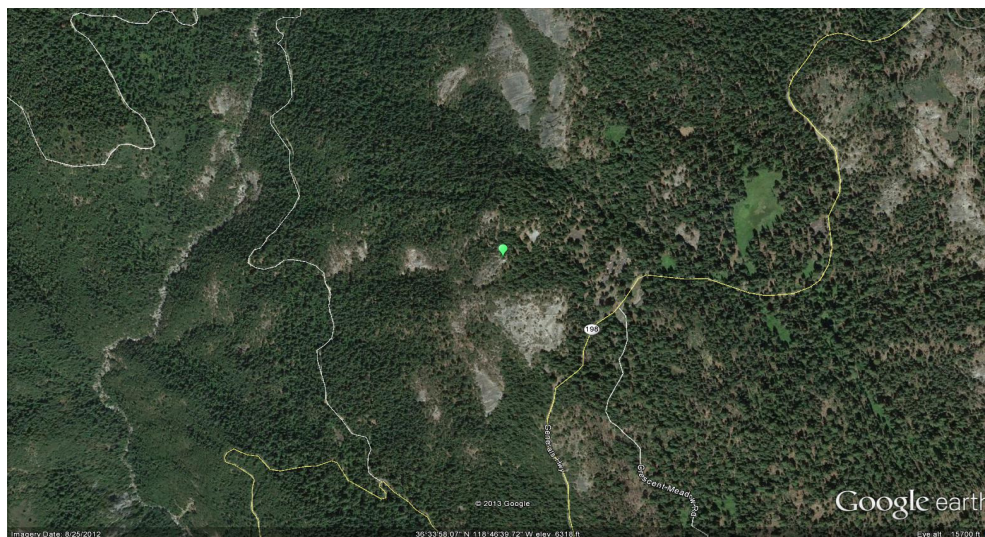
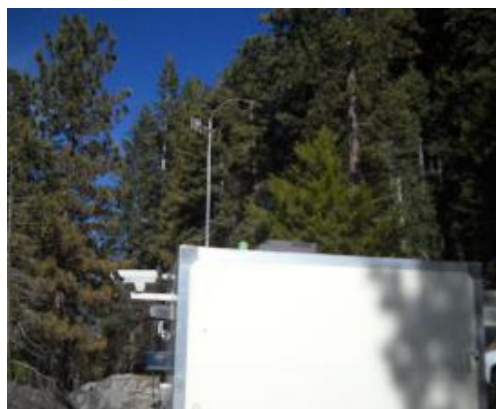


Sequoia-Lower Kaweah

The Lower Kaweah monitoring station is operated by Sequoia and Kings Canyon National Park and is located at the southern entrance of the Park at 6,200-foot elevation. It began operating in April 1987. The site demonstrates the hourly ozone concentrations in a rural area. The site also monitors meteorology.

| | |
|-----------------------------------------|-------------------------------------------------------------------------------------|
| Site name: | Sequoia–Lower Kaweah |
| AQS ID: | 06-107-0006 |
| County: | Tulare |
| Street Address: | Giant Forest, Sequoia National Park, 47050 Generals Highway, Three Rivers, CA 93271 |
| Geographic Coordinates: | 36.5661 N, -118.7776 W |
| Distance to road (meters): | 380 m (southeast) |
| Traffic Count (AADT, Year): | 1,550 / 2014* |
| Ground Cover: | Dirt, vegetative |
| Representative Statistical Area (CBSA): | Visalia – Porterville |

* - Rte 198 / Sequoia National Park boundary, Source: Caltrans Back AADT 2014

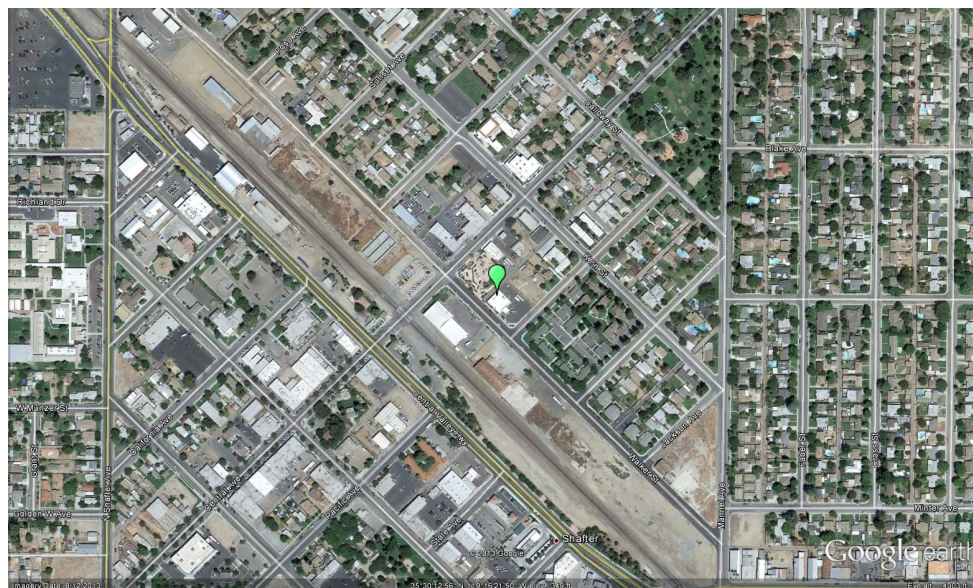


Shafter

The Shafter monitoring site is a shared site operated by CARB and the SJVAPCD and is located 18 miles northwest of the Bakersfield, CA metropolitan area. It began operating in January 1989. This site was established as a PAMS Type 1 site, located in an area upwind of Bakersfield and not to be influenced by upwind or local ozone precursor emissions. In addition to ozone, the site also monitors NO₂, NMH, and speciated-VOC and meteorology for the PAMS program.

| | |
|-----------------------------------------|---------------------------------|
| Site name: | Shafter |
| AQS ID: | 06-029-6001 |
| County: | Kern |
| Street Address: | 578 Walker St, Shafter CA 93263 |
| Geographic Coordinates: | 35.5034 N, -119.2726 W |
| Distance to road (meters): | 10 m (southwest) |
| Traffic Count (AADT, Year): | 2,766 / 2015* |
| Ground Cover: | Paved |
| Representative Statistical Area (CBSA): | Bakersfield |

* - Traffic count for nearest roads: Central Ave and Walker St., Source: Kern Council of Governments.

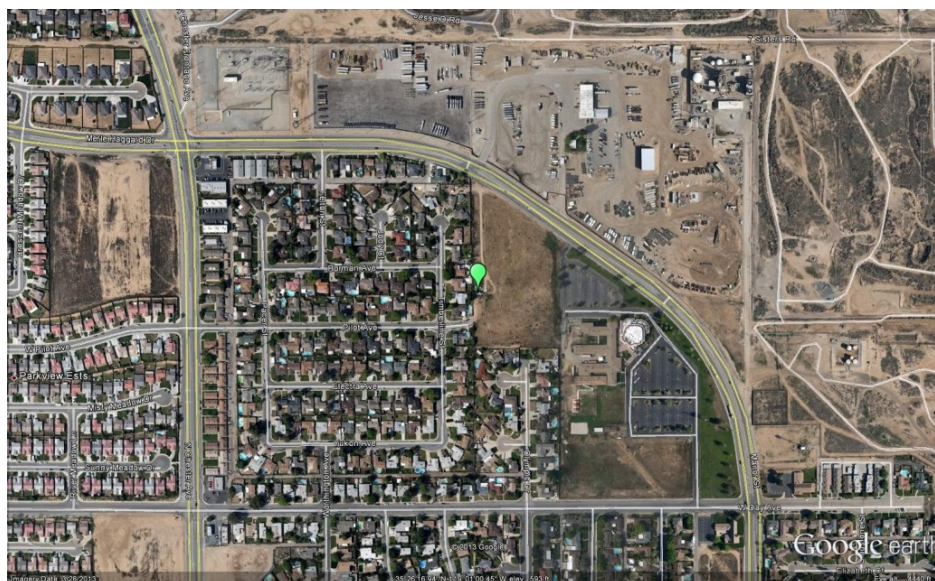


Oildale

The Oildale monitoring site is operated by CARB and is located 6 miles north of Bakersfield, CA within the metropolitan area. It began operating in January 1980. The purpose of the site is to monitor representative concentrations of hourly ozone concentrations, and PM10. The site also monitors meteorology.

| | |
|-----------------------------------------|---------------------------------|
| Site name: | Oildale |
| AQS ID: | 06-029-0232 |
| County: | Kern |
| Street Address: | 3311 Manor St, Oildale CA 93308 |
| Geographic Coordinates: | 35.4380 N, -119.0167 W |
| Distance to road (meters): | 150 m (northwest) |
| Traffic Count (AADT, Year): | 7,315 / 2016* |
| Ground Cover: | Dirt, vegetative |
| Representative Statistical Area (CBSA): | Bakersfield |

* - Traffic count for roads: Manor St. between Day Ave and Felton St., Source: Kern Council of Governments.



Bakersfield-Golden / M St

The Bakersfield–Golden / M St monitoring site is operated by District and is located in the Bakersfield, CA metropolitan area. It began operating in July 2014. The purpose of the site is to monitor representative concentrations of PM10 and PM2.5 in an urban area.

| | |
|-----------------------------------------|-----------------------------------|
| Site name: | Bakersfield–Golden / M St |
| AQS ID: | 06-029-0010 |
| County: | Kern |
| Street Address: | 2820 M St., Bakersfield, CA 93301 |
| Geographic Coordinates: | 35.385574 N, -119.015009 W |
| Distance to road (meters): | 13 m |
| Traffic Count (AADT, Year): | 4,418 / 2016* |
| Ground Cover: | Paved |
| Representative Statistical Area (CBSA): | Bakersfield |

*- Traffic count for nearest roads: 30 St. at Golden State Ave., Source: Kern Council of Governments.

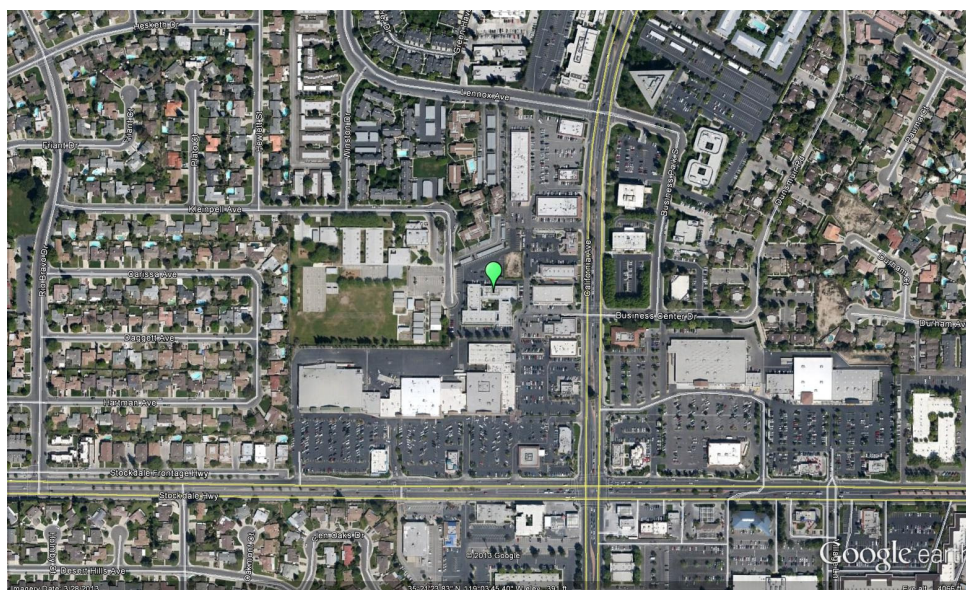


Bakersfield-California

The Bakersfield-California monitoring site is operated by CARB and is located in the Bakersfield, CA metropolitan area. It began operating in March 1994. The purpose of the site is to monitor representative concentrations of hourly ozone, PM10, and PM2.5 in an urban area. The Bakersfield-California site also monitors NO₂, toxics, and meteorology.

| | |
|-----------------------------------------|--------------------------------------------|
| Site name: | Bakersfield–California |
| AQS ID: | 06-029-0014 |
| County: | Kern |
| Street Address: | 5558 California Ave., Bakersfield CA 93309 |
| Geographic Coordinates: | 35.3566 N, -119.0626 W |
| Distance to road (meters): | 300 m (south) |
| Traffic Count (AADT, Year): | 33,017 / 2016* |
| Ground Cover: | Paved |
| Representative Statistical Area (CBSA): | Bakersfield |

*- Traffic count for roads: California Ave between Stockdale Hwy and Dunsmuir Rd., Source: Kern Council of Governments



Bakersfield-Muni

The Bakersfield-Muni site is located in the Bakersfield, CA metropolitan area and is operated by the SJVAPCD. It became operational in 2012. The site serves as a PAMS Type 2 site, and its purpose is to measure maximum ozone precursor emissions. The site monitors ozone, CO, NO₂, NMH, and speciated-VOC, and meteorology for the PAMS program.

| | |
|-----------------------------------------|----------------------------------------------|
| Site name: | Bakersfield-Muni |
| AQS ID: | 06-029-2012 |
| County: | Kern |
| Street Address: | 2000 South Union Ave., Bakersfield, CA 93307 |
| Geographic Coordinates: | 35.3313 N, -119.0000 W |
| Distance to road (meters): | 280 m (west) |
| Traffic Count (AADT, Year): | 21,165 / 2015* 5,039 / 2016** |
| Ground Cover: | Paved |
| Representative Statistical Area (CBSA): | Bakersfield |

* - Traffic count for street address): S. Union Ave between E Casa Loma Dr and Watts Dr.

** - Traffic count for road adjacent to monitoring station: Watts Dr between S. Union Ave and Short St.
Source: Kern Council of Governments



Bakersfield-Airport (Planz)

The Bakersfield-Airport (Planz) monitoring site is located in the Bakersfield, CA metropolitan area and is operated by CARB. It began operating in September 2000. The purpose of the site is to monitor representative concentrations of PM2.5 from upwind and nearby urban areas.

| | |
|-----------------------------------------|----------------------------------------|
| Site name: | Bakersfield–Airport (Planz) |
| AQS ID: | 06-029-0016 |
| County: | Kern |
| Street Address: | 401 E. Planz Rd., Bakersfield CA 93307 |
| Geographic Coordinates: | 35.3246 N, -118.9976 W |
| Distance to road (meters): | 500 m (west) |
| Traffic Count (AADT, Year): | 17,536 / 2016* 5,039 / 2016** |
| Ground Cover: | Paved |
| Representative Statistical Area (CBSA): | Bakersfield |

* - Traffic count for nearest cross street: S. Union Ave between E. Planz Rd and E White Lane.

** - Traffic count for monitoring station’s street address.

Source: Kern Council of Governments

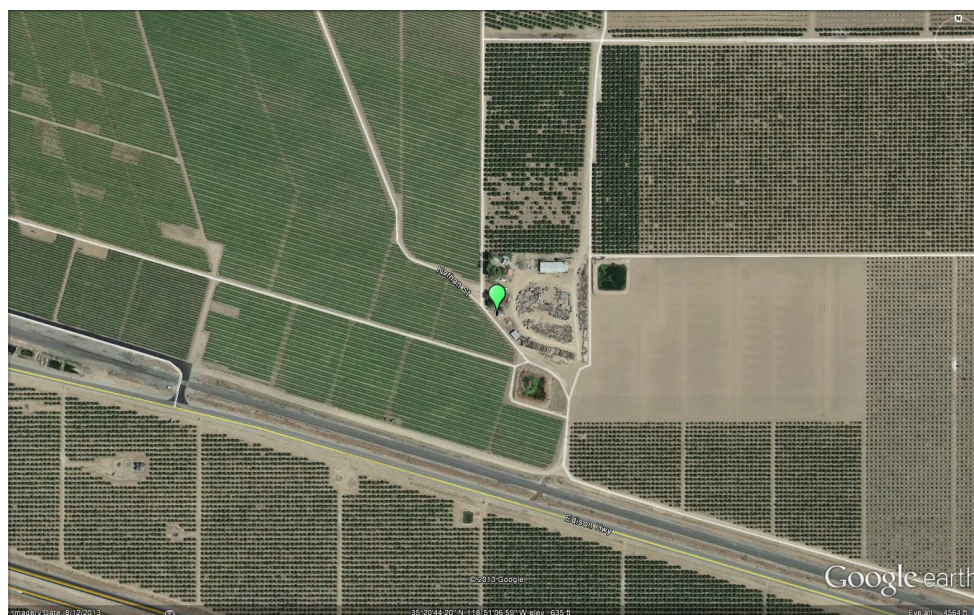


Edison

The Edison monitoring site is operated by CARB and is located 9 miles east of the Bakersfield, CA metropolitan area. It began operating in January 1980. The purpose of the site is to monitor representative concentrations of hourly ozone from upwind and nearby urban areas. The site also monitors NO₂ and meteorology.

| | |
|-----------------------------------------|---------------------------------------|
| Site name: | Edison |
| AQS ID: | 06-029-0007 |
| County: | Kern |
| Street Address: | Johnson Farm-Shed Rd, Edison CA 93320 |
| Geographic Coordinates: | 35.3456 N, -118.8518 W |
| Distance to road (meters): | 450 m (south) |
| Traffic Count (AADT, Year): | 3,830 / 2016* |
| Ground Cover: | Dirt, vegetative |
| Representative Statistical Area (CBSA): | Bakersfield |

* - Traffic count for nearest roads: Comanche Dr. and Edison Hwy.,
Source: Kern Council of Governments.

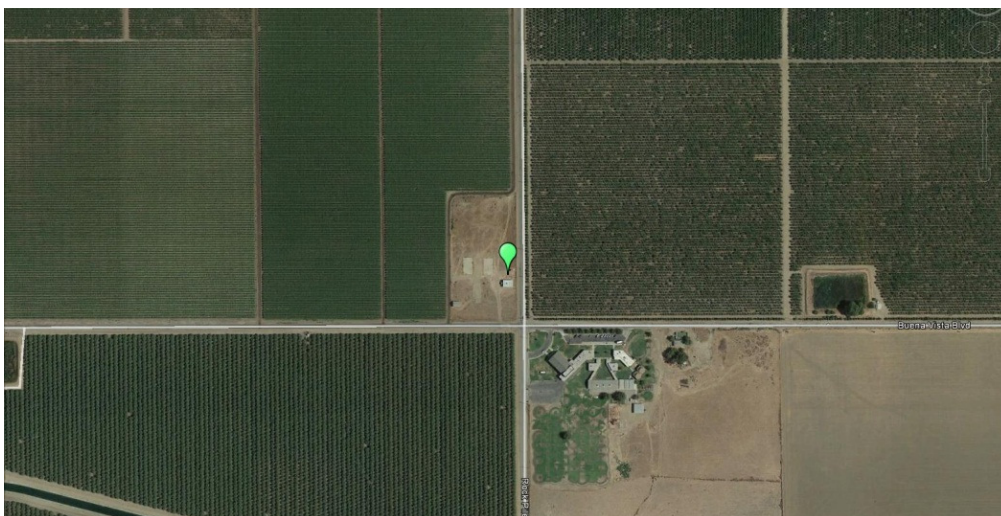


Arvin-Di Giorgio

The Arvin-Di Giorgio site is located 18 miles southeast of the Bakersfield, CA metropolitan area. The purpose of this site will be to measure emissions downwind of the Bakersfield urban area, and possibly serve as a PAMS Type 3 site which will monitor maximum ozone concentrations and transport from upwind urban areas, should PAMS monitoring continue in this area. PAMS equipment at the Arvin–Di Giorgio site may be installed when space becomes available. The site currently monitors ozone and meteorology.

| | |
|-----------------------------------------|----------------------------------------|
| Site name: | Arvin–Di Giorgio |
| AQS ID: | 06-029-5002 |
| County: | Kern |
| Street Address: | 19405 Buena Vista Blvd, Arvin CA 93203 |
| Geographic Coordinates: | 35.2391 N, -118.7886 W |
| Distance to road (meters): | 10 m (east) |
| Traffic Count (AADT, Year): | 581 / 2016* |
| Ground Cover: | Dirt, vegetative |
| Representative Statistical Area (CBSA): | Bakersfield |

* - Traffic count for Buena Vista Blvd east of Tejon Hwy., Source: Kern Council of Governments.

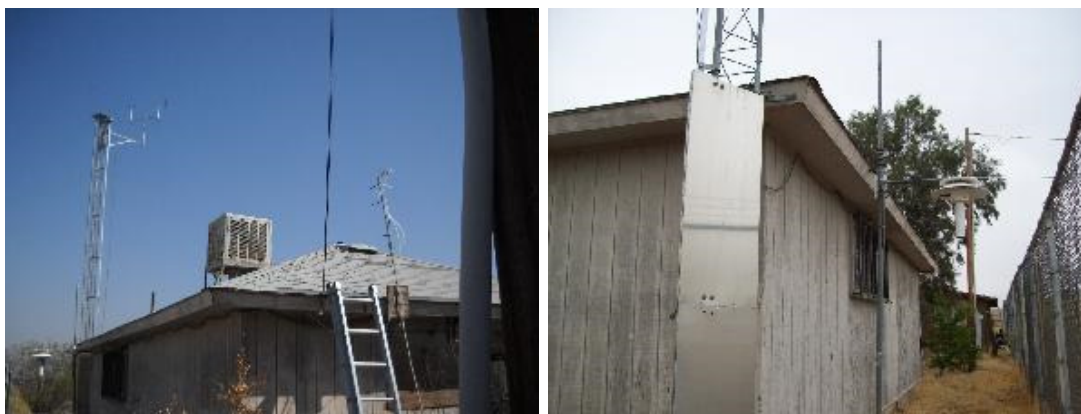


Maricopa

The Maricopa monitoring site is operated by the SJVAPCD and is located 45 miles southwest of the Bakersfield, CA metropolitan area. It began operating in July 1987. The purpose of the site is to monitor representative concentrations of hourly ozone in a rural area. The site also monitors meteorology.

| | |
|-----------------------------------------|---------------------------------------|
| Site name: | Maricopa |
| AQS ID: | 06-029-0008 |
| County: | Kern |
| Street Address: | 755 Stanislaus St., Maricopa CA 93352 |
| Geographic Coordinates: | 35.0515 N, -119.4026 W |
| Distance to road (meters): | 500 m (northwest) |
| Traffic Count (AADT, Year): | 255 / 2016* |
| Ground Cover: | Gravel, dirt, vegetative |
| Representative Statistical Area (CBSA): | Bakersfield |

* - Traffic count for nearest roads: Union St. at California St., Source: Kern Council of Governments.

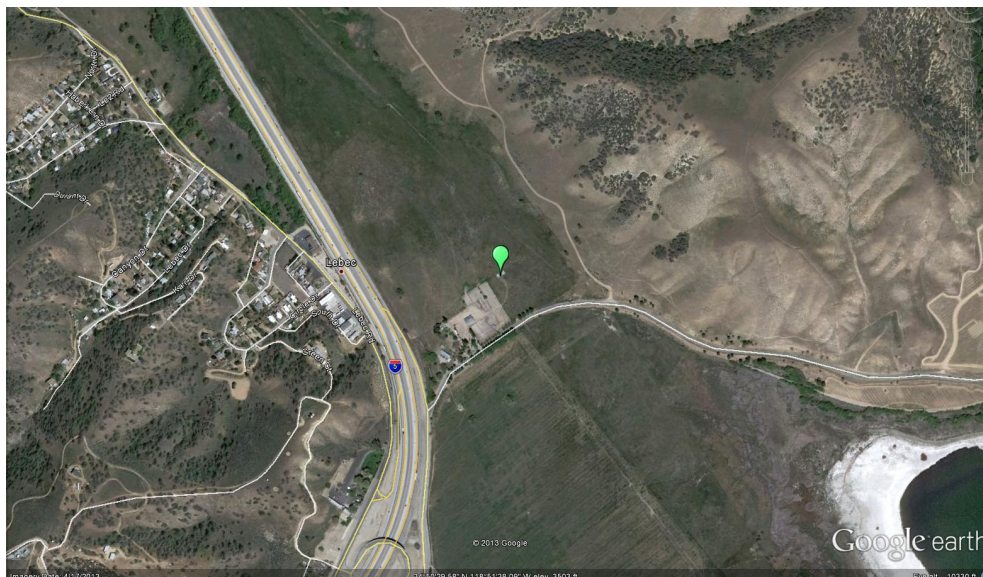


Lebec

The Lebec monitoring station was initiated by the Tejon Ranch in 2004, and the District assumed responsibility for this site as of January 2009. This site allows the District to better understand pollution impacts in the southern San Emigdio Mountains. The site measures PM2.5 and meteorological parameters. This site is used for residential wood-burning declarations for the Greater Frazier Park Area.

| | |
|-----------------------------------------|-------------------------------------|
| Site name: | Lebec |
| AQS ID: | 06-029-2009 |
| County: | Kern |
| Street Address: | 1277 Beartrap Road, Lebec, CA 93243 |
| Geographic Coordinates: | 34.8415 N, -118.8610 W |
| Distance to road (meters): | 300 m (west) |
| Traffic Count (AADT, Year): | 1,967 / 2016* |
| Ground Cover: | Gravel, vegetative |
| Representative Statistical Area (CBSA): | Bakersfield |

* - Traffic count for nearest roads: Lebec Rd and Interstate 5, Source: Kern Council of Governments.



Tribal Sites

Since the tribal sites are operated under the Tribal Authority Rule which is essential to tribal implementation of the Clean Air Act, and is not part of the District’s jurisdiction, detailed site information for tribal monitors will not be provided in this plan.

Picayune Rancheria

The Picayune Rancheria monitoring site is located on Tribal land in Coarsegold, CA in Madera County and is operated by the Chukchansi Indians. The site began operating in August 2011. The purpose of the site is to monitor representative concentrations of ozone, PM10, and PM2.5 on the reservation. The site also monitors meteorology.

| | |
|-----------------------------------------|--------------------------------------|
| Site name: | Picayune Rancheria |
| AQS ID: | 06-039-0500 |
| County: | Madera |
| Street Address: | 46575 Road 417, Coarsegold, CA 93614 |
| Geographic Coordinates: | 37.2136 N, -119.6990 W |
| Distance to road (meters): | 50 m (west) |
| Traffic Count (AADT, Year): | 11,000 / 2014* |
| Ground Cover: | Dirt, paved |
| Representative Statistical Area (CBSA): | Madera |

* - Traffic count for Rte 41 / Road 417, Source: Caltrans 2014 Ahead AADT

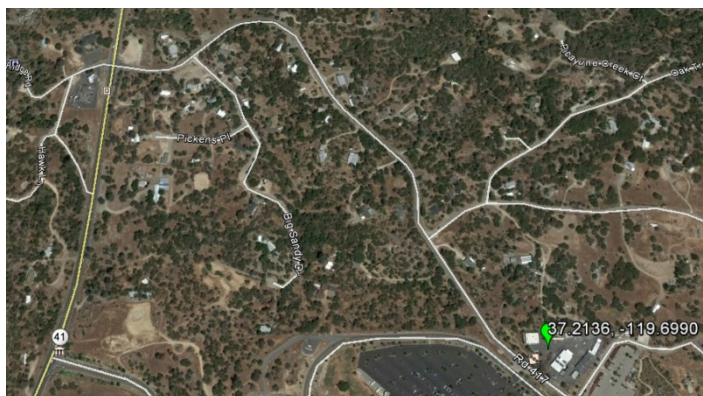
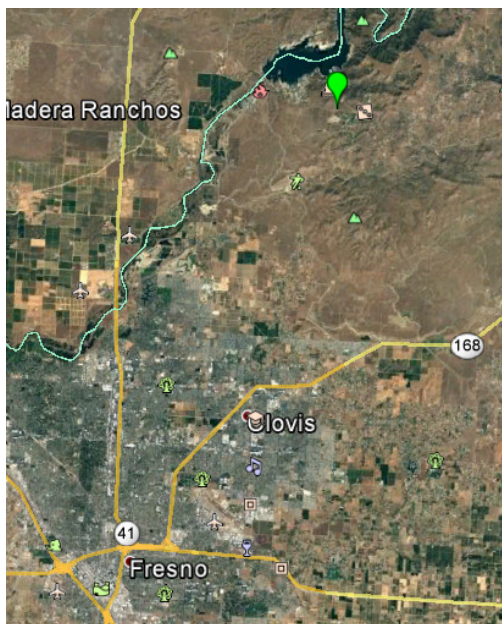


Table Mountain Rancheria

The Table Mountain Air Monitoring Station is located on Tribal land near Millerton Lake in Fresno County and is operated by the Monache tribe and Foothill Yokut Indians. The site began operating in September 2015. The purpose of the site is to monitor representative concentrations of hourly ozone, PM2.5, and PM10 responses from upwind and nearby urban areas. The site also monitors meteorology.

| | |
|-----------------------------------------|----------------------------------------------------|
| Site name: | Table Mountain Air Monitoring Station |
| AQS ID: | 06-019-0500 |
| County: | Fresno |
| Street Address: | Millerton Road and Winchell Road, Friant, CA 93626 |
| Geographic Coordinates: | 36.985119 N, -119.658339 W |
| Distance to road (meters): | Unknown |
| Traffic Count (AADT, Year): | 44,500 / 2014* |
| Ground Cover: | Dirt |
| Representative Statistical Area (CBSA): | Fresno-Madera |

* - Traffic count for nearest roads: Rte 41 and Friant Rd, Source: Caltrans 2014 Ahead AADT.

