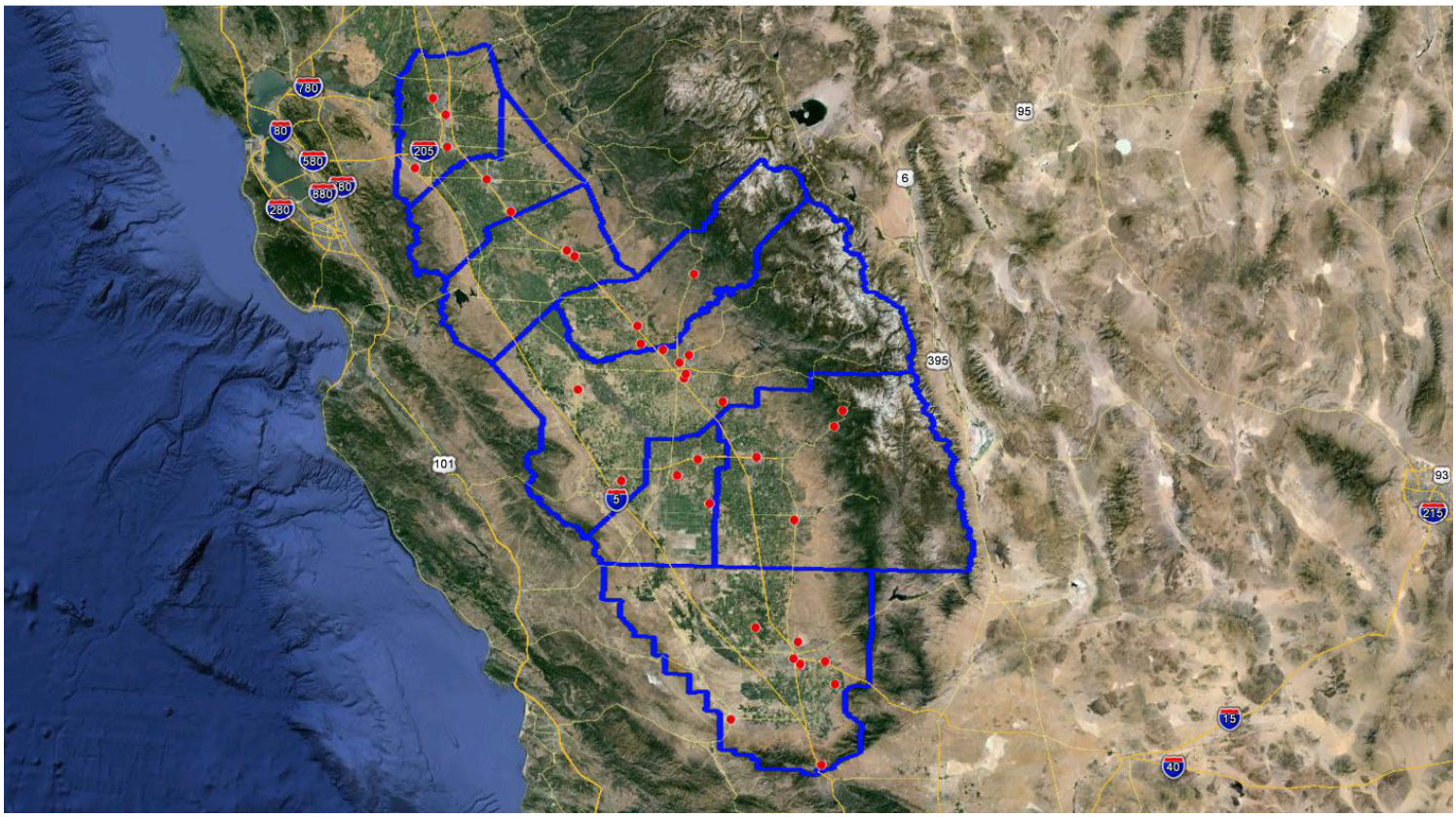
San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

2016 Air Monitoring Network Plan



San Joaquin Valley Air Pollution Control District

2016 Air Monitoring Network Plan

September 5, 2016

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* 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.