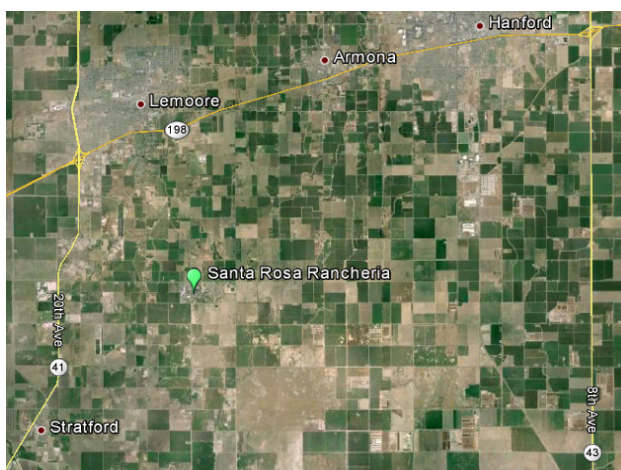


Santa Rosa Rancheria

The Santa Rosa Rancheria monitoring site is located on Tribal land in Lemoore, CA in Kings County and is operated by the Tachi-Yokut tribe. The site began operating in August 2006. The purpose of the site is to monitor representative concentrations of hourly ozone and PM10 responses from upwind and nearby urban areas. The site also monitors meteorology.

| | |
|-----------------------------------------|----------------------------------------|
| Site name: | Santa Rosa Rancheria |
| AQS ID: | 06-031-0500 |
| County: | Kings |
| Street Address: | 17225 Jersey Avenue, Lemoore, CA 93245 |
| Geographic Coordinates: | 36.2332 N, -119.7662 W |
| Distance to road (meters): | 40 m (south) |
| Traffic Count (AADT, Year): | 3,670 / 2006* |
| Ground Cover: | Dirt, paved |
| Representative Statistical Area (CBSA): | Hanford-Corcoran |

* - Traffic count for nearest roads: Kansas Avenue between 18th Avenue and 15th Avenue, Source: County of Kings 2035 General Plan - Kings County Association of Governments 2006-07 traffic data.



**Appendix B:
Detailed Site Information**

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List of Abbreviations

| Site Type | |
|-----------------------------------|--------------------------------|
| PE | Population Exposure |
| HC | Highest Concentration |
| MxPEI | Max Precursor Emissions Impact |
| RT | Regional Transport |
| GB | General/Background |
| SO | Source Oriented |
| Spatial Scale | |
| N | Neighborhood |
| U | Urban |
| R | Regional |
| MC | Microscale |
| Basic Monitoring Objective | |
| NC | NAAQS Comparison |
| RS | Research |
| TP | Timely/Public |
| N/A | Not Applicable |

| | |
|---------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| Site Name | Stockton–Hazelton |
| AQS ID (XX-XXX-XXXX) | 06-077-1002 |
| Representative statistical area Name (i.e. MSA, CBSA, other) | Stockton-Lodi |
| County | San Joaquin |
| Collecting (Operating) Agency | CARB |
| Analytical Lab (i.e. weigh lab, toxics lab, other) | CARB |
| Reporting Agency | CARB |
| Site Start Date | 1/1/1976 |
| Pollutant Parameters | Ozone, PM10 FRM, PM2.5 FEM, CO, NO ₂ , Toxics |
| Meteorological Parameters | Outdoor temperature, Wind direction, Wind speed |
| Address | 1601 E. Hazelton St., Stockton CA 95205 |
| GPS Coordinates (decimal degrees) | 37.9507 N, -121.2689 W |
| Distance to roadways | 62 m (north) |
| Traffic Count/Year | 4000/2014 (Traffic ADT volume estimated by City of Stockton Public Works Traffic Engineering Division) |
| Groundcover (e.g. paved, vegetative, dirt, sand, gravel) | Paved |

| Stockton–Hazelton (1) | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------------------|------------------|
| Pollutant | Ozone | PM10 STP | PM2.5 |
| Parameter code | 44201 | 81102 | 88101 |
| Spatial scale | N | N | N |
| Site type | GB | HC | PE, HC |
| Monitoring objective | NC | NC | NC |
| Monitor type | SLAMS | SLAMS | SLAMS |
| Network affiliation | None | None | None |
| FRM/FEM/ARM/Other | FEM | FRM | FEM |
| POC | 1 | 2 | 3 |
| Primary/Monitor Collocation/Other | Primary | Primary | Primary |
| Method code | 087 | 063 | 170 |
| Sampling method (List Instrument) | API/Teledyne 400 | Sierra Anderson 1200 | Met One 1020 |
| Analysis method | UV | Gravimetric | Beta Attenuation |
| Monitoring start date | 01/01/76 | 01/01/85 | 05/11/10 |
| Current sampling frequency (e.g. Hourly, 1:3) | Hourly | 1:6 | Hourly |
| Sampling season | ALL YEAR | ALL YEAR | ALL YEAR |
| Probe/Inlet height above ground (meters) | 5.7 | 6.5 | 5.7 |
| Distance from supporting structure (meters) | 2.0 | 1.7 | 2.0 |
| Distance from obstructions on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | None | None |
| Distance from obstructions not on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | None | None |
| Distance from trees (meters) | 6.0 m to Dripline | None | None |
| Distance to furnace or incinerator flue (meters) | None | None | None |
| Distance between collocated monitors (meters) | N/A | N/A | N/A |
| Unrestricted airflow (degrees) | 360 | 360 | 360 |
| Probe material (Teflon, etc.) | Teflon | N/A | N/A |
| Residence time (seconds) | 6.7 | N/A | N/A |
| For low volume PM instruments (flow rate < 200 liters/minute), is any PM instrument within 1 m of the lovol? If yes, please list distance (meters) and instrument(s). | N/A | N/A | No |
| For high volume PM instrument (flow rate > 200 liters/minute), is any PM instrument within 2m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A | No | N/A |
| Frequency of flow rate verification for manual PM samplers audit | N/A | Monthly | N/A |

| Pollutant | Ozone | PM10 STP | PM2.5 |
|----------------------------------------------------------------------|----------|--------------------|--------------------|
| Frequency of flow rate verification for automated PM analyzers audit | N/A | N/A | Monthly |
| Frequency of one-point QC check (gaseous) | 5x/week | N/A | N/A |
| Last Annual Performance Evaluation (gaseous) | 09/10/15 | N/A | N/A |
| Last two semi-annual flow rate audits for PM monitors | N/A | 03/27/15, 09/10/15 | 03/27/15, 09/10/15 |
| Changes planned within the next 18 months (Y/N) | N | Y | N |

| Stockton-Hazelton (2) | | | | | |
|-------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------|----------------------|----------------------|-------------------|
| Pollutant | NO ₂ | CO | Toxics SN20021014 | Toxics SN20021016 | Met Parameters |
| Parameter code | 42602 | 42101 | Many | Many | Many |
| Spatial scale | N | N | N | N | R |
| Site type | PE | PE | PE | PE | GB |
| Monitoring objective | NC | NC | RS, TP | RS, TP | RS, TP |
| Monitor type | SLAMS | SLAMS | Many | Many | Many |
| Network affiliation | None | None | CA Air Toxics | CA Air Toxics | None |
| FRM/FEM/ARM/Other | FRM | FRM | Other | Other | Other |
| POC | 2 | 3 | Many | Many | Many |
| Primary/Monitor Collocation/Other | N/A | N/A | Primary | QA Collocated | N/A |
| Method code | 099 | 593 | Many | Many | Many |
| Sampling method (List Instrument) | API 200E | API 300 EU | Xontech 924 | Xontech 924 | |
| Analysis method | CL | IR | Many | Many | |
| Monitoring start date | 01/01/77 | 04/04/13 | Varies by compound | Varies by compound | 01/01/95 |
| Current sampling frequency (e.g. Hourly, 1:3) | Hourly | Hourly | Hourly | Hourly | Hourly |
| Sampling season | ALL YEAR | ALL YEAR | ALL YEAR | ALL YEAR | ALL YEAR |
| Probe/Inlet height above ground (meters) | 5.7 | 5.4 | 6.8 | 6.8 | |
| Distance from supporting structure (meters) | 2.0 | None | 2.0 | 2.0 | None |
| Distance from obstructions on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | None | None | None | None |
| Distance from obstructions not on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | None | None | None | None |
| Distance from trees (meters) | 6.0 m to dripline | 6.0 m to dripline | None | None | None |
| Distance to furnace or incinerator flue (meters) | None | None | None | None | None |
| Distance between collocated monitors (meters) | None | None | 2.8 | 2.8 | None |

| Pollutant | NO ₂ | CO | Toxics SN20021014 | Toxics SN20021016 | Met Parameters |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----------|----------------------|----------------------|--------------------|
| Unrestricted airflow (degrees) | 360 | 360 | 360 | 360 | 360 |
| Probe material (Teflon, etc.) | Teflon | Teflon | Teflon | Teflon | Teflon |
| Residence time (seconds) | 6.7 | 7.9 | N/A | N/A | N/A |
| For low volume PM instruments (flow rate < 200 liters/minute), is any PM instrument within 1 m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A | N/A | N/A | N/A | N/A |
| For high volume PM instrument (flow rate > 200 liters/minute), is any PM instrument within 2m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A | N/A | N/A | N/A | N/A |
| Frequency of flow rate verification for manual PM samplers audit | N/A | N/A | N/A | N/A | N/A |
| Frequency of flow rate verification for automated PM analyzers audit | N/A | N/A | N/A | N/A | N/A |
| Frequency of one-point QC check (gaseous) | 5x/week | 5x/week | N/A | N/A | N/A |
| Last Annual Performance Evaluation (gaseous) | 09/10/15 | 04/17/15 | 03/27/15 | 03/27/15 | Sonic, not audited |
| Last two semi-annual flow rate audits for PM monitors | N/A | N/A | N/A | N/A | N/A |
| Changes planned within the next 18 months (Y/N) | N | N | N | N | N |

| | |
|---------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| Site Name | Tracy - Airport |
| AQS ID (XX-XXX-XXXX) | 06-077-3005 |
| Representative statistical area Name (i.e. MSA, CBSA, other) | Stockton-Lodi |
| County | San Joaquin |
| Collecting (Operating) Agency | SJVAPCD |
| Analytical Lab (i.e. weigh lab, toxics lab, other) | N/A |
| Reporting Agency | SJVAPCD |
| Site Start Date | 1/11/2005 |
| Pollutant Parameters | Ozone, PM10 FEM, PM2.5 Non-FEM, NO2 |
| Meteorological Parameters | Wind speed, wind direction, outdoor temperature, barometric pressure, radio acoustic sounding system (RASS) |
| Address | 5749 S. Tracy Blvd., Tracy, CA 95376 |
| GPS Coordinates (decimal degrees) | 37.6826 N, -121.4423 W |
| Distance to roadways (meters) | 700m (east) |
| Traffic Count/Year | 4,063/2014 (Traffic count for nearest roads: Linne Rd, Corral Hollow Rd) Source: TJKM Transportation Consultants |
| Groundcover (e.g. paved, vegetative, dirt, sand, gravel) | Dirt and Gravel |

| Tracy – Airport (1) | | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|------------------|------------------|-----------------|---------------------------------------------------------------------------------------------|
| Pollutant | Ozone | PM2.5 | PM10 | NO ₂ | Met Parameters |
| Parameter code | 44201 | 88502 | 81102 | 42602 | Many |
| Spatial scale | N | N | N | N | R |
| Site type | RT | RT | RT | PE | GB |
| Basic monitoring objective(s) | NC, RS, TP | TP | NC, RS, TP | NC | RS, TP |
| Monitor type | SLAMS | SPM | SPM | SLAMS | Other |
| FRM/FEM/ARM/Other | FEM | Non-FEM | FEM | FEM | Other |
| POC | 1 | 3 | 3 | 1 | Many |
| Primary / QA Collocated / Other (provide for all PM _{2.5} , PM ₁₀ , PM _{10-2.5} , Pb and NO ₂ monitors. Non-PM, Pb, NO ₂ monitors should be listed as "N/A".) | Primary | Primary | Primary | Other | Other |
| Is it suitable for comparison against the annual PM _{2.5} ? (Y/N) | N/A | N | N/A | N/A | N/A |
| Instrument manufacturer and model | Teledyne 400E | MET One BAM 1020 | Thermo TEOM 1400 | Teledyne 200E | ITP- Hy-Cal 512AA3B, OT- Met One 060A-2, BP- Met One 092, WD- Met One 020C, WS-Met One 010C |
| Analysis method | UV | Beta-Attenuation | Tapered Element | CL | Many |
| Method code | 087 | 731 | 079 | 099 | Many |
| Monitoring start date (MM/DD/YYYY) | 01/11/05 | 01/11/05 | 10/25/05 | 01/11/05 | 01/11/05 |
| Required sampling frequency (e.g. 1:3 excluding exceptional events/1:1 including exceptional events) | Hourly | Hourly | Hourly | Hourly | Hourly |
| Sampling season (MM/DD - MM/DD) | 01/01 – 12/31 | 01/01 – 12/31 | 01/01 – 12/31 | 01/01 – 12/31 | 01/01 – 12/31 |
| Probe height (meters) | 7m | 6.5m | 6.5m | 7m | 10m |
| Distance from supporting structure (meters) | 2m | 2m | 2m | 2m | 10m |
| Distance from obstructions on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | N/A | N/A | N/A | N/A | N/A |
| Distance from obstructions not on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | N/A | N/A | N/A | N/A | N/A |
| Distance from trees (meters) | N/A | N/A | N/A | N/A | N/A |
| Distance to furnace or incinerator flue (meters) | N/A | 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 | N/A |

| Pollutant | Ozone | PM2.5 | PM10 | NO ₂ | Met Parameters |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------------|-----------------------|-----------------|------------------------------------------------------------------------------------------------------------|
| Unrestricted airflow (degrees around probe/inlet or percentage of monitoring path) | 360 | 360 | 360 | 360 | 360 |
| Probe material for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon) | Pyrex | N/A | N/A | Pyrex | N/A |
| Residence time for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (seconds) | 11.44 | N/A | N/A | 11.76 | N/A |
| Frequency of one-point QC check for gaseous instruments | Daily | N/A | N/A | Daily | N/A |
| Frequency of flow rate verification for manual PM samplers, including Pb samplers (routine checks) | N/A | N/A | N/A | N/A | N/A |
| Frequency of flow rate verification for automated PM analyzers (routine checks) | N/A | Bi-Weekly | Monthly | N/A | N/A |
| For low volume PM instruments (flow rate < 200 liters/minute), is any PM instrument within 1 m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A | No | No | N/A | N/A |
| For high volume PM instrument (flow rate > 200 liters/minute), is any PM instrument within 2m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A | N/A | N/A | N/A | N/A |
| Date of Annual Performance Evaluation conducted in the past calendar year for gaseous parameters (MM/DD/YYYY) | 11/19/15 | N/A | N/A | 11/19/15 | N/A |
| Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors (MM/DD/YYYY, MM/DD/YYYY) | N/A | 05/19/15, 11/19/15 | 05/19/15, 11/19/15 | N/A | N/A |
| Changes planned within the next 18 months (Y/N) | N | N | N | N | Yes. Lower air profiler operating at site may cease operation due to changes to PAMS program requirements. |

| | |
|---------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| Site Name | Manteca |
| AQS ID (XX-XXX-XXXX) | 06-077-2010 |
| Representative statistical area Name (i.e. MSA, CBSA, other) | Stockton-Lodi |
| County | San Joaquin |
| Collecting (Operating) Agency | SJVAPCD |
| Analytical Lab (i.e. weigh lab, toxics lab, other) | N/A |
| Reporting Agency | SJVAPCD |
| Site Start Date | 11/16/2010 |
| Pollutant Parameters | PM2.5 FEM; PM10 FEM |
| Meteorological Parameters | Wind speed, wind direction, outdoor temperature, barometric pressure |
| Address | 530 Fishback Rd., Manteca, CA 95337 |
| GPS Coordinates (decimal degrees) | 37.7933 N, -121.2477 W |
| Distance to roadways (meters) | 12 m (west) |
| Traffic Count/Year | 13,383 / 2014 (Traffic count for nearest roads: Yosemite Ave and Airport Way) Source: TJKM Transportation Consultants |
| Groundcover (e.g. paved, vegetative, dirt, sand, gravel) | Paved, vegetative |

| Manteca (1) | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------------|---------------------------------------------------------------------------------------------------------|
| Pollutant | PM2.5 | PM10 | Met Parameters |
| Parameter code | 88101 | 81102 | Many |
| Spatial scale | N | N | N |
| Site type | PE | PE | PE |
| Basic monitoring objective(s) | NC, RS, TP | NC, RS, TP | RS, TP |
| Monitor type | SLAMS | SLAMS | Other |
| Network affiliation(s), if applicable (a monitor may have none, one, or multiple) | None | None | None |
| FRM/FEM/ARM/Other | FEM | FEM | Other |
| POC | 3 | 3 | 1 |
| Primary / QA Collocated / Other (provide for all PM _{2.5} , PM ₁₀ , PM _{10-2.5} , Pb and NO ₂ monitors. Non-PM, Pb, NO ₂ monitors should be listed as "N/A".) | Primary | Primary | Other |
| Is it suitable for comparison against the annual PM _{2.5} ? (Y/N) | Yes | N/A | N/A |
| Instrument manufacturer and model | MET One BAM 1020 | Thermo TEOM 1400 | ITP – Hy-Cal 512AA3B, OT – Met One 060A-2, BP – Met One 092, WD – Met One 020C, WS – Met One 010C |
| Analysis method | Beta Attenuation | Gravimetric | Many |
| Method code | 170 | 079 | Many |
| Monitoring start date (MM/DD/YYYY) | 11/16/10 | 05/02/11 | 11/16/10 |
| Required sampling frequency (e.g. 1:3 excluding exceptional events/1:1 including exceptional events) | Hourly | Hourly | Hourly |
| Sampling season (MM/DD - MM/DD) | 1/01 – 12/31 | 01/01 – 12/31 | 01/01 – 12/31 |
| Probe height (meters) | 6m | 6m | 10m |
| Distance from supporting structure (meters) | 1.73m | 1.95m | 0 m |
| Distance from obstructions on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | None | None |
| Distance from obstructions not on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | None | None |
| Distance from trees (meters) | 55m | 55m | 55.5m |
| 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 |

| Pollutant | PM2.5 | PM10 | Met Parameters |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------|----------------|
| Unrestricted airflow (degrees around probe/inlet or percentage of monitoring path) | 360 | 360 | 360 |
| Probe material for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon) | N/A | N/A | N/A |
| Residence time for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (seconds) | N/A | N/A | N/A |
| Frequency of one-point QC check for gaseous instruments | N/A | N/A | N/A |
| Frequency of flow rate verification for manual PM samplers, including Pb samplers (routine checks) | N/A | N/A | N/A |
| Frequency of flow rate verification for automated PM analyzers (routine checks) | Biweekly | Biweekly | N/A |
| For low volume PM instruments (flow rate < 200 liters/minute), is any PM instrument within 1 m of the hivol? If yes, please list distance (meters) and instrument(s). | No | No | N/A |
| For high volume PM instrument (flow rate > 200 liters/minute), is any PM instrument within 2m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A | N/A | N/A |
| Date of Annual Performance Evaluation conducted in the past calendar year for gaseous parameters (MM/DD/YYYY) | N/A | N/A | N/A |
| Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors (MM/DD/YYYY, MM/DD/YYYY) | 05/19/15,11/16/15 | 05/19/15,11/16/15 | N/A |
| Changes planned within the next 18 months (Y/N) | N | N | N |

| | |
|---------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| Site Name | Modesto –14th St |
| AQS ID (XX-XXX-XXXX) | 06-099-0005 |
| Representative statistical area Name (i.e. MSA, CBSA, other) | Modesto |
| County | Stanislaus |
| Collecting (Operating) Agency | CARB |
| Analytical Lab (i.e. weigh lab, toxics lab, other) | CARB |
| Reporting Agency | CARB |
| Site Start Date | 1/1/81 |
| Pollutant Parameters | Ozone, PM10 FRM, PM10 FEM, PM2.5 FRM, PM2.5 FEM, CO, PM2.5 Speciation (Supplemental) |
| Meteorological Parameters | Wind speed, wind direction, outdoor temperature, barometric pressure |
| Address | 814 14th Street, Modesto CA 95354 |
| GPS Coordinates (decimal degrees) | 37.6421 N, -120.9942 W |
| Distance to road | 50 m (southwest) |
| Traffic Count/Year | 124,000/2014 (Traffic count for nearest roads: H Street / Rte 99, Source: Caltrans 2014 AADDT) |
| Groundcover (e.g. paved, vegetative, dirt, sand, gravel) | Paved |

| Modesto –14th St (1) | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------------|------------------|
| Pollutant | Ozone | PM10 STP | PM2.5 |
| Parameter code | 44201 | 81102 | 88101 |
| Spatial scale | N | N | N |
| Site type | PE | PE | PE |
| Monitoring objective | NC | NC | NC |
| Monitor type | SLAMS | SLAMS | SLAMS |
| Network affiliation | None | None | None |
| FRM/FEM/ARM/Other | FEM | FEM | FEM |
| POC | 1 | 7 | 3 |
| Primary/Monitor Collocation/Other | N/A | Primary | Primary |
| Method code | 087 | 122 | 170 |
| Sampling method (List Instrument) | API/Teledyne 400 | Met One 4 Models Beta A | Met One 1020 |
| Analysis method | UV | Beta Attenuation | Beta Attenuation |
| Monitoring start date | 1/1/1981 | 12/1/2013 | 5/1/2010 |
| Current sampling frequency (e.g. Hourly, 1:3) | Hourly | Hourly | Hourly |
| Sampling season | ALL YEAR | ALL YEAR | ALL YEAR |
| Probe/Inlet height above ground (meters) | 7.9 | 4.4 | 5.1 |
| Distance from supporting structure (meters) | 4.8 | 1.1 | 1.8 |
| Distance from obstructions on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | None | None |
| Distance from obstructions not on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | None | None |
| Distance from trees (meters) | None | None | None |
| Distance to furnace or incinerator flue (meters) | None | None | None |
| Distance between collocated monitors (meters) | None | None | 2.0 |
| Unrestricted airflow (degrees) | 360 | 360 | 360 |
| Probe material (Teflon, etc.) | Teflon | N/A | N/A |
| Residence time (seconds) | 14.5 | N/A | N/A |
| For low volume PM instruments (flow rate < 200 liters/minute), is any PM instrument within 1 m of the lovol? If yes, please list distance (meters) and instrument(s). | N/A | No | No |
| For high volume PM instrument (flow rate > 200 liters/minute), is any PM instrument within 2m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A | N/A | N/A |
| Frequency of flow rate verification for manual PM samplers audit | N/A | N/A | N/A |

| Pollutant | Ozone | PM10 STP | PM2.5 |
|----------------------------------------------------------------------|------------|------------------------|------------------------|
| Frequency of flow rate verification for automated PM analyzers audit | N/A | Monthly | Monthly |
| Frequency of one-point QC check (gaseous) | 5x/week | N/A | N/A |
| Last Annual Performance Evaluation (gaseous) | 11/19/2015 | N/A | N/A |
| Last two semi-annual flow rate audits for PM monitors | N/A | 04/27/2015, 11/19/2015 | 04/27/2015, 11/19/2015 |
| Changes planned within the next 18 months (Y/N) | N | N | N |

| Modesto-14 th St (2) | | | | |
|-------------------------------------------------------------------------------------------------------------------------------------|---------------------|--------------------|------------|----------------|
| Pollutant | PM2.5 | PM2.5 Speciation | CO | Met Parameters |
| Parameter code | 88101 | Various | 42101 | Many |
| Spatial scale | N | N | N | R |
| Site type | PE | PE | PE | GB |
| Monitoring objective(s) | NC | RS | NC | RS, TP |
| Monitor type | SLAMS | SLAMS | SLAMS | SLAMS |
| Network affiliation | None | CSN (Supplemental) | None | None |
| FRM/FEM/ARM/Other | FRM | Other | FRM | Other |
| POC | 1 | 5 | 3 | Many |
| Primary/Monitor Collocation/Other | Monitor Collocation | Primary | N/A | N/A |
| Method code | 143 | 810 | 067 | Many |
| Sampling method (List Instrument) | Thermo 2000i | Met-One SASS | API 300 EU | N/A |
| Analysis method | Gravimetric | Various | IR | N/A |
| Monitoring start date | 01/03/95 | 01/14/02 | 01/01/13 | 01/01/95 |
| Current sampling frequency (e.g. Hourly, 1:3) | 1:12 | 1:6 | Hourly | Hourly |
| Sampling season | ALL YEAR | ALL YEAR | ALL YEAR | ALL YEAR |
| Probe/Inlet height above ground(meters) | 6.1 | 5.6 | 7.7 | N/A |
| Distance from supporting structure (meters) | 2.8 | N/A | 0.6 | None |
| Distance from obstructions on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | 4.5 | None | None |
| Distance from obstructions not on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | 1 m (Met tower) | None | None |
| Distance from trees (meters) | None | 40 | None | None |
| Distance to furnace or incinerator flue (meters) | None | Approx. 40 m | None | None |

| Pollutant | PM2.5 | PM2.5 Speciation | CO | Met Parameters |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------------------------------------------------|----------|----------------|
| Distance between collocated monitors (meters) | 2.0 | 2.4 m (URG 3000n) 4.5 m (Partisol) 3.0 m (BAM-10) | None | None |
| Unrestricted airflow (degrees) | 360 | Est. 350 | 360 | 360 |
| Probe material (Teflon, etc.) | N/A | N/A | Teflon | N/A |
| Residence time (seconds) | N/A | N/A | 9.7 | N/A |
| For low volume PM instruments (flow rate < 200 liters/minute), is any PM instrument within 1 m of the hivol? If yes, please list distance (meters) and instrument(s). | No | No | N/A | N/A |
| For high volume PM instrument (flow rate > 200 liters/minute), is any PM instrument within 2m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A | N/A | N/A | N/A |
| Frequency of flow rate verification for manual PM samplers audit | Monthly | Monthly | N/A | N/A |
| Frequency of flow rate verification for automated PM analyzers audit | N/A | N/A | N/A | N/A |
| Frequency of one-point QC check (gaseous) | N/A | N/A | 5x/week | N/A |
| Last Annual Performance Evaluation (gaseous) | N/A | N/A | 04/16/15 | N/A |
| Last two semi-annual flow rate audits for PM monitors | 04/27/15, 11/19/15 | N/A | N/A | N/A |
| Changes planned within the next 18 months (Y/N) | N | N | N | N |

| | | |
|---------------------------------------------------------------------|----------------------------------------------------------------------------------------------|----------------|
| Site Name | Turlock | |
| AQS ID (XX-XXX-XXXX) | 06-099-0006 | |
| Representative statistical area Name (i.e. MSA, CBSA, other) | Modesto | |
| County | Stanislaus | |
| Collecting (Operating) Agency | SJVAPCD | |
| Analytical Lab (i.e. weigh lab, toxics lab, other) | CARB | |
| Reporting Agency | SJVAPD: Ozone, PM2.5 FEM, NO2, Meteorology | CARB: PM10 FRM |
| Site Start Date | 4/1/1992 | |
| Pollutant Parameters | | |
| | Ozone, PM10 FRM, PM2.5 FEM, NO2 | |
| Meteorological Parameters | | |
| | Wind speed, wind direction, outdoor temperature, barometric pressure | |
| Address | | |
| | 900 S. Minaret St., Turlock, CA 95380 | |
| GPS Coordinates (decimal degrees) | | |
| | 37.4880 N, -120.8360 W | |
| Distance to roadways (meters) | | |
| | 40m (northeast) | |
| Traffic Count/Year | | |
| | 7,186/2015 (Minaret Street/Golden State Blvd., Source: City of Turlock Engineering Division) | |
| Groundcover (e.g. paved, vegetative, dirt, sand, gravel) | | |
| | Gravel | |

| Turlock (1) | | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|------------------|---------------------|-----------------|---------------------------------------------------------------------------------------------|
| Pollutant | Ozone | PM2.5 | PM10 | NO ₂ | Met Parameters |
| Parameter code | 44201 | 88101 | 81102 | 42602 | Many |
| Spatial scale | N | N | N | N | R |
| Site type | PE | PE, HC | PE | PE | GB |
| Basic monitoring objective(s) | NC, RS, TP | NC, RS | NC, RS | NC | RS, TP |
| Monitor type | SLAMS | SLAMS | SLAMS | SLAMS | Other |
| Network affiliation(s), if applicable (a monitor may have none, one, or multiple) | None | None | None | None | None |
| FRM/FEM/ARM/Other | FEM | FEM | FRM | FEM | Other |
| POC | 1 | 3 | 1 | 1 | 1 |
| Primary / QA Collocated / Other (provide for all PM _{2.5} , PM ₁₀ , PM _{10-2.5} , Pb and NO ₂ monitors. Non-PM, Pb, NO ₂ monitors should be listed as "N/A".) | Primary | Primary | Primary | N/A | Other |
| Is it suitable for comparison against the annual PM _{2.5} ? (Y/N) | N/A | Y | N/A | N/A | N/A |
| Instrument manufacturer and model | Teledyne 400E | MET One BAM 1020 | ECOTECH Hi-Vol 3000 | Teledyne 200E | ITP- Hy-Cal 512AA3B, OT- Met One 060A-2, BP- Met One 092, WD- Met One 020C, WS-Met One 010C |
| Analysis method | UV | Beta Attenuation | Gravimetric | Chem. | Many |
| Method code | 087 | 170 | 162 | 099 | Many |
| Monitoring start date (MM/DD/YYYY) | 04/01/00 | 09/14/06 | 09/14/06 | 04/01/00 | WS, WD - 4/1/2000; OT, BP 09/03/08 |
| Required sampling frequency (e.g. 1:3 excluding exceptional events/1:1 including exceptional events) | Hourly | Hourly | 1:6 | Hourly | Hourly |
| Sampling season (MM/DD - MM/DD) | 01/01 - 12/31 | 01/01 - 12/31 | 01/01 - 12/31 | 01/01 - 12/31 | 01/01 - 12/31 |
| Probe height (meters) | 5.5m | 6m | 5.5m | 5.5m | 10m |
| Distance from supporting structure (meters) | 2m | 2m | 2m | 2m | 7.5m |

| Pollutant | Ozone | PM2.5 | PM10 | NO ₂ | Met Parameters |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-----------|---------|-----------------|----------------|
| Distance from obstructions on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | None | None | None | None |
| Distance from obstructions not on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | None | None | None | N/A |
| Distance from trees (meters) | 37.5m | 37.5m | 37.5m | 37.5m | 37.5m |
| Distance to furnace or incinerator flue (meters) | None | None | None | None | None |
| Distance between monitors fulfilling a QA collocation requirement (meters). | None | None | None | None | None |
| Unrestricted airflow (degrees around probe/inlet or percentage of monitoring path) | 360 | 360 | 360 | 360 | 360 |
| Probe material for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon) | Pyrex | N/A | N/A | Pyrex | N/A |
| Residence time for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (seconds) | 12.42 | N/A | N/A | 14.1 | N/A |
| Frequency of one-point QC check for gaseous instruments | Daily | N/A | N/A | Daily | N/A |
| Frequency of flow rate verification for manual PM samplers, including Pb samplers (routine checks) | N/A | N/A | Monthly | N/A | N/A |
| Frequency of flow rate verification for automated PM analyzers (routine checks) | N/A | Bi-weekly | N/A | N/A | N/A |
| For low volume PM instruments (flow rate < 200 liters/minute), is any PM instrument within 1 m of the lovol? If yes, please list distance (meters) and instrument(s). | N/A | No | N/A | N/A | N/A |

| Pollutant | Ozone | PM2.5 | PM10 | NO₂ | Met Parameters |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------------------|--------------------------|-----------------------|-----------------------|
| For high volume PM instrument (flow rate > 200 liters/minute), is any PM instrument within 2m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A | N/A | No | N/A | N/A |
| Date of Annual Performance Evaluation conducted in the past calendar year for gaseous parameters (MM/DD/YYYY) | 11/17/2015 | N/A | N/A | 11/17/15 | N/A |
| Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors (MM/DD/YYYY, MM/DD/YYYY) | N/A | 05/20/2015 11/17/2015 | 05/20/2015 11/17/2015 | N/A | N/A |
| Changes planned within the next 18 months (Y/N) | N | N | N | N | N |

| | |
|---------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Site Name | Merced - M St |
| AQS ID (XX-XXX-XXXX) | 06-047-2510 |
| Representative statistical area Name (i.e. MSA, CBSA, other) | Merced |
| County | Merced |
| Collecting (Operating) Agency | SJVAPCD |
| Analytical Lab (i.e. weigh lab, toxics lab, other) | CARB |
| Reporting Agency | CARB: PM10 FRM and PM2.5 FRM |
| Site Start Date | 4/1/1999 |
| Pollutant Parameters | PM10 FRM, PM2.5 FRM |
| Meteorological Parameters | None |
| Address | 2334 M Street, Merced, CA 95340 |
| GPS Coordinates (decimal degrees) | 37.3086 N, -120.4800 W |
| Distance to roadways (meters) | 55 m (northwest) |
| Traffic Count/Year | 51,000/2014 (Traffic count for nearest roads: R Street/Rte 99, Source: Caltrans 2014 AADT) |
| Groundcover (e.g. paved, vegetative, dirt, sand, gravel) | Paved, gravel |

| Merced – M St (1) | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|---------------------|
| Pollutant | PM2.5 | PM10 |
| Parameter code | 88101 | 81102 |
| Spatial scale | N | N |
| Site type | HC/PE | HC/PE |
| Basic monitoring objective(s) | NC, RS | NC, RS |
| Monitor type | SLAMS | SLAMS |
| Network affiliation(s), if applicable (a monitor may have none, one, or multiple) | None | None |
| FRM/FEM/ARM/Other | FRM | FRM |
| POC | 1 | 1 |
| Primary / QA Collocated / Other (provide for all PM _{2.5} , PM ₁₀ , PM _{10-2.5} , Pb and NO ₂ monitors. Non-PM, Pb, NO ₂ monitors should be listed as "N/A".) | Primary | Primary |
| Is it suitable for comparison against the annual PM _{2.5} ? (Y/N) | Y | N/A |
| Instrument manufacturer and model | Thermo-Partisol 2025i | ECOTECH Hi-Vol 3000 |
| Analysis method | Gravimetric | Gravimetric |
| Method code | 145 | 162 |
| Monitoring start date (MM/DD/YYYY) | 04/01/99 | 4/01/99 |
| Required sampling frequency (e.g. 1:3 excluding exceptional events/1:1 including exceptional events) | 1:3 | 1:6 |
| Sampling season (MM/DD - MM/DD) | 1/1 -12/31 | 1/1 – 12/31 |
| Probe height (meters) | 8.4m | 8.4m |
| Distance from supporting structure (meters) | 2.05m | 1.7m |
| Distance from obstructions on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | None |
| Distance from obstructions not on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | None |
| Distance from trees (meters) | 50 m east | 50 m east |
| Distance to furnace or incinerator flue (meters) | 42m | 38m |

| Pollutant | PM2.5 | PM10 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------------|
| Distance between monitors fulfilling a QA collocation requirement (meters). | N/A | N/A |
| Unrestricted airflow (degrees around probe/inlet or percentage of monitoring path) | 360 | 360 |
| Probe material for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon) | N/A | N/A |
| Residence time for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (seconds) | N/A | N/A |
| Frequency of one-point QC check for gaseous instruments | N/A | N/A |
| Frequency of flow rate verification for manual PM samplers, including Pb samplers (routine checks) | Bi-weekly | Monthly |
| Frequency of flow rate verification for automated PM analyzers (routine checks) | N/A | N/A |
| For low volume PM instruments (flow rate < 200 liters/minute), is any PM instrument within 1 m of the lovol? If yes, please list distance (meters) and instrument(s). | No | N/A |
| For high volume PM instrument (flow rate > 200 liters/minute), is any PM instrument within 2m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A | No |
| Date of Annual Performance Evaluation conducted in the past calendar year for gaseous parameters (MM/DD/YYYY) | N/A | N/A |
| Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors (MM/DD/YYYY, MM/DD/YYYY) | 04/28/15, 11/18/15 | 04/28/15, 11/18/15 |
| Changes planned within the next 18 months (Y/N) | N | N |

| | |
|---------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| Site Name | Merced - Coffee |
| AQS ID (XX-XXX-XXXX) | 06-047-0003 |
| Representative statistical area Name (i.e. MSA, CBSA, other) | Merced |
| County | Merced |
| Collecting (Operating) Agency | SJVAPCD |
| Analytical Lab (i.e. weigh lab, toxics lab, other) | N/A |
| Reporting Agency | SJVAPCD |
| Site Start Date | 10/1/1991 |
| Pollutant Parameters | Ozone, PM2.5 FEM, NO2 |
| Meteorological Parameters | Wind speed, wind direction, outdoor temperature |
| Address | 385 S. Coffee St., Merced, CA 95340 |
| GPS Coordinates (decimal degrees) | 37.2816 N, -120.4340 W |
| Distance to roadways (meters) | 15 m (east) |
| Traffic Count/Year | 42,500/2014 (Traffic count for nearest roads: Childs Avenue/Rte 99, Source: Caltrans 2014 AADT) |
| Groundcover (e.g. paved, vegetative, dirt, sand, gravel) | Vegetative, dirt and gravel |

| Merced – Coffee (1) | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|------------------|-----------------------|----------------------------------------------------------------------------|
| Pollutant | Ozone | PM2.5 | NO₂ | Met Parameters |
| Parameter code | 44201 | 88101 | 42602 | Many |
| Spatial scale | N | N | N | R |
| Site type | PE | PE | PE | GB |
| Basic monitoring objective(s) | NC, RS, TP | NC, RS, TP | NC | RS, TP |
| Monitor type | SLAMS | SLAMS | SLAMS | |
| Network affiliation(s), if applicable (a monitor may have none, one, or multiple) | None | None | None | None |
| FRM/FEM/ARM/Other | FEM | FEM | FEM | Other |
| POC | 1 | 3 | 1 | Many |
| Primary / QA Collocated / Other (provide for all PM _{2.5} , PM ₁₀ , PM _{10-2.5} , Pb and NO ₂ monitors. Non-PM, Pb, NO ₂ monitors should be listed as “N/A”.) | N/A | Primary | N/A | N/A |
| Is it suitable for comparison against the annual PM _{2.5} ? (Y/N) | N/A | Y | N/A | N/A |
| Instrument manufacturer and model | Teledyne 400E | MET One BAM 1020 | Teledyne T200E | ITP- Hy-Cal 512AA3B, OT- Met One 060A-2, WD- Met One 020C, WS-Met One 010C |
| Analysis method | UV | Beta Attenuation | CL | Many |
| Method code | 087 | 170 | 099 | Many |
| Monitoring start date (MM/DD/YYYY) | 10/01/91 | 10/19/09 | 10/01/91 | 10/01/91 |
| Required sampling frequency (e.g. 1:3 excluding exceptional events/1:1 including exceptional events) | Hourly | Hourly | Hourly | Hourly |
| 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) | 5.1m | 5.6m | 5.1m | 9.1m |
| Distance from supporting structure (meters) | None | 1.7 | None | None |
| Distance from obstructions on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | None | None | None |
| Distance from obstructions not on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | None | None | None |
| Distance from trees (meters) | 13.5m | 14.0m | 13.5m | 13.5m |
| Distance to furnace or incinerator flue (meters) | None | None | None | None |
| Distance between monitors fulfilling a QA collocation requirement (meters). | N/A | N/A | N/A | N/A |

| Pollutant | Ozone | PM2.5 | NO ₂ | Met Parameters |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-----------------|----------------|
| Unrestricted airflow (degrees around probe/inlet or percentage of monitoring path) | 360 | 360 | 360 | 360 |
| Probe material for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon) | Pyrex | Aluminum | Pyrex | N/A |
| Residence time for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (seconds) | 9.84 | N/A | 10.22 | N/A |
| Frequency of one-point QC check for gaseous instruments | Daily | N/A | Daily | N/A |
| Frequency of flow rate verification for manual PM samplers, including Pb samplers (routine checks) | N/A | N/A | N/A | N/A |
| Frequency of flow rate verification for automated PM analyzers (routine checks) | N/A | Bi-weekly | N/A | N/A |
| For low volume PM instruments (flow rate < 200 liters/minute), is any PM instrument within 1 m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A | No | N/A | N/A |
| For high volume PM instrument (flow rate > 200 liters/minute), is any PM instrument within 2m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A | N/A | N/A | N/A |
| Date of Annual Performance Evaluation conducted in the past calendar year for gaseous parameters (MM/DD/YYYY) | 11-18-15 | N/A | N/A | N/A |
| Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors (MM/DD/YYYY, MM/DD/YYYY) | 05-19-15, 11-18-15 | 05-19-15, 11-18-15 | N/A | N/A |
| Changes planned within the next 18 months (Y/N) | N | N | N | N |

| | |
|---------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Site Name | Madera - City |
| AQS ID (XX-XXX-XXXX) | 06-039-2010 |
| Representative statistical area Name (i.e. MSA, CBSA, other) | Madera |
| County | Madera |
| Collecting (Operating) Agency | SJVAPCD |
| Analytical Lab (i.e. weigh lab, toxics lab, other) | CARB: PM2.5 FRM |
| Reporting Agency | SJVAPCD |
| Site Start Date | 6/1/2010 |
| Pollutant Parameters | Ozone, PM10 FEM, PM2.5 FEM, PM2.5 FRM |
| Meteorological Parameters | Wind speed, wind direction, outdoor temperature, relative humidity, barometric pressure, solar radiation. |
| Address | 28261 Avenue 14, Madera, CA 93638 |
| GPS Coordinates (decimal degrees) | 36.9532 N, -120.0342 W |
| Distance to roadways (meters) | 70 m (south) |
| Traffic Count/Year | 751/2015 (Traffic count for nearest roads: Avenue 14 west of Road 29, westbound trips per hour in 24 hours. Source: Madera County Transportation Commission 2015 Traffic Volumes Report.) |
| Groundcover (e.g. paved, vegetative, dirt, sand, gravel) | Paved, dirt, and vegetative |

| Madera – City (1) | | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------|--------------------------------------|------------------|---------------------------------------------------------------------------------------------|
| Pollutant | Ozone | PM2.5 | PM2.5 | PM10 | Met Parameters |
| Parameter code | 44201 | 88101 | 88101 | 81102 | Many |
| Spatial scale | N | N | N | N | N |
| Site type | GB | PE, HC | PE, HC | PE | GB |
| Basic monitoring objective(s) | NC, RS, TP | NC, RS, TP | NC, RS, TP | NC, RS, TP | RS, TP |
| Monitor type | SLAMS | SLAMS | SLAMS | SLAMS | |
| Network affiliation(s), if applicable (a monitor may have none, one, or multiple) | None | None | None | None | None |
| FRM/FEM/ARM/Other | FEM | FRM | FEM | FEM | Other |
| POC | 1 | 1 | 3 | 3 | 1 |
| Primary / QA Collocated / Other (provide for all PM _{2.5} , PM ₁₀ , PM _{10-2.5} , Pb and NO ₂ monitors. Non-PM, Pb, NO ₂ monitors should be listed as “N/A”.) | Primary | Monitor Collocation | Primary | Primary | N/A |
| Is it suitable for comparison against the annual PM _{2.5} ? (Y/N) | N/A | Y | Unknown (currently under evaluation) | N/A | N/A |
| Instrument manufacturer and model | TAPI 400E | Thermo Partisol 2025i | MET One BAM 1020 | Thermo TEOM 1400 | ITP- Hy-Cal 512AA3B, OT- Met One 060A-2, BP- Met One 092, WD- Met One 020C, WS-Met One 010C |
| Analysis method | UV | Gravimetric | Beta Attenuation | Tapered Element | Many |
| Method code | 087 | 145 | 170 | 079 | Many |
| Monitoring start date (MM/DD/YYYY) | 06/01/10 | 02/17/14 | 06/01/10 | 06/01/10 | 06/01/10 |
| Required sampling frequency (e.g. 1:3 excluding exceptional events/1:1 including exceptional events) | Hourly | 1:12 | Hourly | Hourly | Hourly |
| Sampling season (MM/DD - MM/DD) | 01/01 – 12/31 | 01/01 – 12/31 | 01/01 – 12/31 | 01/01 – 12/31 | 01/01 – 12/31 |
| Probe height (meters) | 5.7m | 5.7m | 5.7m | 5.7m | 10m |
| Distance from supporting structure (meters) | 1.8m | 1.7m | 1.7m | 1.7m | 9.8m |
| Distance from obstructions on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | N/A | N/A | N/A | N/A | N/A |

| Pollutant | Ozone | PM2.5 | PM2.5 | PM10 | Met Parameters |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|--------------|-------------|-----------------------|
| Distance from obstructions not on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | N/A | N/A | N/A | N/A | N/A |
| Distance from trees (meters) | 35m | 35m | 37m | 37m | 19.5m |
| Distance to furnace or incinerator flue (meters) | 53m | 53m | 52m | 54m | N/A |
| Distance between monitors fulfilling a QA collocation requirement (meters). | N/A | N/A | N/A | N/A | N/A |
| Unrestricted airflow (degrees around probe/inlet or percentage of monitoring path) | 360 | 360 | 360 | 360 | 360 |
| Probe material for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon) | Teflon | N/A | N/A | N/A | N/A |
| Residence time for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; NPAMS: VOCs, Carbonyls (seconds) | 5.03 | N/A | N/A | N/A | N/A |
| Frequency of one-point QC check for gaseous instruments | Daily | N/A | N/A | N/A | N/A |
| Frequency of flow rate verification for manual PM samplers, including Pb samplers (routine checks) | N/A | Monthly | Bi-weekly | Bi-weekly | N/A |
| Frequency of flow rate verification for automated PM analyzers (routine checks) | N/A | N/A | Bi-Weekly | Bi-Weekly | N/A |
| For low volume PM instruments (flow rate < 200 liters/minute), is any PM instrument within 1 m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A | No | No | No | N/A |
| For high volume PM instrument (flow rate > 200 liters/minute), is any PM instrument within 2m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A | N/A | N/A | N/A | N/A |
| Date of Annual Performance Evaluation conducted in the past calendar year for gaseous parameters (MM/DD/YYYY) | 10/09/15 | N/A | N/A | N/A | N/A |

| Pollutant | Ozone | PM2.5 | PM2.5 | PM10 | Met Parameters |
|-----------------------------------------------------------------------------------------------------------------------|--------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors (MM/DD/YYYY, MM/DD/YYYY) | N/A | 05/27/15, 12/02/15 | 05/27/15, 12/02/15 | 05/27/15, 12/02/15 | N/A |
| Changes planned within the next 18 months (Y/N) | N | N | N | N | N |

| | |
|---------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Site Name | Madera – Pump Yard |
| AQS ID (XX-XXX-XXXX) | 06-039-0004 |
| Representative statistical area Name (i.e. MSA, CBSA, other) | Madera |
| County | Madera |
| Collecting (Operating) Agency | SJVAPCD |
| Analytical Lab (i.e. weigh lab, toxics lab, other) | SJVAPCD contracts out so lab varies from year to year. |
| Reporting Agency | SJVAPCD |
| Site Start Date | 10/1/1999 |
| Pollutant Parameters | Ozone, NO2, Speciated VOC, NMH |
| Meteorological Parameters | Wind speed, wind direction, outdoor temperature, relative humidity, barometric pressure, solar radiation |
| Address | Avenue 8 and Road 29 ½, Madera, CA 93637 |
| GPS Coordinates (decimal degrees) | 36.8672 N, -120.0100 W |
| Distance to roadways (meters) | 20 m (west) |
| Traffic Count/Year | 2,040/2015 (Traffic count for nearest roads: Avenue 7 west of Rte 99, westbound trips per hour in 24 hours. Source: Madera County Transportation Commission 2015 Traffic Volumes Report.) |
| Groundcover (e.g. paved, vegetative, dirt, sand, gravel) | Dirt, paved |

| Madera – Pump Yard (1) | | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------|---------------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Pollutant | Ozone | NO ₂ | Speciated VOC | NMH | Met Parameters |
| Parameter code | 44201 | 42602 | 43102 | Many | Many |
| Spatial scale | N | N | N | N | R |
| Site type | GB | PE | PE | PE | GB |
| Basic monitoring objective(s) | NC, RS, TP | NC, RS | RS | RS | RS, TP |
| Monitor type | SLAMS | SLAMS | Other | Other | Other |
| Network affiliation(s), if applicable (a monitor may have none, one, or multiple) | PAMS | PAMS | PAMS | PAMS | PAMS |
| FRM/FEM/ARM/Other | FEM | FEM | Other | Other | Other |
| POC | 1 | 1 | 1 | 1 | Many |
| Primary / QA Collocated / Other (provide for all PM _{2.5} , PM ₁₀ , PM _{10-2.5} , Pb and NO ₂ monitors. Non-PM, Pb, NO ₂ monitors should be listed as "N/A".) | N/A | N/A | N/A | N/A | N/A |
| Is it suitable for comparison against the annual PM _{2.5} ? (Y/N) | N/A | N/A | N/A | N/A | N/A |
| Instrument manufacturer and model | Teledyne 400E | Thermo 42i | Xontech 910A | Synspec Alpha 115 | ITP- Hy-Cal 512AA3B, OT- Met One 060A-2, BP- Met One 092, RH- Vaisala HMP45D, SRD- Epply Mod. 8-48, WD- Met One 020C, WS-Met One 010C |
| Analysis method | UV | CL | GC | GC | Many |
| Method code | 087 | 074 | 164 | 011 | Many |
| Monitoring start date (MM/DD/YYYY) | 10/01/99 | 10/01/99 | 10/01/99 | 10/01/99 | 10/01/99 |
| Required sampling frequency (e.g. 1:3 excluding exceptional events/1:1 including exceptional events) | Hourly | Hourly | 1:3 | Hourly | Hourly |
| Sampling season (MM/DD - MM/DD) | 01/01 – 12/31 | 01/01 – 12/31 | 06/01 – 8/31 | 01/01 – 12/31 | 01/01 – 12/31 |
| Probe height (meters) | 5.5m | 5.5m | 5.5m | 5.5m | 10m |
| Distance from supporting structure (meters) | 2m | 2m | 2m | 2m | 8.2m |

| Pollutant | Ozone | NO ₂ | Speciated VOC | NMH | Met Parameters |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|----------------------------------------------------|---------------------------------------------------|----------------------------------------------------|----------------------------------------------------|
| Distance from obstructions on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | N/A | N/A | N/A | N/A | N/A |
| Distance from obstructions not on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | 6m H 23m V Building 2m H 8m V Olive trees | 6m H 23m V Building 2m H 8m V Olive trees | 6m H 23mV Building 2m H 8m V Olive trees | 6m H 23m V Building 2m H 8m V Olive trees | 6m H 24m V Building 2m H 8m V Olive trees |
| Distance from trees (meters) | 8m | 8m | 8m | 8m | 8m |
| Distance to furnace or incinerator flue (meters) | N/A | 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 | N/A |
| Unrestricted airflow (degrees around probe/inlet or percentage of monitoring path) | 360 | 360 | 360 | 360 | 360 |
| Probe material for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon) | Pyrex | Pyrex | Stainless steel | Stainless steel | N/A |
| Residence time for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (seconds) | 10.46 | 10.48 | 11.41 | 11.41 | N/A |
| Frequency of one-point QC check for gaseous instruments | Daily | Daily | N/A | Daily | N/A |
| Frequency of flow rate verification for manual PM samplers, including Pb samplers (routine checks) | N/A | N/A | N/A | N/A | N/A |
| Frequency of flow rate verification for automated PM analyzers (routine checks) | N/A | N/A | N/A | N/A | N/A |
| For low volume PM instruments (flow rate < 200 liters/minute), is any PM instrument within 1 m of the lovol? If yes, please list distance (meters) and instrument(s). | N/A | N/A | N/A | N/A | N/A |

| Pollutant | Ozone | NO ₂ | Speciated VOC | NMH | Met Parameters |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------|---------------|-----|----------------|
| For high volume PM instrument (flow rate > 200 liters/minute), is any PM instrument within 2m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A | N/A | N/A | N/A | N/A |
| Date of Annual Performance Evaluation conducted in the past calendar year for gaseous parameters (MM/DD/YYYY) | 11/17/15 | 11/17/15 | N/A | N/A | N/A |
| Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors (MM/DD/YYYY, MM/DD/YYYY) | N/A | N/A | N/A | N/A | N/A |
| Changes planned within the next 18 months (Y/N) | N | N | N | N | N |

| Site Name | Tranquillity |
|---------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AQS ID (XX-XXX-XXXX) | 06-019-2009 |
| Representative statistical area Name (i.e. MSA, CBSA, other) | Fresno |
| County | Fresno |
| Collecting (Operating) Agency | SJVAPCD |
| Analytical Lab (i.e. weigh lab, toxics lab, other) | N/A |
| Reporting Agency | SJVAPCD |
| Site Start Date | 11/9/2009 |
| Pollutant Parameters | Ozone, PM2.5 FEM |
| Meteorological Parameters | Wind speed, wind direction, outdoor temperature, barometric pressure |
| Address | 32650 W. Adams, Tranquillity, CA 93668 |
| GPS Coordinates (decimal degrees) | 36.6008 N, -120.3822 W |
| Distance to roadways (meters) | 200m (south) |
| Traffic Count/Year | 680/2013 (Raw traffic count for nearest roads: Northbound Derrick Avenue north of Kamm Avenue, Source: Fresno COG Fresno County Regional Traffic Monitoring Report 2013) |
| Groundcover (e.g. paved, vegetative, dirt, sand, gravel) | Dirt, vegetative |

| Tranquillity (1) | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|------------------|---------------------------------------------------------------------------------------------|
| Pollutant | Ozone | PM2.5 | Met Parameters |
| Parameter code | 44201 | 88101 | Many |
| Spatial scale | U | U | U |
| Site type | PE | PE | PE |
| Basic monitoring objective(s) | NC, RS, TP | NC, RS, TP | TP |
| Monitor type | SPM | SPM | Other |
| Network affiliation(s), if applicable (a monitor may have none, one, or multiple) | N/A | N/A | N/A |
| FRM/FEM/ARM/Other | FEM | FEM | Other |
| POC | 1 | 3 | 1 |
| Primary / QA Collocated / Other (provide for all PM _{2.5} , PM ₁₀ , PM _{10-2.5} , Pb and NO ₂ monitors. Non-PM, Pb, NO ₂ monitors should be listed as "N/A".) | Primary | Primary | N/A |
| Is it suitable for comparison against the annual PM _{2.5} ? (Y/N) | N/A | Y | N/A |
| Instrument manufacturer and model | Teledyne 400E (IZS) | MET One BAM 1020 | ITP- Hy-Cal 512AA3B, OT- Met One 060A-2, BP- Met One 092, WD- Met One 020C, WS-Met One 010C |
| Analysis method | UV | Beta attenuation | Many |
| Method code | 087 | 170 | Many |
| Monitoring start date (MM/DD/YYYY) | 09/01/09 | 09/01/09 | 09/01/09 |
| Required sampling frequency (e.g. 1:3 excluding exceptional events/1:1 including exceptional events) | Hourly | Hourly | Hourly |
| Sampling season (MM/DD - MM/DD) | 1/1 – 12/31 | 1/1 – 12/31 | 1/1 – 12/31 |
| Probe height (meters) | 4.3 m | 4.9 m | 10.6m |
| Distance from supporting structure (meters) | 0 m | 1 m | 0 m |
| Distance from obstructions on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | 2 m | 1.8 m | N/A |
| Distance from obstructions not on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | 82.8 m | 76.8 m | 76.7m |
| Distance from trees (meters) | 63.7 m | 66.1 m | 63.7m |
| Distance to furnace or incinerator flue (meters) | N/A | N/A | N/A |

| Pollutant | Ozone | PM2.5 | Met Parameters |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------------------|----------------|
| Distance between monitors fulfilling a QA collocation requirement (meters). | N/A | N/A | N/A |
| Unrestricted airflow (degrees around probe/inlet or percentage of monitoring path) | 358 | 358 | 360 |
| Probe material for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon) | Teflon, glass | N/A | N/A |
| Residence time for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (seconds) | 3.93 s | N/A | N/A |
| Frequency of one-point QC check for gaseous instruments | Daily | N/A | N/A |
| Frequency of flow rate verification for manual PM samplers, including Pb samplers (routine checks) | N/A | N/A | N/A |
| Frequency of flow rate verification for automated PM analyzers (routine checks) | N/A | Bi-Weekly | N/A |
| For low volume PM instruments (flow rate < 200 liters/minute), is any PM instrument within 1 m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A | No | N/A |
| For high volume PM instrument (flow rate > 200 liters/minute), is any PM instrument within 2m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A | No | N/A |
| Date of Annual Performance Evaluation conducted in the past calendar year for gaseous parameters (MM/DD/YYYY) | 11/30/15 | N/A | N/A |
| Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors (MM/DD/YYYY, MM/DD/YYYY) | N/A | 5/28/15 11/30/15 | N/A |
| Changes planned within the next 18 months (Y/N) | N | N | N |

| | |
|---------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Site Name | Fresno – Sky Park |
| AQS ID (XX-XXX-XXXX) | 06-019-0242 |
| Representative statistical area Name (i.e. MSA, CBSA, other) | Fresno |
| County | Fresno |
| Collecting (Operating) Agency | SJVAPCD |
| Analytical Lab (i.e. weigh lab, toxics lab, other) | N/A |
| Reporting Agency | SJVAPCD |
| Site Start Date | 7/1/1986 |
| Pollutant Parameters | Ozone, NO2 |
| Meteorological Parameters | Wind speed, wind direction, outdoor temperature |
| Address | 4508 Chenault Ave., Fresno, CA 93722 |
| GPS Coordinates (decimal degrees) | 36.8405 N, -119.8740 W |
| Distance to roadways (meters) | 12m (west) |
| Traffic Count/Year | 750/2012 (Raw traffic count in a 24-hour period for nearest roads: Spruce Avenue east of Milburn Avenue. Source: Fresno COG Fresno County Regional Traffic Monitoring Report 2013.) |
| Groundcover (e.g. paved, vegetative, dirt, sand, gravel) | Gravel, dirt |

| Fresno – Sky Park (1) | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|------------------|-----------------------------------------------------------------------------|
| Pollutant | Ozone | NO ₂ | Met Parameters |
| Parameter code | 44201 | 42602 | Many |
| Spatial scale | N | N | N |
| Site type | PE, RT | PE | GB |
| Basic monitoring objective(s) | NC, RS, TP | NC | RS, TP |
| Monitor type | SLAMS | SLAMS | Other |
| Network affiliation(s), if applicable (a monitor may have none, one, or multiple) | N/A | N/A | N/A |
| FRM/FEM/ARM/Other | FEM | FEM | Other |
| POC | 1 | 1 | 1 |
| Primary / QA Collocated / Other (provide for all PM _{2.5} , PM ₁₀ , PM _{10-2.5} , Pb and NO ₂ monitors. Non-PM, Pb, NO ₂ monitors should be listed as "N/A".) | Primary | N/A | N/A |
| Is it suitable for comparison against the annual PM _{2.5} ? (Y/N) | N/A | N/A | N/A |
| Instrument manufacturer and model | Teledyne 400E | Thermo 42i | ITP- BA-512-A-A-3-B, OT- Met One 060A-2, WD- Met One 020C, WS- Met One 010C |
| Analysis method | UV | CL | Many |
| Method code | 087 | 574 | Many |
| Monitoring start date (MM/DD/YYYY) | 07/01/86 | 07/01/86 | 07/01/86 |
| Required sampling frequency (e.g. 1:3 excluding exceptional events/1:1 including exceptional events) | Hourly | Hourly | Hourly |
| Sampling season (MM/DD - MM/DD) | 01/01 – 12/31 | 01/01 – 12/31 | 01/01 – 12/31 |
| Probe height (meters) | 4.2m | 4.2m | 5.6m |
| Distance from supporting structure (meters) | .929m | .929m | 2.26m |
| Distance from obstructions on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | None | None |
| Distance from obstructions not on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | Vertical 4.3m Trees Horizontal- 1.0m | 4.3m 1.0m | 4.3m 1.2m |
| Distance from trees (meters) | 1.5m | 1.5m | 1.5m |

| Pollutant | Ozone | NO ₂ | Met Parameters |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-----------------|----------------|
| 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 |
| Unrestricted airflow (degrees around probe/inlet or percentage of monitoring path) | 280 | 280 | 280 |
| Probe material for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon) | Pyrex/Teflon | Pyrex/Teflon | N/A |
| Residence time for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (seconds) | 7.46 | 7.78 | N/A |
| Frequency of one-point QC check for gaseous instruments | Daily | Daily | N/A |
| Frequency of flow rate verification for manual PM samplers, including Pb samplers (routine checks) | N/A | N/A | N/A |
| Frequency of flow rate verification for automated PM analyzers (routine checks) | N/A | N/A | N/A |
| For low volume PM instruments (flow rate < 200 liters/minute), is any PM instrument within 1 m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A | N/A | N/A |
| For high volume PM instrument (flow rate > 200 liters/minute), is any PM instrument within 2m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A | N/A | N/A |
| Date of Annual Performance Evaluation conducted in the past calendar year for gaseous parameters (MM/DD/YYYY) | 10/08/2015 | 10/28/2015 | N/A |
| Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors (MM/DD/YYYY, MM/DD/YYYY) | N/A | N/A | N/A |
| Changes planned within the next 18 months (Y/N) | N | N | N |

| | | | |
|---------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|--------------------------------------------------------------------------------|
| Site name | Clovis – Villa | | |
| AQS ID (XX-XXX-XXXX) | 06-019-5001 | | |
| Representative statistical area Name (i.e. MSA, CBSA, other) | Fresno | | |
| County | Fresno | | |
| Collecting (Operating) Agency | SJVAPCD | | |
| Analytical Lab (i.e. weigh lab, toxics lab, other) | SJVAPCD contracts out so Analytical lab varies from year to year: Speciated VOC | CARB: PM10 FRM, PM2.5 FRM | |
| Reporting Agency | SJVAPCD: PM2.5 FEM, CO, NO ₂ , NMH, Speciated VOC, Meteorology | CARB: PM10 FRM, PM2.5 FRM | SJVAPCD contracts out so Reporting lab varies from year to year: Speciated VOC |
| Site Start Date | 9/1/1990 | | |
| Pollutant Parameters | Ozone, PM10 FRM, PM2.5 FEM, PM2.5 FRM, CO, NO ₂ , NMH, Speciated VOC | | |
| Meteorological Parameters | Wind speed, wind direction, outdoor temperature, relative humidity, barometric pressure, solar radiation | | |
| Address | 908 N. Villa Ave., Clovis CA 93612 | | |
| GPS Coordinates (decimal degrees) | 36.8194 N, -119.7160 W | | |
| Distance to roadways (meters) | 260 m (east) | | |
| Traffic Count/Year | 6,480/2008 (Raw traffic count in a 24-hour period: Villa Avenue south of Bullard Avenue, Source: Fresno COG Fresno County Regional Traffic Monitoring Report 2013. | | |
| Groundcover (e.g. paved, vegetative, dirt, sand, gravel) | Paved | | |

| Clovis – Villa (1) | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------|------------------|-----------------------|
| Pollutant | Ozone | PM10 | PM2.5 | PM2.5 |
| Parameter Code | 44201 | 81102 | 88101 | 88101 |
| Spatial scale | N | N | N | N |
| Site type | Max PEI, HC | PE | HC | HC |
| Basic monitoring objective(s) | NC, RS, TP | NC, RS | NC, TP | NC, RS |
| Monitor type | SLAMS | SLAMS | SLAMS | SLAMS |
| Network affiliation(s), if applicable (a monitor may have none, one, or multiple) | PAMS | None | None | None |
| FRM/FEM/ARM/Other | FEM | FRM | FEM | FRM |
| POC | 1 | 1 | 3 | 1 |
| Primary / QA Collocated / Other (provide for all PM _{2.5} , PM ₁₀ , PM _{10-2.5} , Pb and NO ₂ monitors. Non-PM, Pb, NO ₂ monitors should be listed as "N/A".) | Primary | Primary | QA Collocated | Primary |
| Is it suitable for comparison against the annual PM _{2.5} ? (Y/N) | N/A | N/A | Y | Y |
| Instrument manufacturer and model | Teledyne 400 E | Sierra Andersen SSI | Met One BAM 1020 | Thermo Partisol 2025i |
| Analysis method | UV | Gravimetric | Beta attenuation | Gravimetric |
| Method code | 087 | 162 | 170 | 145 |
| Monitoring start date (MM/DD/YYYY) | 01/01/90 | 01/01/90 | 11/25/08 | 09/06/12 |
| Required sampling frequency (e.g. 1:3 excluding exceptional events/1:1 including exceptional events) | Hourly | 1:6 | Hourly | 1:3 |
| Sampling season (MM/DD - MM/DD) | ALL YEAR | ALL YEAR | ALL YEAR | ALL YEAR |
| Probe height (meters) | 5.5 m | 5.5 m | 6.0 m | 6.0 m |
| Distance from supporting structure (meters) | 2 m | 2 m | 2 m | 2m |
| Distance from obstructions on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | N/A | N/A | N/A | N/A |
| Distance from obstructions not on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | N/A | N/A | N/A | N/A |
| Distance from trees (meters) | 37.5 m | 37.5 m | 37.5 m | 37.5 m |
| Distance to furnace or incinerator flue (meters) | N/A | N/A | N/A | N/A |

| Pollutant | Ozone | PM10 | PM2.5 | PM2.5 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------------------------|--------------------------|--------------------------|
| Distance between monitors fulfilling a QA collocation requirement (meters). | N/A | N/A | 2.5 | N/A |
| Unrestricted airflow (degrees around probe/inlet or percentage of monitoring path) | 355 | 355 | 355 | 360 |
| Probe material for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon) | Pyrex | N/A | N/A | N/A |
| Residence time for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (seconds) | 4.4 | N/A | N/A | N/A |
| For low volume PM instruments (flow rate < 200 liters/minute), is any PM instrument within 1 m of the lovol? If yes, please list distance (meters) and instrument(s). | N/A | No | No | No |
| For high volume PM instrument (flow rate > 200 liters/minute), is any PM instrument within 2m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A | No | No | no |
| Frequency of flow rate verification for manual PM samplers, including Pb samplers (routine checks) | N/A | Monthly | N/A | Monthly |
| Frequency of flow rate verification for automated PM analyzers (routine checks) | N/A | N/A | N/A | Bi-weekly |
| Frequency of one-point QC check for gaseous instruments | Daily | N/A | N/A | N/A |
| Date of Annual Performance Evaluation conducted in the past calendar year for gaseous parameters (MM/DD/YYYY) | 3/18/2015 | N/A | N/A | N/A |
| Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors (MM/DD/YYYY, MM/DD/YYYY) | N/A | 03/18/2015 09/16/2015 | 03/18/2015 09/16/2015 | 03/18/2015 09/16/2015 |
| Changes planned within the next 18 months (Y/N) | N | N | N | N |

| Clovis – Villa (2) | | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-----------------|----------------------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Pollutant | CO | NO ₂ | Speciated VOC | NMH | Met Parameters |
| Parameter code | 42101 | 42602 | Many | 43102 | Many |
| Spatial scale | N | N | N | N | R |
| Site type | Max PEI, PE | HC | PE | HC | Other |
| Basic monitoring objective(s) | NC | NC, RS | RS | RS | RS, TP |
| Monitor type | SLAMS | SLAMS | Other | Other | Other |
| Network affiliation(s), if applicable (a monitor may have none, one, or multiple) | PAMS | PAMS | PAMS | PAMS | PAMS |
| FRM/FEM/ARM/Other | FEM | FEM | Other | Other | Other |
| POC | 1 | 1 | 1 | 1 | 1 |
| Primary / QA Collocated / Other (provide for all PM _{2.5} , PM ₁₀ , PM _{10-2.5} , Pb and NO ₂ monitors. Non-PM, Pb, NO ₂ monitors should be listed as "N/A".) | Primary | N/A | N/A | N/A | Other |
| Is it suitable for comparison against the annual PM _{2.5} ? (Y/N) | N/A | N/A | N/A | N/A | N/A |
| Instrument manufacturer and model | Themo 48i | Thermo 42i | Xontech 910A / Xontech 925 | Synpec Alpha 115 | ITP- HY-CAL BA 512-A-A-3-B, OT-Met-One 060A-2, BP- Met-One 092, RH- VAISALA HMP45D, SRD- EPPLY Mod.8-48, WD- Met-One 020C, WS-Met One 010C, BP- Met One 092 |
| Analysis method | IR | Chem. | GC / UV Absorption | Flame Ionization | Many |
| Method code | 554 | 099 | 177 / 202 | 011 | Many |
| Monitoring start date (MM/DD/YYYY) | 01/01/90 | 01/01/90 | 01/01/90 | 01/01/90 | 01/01/90 |
| Required sampling frequency (e.g. 1:3 excluding exceptional events/1:1 including exceptional events) | Hourly | Hourly | 1:3 | Hourly | Hourly |
| Sampling season (MM/DD - MM/DD) | ALL YEAR | ALL YEAR | 06/01 – 08/31 | ALL YEAR | ALL YEAR |
| Probe height (meters) | 5.5 m | 5.5 m | 5.5 m | 5.5 m | 10 m |

| Pollutant | CO | NO ₂ | Speciated VOC | NMH | Met Parameters |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-----------------|-----------------|--------|----------------|
| Distance from supporting structure (meters) | 2 m | 2 m | 2 m | 2 m | 7.5 m |
| Distance from obstructions on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | N/A | N/A | N/A | N/A | N/A |
| Distance from obstructions not on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | N/A | N/A | N/A | N/A | 29.5 m |
| Distance from trees (meters) | 37.5 m | 37.5 m | 37.5 m | 37.5 m | 25.5 m |
| Distance to furnace or incinerator flue (meters) | 16.0 m | 16.0 m | 13.5 m | 16.0 m | N/A |
| Distance between monitors fulfilling a QA collocation requirement (meters). | N/A | N/A | N/A | N/A | N/A |
| Unrestricted airflow (degrees around probe/inlet or percentage of monitoring path) | 355 | 355 | 350 | 355 | 360 |
| Probe material for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon) | Pyrex | Pyrex | Stainless steel | Pyrex | N/A |
| Residence time for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (seconds) | 5.0 | 5.4 | 5.0 | 3.2 | N/A |
| For low volume PM instruments (flow rate < 200 liters/minute), is any PM instrument within 1 m of the lovol? If yes, please list distance (meters) and instrument(s). | N/A | N/A | N/A | N/A | N/A |
| For high volume PM instrument (flow rate > 200 liters/minute), is any PM instrument within 2m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A | N/A | N/A | N/A | N/A |

| Pollutant | CO | NO ₂ | Speciated VOC | NMH | Met Parameters |
|-----------------------------------------------------------------------------------------------------------------------|----------|-----------------|---------------|-------|----------------|
| Frequency of flow rate verification for manual PM samplers, including Pb samplers (routine checks) | N/A | N/A | N/A | N/A | N/A |
| Frequency of flow rate verification for automated PM analyzers (routine checks) | N/A | N/A | N/A | N/A | N/A |
| Frequency of one-point QC check (gaseous) | Daily | Daily | N/A | Daily | N/A |
| Date of Annual Performance Evaluation conducted in the past calendar year for gaseous parameters (MM/DD/YYYY) | 03/18/15 | 03/18/15 | N/A | N/A | N/A |
| Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors (MM/DD/YYYY, MM/DD/YYYY) | N/A | N/A | N/A | N/A | N/A |
| Changes planned within the next 18 months (Y/N) | N | N | N | N | N |

| | |
|---------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Site Name | Fresno – Garland |
| AQS ID (XX-XXX-XXXX) | 06-019-0011 |
| Representative statistical area Name (i.e. MSA, CBSA, other) | Fresno |
| County | Fresno |
| Collecting (Operating) Agency | CARB |
| Analytical Lab (i.e. weigh lab, toxics lab, other) | CARB |
| Reporting Agency | CARB |
| Site Start Date | 12/31/2011 |
| Pollutant Parameters | Ozone, PM10 STP FEM, PM _{10-2.5} FEM, PM2.5 FRM (2), PM2.5 FEM, PM2.5 Speciation (STN), CO, NO ₂ , NO _y , SO ₂ , Lead, Toxics |
| Meteorological Parameters | Wind speed, wind direction, outdoor temperature, barometric pressure |
| Address | 3727 N. First St., Ste.104, Fresno CA 93726 |
| GPS Coordinates (decimal degrees) | 36.7853 N, -119.7732 W |
| Distance to roadways (meters) | 30 m (south) |
| Traffic Count/Year | 7,460/2011 (Raw traffic count in a 24-hour period: First Street near Dakota Avenue, Source: Fresno COG Fresno County Regional Traffic Monitoring Report 2013.) |
| Groundcover (e.g. paved, vegetative, dirt, sand, gravel) | Gravel covered tar paper with wooden deck walkways |

| Fresno–Garland (1) | | | | | |
|-------------------------------------------------------------------------------------------------------------------------------------|------------------|------------|-----------------|-----------------|-----------------------------|
| Pollutant | Ozone | CO | NO ₂ | SO ₂ | PM10 STP |
| Parameter code | 44201 | 42101 | 42602 | 42401 | 81102 |
| Spatial scale | U | U | U | U | N |
| Site type | PE | PE | Max PEI | PE | PE |
| Basic monitoring objective(s) | NC, RS | NC, RS | NC, RS | NC, RS | NC, RS |
| Monitor type | SLAMS | SLAMS | SLAMS | SLAMS | SLAMS |
| Network affiliation | NCore | NCore | NCore | NCore | NCore |
| FRM/FEM/ARM/Other | FEM | FRM | FRM | FEM | FEM |
| POC | 1 | 3 | 1 | 1 | 3 |
| Primary/Monitor Collocation/Other | N/A | N/A | N/A | N/A | Primary |
| Is it suitable for comparison against the annual PM _{2.5} ? (Y/N) | N/A | N/A | N/A | N/A | N/A |
| Method code | 087 | 593 | 099 | 009 | 122 |
| Sampling method (List Instrument) | API/Teledyne 400 | API 300 EU | API 200E | Thermo 43 | Instrument Met One 4 Models |
| Analysis method | UV | UV | UV | UV | Beta Attenuation |
| Monitoring start date | 12/23/2011 | 1/18/2012 | 2/1/2012 | 1/18/2012 | 1/1/2012 |
| Current sampling frequency (e.g. Hourly, 1:3) | Hourly | Hourly | Hourly | Hourly | Hourly |
| Sampling season | ALL YEAR | ALL YEAR | ALL YEAR | ALL YEAR | ALL YEAR |
| Probe/Inlet height above ground (meters) | 7.0 | 7.0 | 7.0 | 7.0 | 6.2 |
| Distance from supporting structure (meters) | None | None | None | None | N/A |
| Distance from obstructions on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | None | None | None | None |
| Distance from obstructions not on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | None | None | None | None |
| Distance from trees (meters) | None | None | None | None | None |
| Distance to furnace or incinerator flue (meters) | None | None | None | None | None |
| Distance between collocated monitors (meters) | N/A | N/A | N/A | N/A | 1.0 |
| Unrestricted airflow (degrees) | 360 | 360 | 360 | 360 | 360 |
| Probe material (Teflon, etc.) | Teflon | Teflon | Teflon | Teflon | Aluminum |

| Pollutant | Ozone | CO | NO ₂ | SO ₂ | PM10 STP |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------|-----------------|-----------------|------------------------|
| Residence time (seconds) | 2.5 | 16.8 | 2.6 | 5.9 | N/A |
| For low volume PM instruments (flow rate < 200 liters/minute), is any PM instrument within 1 m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A | N/A | N/A | N/A | No |
| For high volume PM instrument (flow rate > 200 liters/minute), is any PM instrument within 2m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A | N/A | N/A | N/A | N/A |
| Frequency of flow rate verification for manual PM samplers audit | N/A | N/A | N/A | N/A | Bi-weekly |
| Frequency of flow rate verification for automated PM analyzers audit | N/A | N/A | N/A | N/A | BI-weekly |
| Frequency of one-point QC check (gaseous) | Nightly | Nightly | Nightly | Nightly | N/A |
| Last Annual Performance Evaluation (gaseous) | 03/17/2015 | 04/16/2015 | 03/17/2015 | 04/16/2015 | N/A |
| Last two semi-annual flow rate audits for PM monitors | N/A | N/A | N/A | N/A | 03/17/2015, 09/17/2015 |
| Changes planned within the next 18 months (Y/N) | N | N | N | N | N |

| Fresno – Garland (2) | | | | | | |
|-------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|-------------------|---------------------|-------------------|------------------------------|------------------------------|
| Pollutant | PM _{10-2.5} | PM _{2.5} | PM _{2.5} | PM _{2.5} | PM _{2.5} Speciation | PM _{2.5} Speciation |
| Parameter code | 86101 | 88101 | 88101 | 88101 | Various | Various |
| Spatial scale | N | N | N | N | N, U | N, U |
| Site type | PE, QA | HC | HC, PE, QA | HC | PE | PE |
| Basic monitoring objective(s) | NC, RS | NC, RS | NC, RS | NC, RS | RS | RS |
| Monitor type | SLAMS | SLAMS | SLAMS | SLAMS | Other | Other |
| Network affiliation | NCore | NCore | NCore | NCore | STN | STN |
| FRM/FEM/ARM/Other | FEM | FRM | FRM | FEM | Other | Other |
| POC | 3 | 1 | 2 | 3 | 5 | 5 |
| Primary/Monitor Collocation/Other | Monitor Collocation, serving as Primary | Primary | Monitor Collocation | Collocated | Primary | Primary |
| Is it suitable for comparison against the annual PM _{2.5} ? (Y/N) | N/A | Y | Y | Y | N/A | N/A |
| Method code | 185 | 118 | 118 | 170 | 810 | 839 |
| Sampling method (List Instrument) | Met One BAM 1020 | R&P 2025 | R&P 2025 | MetOne 1020 | Met-One SASS | URG 3000-N |
| Analysis method | Beta Attenuation | Sequential | Sequential | Beta Attenuation | Various | Various |
| Monitoring start date | 10/14/2013 | 1/1/2012 | 1/25/2012 | 1/1/2012 | 1/1/2012 | 1/1/2012 |
| Current sampling frequency (e.g. Hourly, 1:3) | Hourly | 1:1 | 1:6 | Hourly | 1:3 | 1:3 |
| Sampling season | ALL YEAR | ALL YEAR | ALL YEAR | ALL YEAR | ALL YEAR | ALL YEAR |
| Probe/Inlet height above ground (meters) | 6.3 | 5.9 | 5.9 | 6.4 | 5.5 | 5.5 |
| Distance from supporting structure (meters) | None | None | None | None | 2 | 2 |
| Distance from obstructions on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | None | None | None | 10 | 10 |
| Distance from obstructions not on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | None | None | None | 11 | 9 |
| Distance from trees (meters) | None | None | None | None | 11 | 9 |

| Pollutant | PM _{10-2.5} | PM _{2.5} | PM _{2.5} | PM _{2.5} | PM _{2.5} Speciation | PM _{2.5} Speciation |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------------|------------------------------|
| Distance to furnace or incinerator flue (meters) | None | None | None | None | 9 | 9 |
| Distance between collocated monitors (meters) | N/A | 2.0 | 2.0 | N/A | 2.5 | 2.5 |
| Unrestricted airflow (degrees) | 360 | 360 | 360 | 360 | 360 | 360 |
| Probe material (Teflon, etc.) | N/A | N/A | N/A | N/A | N/A | N/A |
| Residence time (seconds) | N/A | N/A | N/A | N/A | N/A | N/A |
| For low volume PM instruments (flow rate < 200 liters/minute), is any PM instrument within 1 m of the lovol? If yes, please list distance (meters) and instrument(s). | No | No | No | No | No | No |
| For high volume PM instrument (flow rate > 200 liters/minute), is any PM instrument within 2m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A | N/A | N/A | N/A | N/A | N/A |
| Frequency of flow rate verification for manual PM samplers audit | Bi-weekly | Monthly | Monthly | Bi-weekly | Bi-weekly | Bi-weekly |
| Frequency of flow rate verification for automated PM analyzers audit | Bi-weekly | Monthly | Monthly | BI-weekly | N/A | N/A |
| Frequency of one-point QC check (gaseous) | N/A | N/A | N/A | N/A | N/A | N/A |
| Last Annual Performance Evaluation (gaseous) | N/A | N/A | N/A | N/A | N/A | N/A |
| Last two semi-annual flow rate audits for PM monitors | 03/17/15, 09/17/15 | 03/17/15, 09/17/15 | 03/17/15, 09/17/15 | 03/17/15, 09/17/15 | N/A | N/A |
| Changes planned within the next 18 months (Y/N) | N | N | N | N | N | N |

| Fresno–Garland (3) | | | | | |
|-------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-----------------------|--------------|---------------|-----------------------|
| Pollutant | Lead TSP (LC) | Lead TSP (STP) | NOy | Toxics | Met Parameters |
| Parameter code | 14129 | 12128 | 42600 | Many | Many |
| Spatial scale | N | N | U | N | U |
| Site type | PE | PE | PE | PE | GB |
| Monitor objective | NC, RS, TP | NC | NC, RS | RS, TP | RS, TP |
| Monitor type | SLAMS | SLAMS | SLAMS | SLAMS | SLAMS |
| Network affiliation | NCore | NCore | NCore | NCore | NCore |
| FRM/FEM/ARM/Other | Other | Other | Other | Other | Other |
| POC, Primary/Secondary/Collocated | 1 | 1 | 3 | Many | Many |
| Is it suitable for comparison against the annual PM _{2.5} ? (Y/N) | N/A | N/A | N/A | N/A | N/A |
| Method code | 803 | 803 | 699 | Many | Many |
| Instrument manufacturer and model | Tisch Environmental TE-5170-D | Hi-Vol Xontech | Instrumental | Xontech 924 | Many |
| Monitoring start date | 2/1/2012 | 2/1/2012 | 1/18/2012 | 12/23/2011 | 12/23/2011 |
| Current sampling frequency (e.g. Hourly, 1:3) | 1:6 | 1:6 | Hourly | Hourly | Hourly |
| Calculated sampling frequency (e.g. 1:3/1:1) | 1:6 | 1:6 | Continuous | Continuous | Continuous |
| Sampling season | ALL YEAR | ALL YEAR | ALL YEAR | ALL YEAR | ALL YEAR |
| Probe height (meters) | 1.35 | 5.9 | 6.2 | 5.8 | 10 |
| Distance from supporting structure (meters) | 1.2 | 2.1 | N/A | 2 | 8 |
| Distance from obstructions on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | None | None | None | None |
| Distance from obstructions not on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | None | None | None | None |
| Distance from trees (meters) | None | None | None | None | None |
| Distance to furnace or incinerator flue (meters) | 2.4 | 2.4 | None | None | None |
| Distance between collocated monitors (meters) | N/A | N/A | N/A | N/A | N/A |
| Unrestricted airflow (degrees) | 360 | 360 | 360 | 360 | 360 |
| Probe material (Teflon, etc.) | N/A | Teflon | Teflon | Teflon | Teflon |

| Pollutant | Lead TSP (LC) | Lead TSP (STP) | NOy | Toxics | Met Parameters |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------------|--------------|----------|----------------|
| Residence time (seconds) | N/A | N/A | < 20 seconds | N/A | N/A |
| For low volume PM instruments (flow rate < 200 liters/minute), is any PM instrument within 1 m of the lovol? If yes, please list distance (meters) and instrument(s). | N/A | N/A | N/A | N/A | N/A |
| For high volume PM instrument (flow rate > 200 liters/minute), is any PM instrument within 2m of the hivol? If yes, please list distance (meters) and instrument(s). | No | No | N/A | N/A | N/A |
| Frequency of flow rate verification for manual PM samplers audit | Monthly | Monthly | N/A | N/A | N/A |
| Frequency of flow rate verification for automated PM analyzers audit | Monthly | Monthly | N/A | N/A | N/A |
| Frequency of one-point QC check (gaseous) | N/A | N/A | Nightly | N/A | N/A |
| Last Annual Performance Evaluation (gaseous) | N/A | N/A | 03/17/15 | 03/17/15 | N/A |
| Last two semi-annual flow rate audits for PM monitors | 03/17/15, 09/17/15 | 03/17/15, 09/17/15 | N/A | N/A | N/A |
| Changes planned within the next 18 months (Y/N) | N | Y | Y | N | N |

| | |
|---------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Site Name | Fresno - Pacific |
| AQS ID (XX-XXX-XXXX) | 06-019-5025 |
| Representative statistical area Name (i.e. MSA, CBSA, other) | Fresno |
| County | Fresno |
| Collecting (Operating) Agency | SJVAPCD |
| Analytical Lab (i.e. weigh lab, toxics lab, other) | CARB |
| Reporting Agency | CARB |
| Site Start Date | 1/1/00 |
| Pollutant Parameters | PM2.5 FRM |
| Meteorological Parameters | None |
| Address | 1716 Winery, Fresno, CA 93727 |
| GPS Coordinates (decimal degrees) | 36.7263N, -119.7330W |
| Distance to roadways (meters) | 40 m (east) |
| Traffic Count/Year | 5,350/2011 (Raw traffic count in a 24-hour period: Butler Avenue east of Chestnut Avenue, Source: Fresno COG Fresno County Regional Traffic Monitoring Report 2013.) |
| Groundcover (e.g. paved, vegetative, dirt, sand, gravel) | Rubber roof coating |

| Fresno – Pacific (1) | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Pollutant | PM2.5 |
| Parameter code | 88101 |
| Spatial scale | N |
| Site type | PE |
| Basic monitoring objective(s) | NC, RS |
| Monitor type | SLAMS |
| Network affiliation(s), if applicable (a monitor may have none, one, or multiple) | N/A |
| FRM/FEM/ARM/Other | FRM |
| POC | 1 |
| Primary / QA Collocated / Other (provide for all PM _{2.5} , PM ₁₀ , PM _{10-2.5} , Pb and NO ₂ monitors. Non-PM, Pb, NO ₂ monitors should be listed as "N/A".) | Primary |
| Is it suitable for comparison against the annual PM _{2.5} ? (Y/N) | Y |
| Instrument manufacturer and model | Partisol 2025I |
| Analysis method | Gravimetric |
| Method code | 145 |
| Monitoring start date (MM/DD/YYYY) | 01/01/00 |
| Required sampling frequency (e.g. 1:3 excluding exceptional events/1:1 including exceptional events) | 1:3 |
| Sampling season (MM/DD - MM/DD) | 01/01 – 12/31 |
| Probe height (meters) | 11.3m |
| Distance from supporting structure (meters) | 2.1m |
| Distance from obstructions on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None |
| Distance from obstructions not on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | 53.4m NE 5.1 above vertical |
| Distance from trees (meters) | 77m |
| Distance to furnace or incinerator flue (meters) | None |
| Distance between monitors fulfilling a QA collocation requirement (meters). | N/A |

| Pollutant | PM2.5 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| Unrestricted airflow (degrees around probe/inlet or percentage of monitoring path) | 360 |
| Probe material for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon) | Aluminum |
| Residence time for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (seconds) | N/A |
| For low volume PM instruments (flow rate < 200 liters/minute), is any PM instrument within 1 m of the lovol? If yes, please list distance (meters) and instrument(s). | No |
| For high volume PM instrument (flow rate > 200 liters/minute), is any PM instrument within 2m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A |
| Frequency of flow rate verification for manual PM samplers, including Pb samplers (routine checks) | Biweekly |
| Frequency of flow rate verification for automated PM analyzers (routine checks) | N/A |
| Frequency of one-point QC check for gaseous instruments | N/A |
| Date of Annual Performance Evaluation conducted in the past calendar year for gaseous parameters (MM/DD/YYYY) | N/A |
| Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors (MM/DD/YYYY, MM/DD/YYYY) | 03/04/15, 09/22/15 |
| Changes planned within the next 18 months (Y/N) | N |

| | | |
|---------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Site Name | Fresno - Drummond | |
| AQS ID (XX-XXX-XXXX) | 06-019-0007 | |
| Representative statistical area Name (i.e. MSA, CBSA, other) | Fresno | |
| County | Fresno | |
| Collecting (Operating) Agency | SJVAPCD | |
| Analytical Lab (i.e. weigh lab, toxics lab, other) | CARB | |
| Reporting Agency | SJVAPCD: Ozone, CO, NO2, PM2.5 | CARB: PM10 FRM |
| Site Start Date | 7/1/84 | |
| Pollutant Parameters | | |
| | Ozone, PM10 FRM, NO2 | |
| Meteorological Parameters | | |
| | Wind speed, wind direction, outdoor temperature, barometric pressure | |
| Address | | |
| | 4706 E. Drummond Street, Fresno, CA 93725 | |
| GPS Coordinates (decimal degrees) | | |
| | 36.7055 N, -119.7410 W | |
| Distance to roadways (meters) | | |
| | 50m | |
| Traffic Count/Year | | |
| | 7,110/2010 (Raw traffic count in a 24-hour period for nearest roads: Jensen Avenue east of Chestnut Avenue, Source: Fresno COG Fresno County Regional Traffic Monitoring Report 2013. | |
| Groundcover (e.g. paved, vegetative, dirt, sand, gravel) | | |
| | Paved | |

| Fresno – Drummond (1) | | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------------------|---------------------|-----------------|--------------------------------------------------------------------------------------------|
| Pollutant | Ozone | PM10 | PM10 | NO ₂ | Met Parameters |
| Parameter code | 44201 | 81102 | 81102 | 42602 | Many |
| Spatial scale | N | N | N | N | R |
| Site type | PE, HC, RT | PE | PE, QA | HC | GB |
| Basic monitoring objective(s) | NC, RS, TP | NC, RS | RS | NC | RS, TP |
| Monitor type | SLAMS | SLAMS | SLAMS | SLAMS | SLAMS |
| Network affiliation(s), if applicable (a monitor may have none, one, or multiple) | N/A | N/A | N/A | N/A | N/A |
| FRM/FEM/ARM/Other | FEM | FRM | FRM | FEM | Other |
| POC | 1 | 1 | 2 | 1 | 1 |
| Primary / QA Collocated / Other (provide for all PM _{2.5} , PM ₁₀ , PM _{10-2.5} , Pb and NO ₂ monitors. Non-PM, Pb, NO ₂ monitors should be listed as "N/A".) | Primary | Primary | Monitor Collocation | N/A | N/A |
| Is it suitable for comparison against the annual PM _{2.5} ? (Y/N) | N/A | N/A | N/A | N/A | N/A |
| Instrument manufacturer and model | Teledyne API 400E | ECOTECH Hi-Vol 3000 | ECOTECH Hi-Vol 3000 | Thermo 42i | ITP- HY-CAL BAAA3B, OT-Met One 060A-2, BP- Met One 092, WD- Met One 020C, WS- Met One 010C |
| Analysis method | UV | Gravimetric | Gravimetric | CL | Many |
| Method code | 087 | 162 | 162 | 574 | Many |
| Monitoring start date (MM/DD/YYYY) | 07/01/84 | 07/01/84 | 7/01/084 | 07/01/84 | 07/01/84 |
| Required sampling frequency (e.g. 1:3 excluding exceptional events/1:1 including exceptional events) | Hourly | 1:6 | 1:6 | Hourly | Hourly |
| Sampling season (MM/DD - MM/DD) | 01/01 – 12/31 | 01/01 – 12/31 | 01/01 – 12/31 | 01/01 -12/31 | 01/01 – 12/31 |
| Probe height (meters) | 8.1m | 5.9m | 5.9m | 8.1m | 9.9m |
| Distance from supporting structure (meters) | 2.8m | 1.7m | 1.7m | 2.8m | N/A |
| Distance from obstructions on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | None | None | None | None |
| Distance from obstructions not on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | None | None | None | None |
| Distance from trees (meters) | 22.5 m | 22.5m | 25.5m | 22.5m | 25.0m |
| Distance to furnace or incinerator flue (meters) | None | None | None | None | None |

| Pollutant | Ozone | PM10 | PM10 | NO ₂ | Met Parameters |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------------|-----------------------|-----------------|----------------|
| Distance between monitors fulfilling a QA collocation requirement (meters). | None | 3.9m | 3.9m | None | N/A |
| Unrestricted airflow (degrees around probe/inlet or percentage of monitoring path) | 360 | 360 | 360 | 360 | 360 |
| Probe material for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon) | Pyrex | Aluminum | Aluminum | Pyrex | N/A |
| Residence time for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (seconds) | 8.73 | N/A | N/A | 10.65 | N/A |
| Frequency of one-point QC check for gaseous instruments | Daily | N/A | N/A | Daily | N/A |
| Frequency of flow rate verification for manual PM samplers, including Pb samplers (routine checks) | Daily | Monthly | Monthly | Daily | N/A |
| Frequency of flow rate verification for automated PM analyzers (routine checks) | N/A | None | None | N/A | N/A |
| For low volume PM instruments (flow rate < 200 liters/minute), is any PM instrument within 1 m of the lovol? If yes, please list distance (meters) and instrument(s). | N/A | None | None | N/A | N/A |
| For high volume PM instrument (flow rate > 200 liters/minute), is any PM instrument within 2m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A | No | No | N/A | N/A |
| Date of Annual Performance Evaluation conducted in the past calendar year for gaseous parameters (MM/DD/YYYY) | 03/04/15 | N/A | N/A | 03/04/15 | N/A |
| Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors (MM/DD/YYYY, MM/DD/YYYY) | N/A | 03/04/15, 09/22/15 | 03/04/15, 09/22/15 | N/A | N/A |
| Changes planned within the next 18 months (Y/N) | N | N | N | N | N |

| | |
|---------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| Site Name | Fresno - Foundry |
| AQS ID (XX-XXX-XXXX) | 06-019-2016 |
| Representative statistical area Name (i.e. MSA, CBSA, other) | Fresno |
| County | Fresno |
| Collecting (Operating) Agency | SJVAPCD |
| Analytical Lab (i.e. weigh lab, toxics lab, other) | N/A |
| Reporting Agency | SJVAPCD |
| Site Start Date | 1/1/2016 |
| Pollutant Parameters | NO2 |
| Meteorological Parameters | Wind speed, wind direction, outdoor temperature, barometric pressure |
| Address | 2482 Foundry Park Ave, Fresno, CA 93706 |
| GPS Coordinates (decimal degrees) | 36.710833N, -119.7775W |
| Distance to roadways (meters) | 16 to 19 meters |
| Traffic Count/Year | 93,000 AADT (FEAADT 227,505) / 2010 (Rte 99 at Jensen Avenue off-ramp, Source: Caltrans 2010) |
| Groundcover (e.g. paved, vegetative, dirt, sand, gravel) | Paved |

| Fresno – Foundry (1) | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|---------------------------------------------------------------------------------------------------|
| Pollutant | NO ₂ | Met Parameters |
| Parameter code | 42602 | Many |
| Spatial scale | Micro | N |
| Site type | HC | PE |
| Basic monitoring objective(s) | NC, RS, TP | RS, TP |
| Monitor type | SLAMS | Other |
| Network affiliation(s), if applicable (a monitor may have none, one, or multiple) | Near-road | Near-road |
| FRM/FEM/ARM/Other | FEM | Other |
| POC | 1 | Many |
| Primary / QA Collocated / Other (provide for all PM _{2.5} , PM ₁₀ , PM _{10-2.5} , Pb and NO ₂ monitors. Non-PM, Pb, NO ₂ monitors should be listed as “N/A”.) | Primary | Other |
| Is it suitable for comparison against the annual PM _{2.5} ? (Y/N) | N/A | N/A |
| Instrument manufacturer and model | Teledyne T500U | ITP – Hy-Cal 512AA3B, OT – MET One 060-A-2, BP – MET One 092, WD – MET One 020C, WS – METOne 010C |
| Analysis method | CL | Many |
| Method code | 212 | Many |
| Monitoring start date (MM/DD/YYYY) | 01/01/16 | 01/01/16 |
| Required sampling frequency (e.g. 1:3 excluding exceptional events/1:1 including exceptional events) | Hourly | Hourly |
| Sampling season (MM/DD - MM/DD) | All Year | All Year |
| Probe height (meters) | 4.6 | 4.6 |
| Distance from supporting structure (meters) | 1.9 | 1.9 |
| Distance from obstructions on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | N/A |
| Distance from obstructions not on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | 26.3m H (north), 4m V 37m H (east), 4m V | 26.3m H (north), 4m V 37m H (east), 4m V |
| Distance from trees (meters) | 9.3m | 9.3m |
| Distance to furnace or incinerator flue (meters) | None | None |

| Pollutant | NO ₂ | Met Parameters |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----------------|
| Distance between monitors fulfilling a QA collocation requirement (meters). | N/A | N/A |
| Unrestricted airflow (degrees around probe/inlet or percentage of monitoring path) | 360 | 360 |
| Probe material for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon) | Pyrex | N/A |
| Residence time for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (seconds) | 3.20 | N/A |
| Frequency of one-point QC check for gaseous instruments | Daily | N/A |
| Frequency of flow rate verification for manual PM samplers, including Pb samplers (routine checks) | N/A | N/A |
| Frequency of flow rate verification for automated PM analyzers (routine checks) | N/A | N/A |
| For low volume PM instruments (flow rate < 200 liters/minute), is any PM instrument within 1 m of the lovol? If yes, please list distance (meters) and instrument(s). | N/A | N/A |
| For high volume PM instrument (flow rate > 200 liters/minute), is any PM instrument within 2m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A | N/A |
| Date of Annual Performance Evaluation conducted in the past calendar year for gaseous parameters (MM/DD/YYYY) | New site | N/A |
| Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors (MM/DD/YYYY, MM/DD/YYYY) | N/A | N/A |
| Changes planned within the next 18 months (Y/N) | N | N |

| | |
|---------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Site Name | Parlier |
| AQS ID (XX-XXX-XXXX) | 06-019-4001 |
| Representative statistical area Name (i.e. MSA, CBSA, other) | Fresno |
| County | Fresno |
| Collecting (Operating) Agency | SJVAPCD |
| Analytical Lab (i.e. weigh lab, toxics lab, other) | SJVAPCD contracts out so Analytical lab varies from year to year: Speciated VOC |
| Reporting Agency | SJVAPCD |
| Site Start Date | 6/1/1983 |
| Pollutant Parameters | Ozone, NO2, Speciated VOC, NMH |
| Meteorological Parameters | Wind speed, wind direction, outdoor temperature, relative humidity, barometric pressure, solar radiation |
| Address | 9240 S. Riverbend Ave., Parlier, CA 93648 |
| GPS Coordinates (decimal degrees) | 36.5972 N, -119.5040 W |
| Distance to roadways (meters) | 100m (east) |
| Traffic Count/Year | 1,570/2009 (Raw traffic count in a 24-hour period for nearest roads: Lac Jac Ave south of Manning Avenue, Source: Fresno COG Fresno County Regional Traffic Monitoring Report 2013. |
| Groundcover (e.g. paved, vegetative, dirt, sand, gravel) | Dirt, vegetative |

| Parlier (1) | | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------|---------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Pollutant | Ozone | NO ₂ | Speciated VOC | NMH | Met Parameters |
| Parameter code | 44201 | 42602 | Many | 43102 | Many |
| Spatial scale | N | N | N | N | R |
| Site type | HC, RT | PE | PE | PE | GB |
| Basic monitoring objective(s) | NC, RS, TP | NC, RS | RS | RS | RS, TP |
| Monitor type | SLAMS | SLAMS | Other | Other | Many |
| Network affiliation(s), if applicable (a monitor may have none, one, or multiple) | PAMS | PAMS, RA40 | PAMS | PAMS | PAMS |
| FRM/FEM/ARM/Other | FEM | FEM | Other | Other | Other |
| Primary / QA Collocated / Other (provide for all PM _{2.5} , PM ₁₀ , PM _{10-2.5} , Pb and NO ₂ monitors. Non-PM, Pb, NO ₂ monitors should be listed as "N/A".) | Primary | N/A | N/A | N/A | N/A |
| Is it suitable for comparison against the annual PM _{2.5} ? (Y/N) | N/A | N/A | N/A | N/A | N/A |
| Instrument manufacturer and model | Teledyne 400E | Teledyne 200E | Xontech 910A | Synspec 115 | ITP- Hy-Cal 512AA3B, OT- Met One 060A-2, BP- Met One 092, RH- Vaisala HMP45D, SRD- Epply Mod.8-48, WD- Met One 020C, WS- Met One 010C |
| Analysis method | UV | CL | GC | GC | Many |
| Method code | 087 | 099 | 126 | 011 | Many |
| Monitoring start date (MM/DD/YYYY) | 06/01/83 | 06/01/83 | 06/01/83 | 06/01/83 | 06/01/83 |
| Required sampling frequency (e.g. 1:3 excluding exceptional events/1:1 including exceptional events) | Hourly | Hourly | 1:3 | Hourly | Hourly |
| Sampling season (MM/DD - MM/DD) | 01/01 – 12/31 | 01/01 – 12/31 | 06/01 – 08/31 | 01/01 – 12/31 | 01/01 - 12/31 |
| Probe height (meters) | 8.7 m | 8.7 m | 8.7m | 8.7m | 8.4m |
| Distance from supporting structure (meters) | 2.7 m | 2.7m | 2.7m | 2.7m | 4.9m |

| Pollutant | Ozone | NO ₂ | Speciated VOC | NMH | Met Parameters |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------|-----------------|---------------|----------------|
| Distance from obstructions on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | None | None | None | None |
| Distance from obstructions not on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | 39.0 m | 39.0m | 39.0m | 39.0m | 38.9 |
| Distance from trees (meters) | 11.0 m | 11.0m | 11.0 m | 11.0m | 10.2 |
| Distance to furnace or incinerator flue (meters) | N/A | 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 | N/A |
| Unrestricted airflow (degrees around probe/inlet or percentage of monitoring path) | 360 | 360 | 360 | 360 | 360 |
| Probe material for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon) | Teflon, glass | Teflon, glass | Stainless steel | Teflon, glass | N/A |
| Residence time for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (seconds) | 13.37 | 13.4 | 4.69 | 13.97 | N/A |
| Frequency of one-point QC check for gaseous instruments | daily | daily | daily | daily | N/A |
| Frequency of flow rate verification for manual PM samplers, including Pb samplers (routine checks) | N/A | N/A | N/A | N/A | N/A |
| Frequency of flow rate verification for automated PM analyzers (routine checks) | N/A | N/A | N/A | N/A | N/A |

| Pollutant | Ozone | NO ₂ | Speciated VOC | NMH | Met Parameters |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------|---------------|-----|----------------|
| For low volume PM instruments (flow rate < 200 liters/minute), is any PM instrument within 1 m of the lovol? If yes, please list distance (meters) and instrument(s). | N/A | N/A | N/A | N/A | N/A |
| For high volume PM instrument (flow rate > 200 liters/minute), is any PM instrument within 2m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A | N/A | N/A | N/A | N/A |
| Date of Annual Performance Evaluation conducted in the past calendar year for gaseous parameters (MM/DD/YYYY) | 11/24/15 | 11/24/15 | N/A | N/A | N/A |
| Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors (MM/DD/YYYY, MM/DD/YYYY) | N/A | N/A | N/A | N/A | N/A |
| Changes planned within the next 18 months (Y/N) | N | N | N | N | N |

| | |
|---------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Site Name | Huron |
| AQS ID (XX-XXX-XXXX) | 06-019-2008 |
| Representative statistical area Name (i.e. MSA, CBSA, other) | Fresno |
| County | Fresno |
| Collecting (Operating) Agency | SJVAPCD |
| Analytical Lab (i.e. weigh lab, toxics lab, other) | N/A |
| Reporting Agency | SJVAPCD |
| Site Start Date | 10/12/09 |
| Pollutant Parameters | PM2.5 Non-FEM |
| Meteorological Parameters | Barometric Pressure |
| Address | 16875 4 th St, Huron, CA 93234 |
| GPS Coordinates (decimal degrees) | 36.2363 N, -119.7656 W |
| Distance to roadways (meters) | 100 m (north) |
| Traffic Count/Year | 3,250/2014 (Traffic count for nearest roads: Rte 269/Rte 198, Source: Caltrans 2014) |
| Groundcover (e.g. paved, vegetative, dirt, sand, gravel) | Paved, vegetative |

| Huron (1) | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------------------------------------|
| Pollutant | PM2.5 | Met Parameters |
| Parameter code | 88502 | 64101 |
| Spatial scale | N | N |
| Site type | PE | PE |
| Basic monitoring objective(s) | TP | TP |
| Monitor type | SPM | Other |
| Network affiliation(s), if applicable (a monitor may have none, one, or multiple) | N/A | N/A |
| FRM/FEM/ARM/Other | Non-FEM | Other |
| POC | 3 | 1 |
| Primary / QA Collocated / Other (provide for all PM _{2.5} , PM ₁₀ , PM _{10-2.5} , Pb and NO ₂ monitors. Non-PM, Pb, NO ₂ monitors should be listed as "N/A".) | N/A | N/A |
| Is it suitable for comparison against the annual PM _{2.5} ? (Y/N) | N | N/A |
| Instrument manufacturer and model | MET One BAM 1020 | ITP – Hy-Cal BA-512-A-A-3-B, BP – Met One 092 |
| Analysis method | Beta-Attenuation | Many |
| Method code | 731 | 014 |
| Monitoring start date (MM/DD/YYYY) | 09/02/09 | 02/01/10 |
| Required sampling frequency (e.g. 1:3 excluding exceptional events/1:1 including exceptional events) | Hourly | Hourly |
| Sampling season (MM/DD - MM/DD) | 01/01 – 12/31 | 01/01 – 12/31 |
| Probe height (meters) | 6.42m | 10m |
| Distance from supporting structure (meters) | 1.14m | None |
| Distance from obstructions on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | None |
| Distance from obstructions not on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | None |
| Distance from trees (meters) | 41.5m | None |
| Distance to furnace or incinerator flue (meters) | None | None |
| Distance between monitors fulfilling a QA collocation requirement (meters). | None | None |
| Unrestricted airflow (degrees around probe/inlet or percentage of monitoring path) | 360 | 360 |

| Pollutant | PM2.5 | Met Parameters |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|----------------|
| Probe material for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon) | N/A | N/A |
| Residence time for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (seconds) | N/A | N/A |
| Frequency of one-point QC check for gaseous instruments | N/A | N/A |
| Frequency of flow rate verification for manual PM samplers, including Pb samplers (routine checks) | N/A | N/A |
| Frequency of flow rate verification for automated PM analyzers (routine checks) | Bi-Weekly | N/A |
| For low volume PM instruments (flow rate < 200 liters/minute), is any PM instrument within 1 m of the lovol? If yes, please list distance (meters) and instrument(s). | None | N/A |
| For high volume PM instrument (flow rate > 200 liters/minute), is any PM instrument within 2m of the hivol? If yes, please list distance (meters) and instrument(s). | None | N/A |
| Date of Annual Performance Evaluation conducted in the past calendar year for gaseous parameters (MM/DD/YYYY) | N/A | N/A |
| Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors (MM/DD/YYYY, MM/DD/YYYY) | 05/28/15 12/01/15 | N/A |
| Changes planned within the next 18 months (Y/N) | N | N |

| | | |
|---------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Site Name | Hanford – Irwin | |
| AQS ID (XX-XXX-XXXX) | 06-031-1004 | |
| Representative statistical area Name (i.e. MSA, CBSA, other) | Hanford-Corcoran | |
| County | Kings | |
| Collecting (Operating) Agency | SJVAPCD | |
| Analytical Lab (i.e. weigh lab, toxics lab, other) | CARB: PM10 FRM | |
| Reporting Agency | SJVAPCD: Ozone, PM10 FEM, PM2.5 FEM, NO2, Meteorology | CARB: PM10 FRM |
| Site Start Date | 10/11/1993 | |
| Pollutant Parameters | Ozone, PM10 FRM, PM10 FEM, PM2.5 FEM, NO2 | |
| Meteorological Parameters | Wind speed, wind direction, outdoor temperature, barometric pressure | |
| Address | 807 S. Irwin St., Hanford, CA 93230 | |
| GPS Coordinates (decimal degrees) | 36.3147 N, -119.6440 W | |
| Distance to roadways (meters) | 60 m (east) | |
| Traffic Count/Year | 9,763/2013 (Traffic count for nearest roads: Hanford-Armona Rd east of S. Williams St., Source: City of Hanford Administration/Engineering Documents.) | |
| Groundcover (e.g. paved, vegetative, dirt, sand, gravel) | Paved, vegetative | |

| Hanford – Irwin (1) | | | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|------------------|---------------------|------------------|-----------------|---------------------------------------------------------------------------------------------|
| Pollutant | Ozone | PM2.5 | PM10 | PM10 | NO ₂ | Met Parameters |
| Parameter code | 44201 | 88101 | 81102 | 81102 | 42602 | Many |
| Spatial scale | N | N | N | N | N | N |
| Site type | PE | PE | PE | PE | PE | PE |
| Basic monitoring objective(s) | NC, RS, TP | NC, RS, TP | NC, RS | NC, RS | NC, RS, TP | RS, TP |
| Monitor type | SLAMS | SLAMS | SLAMS | SLAMS | SLAMS | Many |
| Network affiliation(s), if applicable (a monitor may have none, one, or multiple) | None | None | None | None | None | None |
| FRM/FEM/ARM/Other | FEM | FEM | FRM | FEM | FEM | Other |
| POC | 1 | 3 | 1 | 3 | 1 | Many |
| Primary / QA Collocated / Other (provide for all PM _{2.5} , PM ₁₀ , PM _{10-2.5} , Pb and NO ₂ monitors. Non-PM, Pb, NO ₂ monitors should be listed as "N/A".) | Primary | Primary | Primary | Other | N/A | Other |
| Is it suitable for comparison against the annual PM _{2.5} ? (Y/N) | N/A | Y | N/A | N/A | N/A | N/A |
| Instrument manufacturer and model | Teledyne 400E | MET One BAM 1020 | Sierra Andersen SSI | Thermo TEOM 1400 | Teledyne 200E | ITP- Hy-Cal 512AA3B, OT- Met One 060A-2, BP- Met One 092, WD- Met One 020C, WS-Met One 010C |
| Analysis method | UV | Beta Attenuation | Gravimetric | Tapered Element | CL | Many |
| Method code | 087 | 170 | 162 | 079 | 099 | Many |
| Monitoring start date (MM/DD/YYYY) | 02/25/10 | 02/25/10 | 10/11/93 | 07/14/10 | 02/25/10 | 02/25/10 |
| Required sampling frequency (e.g. 1:3 excluding exceptional events/1:1 including exceptional events) | Hourly | Hourly | 1:6 | Hourly | Hourly | Hourly |
| Sampling season (MM/DD - MM/DD) | 01/01 – 12/31 | 01/01 – 12/31 | 01/01 – 12/31 | 01/01 – 12/31 | 01/01 – 12/31 | 01/01 – 12/31 |
| Probe height (meters) | 4.7m | 4.4m | 4.5m | 4.4m | 4.7m | 9.7m |
| Distance from supporting structure (meters) | 1.8m | 1.7m | 1.7m | 1.7m | 1.8m | N/A |

| Pollutant | Ozone | PM2.5 | PM10 | PM10 | NO ₂ | Met Parameters |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-----------------|-----------------|-----------------|-----------------|----------------|
| Distance from obstructions on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | N/A | N/A | N/A | N/A | N/A | N/A |
| Distance from obstructions not on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | 24.2m | 26.5m | 24.3m | 26.6m | 24.2m | N/A |
| Distance from trees (meters) | 26.5 m | 29.8m | 26.6 m | 30.1 m | 26.5 m | 26.6m |
| Distance to furnace or incinerator flue (meters) | 27.5m | 24.9m | 28.3m | 26.2m | 27.5m | N/A |
| Distance between monitors fulfilling a QA collocation requirement (meters). | None | None | None | None | None | N/A |
| Unrestricted airflow (degrees around probe/inlet or percentage of monitoring path) | 353.2 | 353.2 | 360 | 353.2 | 353.2 | 360 |
| Probe material for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon) | Pyrex/Teflon | Stainless steel | Stainless steel | Stainless steel | Pyrex/Teflon | N/A |
| Residence time for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (seconds) | 12.37 | N/A | N/A | N/A | 13.75 | N/A |
| Frequency of one-point QC check for gaseous instruments | Daily | N/A | N/A | N/A | Daily | N/A |
| Frequency of flow rate verification for manual PM samplers, including Pb samplers (routine checks) | N/A | N/A | Monthly | N/A | N/A | N/A |
| Frequency of flow rate verification for automated PM analyzers (routine checks) | N/A | Biweekly | N/A | Biweekly | N/A | N/A |
| For low volume PM instruments (flow rate < 200 liters/minute), is any PM instrument within 1 m of the lovol? If yes, please list distance (meters) and instrument(s). | N/A | No | N/A | No | N/A | N/A |

| Pollutant | Ozone | PM2.5 | PM10 | PM10 | NO ₂ | Met Parameters |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------|----------------------|----------------------|-----------------|----------------|
| For high volume PM instrument (flow rate > 200 liters/minute), is any PM instrument within 2m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A | N/A | No | N/A | N/A | N/A |
| Date of Annual Performance Evaluation conducted in the past calendar year for gaseous parameters (MM/DD/YYYY) | 10/28/15 | N/A | N/A | N/A | 10/28/15 | N/A |
| Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors (MM/DD/YYYY, MM/DD/YYYY) | N/A | N/A | 10/28/15 04/30/15 | 10/28/15 04/30/15 | N/A | N/A |
| Changes planned within the next 18 months (Y/N) | N | N | N | N | N | N |

| | | |
|---------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-----------------|
| Site Name | Corcoran-Patterson | |
| AQS ID (XX-XXX-XXXX) | 06-031-0004 | |
| Representative statistical area Name (i.e. MSA, CBSA, other) | Hanford-Corcoran | |
| County | Kings | |
| Collecting (Operating) Agency | SJVAPCD | |
| Analytical Lab (i.e. weigh lab, toxics lab, other) | CARB: PM2.5 FRM | |
| Reporting Agency | SJVAPCD: PM2.5 FEM, PM10 FEM, Meteorology | CARB: PM2.5 FRM |
| Site Start Date | 10/1/1996 | |
| Pollutant Parameters | | |
| | PM10 FEM, PM2.5 FRM | |
| Meteorological Parameters | | |
| | Wind speed, wind direction, outdoor temperature, barometric pressure | |
| Address | | |
| | 1520 Patterson Ave., Corcoran, CA 93212 | |
| GPS Coordinates (decimal degrees) | | |
| | 36.1022 N, -119.5660 W | |
| Distance to roadways (meters) | | |
| | 30 m (east) | |
| Traffic Count/Year | | |
| | 2,965/2014 (Traffic count for nearest roads: JCT. Rte 43/Rte 137, Source: Caltrans 2014.) | |
| Groundcover (e.g. paved, vegetative, dirt, sand, gravel) | | |
| | Dirt, gravel | |

| Corcoran-Patterson (1) | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|--------------------|--------------------------------------------------|
| Pollutant | PM2.5 | PM10 | Met Parameters |
| Parameter code | 88101 | 81102 | 64101 |
| Spatial scale | N | N | N |
| Site type | HC | HC | GB |
| Basic monitoring objective(s) | NC, RS | NC, RS, TP | RS, TP |
| Monitor type | SLAMS | SLAMS | Other |
| Network affiliation(s), if applicable (a monitor may have none, one, or multiple) | None | None | None |
| FRM/FEM/ARM/Other | FRM | FEM | Other |
| POC | 1 | 7 | 1 |
| Primary / QA Collocated / Other (provide for all PM _{2.5} , PM ₁₀ , PM _{10-2.5} , Pb and NO ₂ monitors. Non-PM, Pb, NO ₂ monitors should be listed as "N/A".) | Primary | Primary | Other |
| Is it suitable for comparison against the annual PM _{2.5} ? (Y/N) | Y | N | N/A |
| Instrument manufacturer and model | Thermo Partisol 2025i | MET One BAM 1020 | ITP – Hy-Cal BA-512-A-A-3-B, BP – Met One 092 |
| Analysis method | Gravimetric | Beta Attenuation | Many |
| Method code | 145 | 122 | Many |
| Monitoring start date (MM/DD/YYYY) | 01/01/16 | 01/15/16 | 10/01/96 |
| Required sampling frequency (e.g. 1:3 excluding exceptional events/1:1 including exceptional events) | 1:3 | Hourly | Hourly |
| Sampling season (MM/DD - MM/DD) | 01/01 – 12/31 | 01/01 – 12/31 | 01/01 – 12/31 |
| Probe height (meters) | 3.7m | 5.1m | 9.6 m |
| Distance from supporting structure (meters) | 2.05m | 1.2m | N/A |
| Distance from obstructions on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | 2.3 m H 0.3 m V | 1.5 m H 0.6 m V | N/A |
| Distance from obstructions not on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | N/A | N/A | N/A |
| Distance from trees (meters) | 56.5m E 57.5m S | 57m E 56.6m S | 51.5m E |
| Distance to furnace or incinerator flue (meters) | 71.6m | 72.2m | N/A |
| Distance between monitors fulfilling a QA collocation requirement (meters). | N/A | N/A | N/A |
| Unrestricted airflow (degrees around probe/inlet or percentage of monitoring path) | 352 | 350 | 350 |

| Pollutant | PM2.5 | PM10 | Met Parameters |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------|----------------|
| Probe material for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon) | N/A | N/A | N/A |
| Residence time for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (seconds) | N/A | N/A | N/A |
| Frequency of one-point QC check for gaseous instruments | N/A | N/A | N/A |
| Frequency of flow rate verification for manual PM samplers, including Pb samplers (routine checks) | Monthly | N/A | N/A |
| Frequency of flow rate verification for automated PM analyzers (routine checks) | N/A | Biweekly | N/A |
| For low volume PM instruments (flow rate < 200 liters/minute), is any PM instrument within 1 m of the lovol? If yes, please list distance (meters) and instrument(s). | No. | No. | N/A |
| For high volume PM instrument (flow rate > 200 liters/minute), is any PM instrument within 2m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A | N/A | N/A |
| Date of Annual Performance Evaluation conducted in the past calendar year for gaseous parameters (MM/DD/YYYY) | N/A | N/A | N/A |
| Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors (MM/DD/YYYY, MM/DD/YYYY) | New Site | New Site | N/A |
| Changes planned within the next 18 months (Y/N) | Yes. Monitor will be changed to Teledyne 602 BETA. | Yes. Monitor will be changed to Teledyne 602 BETA. | Y |

| | |
|---------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Site Name | Visalia - Airport |
| AQS ID (XX-XXX-XXXX) | 06-107-3000 |
| Representative statistical area Name (i.e. MSA, CBSA, other) | Visalia-Porterville |
| County | Tulare |
| Collecting (Operating) Agency | SJVAPCD |
| Analytical Lab (i.e. weigh lab, toxics lab, other) | N/A |
| Reporting Agency | SJVAPCD |
| Site Start Date | 9/1/2000 |
| Pollutant Parameters | None |
| Meteorological Parameters | Wind speed, wind direction, outdoor temperature, relative humidity, barometric pressure, solar radiation, radio acoustic sounding system (RASS) |
| Address | 9501 West Airport Drive, Visalia, CA 93277 |
| GPS Coordinates (decimal degrees) | 39.3266 N, -119.3984 W |
| Distance to roadways (meters) | 100m (west) |
| Traffic Count/Year | 56,000/2014 (Traffic count for nearest roads: JCT. Rte 99/Rte 198 East., Source: Caltrans 2014.) |
| Groundcover (e.g. paved, vegetative, dirt, sand, gravel) | Dirt, vegetative |

| Visalia – Airport (1) | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Pollutant | Met Parameters |
| Parameter code | Many |
| Spatial scale | R |
| Site type | GB |
| Basic monitoring objective(s) | RS, TP |
| Monitor type | PAMS |
| Network affiliation(s), if applicable (a monitor may have none, one, or multiple) | None |
| FRM/FEM/ARM/Other | Other |
| POC | 1 |
| Primary / QA Collocated / Other (provide for all PM _{2.5} , PM ₁₀ , PM _{10-2.5} , Pb and NO ₂ monitors. Non-PM, Pb, NO ₂ monitors should be listed as “N/A”). | N/A |
| Is it suitable for comparison against the annual PM _{2.5} ? (Y/N) | N/A |
| Instrument manufacturer and model | ITP- Hy-Cal 512AA3B, OT- Met One 060A-2, BP- Met One 092, RH- Vaisala HMP45D, SRD- Epply Mod. 8-48WD- Met One 020C, WS-Met One 010C |
| Analysis method | Many |
| Method code | Many |
| Monitoring start date (MM/DD/YYYY) | 07/01/98 |
| Required sampling frequency (e.g. 1:3 excluding exceptional events/1:1 including exceptional events) | Hourly |
| Sampling season (MM/DD - MM/DD) | 01/01 – 12/31 |
| Probe height (meters) | 9.5m |
| Distance from supporting structure (meters) | 16.5m |
| Distance from obstructions on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None |
| Distance from obstructions not on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | 50.9m H 0.0m V |
| Distance from trees (meters) | 2.1m |
| Distance to furnace or incinerator flue (meters) | None |
| Distance between monitors fulfilling a QA collocation requirement (meters). | N/A |
| Unrestricted airflow (degrees around probe/inlet or percentage of monitoring path) | 270 |

| Pollutant | Met Parameters |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Probe material for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon) | N/A |
| Residence time for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (seconds) | N/A |
| Frequency of one-point QC check for gaseous instruments | N/A |
| Frequency of flow rate verification for manual PM samplers, including Pb samplers (routine checks) | N/A |
| Frequency of flow rate verification for automated PM analyzers (routine checks) | N/A |
| For low volume PM instruments (flow rate < 200 liters/minute), is any PM instrument within 1 m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A |
| For high volume PM instrument (flow rate > 200 liters/minute), is any PM instrument within 2m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A |
| Date of Annual Performance Evaluation conducted in the past calendar year for gaseous parameters (MM/DD/YYYY) | N/A |
| Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors (MM/DD/YYYY, MM/DD/YYYY) | N/A |
| Changes planned within the next 18 months (Y/N) | Yes. Lower air profiler operating at site may be cease operation due to changes to PAMS program requirements. Site may subsequently be completely shutdown as well. |

| | |
|---------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| Site Name | Visalia – Church St |
| AQS ID (XX-XXX-XXXX) | 06-107-2002 |
| Representative statistical area Name (i.e. MSA, CBSA, other) | Visalia–Porterville |
| County | Tulare |
| Collecting (Operating) Agency | CARB |
| Analytical Lab (i.e. weigh lab, toxics lab, other) | CARB |
| Reporting Agency | CARB |
| Site Start Date | 1/1/1979 |
| Pollutant Parameters | |
| | Ozone, PM10 FEM, PM2.5 FRM, PM2.5 FEM, PM2.5 Speciation (Supplemental), NO ₂ |
| Meteorological Parameters | |
| | Wind speed, wind direction, outdoor temperature, barometric pressure |
| Address | |
| | 310 N. Church St., Visalia CA 93291 |
| GPS Coordinates (decimal degrees) | |
| | 36.3325 N, -119.2909 W |
| Distance to road | |
| | 25 m (west) |
| Traffic Count/Year | |
| | 3,980/2014 (Traffic count for nearest roads: W. Center Ave. between N. Court St. and N. Santa Fe St., Source: City of Visalia Traffic and Engineering.) |
| Ground Cover | |
| | Paved |

| Visalia–Church St (1) | | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------|------------------|-------------|
| Pollutant | Ozone | NO ₂ | PM10 STP | PM2.5 |
| Parameter code | 44201 | 42602 | 81102 | 88101 |
| Spatial scale | N | N | N | N |
| Site type | GB | PE | PE | PE, HC |
| Monitoring objective(s) | NC | NC | NC | NC |
| Monitor type | SLAMS | SLAMS | SLAMS | SLAMS |
| Network affiliation | None | None | None | None |
| FRM/FEM/ARM/Other | FEM | FRM | FEM | FRM |
| POC | 1 | 1 | 5 | 1 |
| Primary/Monitor Collocation/Other | N/A | N/A | Primary | Primary |
| Method code | 087 | 099 | 122 | 145 |
| Sampling method (List Instrument) | API/Teledyne 400 | API 200E | Met One 1020 | R&P 2025 |
| Analysis method | UV | Gas phase Chem. | Beta attenuation | Gravimetric |
| Start date | 1/1/1979 | 1/1/1981 | 8/1/2015 | 1/3/1999 |
| Operation schedule (e.g. Hourly, 1:3) | Hourly | Hourly | Hourly | 1:3 |
| Sampling season | ALL YEAR | ALL YEAR | ALL YEAR | ALL YEAR |
| Probe/Inlet height above ground (meters) | 6.7 | 6.7 | 6.2 | 5.9 |
| Distance from supporting structure (meters) | 2.8 | 2.8 | 2.3 | 2.1 |
| Distance from obstructions on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | None | None | None |
| Distance from obstructions not on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | None | None | None |
| Distance from trees (meters) | None | None | None | None |
| Distance to furnace or incinerator flue (meters) | None | None | None | None |
| Distance between collocated monitors (meters) | None | None | N/A | 2.3 |
| Unrestricted airflow (degrees) | 360 | 360 | 360 | 360 |
| Probe material (Teflon, etc.) | Teflon | Teflon | N/A | N/A |
| Residence time (seconds) | 17.0 | 17.9 | N/A | N/A |
| For low volume PM instruments (flow rate < 200 liters/minute), is any PM instrument within 1 m of the lovol? If yes, please list distance (meters) and instrument(s). | N/A | N/A | No | No |
| For high volume PM instrument (flow rate > 200 liters/minute), is any PM instrument within 2m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A | N/A | N/A | N/A |

| Pollutant | Ozone | NO ₂ | PM10 STP | PM2.5 |
|----------------------------------------------------------------------|------------|-----------------|--------------------------|--------------------------|
| Frequency of flow rate verification for manual PM samplers audit | N/A | N/A | N/A | Monthly |
| Frequency of flow rate verification for automated PM analyzers audit | N/A | N/A | Monthly | N/A |
| Frequency of one-point QC check (gaseous) | 5x/week | 5x/week | N/A | N/A |
| Last Annual Performance Evaluation (gaseous) | 10/27/2015 | 10/27/2015 | N/A | N/A |
| Last two semi-annual flow rate audits for PM monitors | N/A | N/A | 4/28/2015, 10/28/2015 | 4/28/2015, 10/28/2015 |
| Changes planned within the next 18 months (Y/N) | N | N | N | Y |

| Visalia – Church St (2) | | | |
|---------------------------------------------------------------------------------------------------------------------------------|-------------------------|-------------------------|----------------|
| Pollutant | PM2.5 | PM2.5 Speciation | Met Parameters |
| Parameter code | 88502 | Many | Many |
| Spatial scale | N | N | R |
| Site type | RT, PE | PE | General |
| Monitoring objective(s) | RS, TP | RS | RS, TP |
| Monitor type | SLAMS | SLAMS | SLAMS |
| Network affiliation | None | Supplemental speciation | None |
| FRM/FEM/ARM/Other | Non-FEM | FRM | Other |
| POC | 3 | 5 | 1 |
| Primary/Monitor Collocation/Other | Supplemental Speciation | Primary | N/A |
| Is it suitable for comparison against the annual PM _{2.5} ? (Y/N) | N | N/A | N/A |
| Analysis method | Beta attenuation | Many | Many |
| Instrument manufacturer and model | Met One 1020 | Many | Many |
| Method Code | 731 | Many | Many |
| Monitoring start date | 11/01/01 | 01/14/02 | 01/01/95 |
| Operation schedule (e.g. Hourly, 1:3) | Hourly | N/A | Hourly |
| Sampling season | ALL YEAR | ALL YEAR | ALL YEAR |
| Probe height (meters) | 6.0 | N/A | 11.9 |
| Distance from supporting structure (meters) | 2.2 | None | None |
| Distance from obstructions on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | None | None |

| Pollutant | PM2.5 | PM2.5 Speciation | Met Parameters |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------------|----------------|
| Distance from obstructions not on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | None | None |
| Distance from trees (meters) | None | None | None |
| Distance to furnace or incinerator flue (meters) | None | None | None |
| Distance between collocated monitors (meters) | 2.3 | None | None |
| Unrestricted airflow (degrees) | 360 | 360 | 360 |
| Probe material (Teflon, etc.) | N/A | N/A | N/A |
| Residence time (seconds) | N/A | N/A | N/A |
| For low volume PM instruments (flow rate < 200 liters/minute), is any PM instrument within 1 m of the lovol? If yes, please list distance (meters) and instrument(s). | No | No | N/A |
| For high volume PM instrument (flow rate > 200 liters/minute), is any PM instrument within 2m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A | N/A | N/A |
| Frequency of flow rate verification for manual PM samplers audit | N/A | N/A | N/A |
| Frequency of flow rate verification for automated PM analyzers audit | Monthly | N/A | N/A |
| Frequency of one-point QC check (gaseous) | N/A | N/A | N/A |
| Last Annual Performance Evaluation (gaseous) | N/A | N/A | N/A |
| Last two semi-annual flow rate audits for PM monitors | 04/28/15, 10/28/15 | N/A | N/A |
| Changes planned within the next 18 months (Y/N) | N | N | N |

| | |
|---------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Site Name | Porterville |
| AQS ID (XX-XXX-XXXX) | 06-107-2010 |
| Representative statistical area Name (i.e. MSA, CBSA, other) | Visalia-Porterville |
| County | Tulare |
| Collecting (Operating) Agency | SJVAPCD |
| Analytical Lab (i.e. weigh lab, toxics lab, other) | N/A |
| Reporting Agency | SJVAPCD |
| Site Start Date | 3/8/2010 |
| Pollutant Parameters | Ozone, PM2.5 FEM |
| Meteorological Parameters | Wind speed, wind direction, outdoor temperature, barometric pressure |
| Address | 1839 S. Newcomb St., Porterville, CA 93257 |
| GPS Coordinates (decimal degrees) | 36.0310 N, -119.0550 W |
| Distance to roadways (meters) | 100m (south) |
| Traffic Count/Year | 2,953/2013 (Traffic count average for two 24-hour periods for nearest roads: Ave 128 west of Road 238, Source: Tulare County Association of Governments.) |
| Groundcover (e.g. paved, vegetative, dirt, sand, gravel) | Paved, vegetative |

| Porterville (1) | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------------|----------------------------------------------------------------------------------------------|
| Pollutant | Ozone | PM2.5 | Met Parameters |
| Parameter code | 44201 | 88502 | Many |
| Spatial scale | N | N | N |
| Site type | PE | PE | PE |
| Basic monitoring objective(s) | NC, RS, TP | TP | TP |
| Monitor type | SLAMS | SPM | Other |
| Network affiliation(s), if applicable (a monitor may have none, one, or multiple) | None | None | None |
| FRM/FEM/ARM/Other | FEM | Non-FEM | Other |
| POC | 1 | 3 | 1 |
| Primary / QA Collocated / Other (provide for all PM _{2.5} , PM ₁₀ , PM _{10-2.5} , Pb and NO ₂ monitors. Non-PM, Pb, NO ₂ monitors should be listed as "N/A".) | Primary | Other | Other |
| Is it suitable for comparison against the annual PM _{2.5} ? (Y/N) | N/A | N | N/A |
| Instrument manufacturer and model | Teledyne 400E | MET One BAM 1020 | ITP- Hy-Cal 512AA3B, OT- Met One 060A-2, BP- Met One 092, WD- Met One 020C, WS- Met One 010C |
| Analysis method | UV | Beta Attenuation | Many |
| Method code | 087 | 731 | Many |
| Monitoring start date (MM/DD/YYYY) | 03/08/10 | 03/08/10 | 03/08/10 |
| Required sampling frequency (e.g. 1:3 excluding exceptional events/1:1 including exceptional events) | Hourly | Hourly | Hourly |
| Sampling season (MM/DD - MM/DD) | 01/01 -12/31 | 01/01 -12/31 | 01/01 -12/31 |
| Probe height (meters) | 4.4m | 4.3m | 9.6m |
| Distance from supporting structure (meters) | 1.9m | 1.8m | 7.1m |
| Distance from obstructions on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | 2.1/0.0m | 3.5/0.0m | None |
| Distance from obstructions not on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | N/A | N/A | N/A |
| Distance from trees (meters) | 8.2m SE 13.8m N | 9.4m SE 15.4m N | 8.3m SE 14.9m N |
| Distance to furnace or incinerator flue (meters) | 175.5m S | 174m S | 175.8m S |
| Distance between monitors fulfilling a QA collocation requirement (meters). | N/A | N/A | N/A |

| Pollutant | Ozone | PM2.5 | Met Parameters |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------------|----------------|
| Unrestricted airflow (degrees around probe/inlet or percentage of monitoring path) | 357 | 357 | 357 |
| Probe material for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon) | Pyrex | Aluminum | N/A |
| Residence time for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (seconds) | 8.8 | N/A | N/A |
| Frequency of one-point QC check for gaseous instruments | Daily | N/A | N/A |
| Frequency of flow rate verification for manual PM samplers, including Pb samplers (routine checks) | N/A | N/A | N/A |
| Frequency of flow rate verification for automated PM analyzers (routine checks) | N/A | Biweekly | N/A |
| For low volume PM instruments (flow rate < 200 liters/minute), is any PM instrument within 1 m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A | No | N/A |
| For high volume PM instrument (flow rate > 200 liters/minute), is any PM instrument within 2m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A | N/A | N/A |
| Date of Annual Performance Evaluation conducted in the past calendar year for gaseous parameters (MM/DD/YYYY) | 12/01/15 | N/A | N/A |
| Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors (MM/DD/YYYY, MM/DD/YYYY) | N/A | 12/01/15, 05/27/15 | N/A |
| Changes planned within the next 18 months (Y/N) | N | N | N |

| | |
|---------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| Site name | Sequoia–Ash Mountain |
| AQS ID (XX-XXX-XXXX) | 06-107-0009 |
| Representative statistical area Name (i.e. MSA, CBSA, other) | Visalia-Porterville |
| County | Tulare |
| Collecting (Operating) Agency | All equipment operated by NPS |
| Analytical Lab (i.e. weigh lab, toxics lab, other) | N/A |
| Reporting Agency | All data reported by NPS |
| Site Start Date | 1/1/00 |
| Pollutant Parameters | Ozone, PM2.5 FEM |
| Meteorological Parameters | Wind speed, wind direction, outdoor temperature, relative humidity, solar radiation |
| Address | Ash Mountain, Sequoia National Park 47050 Generals Hwy, Three Rivers, CA 93271 |
| GPS Coordinates (decimal degrees) | 36.4894 N, -118.8290 W |
| Distance to road | 120 m (north) |
| Traffic Count/Year | 1,550/2014 (Rte 198 / Sequoia National Park boundary, Source: Caltrans Back AADT 2014) |
| Ground Cover | Dirt, vegetative |

| Sequoia–Ash Mountain (1) | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|------------------|-----------------|
| Pollutant | Ozone | PM2.5 | Met Parameters |
| Parameter code | 44201 | 88501 | Many |
| Spatial scale | Regional | Regional | Regional |
| Site type | RT | RT | GB |
| Monitor objective | NC, RS, TP | TP | RS, TP |
| Monitor type | Non-EPA Federal | Non-EPA Federal | Non-EPA Federal |
| Network affiliation | Castnet | IMPROVE | Castnet |
| FRM/FEM/ARM/Other | Other | FEM | Other |
| POC | 1 | 1 | 1 |
| Primary / QA Collocated / Other (provide for all PM _{2.5} , PM ₁₀ , PM _{10-2.5} , Pb and NO ₂ monitors. Non-PM, Pb, NO ₂ monitors should be listed as "N/A".) | Primary | Primary | Other |
| Is it suitable for comparison against the annual PM _{2.5} ? (Y/N) | N/A | N | N/A |
| Instrument manufacturer and model | Thermo TECO 49, 49C | BAM 1020 | Many |
| Analysis method | UV | Beta Attenuation | Many |
| Method code | 047 | 707 | Many |
| Monitoring start date (MM/DD/YYYY) | 2000 | 2007 | 2000 |
| Required sampling frequency (e.g. 1:3 excluding exceptional events/1:1 including exceptional events) | Hourly | Hourly | Hourly |
| Sampling season (MM/DD - MM/DD) | ALL YEAR | ALL YEAR | ALL YEAR |
| Probe height (meters) | 10 | 4 | 10 |
| Distance from supporting structure (meters) | 3 | 1.5 | 3 |
| Distance from obstructions on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | 5 | N/A | 5 |
| Distance from obstructions not on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | N/A | N/A | N/A |
| Distance from trees (meters) | 15 – 20 | 15 – 20 | 15-20 |
| Distance to furnace or incinerator flue (meters) | 305 | 305 | 305 |
| Distance between monitors fulfilling a QA collocation requirement (meters). | 3 | 3 | 3 |
| Unrestricted airflow (degrees around probe/inlet or percentage of monitoring path) | 360 | 360 | 360 |
| Probe material for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon) | Teflon | N/A | N/A |
| Residence time for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (seconds) | 13.4 | N/A | N/A |
| Frequency of one-point QC check for gaseous instruments | Daily | N/A | N/A |

| Pollutant | Ozone | PM2.5 | Met Parameters |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------------------------|-----------------------|
| Frequency of flow rate verification for manual PM samplers, including Pb samplers (routine checks) | N/A | Bi-Weekly | N/A |
| Frequency of flow rate verification for automated PM analyzers (routine checks) | N/A | Weekly | N/A |
| For low volume PM instruments (flow rate < 200 liters/minute), is any PM instrument within 1 m of the lovol? If yes, please list distance (meters) and instrument(s). | N/A | N/A | N/A |
| For high volume PM instrument (flow rate > 200 liters/minute), is any PM instrument within 2m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A | N/A | N/A |
| Date of Annual Performance Evaluation conducted in the past calendar year for gaseous parameters (MM/DD/YYYY) | 05/17/2016 | N/A | N/A |
| Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors (MM/DD/YYYY, MM/DD/YYYY) | N/A | 10/14/2015, 04/06/2016 | N/A |
| Changes planned within the next 18 months (Y/N) | N | N | N |

| | |
|---------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| Site name | Sequoia–Lower Kaweah |
| AQS ID (XX-XXX-XXXX) | 061070006 |
| Representative statistical area Name (i.e. MSA, CBSA, other) | Visalia-Porterville |
| County | Tulare |
| Collecting (Operating) Agency | All equipment operated by NPS |
| Analytical Lab (i.e. weigh lab, toxics lab, other) | N/A |
| Reporting Agency | All data reported by NPS |
| Site Start Date | 4/1/1981 |
| Pollutant Parameters | Ozone, NADP (wet deposition) |
| Meteorological Parameters | Wind speed, wind direction, outdoor temperature, relative humidity, solar radiation |
| Address | Giant Forest, Sequoia National Park, 47050 Generals Highway, Three Rivers, CA 93271 |
| GPS Coordinates (decimal degrees) | 36.5661 N, -118.7776 W |
| Distance to road | 380 m (southeast) |
| Traffic Count/Year | 1,550/2014 (Rte 198 / Sequoia National Park boundary, Source: Caltrans Back AADT 2014) |
| Ground Cover | Dirt |

| Sequoia–Lower Kaweah (1) | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-----------------|
| Pollutant | Ozone | Met Parameters |
| Parameter code | 44201 | Many |
| Spatial scale | R | R |
| Site type | RT | GB |
| Monitor objective | NC, RS, TP | RS, TP |
| Monitor type | Non-EPA Federal | Non-EPA Federal |
| Network affiliation | None | None |
| FRM/FEM/ARM/Other | Other | Other |
| POC | 1 | 1 |
| Primary / QA Collocated / Other (provide for all PM _{2.5} , PM ₁₀ , PM _{10-2.5} , Pb and NO ₂ monitors. Non-PM, Pb, NO ₂ monitors should be listed as "N/A".) | Primary | Other |
| Is it suitable for comparison against the annual PM _{2.5} ? (Y/N) | N/A | N/A |
| Instrument manufacturer and model | Thermo TECO 49, 49C | Many |
| Analysis method | UV | Many |
| Method code | 047 | Many |
| Monitoring start date | 1982 | 1982 |
| Current sampling frequency (e.g. Hourly, 1:3) | Hourly | Hourly |
| Sampling season | ALL YEAR | ALL YEAR |
| Probe height (meters) | 5 | 5 |
| Distance from supporting structure (meters) | 1.5 | 10 |
| Distance from obstructions on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | 1 | N/A |
| Distance from obstructions not on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | N/A | N/A |
| Distance from trees (meters) | 5-10 | 5-10 |
| Distance to furnace or incinerator flue (meters) | 457 | 457 |
| Distance between monitors fulfilling a QA collocation requirement (meters). | 5-10 | 10-15 |
| Unrestricted airflow (degrees around probe/inlet or percentage of monitoring path) | 360 | 360 |
| Probe material for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon) | Teflon | N/A |

| Pollutant | Ozone | Met Parameters |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|----------------|
| Residence time for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (seconds) | 13.9 | N/A |
| Frequency of one-point QC check for gaseous instruments | Daily | N/A |
| Frequency of flow rate verification for manual PM samplers, including Pb samplers (routine checks) | N/A | N/A |
| Frequency of flow rate verification for automated PM analyzers (routine checks) | N/A | N/A |
| For low volume PM instruments (flow rate < 200 liters/minute), is any PM instrument within 1 m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A | N/A |
| For high volume PM instrument (flow rate > 200 liters/minute), is any PM instrument within 2m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A | N/A |
| Date of Annual Performance Evaluation conducted in the past calendar year for gaseous parameters (MM/DD/YYYY) | 05/17/2016 | N/A |
| Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors (MM/DD/YYYY, MM/DD/YYYY) | N/A | N/A |
| Changes planned within the next 18 months (Y/N) | N | N |

| | | |
|---------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| Site Name | Shafter | |
| AQS ID (XX-XXX-XXXX) | 06-029-6001 | |
| Representative statistical area Name (i.e. MSA, CBSA, other) | Bakersfield | |
| County | Kern | |
| Collecting (Operating) Agency | CARB: Ozone, NO ₂ ; | SJVAPCD: Meteorology, Speciated VOC, NMH |
| Analytical Lab (i.e. weigh lab, toxics lab, other) | CARB: Ozone, NO ₂ | SJVAPCD contracts out so lab varies from year to year: Speciated VOC, NMH |
| Reporting Agency | CARB: Ozone, NO ₂ | SJVAPCD: Speciated VOC, NMH, Meteorology |
| Site Start Date | 1/1/1989 | |
| Pollutant Parameters | | |
| | Ozone, NO ₂ , Speciated VOC, NMH | |
| Meteorological Parameters | | |
| | Wind speed, wind direction, outdoor temperature, solar radiation | |
| Address | | |
| | 578 Walker St., Shafter, CA 93263 | |
| GPS Coordinates (decimal degrees) | | |
| | 35.5034 N, -119.2726 W | |
| Distance to roadways (meters) | | |
| | 10m (southwest) | |
| Traffic Count/Year | | |
| | 2,766/2015 (Traffic count for nearest roads: Central Ave and Walker St., Source: Kern Council of Governments.) | |
| Groundcover (e.g. paved, vegetative, dirt, sand, gravel) | | |
| | Paved | |

| Shafter (1) | | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-----------------|---------------|-------------------|----------------------------------------------------------------------------------------------------------------------|
| Pollutant | Ozone | NO ₂ | Speciated VOC | NMH | Met Parameters |
| Parameter code | 44201 | 42602 | 43102 | Many | Many |
| Spatial scale | N | N | N | N | R |
| Site type | GB, PE | PE | PE | PE | GB |
| Basic monitoring objective(s) | NC | NC | RS | RS | RS, TP |
| Monitor type | SLAMS | SLAMS | Other | Other | Other |
| Network affiliation(s), if applicable (a monitor may have none, one, or multiple) | PAMS | PAMS | PAMS | PAMS | Other |
| FRM/FEM/ARM/Other | FEM | FRM | Other | Other | Other |
| POC | 1 | 1 | 1 | 1 | 1 |
| Primary / QA Collocated / Other (provide for all PM _{2.5} , PM ₁₀ , PM _{10-2.5} , Pb and NO ₂ monitors. Non-PM, Pb, NO ₂ monitors should be listed as "N/A".) | Primary | Other | Other | Other | Other |
| Is it suitable for comparison against the annual PM _{2.5} ? (Y/N) | N/A | N/A | N/A | N/A | N/A |
| Instrument manufacturer and model | Teledyne 400E (ARB) | API 200E | Xontech 910A | Synspec Alpha 115 | ITP- Hy-Cal BA512AA3BB, OT- Met One 060A-2, SRD-Epply Mod. 8-48, WD- Met One 020B, WS- Met One 010C, BP- Met One 092 |
| Analysis method | UV | CL | GC | GC | Many |
| Method code | 087 | 099 | 164 | 011 | Many |
| Monitoring start date (MM/DD/YYYY) | 07/01/89 | 07/01/89 | 07/01/94 | 07/01/94 | 01/01/89 |
| Required sampling frequency (e.g. 1:3 excluding exceptional events/1:1 including exceptional events) | Hourly | Hourly | 1:3 | Hourly | Hourly |
| Sampling season (MM/DD - MM/DD) | 01/01 – 12/31 | 01/01 – 12/31 | 06/01 – 08/31 | 01/01 – 12/31 | 01/01 – 12/31 |
| Probe height (meters) | 7.3 | 7.3 | 7.0 | 7.0 | 10 |
| Distance from supporting structure (meters) | 2.6 | 2.6 | 2.4 | 2.4 | None |
| Distance from obstructions on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | None | None | None | None |

| Pollutant | Ozone | NO ₂ | Speciated VOC | NMH | Met Parameters |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------|-----------------------|-----------------------|----------------|
| Distance from obstructions not on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | None | 19m H, 2m V (Tree) | 19m H, 2m V (Tree) | N/A |
| Distance from trees (meters) | None | None | 19m N, 70m SE | 19m N, 70m SE | 70m SE |
| Distance to furnace or incinerator flue (meters) | None | None | N/A | N/A | N/A |
| Distance between monitors fulfilling a QA collocation requirement (meters). | None | None | N/A | N/A | N/A |
| Unrestricted airflow (degrees around probe/inlet or percentage of monitoring path) | 360 | 360 | 355 | 350 | 360 |
| Probe material for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon) | TEFLON | TEFLON | Stainless Steel | Pyrex & Teflon | N/A |
| Residence time for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (seconds) | 15.8 | 15.8 | 2.79 | < 14 sec. | N/A |
| Frequency of one-point QC check for gaseous instruments | Daily | Daily | N/A | N/A | N/A |
| Frequency of flow rate verification for manual PM samplers, including Pb samplers (routine checks) | N/A | N/A | N/A | N/A | N/A |
| Frequency of flow rate verification for automated PM analyzers (routine checks) | N/A | N/A | N/A | N/A | N/A |
| For low volume PM instruments (flow rate < 200 liters/minute), is any PM instrument within 1 m of the lovl? If yes, please list distance (meters) and instrument(s). | N/A | N/A | N/A | N/A | N/A |
| For high volume PM instrument (flow rate > 200 liters/minute), is any PM instrument within 2m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A | N/A | N/A | N/A | N/A |
| Date of Annual Performance Evaluation conducted in the past calendar year for gaseous parameters (MM/DD/YYYY) | 10/13/15 | 10/13/15 | N/A | N/A | N/A |
| Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors (MM/DD/YYYY, MM/DD/YYYY) | N/A | N/A | N/A | N/A | N/A |
| Changes planned within the next 18 months (Y/N) | N | N | N | N | N |

| | |
|---------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| Site Name | Oildale |
| AQS ID (XX-XXX-XXXX) | 06-029-0232 |
| Representative statistical area Name (i.e. MSA, CBSA, other) | Bakersfield |
| County | Kern |
| Collecting (Operating) Agency | CARB |
| Analytical Lab (i.e. weigh lab, toxics lab, other) | CARB |
| Reporting Agency | CARB |
| Site Start Date | 1/1/80 |
| Pollutant Parameters | Ozone, PM10 FRM |
| Meteorological Parameters | Wind speed, wind direction, outdoor temperature |
| Address | 3311 Manor St, Oildale CA 93308 |
| GPS Coordinates (decimal degrees) | 35.4380 N, -119.0167 W |
| Distance to road | 150 m (northwest) |
| Traffic Count/Year | 7,315/2016 (Traffic count for roads: Manor St. between Day Ave and Felton St., Source: Kern Council of Governments.) |
| Ground Cover | Dirt, vegetative |

| Oildale (1) | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------|
| Pollutant | Ozone | PM10 STP |
| Parameter code | 44201 | 81102 |
| Spatial scale | N | MD |
| Site type | HC, RT | SI |
| Monitoring objective | NC | NC |
| Monitor type | SLAMS | SLAMS |
| Network affiliation | SLAMS | SLAMS |
| FRM/FEM/ARM/Other | FEM | FRM |
| POC | 1 | 2 |
| Primary/Monitor Collocation/Other | Primary | Primary |
| Is it suitable for comparison against the annual PM _{2.5} ? (Y/N) | N/A | N/A |
| Instrument manufacturer and model | API/Teledyne 400 | Sierra Anderson 1200 |
| Analysis method | UV | Gravimetric |
| Method code | 087 | 063 |
| Monitoring start date | 01/01/84 | 01/01/87 |
| Current sampling frequency (e.g. Hourly, 1:3) | Hourly | 1:6 |
| Sampling season | ALL YEAR | ALL YEAR |
| Probe/Inlet height above ground (meters) | 6.7 | 2.2 m |
| Distance from supporting structure (meters) | 3.0 | 1.5 |
| Distance from obstructions on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | None |
| Distance from obstructions not on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | None |
| Distance from trees (meters) | 10.1 to dripline | None |
| Distance to furnace or incinerator flue (meters) | None | None |
| Distance between collocated monitors (meters) | N/A | N/A |
| Unrestricted airflow (degrees) | 360 | 360 |
| Probe material (Teflon, etc.) | Teflon | N/A |
| Residence time (seconds) | 10.1 | N/A |
| For low volume PM instruments (flow rate < 200 liters/minute), is any PM instrument within 1 m of the lovol? If yes, please list distance (meters) and instrument(s). | N/A | N/A |
| For high volume PM instrument (flow rate > 200 liters/minute), is any PM instrument within 2m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A | No |
| Frequency of flow rate verification for manual PM samplers audit | N/A | Monthly |
| Frequency of flow rate verification for automated PM analyzers audit | N/A | N/A |

| Pollutant | Ozone | PM10 STP |
|-------------------------------------------------------|--------------|-----------------------------------------------------------------------------------------------------|
| Frequency of one-point QC check (gaseous) | Daily | N/A |
| Last Annual Performance Evaluation (gaseous) | 03/23/15 | N/A |
| Last two semi-annual flow rate audits for PM monitors | N/A | 03/23/15, 10/13/15 |
| Changes planned within the next 18 months (Y/N) | N | Yes. Hi-vol will be replaced with a BAM1020 after safety repairs are made to the station's rooftop. |

| | |
|---------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| Site Name | Bakersfield – Golden/M St |
| AQS ID (XX-XXX-XXXX) | 06-029-0010 |
| Representative statistical area Name (i.e. MSA, CBSA, other) | Bakersfield |
| County | Kern |
| Collecting (Operating) Agency | SJVAPCD |
| Analytical Lab (i.e. weigh lab, toxics lab, other) | CARB |
| Reporting Agency | CARB |
| Site Start Date | 6/10/2014 |
| Pollutant Parameters | PM10 FRM and PM2.5 FRM |
| Meteorological Parameters | None |
| Address | 2820 M St., Bakersfield, CA 93301 |
| GPS Coordinates (decimal degrees) | 35.385574 N, -119.015009 W |
| Distance to roadways (meters) | 13 M |
| Traffic Count/Year | 4,418/2016 (Traffic count for nearest roads: 30 St. at Golden State Ave., Source: Kern Council of Governments.) |
| Groundcover (e.g. paved, vegetative, dirt, sand, gravel) | Paved |

| Bakersfield – Golden/M St (1) | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-------------------------------|
| Pollutant | PM2.5 | PM10 |
| Parameter code | 88101 | 81102 |
| Spatial scale | N | N |
| Site type | HC | HC |
| Basic monitoring objective(s) | NC | NC |
| Monitor type | SLAMS | SLAMS |
| Network affiliation(s), if applicable (a monitor may have none, one, or multiple) | None | None |
| FRM/FEM/ARM/Other | FRM | FRM |
| POC | 1 | 1 |
| Primary / QA Collocated / Other (provide for all PM _{2.5} , PM ₁₀ , PM _{10-2.5} , Pb and NO ₂ monitors. Non-PM, Pb, NO ₂ monitors should be listed as "N/A".) | Primary | Primary |
| Is it suitable for comparison against the annual PM _{2.5} ? (Y/N) | Y | N/A |
| Instrument manufacturer and model | R & P Model 2025 | Hi Vol SSI Ecotech Model 3000 |
| Analysis method | Gravimetric | Gravimetric |
| Method code | 145 | 162 |
| Monitoring start date (MM/DD/YYYY) | 07/02/14 | 04/01/15 |
| Required sampling frequency (e.g. 1:3 excluding exceptional events/1:1 including exceptional events) | 1:3 | 1:6 |
| Sampling season (MM/DD - MM/DD) | 01/01 – 12/31 | 01/01 – 12/31 |
| Probe height (meters) | 6.2 m | 5.9m |
| Distance from supporting structure (meters) | 2.1m | 1.8m |
| Distance from obstructions on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | H - 11m (Tree), V - 5m | H - 12m, (Tree), V - 5m |
| Distance from obstructions not on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | None |
| Distance from trees (meters) | 11m WSW | 12m WSW |
| Distance to furnace or incinerator flue (meters) | N/A | N/A |
| Distance between monitors fulfilling a QA collocation requirement (meters). | N/A | N/A |
| Unrestricted airflow (degrees around probe/inlet or percentage of monitoring path) | 340 | 340 |
| Probe material for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon) | N/A | N/A |

| Pollutant | PM2.5 | PM10 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-------------|
| Residence time for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (seconds) | N/A | N/A |
| Frequency of one-point QC check for gaseous instruments | N/A | N/A |
| Frequency of flow rate verification for manual PM samplers, including Pb samplers (routine checks) | Monthly | Monthly |
| Frequency of flow rate verification for automated PM analyzers (routine checks) | N/A | N/A |
| For low volume PM instruments (flow rate < 200 liters/minute), is any PM instrument within 1 m of the lovol? If yes, please list distance (meters) and instrument(s). | No | No |
| For high volume PM instrument (flow rate > 200 liters/minute), is any PM instrument within 2m of the hivol? If yes, please list distance (meters) and instrument(s). | No | No |
| Date of Annual Performance Evaluation conducted in the past calendar year for gaseous parameters (MM/DD/YYYY) | N/A | N/A |
| Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors (MM/DD/YYYY, MM/DD/YYYY) | 03/25/15; 09/25/15 | 09/25/15 |
| Changes planned within the next 18 months (Y/N) | N | N |

| | |
|---------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Site Name | Bakersfield–California |
| AQS ID (XX-XXX-XXXX) | 06-029-0014 |
| Representative statistical area Name (i.e. MSA, CBSA, other) | Bakersfield |
| County | Kern |
| Collecting (Operating) Agency | CARB |
| Analytical Lab (i.e. weigh lab, toxics lab, other) | CARB |
| Reporting Agency | CARB |
| Site Start Date | 3/1/94 |
| Pollutant Parameters | Ozone, PM10 FRM, PM2.5 FRM, PM2.5 Non-FEM, NO ₂ , Toxics, PM2.5 Speciation (STN) |
| Meteorological Parameters | Wind speed, wind direction, outdoor temperature, barometric pressure, relative humidity, solar radiation |
| Address | 5558 California Ave., Bakersfield CA 93309 |
| GPS Coordinates (decimal degrees) | 35.3566 N, -119.0626 W |
| Distance to road | 300 m (south) |
| Traffic Count/Year | 33,017/2016 (Traffic count for roads: California Ave between Stockdale Hwy and Dunsmuir Rd., Source: Kern Council of Governments.) |
| Ground Cover | Paved |

| Bakersfield – California (1) | | | | | |
|-------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------|---------------------|--------------|---------------------|
| Pollutant | Ozone | PM10 STP | PM10 STP | PM2.5 | PM2.5 |
| Parameter code | 44201 | 81102 | 81102 | 88101 | 88101 |
| Spatial scale | N | N | N | N | N |
| Site type | GB | PE | PE | PE, HC | PE, HC |
| Monitoring objective | NC | NC | NC | NC | NC |
| Monitor type | SLAMS | SLAMS | SLAMS | SLAMS | SLAMS |
| Network affiliation | None | None | None | None | None |
| FRM/FEM/ARM/Other | FEM | FRM | FRM | FRM | FRM |
| POC | 1 | 1 | 2 | 1 | 2 |
| Primary/Monitor Collocation/Other | N/A | Primary | Monitor Collocation | Primary | Monitor Collocation |
| Is it suitable for comparison against the annual PM _{2.5} ? (Y/N) | N/A | N/A | N/A | Y | Y |
| Instrument manufacturer and model | API/Teledyne 400 | SA/GMW 1200 | SA/GMW 1200 | R&P 2025 | R&P 2025 |
| Analysis method | UV | Gravimetric | Gravimetric | Gravimetric | Gravimetric |
| Method code | 087 | 063 | 063 | 145 | 145 |
| Monitoring start date | 3/1/1994 | 4/1/1994 | 1/3/2003 | 1/1/1999 | 1/1/1999 |
| Current sampling frequency (e.g. Hourly, 1:3) | Hourly | 1:6 | 1:6 | 1:1 | 1:12 |
| Sampling season | ALL YEAR | ALL YEAR | ALL YEAR | ALL YEAR | ALL YEAR |
| Probe/Inlet height above ground (meters) | 6.0 | 5.4 | 5.4 | 5.9 | 5.9 |
| Distance from supporting structure (meters) | 2.2 | 1.6 | 1.6 | 2.1 | 2.1 |
| Distance from obstructions on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | None | None | None | None |
| Distance from obstructions not on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | None | None | None | None |
| Distance from trees (meters) | None | None | None | None | None |
| Distance to furnace or incinerator flue (meters) | None | None | None | None | None |

| Pollutant | Ozone | PM10 STP | PM10 STP | PM2.5 | PM2.5 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------------------------|---------------------------|---------------------------|---------------------------|
| Distance between collocated monitors (meters) | N/A | 3.5 | 3.5 | 2.3 | 2.3 |
| Unrestricted airflow (degrees) | 360 | 360 | 360 | 360 | 360 |
| Probe material (Teflon, etc.) | Teflon | N/A | N/A | N/A | N/A |
| Residence time (seconds) | 3.6 | N/A | N/A | N/A | N/A |
| For low volume PM instruments (flow rate < 200 liters/minute), is any PM instrument within 1 m of the lovol? If yes, please list distance (meters) and instrument(s). | N/A | N/A | N/A | No | No |
| For high volume PM instrument (flow rate > 200 liters/minute), is any PM instrument within 2m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A | No | No | N/A | N/A |
| Frequency of flow rate verification for manual PM samplers audit | N/A | Monthly | Monthly | Monthly | Monthly |
| Frequency of flow rate verification for automated PM analyzers audit | N/A | N/A | N/A | N/A | N/A |
| Frequency of one-point QC check (gaseous) | Daily | N/A | N/A | N/A | N/A |
| Last Annual Performance Evaluation (gaseous) | 09/23/2015 | N/A | N/A | N/A | N/A |
| Last two semi-annual flow rate audits for PM monitors | N/A | 03/24/2015, 09/23/2015 | 03/24/2015, 09/23/2015 | 03/24/2015, 09/23/2015 | 03/24/2015, 09/23/2015 |
| Changes planned within the next 18 months (Y/N) | N | N | N | N | N |

| Bakersfield – California (2) | | | | |
|-------------------------------------------------------------------------------------------------------------------------------------|------------------|---------------------------------------------|-------------------------|-------------------------|
| Pollutant | PM2.5 | PM2.5 Speciation | PM2.5 Speciation | PM2.5 Speciation |
| Parameter code | 88502 | 88356 | Various | Various |
| Spatial scale | N | N,U | N,U | N,U |
| Site type | PE | PE | PE | PE |
| Monitoring objective | RS, TP | RS | RS | RS |
| Monitor type | SLAMS | SLAMS | Other | Other |
| Network affiliation | None | STN | CSN STN | CSN STN |
| FRM/FEM/ARM/Other | Non-FEM | Other | Other | Other |
| POC | 3 | 6 | 5 | 6 |
| Primary/Monitor Collocation/Other | Supplementary | Primary | Primary | Monitor Collocation |
| Is it suitable for comparison against the annual PM _{2.5} ? (Y/N) | N | N/A | N/A | N/A |
| Instrument manufacturer and model | Met One BAM 1020 | URG 3000-N | Met One SASS | Met One SASS |
| Analysis method | Beta Attenuation | Cyclone inlet | Various | Various |
| Method code | 731 | 839 | 810 | 810 |
| Monitoring start date | 11/01/01 | 05/03/07 | 01/01/01 | 01/01/01 |
| Current sampling frequency (e.g. Hourly, 1:3) | Hourly | 1:3 | 1:3 | 1:6 |
| Sampling season | 01/01 – 12/31 | 01/01 – 12/31 | 01/01 – 12/31 | |
| Probe/Inlet height above ground (meters) | 6.1 | 6.3 | 5.9 | 5.9 |
| Distance from supporting structure (meters) | 2.3 | 2.2 | 1.8 | 1.8 |
| Distance from obstructions on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | 11.8 | 9.8 | 8 |
| Distance from obstructions not on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | Parapet height of 1.1 m surrounding rooftop | N/A | N/A |
| Distance from trees (meters) | None | 22 | 17 | 15 |
| Distance to furnace or incinerator flue (meters) | None | 7.4 | 6.4 | 5.4 |
| Distance between collocated monitors (meters) | 2.1 | 2 | 2 | 2 |
| Unrestricted airflow (degrees) | 360 | 360 | 360 | 360 |
| Probe material (Teflon, etc.) | N/A | N/A | N/A | N/A |

| Pollutant | PM2.5 | PM2.5 Speciation | PM2.5 Speciation | PM2.5 Speciation |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|---------------------------------|-------------------------|-------------------------|
| Residence time (seconds) | N/A | N/A | N/A | N/A |
| For low volume PM instruments (flow rate < 200 liters/minute), is any PM instrument within 1 m of the hivol? If yes, please list distance (meters) and instrument(s). | No | No | No | No |
| For high volume PM instrument (flow rate > 200 liters/minute), is any PM instrument within 2m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A | N/A | N/A | N/A |
| Frequency of flow rate verification for manual PM samplers audit | N/A | Monthly | Monthly | Monthly |
| Frequency of flow rate verification for automated PM analyzers audit | Monthly | N/A | N/A | N/A |
| Frequency of one-point QC check (gaseous) | N/A | N/A | N/A | N/A |
| Last Annual Performance Evaluation (gaseous) | N/A | N/A | N/A | N/A |
| Last two semi-annual flow rate audits for PM monitors | 03/24/2015, 09/23/2015 | N/A | N/A | N/A |
| Changes planned within the next 18 months (Y/N) | N | (Y) Replacement of P/C samplers | N | N |

| Bakersfield – California (3) | | | |
|----------------------------------------------------------------------------|-----------------------|---------------|-----------------------|
| Pollutant | NO₂ | Toxics | Met Parameters |
| Parameter code | 42602 | Many | Many |
| Spatial scale | N | N | R |
| Site type | PE | PE | GB |
| Monitoring objective | NC | RS, TP | RS, TP |
| Monitor type | SLAMS | Many | Many |
| Network affiliation | None | CA Air Toxics | SLAMS |
| FRM/FEM/ARM/Other | FRM | Other | Other |
| POC | 1 | Many | Many |
| Primary/Monitor Collocation/Other | Primary | Other | Other |
| Is it suitable for comparison against the annual PM _{2.5} ? (Y/N) | N/A | N/A | N/A |

| Pollutant | NO₂ | Toxics | Met Parameters |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|---------------|-----------------------|
| Instrument manufacturer and model | API 200A | Xontech 924 | Many |
| Analysis method | CL | Many | Many |
| Method code | 599 | Many | Many |
| Monitoring start date | 04/01/94 | 01/01/07 | 04/01/94 |
| Current sampling frequency (e.g. Hourly, 1:3) | Hourly | Hourly | Hourly |
| Sampling season | ALL YEAR | ALL YEAR | ALL YEAR |
| Probe/Inlet height above ground (meters) | 6.0 | 5.7 | 13.8 |
| Distance from supporting structure (meters) | 2.2 | 1.9 | None |
| Distance from obstructions on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | None | None |
| Distance from obstructions not on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | None | None |
| Distance from trees (meters) | None | None | None |
| Distance to furnace or incinerator flue (meters) | None | None | None |
| Distance between collocated monitors (meters) | N/A | N/A | N/A |
| Unrestricted airflow (degrees) | 360 | 360 | 360 |
| Probe material (Teflon, etc.) | Teflon | N/A | N/A |
| Residence time (seconds) | 14.7 | N/A | N/A |
| For low volume PM instruments (flow rate < 200 liters/minute), is any PM instrument within 1 m of the lovol? If yes, please list distance (meters) and instrument(s). | N/A | N/A | N/A |
| For high volume PM instrument (flow rate > 200 liters/minute), is any PM instrument within 2m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A | N/A | N/A |
| Frequency of flow rate verification for manual PM samplers audit | N/A | N/A | N/A |
| Frequency of flow rate verification for automated PM analyzers audit | N/A | N/A | N/A |
| Frequency of one-point QC check (gaseous) | Daily | N/A | N/A |
| Last Annual Performance Evaluation (gaseous) | 03/24/15 | 03/24/15 | N/A |
| Last two semi-annual flow rate audits for PM monitors | N/A | N/A | N/A |
| Changes planned within the next 18 months (Y/N) | N | N | N |

| | |
|---------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Site Name | Bakersfield - Muni |
| AQS ID (XX-XXX-XXXX) | 06-029-2012 |
| Representative statistical area Name (i.e. MSA, CBSA, other) | Bakersfield |
| County | Kern |
| Collecting (Operating) Agency | SJVAPCD |
| Analytical Lab (i.e. weigh lab, toxics lab, other) | SJVAPCD contracts out so lab varies from year to year: Speciated VOC |
| Reporting Agency | SJVAPCD |
| Site Start Date | Ozone, Speciated VOC PAMS equipment 6/2012; CO, NO2, MET parameters 7/2012; NMH PAMS 10/2012 |
| Pollutant Parameters | Ozone, CO, NO2, Speciated VOC, NMH |
| Meteorological Parameters | Wind speed, wind direction, outdoor temperature, relative humidity, barometric pressure, solar radiation |
| Address | 2000 South Union Ave., Bakersfield, CA 93307 |
| GPS Coordinates (decimal degrees) | 35.3313 N, -119.0000 W |
| Distance to roadways (meters) | 280m (west) |
| Traffic Count/Year | 21,165/2015 (Traffic count for street address): S. Union Ave between E Casa Loma Dr and Watts Dr.) 5,039/2016 (Traffic count for road adjacent to monitoring station: Watts Dr between S. Union Ave and Short St.) Source: Kern Council of Governments. |
| Groundcover (e.g. paved, vegetative, dirt, sand, gravel) | Paved |

| Bakersfield – Muni (1) | | | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-------------------|-----------------------|--------------------------|-------------------|----------------|
| Pollutant | Ozone | CO | NO ₂ | Speciated VOC | NMH | Met Parameters |
| Parameter code | 44201 | 42101 | 42602 | Many | 43102 | Many |
| Spatial scale | N | N | N | N | N | R |
| Site type | HC | PE | HC | HC | PE | GB |
| Basic monitoring objective(s) | NC, RS, TP | NC | NC, RS | RS | RS | RS, TP |
| Monitor type | SLAMS | SLAMS | SLAMS | Other | Other | Other |
| Network affiliation(s), if applicable (a monitor may have none, one, or multiple) | PAMS | PAMS | PAMS, RA40 (interim)* | PAMS | PAMS | PAMS |
| FRM/FEM/ARM/Other | FEM | FEM | FEM | Other | Other | Other |
| POC | 1 | 1 | 1 | 1 | 1 | 1 |
| Primary / QA Collocated / Other (provide for all PM _{2.5} , PM ₁₀ , PM _{10-2.5} , Pb and NO ₂ monitors. Non-PM, Pb, NO ₂ monitors should be listed as "N/A".) | N/A | N/A | N/A | N/A | N/A | N/A |
| Is it suitable for comparison against the annual PM _{2.5} ? (Y/N) | N/A | N/A | N/A | N/A | N/A | N/A |
| Instrument manufacturer and model | Teledyne 400E | Thermo 48i TLE | Teledyne 200E | Xontech 910/ Xontech 925 | Synspec Alpha 115 | Many |
| Analysis method | UV Absorption | Non-dispersive IR | Chem. | GC / UV Absorption | TEI 55: Propane | Many |
| Method code | 087 | 554 | 099 | 177 / 202 | 011 | Many |
| Monitoring start date (MM/DD/YYYY) | 06/12 | 07/12 | 07/12 | 06/12 | 10/12 | 07/12 |
| Required sampling frequency (e.g. 1:3 excluding exceptional events/1:1 including exceptional events) | Hourly | Hourly | Hourly | 1:3 | Hourly | Hourly |
| Sampling season (MM/DD - MM/DD) | 01/01 – 12/31 | 01/01 – 12/31 | 01/01 – 12/31 | 06/01 – 08/31 | 01/01 – 12/31 | 01/01 – 12/31 |
| Probe height (meters) | 6.0m | 6.0m | 6.0m | 6.3m | 6.0m | 10m |
| Distance from supporting structure (meters) | 2.1m | 2.1m | 2.1m | 2.4m | 2.1m | N/A |

* - Bakersfield-Muni is serving as an RA40 site until the Arvin-Di Giorgio is built to accommodate RA40 monitoring.

| Pollutant | Ozone | CO | NO ₂ | Speciated VOC | NMH | Met Parameters |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------|-----------------|-----------------|----------------|----------------|
| Distance from obstructions on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | None | None | None | None | None |
| Distance from obstructions not on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | None | None | None | None | None |
| Distance from trees (meters) | Over 75 m | Over 75 m | Over 75 m | Over 75 m | Over 75 m | Over 75 m |
| Distance to furnace or incinerator flue (meters) | N/A | N/A | 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 | N/A | N/A |
| Unrestricted airflow (degrees around probe/inlet or percentage of monitoring path) | 350 | 350 | 350 | 350 | 350 | 350 |
| Probe material for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon) | Pyrex & Teflon | Pyrex & Teflon | Pyrex & Teflon | Stainless Steel | Pyrex & Teflon | N/A |
| Residence time for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (seconds) | 11.4 | 11.1 | 10.7 | 4 | 11 | N/A |
| Frequency of one-point QC check for gaseous instruments | Daily | Daily | Daily | N/A | Daily | N/A |
| Frequency of flow rate verification for manual PM samplers, including Pb samplers (routine checks) | N/A | N/A | N/A | N/A | N/A | N/A |
| Frequency of flow rate verification for automated PM analyzers (routine checks) | N/A | N/A | N/A | N/A | N/A | N/A |
| For low volume PM instruments (flow rate < 200 liters/minute), is any PM instrument within 1 m of the lovol? If yes, please list distance (meters) and instrument(s). | N/A | N/A | N/A | N/A | N/A | N/A |

| Pollutant | Ozone | CO | NO ₂ | Speciated VOC | NMH | Met Parameters |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------|-----------------|---------------|-----|----------------|
| For high volume PM instrument (flow rate > 200 liters/minute), is any PM instrument within 2m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A | N/A | N/A | N/A | N/A | N/A |
| Date of Annual Performance Evaluation conducted in the past calendar year for gaseous parameters (MM/DD/YYYY) | 03/25/15 | 03/25/15 | 03/25/15 | N/A | N/A | N/A |
| Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors (MM/DD/YYYY, MM/DD/YYYY) | N/A | N/A | N/A | N/A | N/A | N/A |
| Changes planned within the next 18 months (Y/N) | N | N | N | N | N | N |

| | |
|---------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Site Name | Bakersfield–Airport (Planz) |
| AQS ID (XX-XXX-XXXX) | 06-029-0016 |
| Representative statistical area Name (i.e. MSA, CBSA, other) | Bakersfield |
| County | Kern |
| Collecting (Operating) Agency | CARB |
| Analytical Lab (i.e. weigh lab, toxics lab, other) | CARB |
| Reporting Agency | CARB |
| Site Start Date | 9/19/00 |
| Pollutant Parameters | PM2.5 FRM |
| Meteorological Parameters | None |
| Address | 401 E. Planz Rd., Bakersfield CA 93307 |
| GPS Coordinates (decimal degrees) | 35.3246 N, -118.9976 W |
| Distance to road | 500 m (west) |
| Traffic Count/Year | 17,536/2016 (Traffic count for nearest cross street): S. Union Ave between E. Planz Rd and E White Lane) 5,039/2016 (Traffic count for monitoring station's street address) Source: Kern Council of Governments. |
| Ground Cover | Paved |

| Bakersfield–Airport (Planz) (1) | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| Pollutant | PM2.5 |
| Parameter code | 88101 |
| Spatial scale | N |
| Site type | PE, HC |
| Basic monitoring objective(s) | NC |
| Monitor type | SLAMS |
| Network affiliation(s), if applicable (a monitor may have none, one, or multiple) | None |
| FRM/FEM/ARM/Other | FRM |
| POC | 1 |
| Primary / QA Collocated / Other (provide for all PM _{2.5} , PM ₁₀ , PM _{10-2.5} , Pb and NO ₂ monitors. Non-PM, Pb, NO ₂ monitors should be listed as “N/A”.) | Primary |
| Is it suitable for comparison against the annual PM _{2.5} ? (Y/N) | Y |
| Instrument manufacturer and model | R&P 2025 |
| Analysis method | Gravimetric |
| Method code | 145 |
| Monitoring start date (MM/DD/YYYY) | 09/19/00 |
| Required sampling frequency (e.g. 1:3 excluding exceptional events/1:1 including exceptional events) | 1:3 |
| Sampling season | ALL YEAR |
| Probe Inlet height above ground (meters) | 2.0 |
| Distance from supporting structure (meters) | None |
| Distance from obstructions on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None |
| Distance from obstructions not on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None |
| Distance from trees (meters) | None |
| Distance to furnace or incinerator flue (meters) | None |
| Distance between collocated monitors (meters) | None |
| Unrestricted airflow (degrees) | 360 |
| Probe material (Teflon, etc.) | N/A |
| Residence time (seconds) | N/A |
| For low volume PM instruments (flow rate < 200 liters/minute), is any PM instrument within 1 m of the lovol? If yes, please list distance (meters) and instrument(s). | N/A |

| Pollutant | PM2.5 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| For high volume PM instrument (flow rate > 200 liters/minute), is any PM instrument within 2m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A |
| Frequency of flow rate verification for manual PM samplers audit | Monthly |
| Frequency of flow rate verification for automated PM analyzers audit | N/A |
| Frequency of one-point QC check (gaseous) | N/A |
| Last Annual Performance Evaluation (gaseous) | N/A |
| Last two semi-annual flow rate audits for PM monitors | 03/24/15, 09/23/15 |
| Changes planned within the next 18 months (Y/N) | N |

| | |
|---------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| Site Name | Edison |
| AQS ID (XX-XXX-XXXX) | 06-029-0007 |
| Representative statistical area Name (i.e. MSA, CBSA, other) | Bakersfield |
| County | Kern |
| Collecting (Operating) Agency | CARB |
| Analytical Lab (i.e. weigh lab, toxics lab, other) | N/A |
| Reporting Agency | CARB |
| Site Start Date | 1/1/80 |
| Pollutant Parameters | Ozone, NO ₂ |
| Meteorological Parameters | Wind speed, wind direction, outdoor temperature |
| Address | Johnston Farms-Shed Rd., Edison, CA 93320 |
| GPS Coordinates (decimal degrees) | 35.34561 N, -118.85183 W |
| Distance to road | 450 m (south) |
| Traffic Count/Year | 3,830/2016 (Traffic count for nearest roads: Comanche Dr. and Edison Hwy., Source: Kern Council of Governments.) |
| Ground Cover | Dirt, vegetative |

| Edison (1) | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|-----------------------------|-----------------|
| Pollutant | Ozone | NO ₂ | Met Parameters |
| Parameter code | 44201 | 42602 | Many |
| Spatial scale | N | N | R |
| Site type | HC, RT | PE | GB |
| Monitoring objective | NC | NC | RS, TP |
| Monitor type | SLAMS | SLAMS | Other |
| Network affiliation | SLAMS | SLAMS | SLAMS |
| FRM/FEM/ARM/Other | FEM | FRM | N/A |
| POC | 1 | 1 | 1 |
| Primary/Monitor Collocation/Other | N/A | N/A | N/A |
| Method code | 087 | 099 | Many |
| Sampling method (List Instrument) | API/Teledyne 400 | API 200 E | RM Young 81000 |
| Analysis method | UV | CL | Many |
| Monitoring start date | 01/01/81 | 01/01/80 | 01/01/95 |
| Current sampling frequency (e.g. Hourly, 1:3) | Hourly | Hourly | Hourly |
| Sampling season | ALL YEAR | ALL YEAR | ALL YEAR |
| Probe/Inlet height above ground (meters) | 5.4 | 5.4 | 10 m (OT 2.1 m) |
| Distance from supporting structure (meters) | 1.5 | 1.5 | None |
| Distance from obstructions on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | None | None |
| Distance from obstructions not on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | None | None |
| Distance from trees (meters) | 16.1 m (11.0 m to dripline) | 16.1 m (11.0 m to dripline) | 18.5 |
| Distance to furnace or incinerator flue (meters) | None | None | None |
| Distance between collocated monitors (meters) | N/A | N/A | N/A |
| Unrestricted airflow (degrees) | 360 | 360 | 360 |
| Probe material (Teflon, etc.) | Teflon | Teflon | N/A |
| Residence time (seconds) | 11.8 | 14.5 | N/A |
| For low volume PM instruments (flow rate < 200 liters/minute), is any PM instrument within 1 m of the lovol? If yes, please list distance (meters) and instrument(s). | N/A | N/A | N/A |
| For high volume PM instrument (flow rate > 200 liters/minute), is any PM instrument within 2m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A | N/A | N/A |

| Pollutant | Ozone | NO₂ | Met Parameters |
|----------------------------------------------------------------------|--------------|-----------------------|-----------------------|
| Frequency of flow rate verification for manual PM samplers audit | N/A | N/A | N/A |
| Frequency of flow rate verification for automated PM analyzers audit | N/A | N/A | N/A |
| Frequency of one-point QC check (gaseous) | Daily | Daily | N/A |
| Last Annual Performance Evaluation (gaseous) | 10/14/15 | 10/14/15 | N/A |
| Last two semi-annual flow rate audits for PM monitors | N/A | N/A | N/A |
| Changes planned within the next 18 months (Y/N) | N | N | N |

| | |
|---------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| Site Name | Arvin–Di Giorgio |
| AQS ID (XX-XXX-XXXX) | 06-029-5002 |
| Representative statistical area Name (i.e. MSA, CBSA, other) | Bakersfield |
| County | Kern |
| Collecting (Operating) Agency | CARB |
| Analytical Lab (i.e. weigh lab, toxics lab, other) | N/A |
| Reporting Agency | CARB |
| Site Start Date | 11/16/2009 |
| Pollutant Parameters | |
| | Ozone |
| Meteorological Parameters | |
| | Outdoor temperature |
| Address | |
| | 19405 Buena Vista Blvd, Arvin CA 93203 |
| GPS Coordinates (decimal degrees) | |
| | 35.2391 N, -118.7886 W |
| Distance to road | |
| | 10 m (east) |
| Traffic Count/Year | |
| | 581/2016 (Traffic count for Buena Vista Blvd east of Tejon Hwy., Source: Kern Council of Governments.) |
| Ground Cover | |
| | Dirt, vegetative |

| Arvin–Di Giorgio (1) | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----------------------------|
| Pollutant | Ozone | Met Parameters |
| Parameter code | 44201 | Many |
| Spatial scale | N | R |
| Site type | PE | GB |
| Monitor objective | NC | RS, TP |
| Monitor type | SLAMS | SLAMS (WD, WS), Other (OT) |
| Network affiliation | Unofficial PAMS | SLAMS |
| FRM/FEM/ARM/Other | FEM | N/A |
| POC | 1 | 2 |
| Primary/Monitor Collocation/Other | Primary | Primary |
| Method code | 087 | Many |
| Sampling method (List Instrument) | API 400E | Sonic RM Young 9100 |
| Analysis method | UV | Many |
| Monitoring start date | 11/16/2009 | 11/16/2009 |
| Current sampling frequency (e.g. Hourly, 1:3) | Hourly | Hourly |
| Sampling season | ALL YEAR | ALL YEAR |
| Probe height (meters) | 4.4 | 10 |
| Distance from supporting structure (meters) | 1.8 | N/A |
| Distance from obstructions on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | None |
| Distance from obstructions not on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | None |
| Distance from trees (meters) | >10 m | 18.5 |
| Distance to furnace or incinerator flue (meters) | None | None |
| Distance between collocated monitors (meters) | None | None |
| Unrestricted airflow (degrees) | 360 | 360 |
| Probe material (Teflon, etc.) | TEFLON | Teflon |
| Residence time (seconds) | 8.2 | N/A |
| For low volume PM instruments (flow rate < 200 liters/minute), is any PM instrument within 1 m of the lovol? If yes, please list distance (meters) and instrument(s). | N/A | N/A |
| For high volume PM instrument (flow rate > 200 liters/minute), is any PM instrument within 2m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A | N/A |
| Frequency of flow rate verification for manual PM samplers audit | N/A | N/A |

| Pollutant | Ozone | Met Parameters |
|----------------------------------------------------------------------|--------------|-----------------------|
| Frequency of flow rate verification for automated PM analyzers audit | N/A | N/A |
| Frequency of one-point QC check (gaseous) | Daily | N/A |
| Last Annual Performance Evaluation (gaseous) | 10/14/2015 | N/A |
| Last two semi-annual flow rate audits for PM monitors | N/A | N/A |
| Changes planned within the next 18 months (Y/N) | N | N |

| | |
|---------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| Site Name | Maricopa |
| AQS ID (XX-XXX-XXXX) | 06-029-0008 |
| Representative statistical area Name (i.e. MSA, CBSA, other) | Bakersfield |
| County | Kern |
| Collecting (Operating) Agency | SJVAPCD |
| Analytical Lab (i.e. weigh lab, toxics lab, other) | N/A |
| Reporting Agency | SJVAPCD |
| Site Start Date | 7/1/1987 |
| Pollutant Parameters | Ozone |
| Meteorological Parameters | Wind speed, wind direction, outdoor temperature, barometric pressure |
| Address | 955 Stanislaus St., Maricopa, CA 93252 |
| GPS Coordinates (decimal degrees) | 35.0515 N, -119.4026 W |
| Distance to roadways (meters) | 500 (northwest) |
| Traffic Count/Year | 255/2016 (Traffic count for nearest roads: Union St. at California St., Source: Kern Council of Governments.) |
| Groundcover (e.g. paved, vegetative, dirt, sand, gravel) | Gravel, dirt, vegetative |

| Maricopa (1) | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------------------------------------------------------------------------------|
| Pollutant | Ozone | Met Parameters |
| Parameter code | 44201 | Many |
| Spatial scale | N | N |
| Site type | RT | GB |
| Basic monitoring objective(s) | NC, RS, TP | RS, TP |
| Monitor type | SLAMS | Other |
| Network affiliation(s), if applicable (a monitor may have none, one, or multiple) | None | None |
| FRM/FEM/ARM/Other | FEM | Other |
| POC | 1 | 1 |
| Primary / QA Collocated / Other (provide for all PM _{2.5} , PM ₁₀ , PM _{10-2.5} , Pb and NO ₂ monitors. Non-PM, Pb, NO ₂ monitors should be listed as "N/A".) | Primary | Other |
| Is it suitable for comparison against the annual PM _{2.5} ? (Y/N) | N/A | N/A |
| Instrument manufacturer and model | Teledyne 400E | ITP- Hy-Cal 512AA3B, OT- Met One 060A-2, BP- Met One 092, WD- Met One 020C, WS-Met One 010C |
| Analysis method | UV | Many |
| Method code | 087 | Many |
| Monitoring start date (MM/DD/YYYY) | 07/01/87 | 07/01/87 |
| Required sampling frequency (e.g. 1:3 excluding exceptional events/1:1 including exceptional events) | Hourly | Hourly |
| Sampling season (MM/DD - MM/DD) | 01/01 – 12/31 | 01/01 – 12/31 |
| Probe height (meters) | 3.0m | 10m |
| Distance from supporting structure (meters) | 1.0m | N/A |
| Distance from obstructions on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | 3m H 0.5m V | N/A |
| Distance from obstructions not on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | 17m H 1m V | N/A |
| Distance from trees (meters) | 18m H 8m V | 20m |
| Distance to furnace or incinerator flue (meters) | N/A | N/A |
| Distance between monitors fulfilling a QA collocation requirement (meters). | N/A | N/A |
| Unrestricted airflow (degrees around probe/inlet or percentage of monitoring path) | 350 deg. | 360 |

| Pollutant | Ozone | Met Parameters |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------|
| Probe material for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon) | Pyrex & Teflon | N/A |
| Residence time for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (seconds) | 11.2 | N/A |
| Frequency of one-point QC check for gaseous instruments | Daily | N/A |
| Frequency of flow rate verification for manual PM samplers, including Pb samplers (routine checks) | N/A | N/A |
| Frequency of flow rate verification for automated PM analyzers (routine checks) | N/A | N/A |
| For low volume PM instruments (flow rate < 200 liters/minute), is any PM instrument within 1 m of the lovol? If yes, please list distance (meters) and instrument(s). | N/A | N/A |
| For high volume PM instrument (flow rate > 200 liters/minute), is any PM instrument within 2m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A | N/A |
| Date of Annual Performance Evaluation conducted in the past calendar year for gaseous parameters (MM/DD/YYYY) | 10/12/15 | N/A |
| Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors (MM/DD/YYYY, MM/DD/YYYY) | N/A | N/A |
| Changes planned within the next 18 months (Y/N) | N | N |

| | |
|---------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| Site Name | Lebec |
| AQS ID (XX-XXX-XXXX) | 06-029-2009 |
| Representative statistical area Name (i.e. MSA, CBSA, other) | Bakersfield |
| County | Kern |
| Collecting (Operating) Agency | SJVAPCD |
| Analytical Lab (i.e. weigh lab, toxics lab, other) | N/A |
| Reporting Agency | SJVAPCD |
| Site Start Date | 1/20/2009 |
| Pollutant Parameters | PM2.5 Non-FEM |
| Meteorological Parameters | Wind speed, wind direction, outdoor temperature, barometric pressure |
| Address | 1277 Beartrap Road, Lebec, CA 93243 |
| GPS Coordinates (decimal degrees) | 34.8415N, -118.8610W |
| Distance to roadways (meters) | 300 m (west) |
| Traffic Count/Year | 1,967/2016 (Traffic count for nearest roads: Lebec Rd and Interstate 5, Source: Kern Council of Governments.) |
| Groundcover (e.g. paved, vegetative, dirt, sand, gravel) | Gravel, vegetative |

| Lebec | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|---------------------------------------------------------------------------------------------|
| Pollutant | PM2.5 | Met Parameters |
| Parameter code | 88502 | Many |
| Spatial scale | N | R |
| Site type | PE | GB |
| Basic monitoring objective(s) | TP | RS, TP |
| Monitor type | SPM | Other |
| Network affiliation(s), if applicable (a monitor may have none, one, or multiple) | None | None |
| FRM/FEM/ARM/Other | Non-FEM | Other |
| POC | 3 | 1 |
| Primary / QA Collocated / Other (provide for all PM _{2.5} , PM ₁₀ , PM _{10-2.5} , Pb and NO ₂ monitors. Non-PM, Pb, NO ₂ monitors should be listed as "N/A".) | Primary | Other |
| Is it suitable for comparison against the annual PM _{2.5} ? (Y/N) | N | N/A |
| Instrument manufacturer and model | MET One BAM 1020 | ITP- Hy-Cal 512AA3B, OT- Met One 060A-2, BP- Met One 092, WD- Met One 020C, WS-Met One 010C |
| Analysis method | Beta Attenuation | Many |
| Method code | 731 | Many |
| Monitoring start date (MM/DD/YYYY) | 01/27/09 | OT, WS, WD - 12/09/09; BP – 01/28/10 |
| Required sampling frequency (e.g. 1:3 excluding exceptional events/1:1 including exceptional events) | Hourly | Hourly |
| Sampling season (MM/DD - MM/DD) | 01/01 -12/31 | 01/01 – 12/31 |
| Probe height (meters) | 1.98 | 10 |
| Distance from supporting structure (meters) | 4.62 | N/A |
| Distance from obstructions on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | None |
| Distance from obstructions not on roof. Include horizontal distance + vertical height above probe for obstructions nearby. (meters) | None | None |
| Distance from trees (meters) | 200m | 200m |
| Distance to furnace or incinerator flue (meters) | None | None |
| Distance between monitors fulfilling a QA collocation requirement (meters). | N/A | N/A |
| Unrestricted airflow (degrees around probe/inlet or percentage of monitoring path) | 360 | 360 |

| Pollutant | PM2.5 | Met Parameters |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------------------|
| Probe material for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon) | N/A | N/A |
| Residence time for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (seconds) | N/A | N/A |
| Frequency of one-point QC check for gaseous instruments | N/A | N/A |
| Frequency of flow rate verification for manual PM samplers, including Pb samplers (routine checks) | N/A | N/A |
| Frequency of flow rate verification for automated PM analyzers (routine checks) | Monthly | N/A |
| For low volume PM instruments (flow rate < 200 liters/minute), is any PM instrument within 1 m of the lovol? If yes, please list distance (meters) and instrument(s). | No | N/A |
| For high volume PM instrument (flow rate > 200 liters/minute), is any PM instrument within 2m of the hivol? If yes, please list distance (meters) and instrument(s). | N/A | N/A |
| Date of Annual Performance Evaluation conducted in the past calendar year for gaseous parameters (MM/DD/YYYY) | N/A | N/A |
| Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors (MM/DD/YYYY, MM/DD/YYYY) | 04/09/15, 10/29/15 | N/A |
| Changes planned within the next 18 months (Y/N) | N | N |

APPENDIX C:

**EPA Approval Letter for the Relocation of the
Arvin-Bear Mountain site to the Arvin-Di Giorgio Site**

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street
San Francisco, CA 94105-3901

MAY 02 2016

Ms. Karen Magliano
Chief, Air Quality Planning and Science Division
California Air Resources Board
1001 I Street, P.O. Box 2815
Sacramento, California 95812

Dear Ms. Magliano:

This letter provides the U.S. Environmental Protection Agency's (EPA's) review and approval for the California Air Resources Board's (CARB's) relocation of the ozone (O₃) State/Local Air Monitoring Station (SLAMS) monitor at the Arvin - Bear Mountain site (Air Quality System (AQS) Site ID: 06-029-5001) to the proposed Arvin - Di Giorgio site (AQS Site ID: 06-029-5002) in Kern County, California.

On April 29, 2016, CARB sent a letter to EPA with a description of this network change. In this letter, CARB explained the need to relocate the Arvin - Bear Mountain O₃ monitor due to logistics beyond the state's control (i.e., expiration of the property lease). Per 40 CFR 58.14, monitoring agencies are required to obtain EPA approval for the relocation of SLAMS monitors. EPA has reviewed CARB's relocation request for the Arvin - Bear Mountain site against criteria contained in 40 CFR 58.14(c)(6) and approves this request as described below.

Overview of Arvin – Bear Mountain Relocation History

In July 2009, the Arvin-Edison Water Storage District notified CARB that it was letting the lease that allowed CARB to operate the Arvin - Bear Mountain site on the Water District's property expire on August 31, 2009. The Water District directed CARB to remove its equipment from the site by that date, despite efforts by both CARB and San Joaquin Valley Air Pollution Control District (SJVAPCD) to negotiate with the Water District to keep the Arvin - Bear Mountain site in operation. CARB immediately initiated a search process for potential replacement site locations that were as nearby as practical considerations allowed, which is described in detail in their request letter, but generally included: selecting the criteria that would be used to evaluate an appropriate replacement site, identifying potential sites, conducting parallel monitoring, analyzing subsequent data, and preparing the site relocation package for submittal to EPA.

In August 2009, CARB began the search for potential sites to evaluate as a suitable relocation site. As part of CARB's search process, CARB reviewed adherence to EPA relocation criteria, generated meteorological and air quality statistics, and reviewed satellite image maps to characterize the Arvin - Bear Mountain site. Several other factors were considered such as the local topography and land uses, nearby traffic counts, lack of impact from local NO_x and other urban sources, and the predominant wind direction coinciding with high 1-hour O₃ concentrations using monitoring data from the most recent complete (May through October 2008) O₃ season. Logistics were also considered, including limiting the search to public property to ensure lease longevity, general site access, existing infrastructure, and adequate power supply. The initial search resulted in 31 possible replacement sites located within five miles of the Arvin - Bear Mountain site. CARB then refined the search with more specific search criteria.

CARB's refined search concluded with two potential replacement sites that met all search criteria, both located on Di Giorgio Elementary School property.

The Di Giorgio Elementary School property at 19405 Buena Vista Blvd, Arvin, California 93203 was chosen as a potential replacement site because this location was the closest site in proximity to the Arvin - Bear Mountain site (approximately 2.2 miles northwest of the Arvin - Bear Mountain site) that met all search criteria, was minimally impacted by local NO_x sources, immediately available, and had electricity. Adjacent land uses are similar to those at the Arvin - Bear Mountain site, with vineyards to the west and north, orchards to the east and southwest, and light urban use to the southeast. Local topography is flat, with predominant wind direction and nearby traffic counts similar to the Arvin - Bear Mountain site.

Although the lease ended on August 31, 2009, SJVAPCD negotiated with the Water District to continue operation of the Arvin - Bear Mountain site through October 31, 2010. This additional time allowed CARB to conduct parallel monitoring with the potential Arvin - Di Giorgio replacement site, which began temporary operation on November 16, 2009. The Arvin - Bear Mountain and Arvin - Di Giorgio sites operated in parallel from November 16, 2009 through October 31, 2010, when the Arvin - Bear Mountain site was permanently shut down, allowing for almost a year of parallel O₃ monitoring at the two sites. As described in CARB's relocation request, O₃ concentrations between May and October were generally 6-7 ppb lower at the Arvin - Di Giorgio site compared to the Arvin - Bear Mountain site and showed a strong correlation between O₃ data at these two sites.

Prior to completion of CARB's relocation request, a potential site was identified on Tejon Ranch Conservancy property approximately 0.3 mi east of the Arvin - Bear Mountain site, which would have been closer than the Arvin - Di Giorgio site to the Arvin - Bear Mountain site. To ensure that the most suitable replacement site was selected, CARB requested access to the Tejon Ranch Conservancy land for a short-term study of O₃ concentrations and potential long-term monitoring site operation (see Attachment 1 in CARB's relocation request). Access to this location for purposes of establishing an air monitoring site was denied by the Tejon Ranch Conservancy Board (See Attachment 2 in CARB's relocation request).

Regulatory Requirements

According to certified data submitted to AQS, 8-hour and 1-hour daily maximum O₃ concentrations at the Arvin - Bear Mountain O₃ monitor were among the highest levels in the Bakersfield Metropolitan Statistical Area (MSA) at the time of its discontinuation on November 1, 2010 and the site was therefore considered to represent the maximum concentration site for the MSA. EPA regulations (40 CFR part 58) require, among other things, that at least one O₃ site for each MSA must be designated to record the maximum concentration for that area. The closure of the Arvin - Bear Mountain site without subsequent approval of a replacement site prevented the designation of a maximum concentration O₃ site for the Bakersfield MSA.

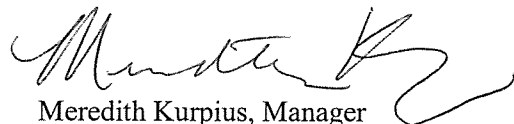
40 CFR 58.14(c)(6) describes the relocation requirements if a SLAMS monitor is not eligible for removal under the criteria in 40 CFR 58.14 (c)(1) through (c)(5) and states that, "[a] SLAMS monitor...may be moved to a nearby location with the same scale of representation if logistical problems beyond the State's control make it impossible to continue operation at its current site." As described above, the land uses and sources for O₃ near the Arvin - Di Giorgio site are similar to the Arvin - Bear Mountain site. Given the logistical constraints and factors considered by CARB, the Arvin - Di Giorgio site provides the most similar concentrations from similar sources to the original Arvin - Bear Mountain site, thus fulfilling the requirement that the replacement site is at a nearby location with the same scale of representation. Furthermore, relocation of this monitoring will not prevent SJVAPCD from meeting 40 CFR 58, Appendix D requirements, including that for a maximum concentration O₃ site in the Bakersfield MSA.

Conclusion

Based on the above assessment of O₃ concentrations, land use, and nearby sources, EPA approves CARB's relocation of the Arvin - Bear Mountain O₃ SLAMS monitor to the Arvin - Di Giorgio site. As this is a relocation, the data from the old and new sites will be combined to form one continuous data record for design value calculations. Please note this in the AQS comment field for both the old and new AQS sites. Please attach this approval letter and update the relevant monitor and site information in your next Ambient Air Quality Monitoring Network Plan.

If there are any questions regarding this letter, please feel free to contact me at (415) 947-4534 or Dena Vallano of my staff at 415-972-3134.

Sincerely,



Meredith Kurpius, Manager
Air Quality Analysis Office

cc (via email): Ravi Ramalingam, CARB
Gayle Sweigert, CARB
Greg Gilani, CARB
Seyed Sadredin, SJVAPCD
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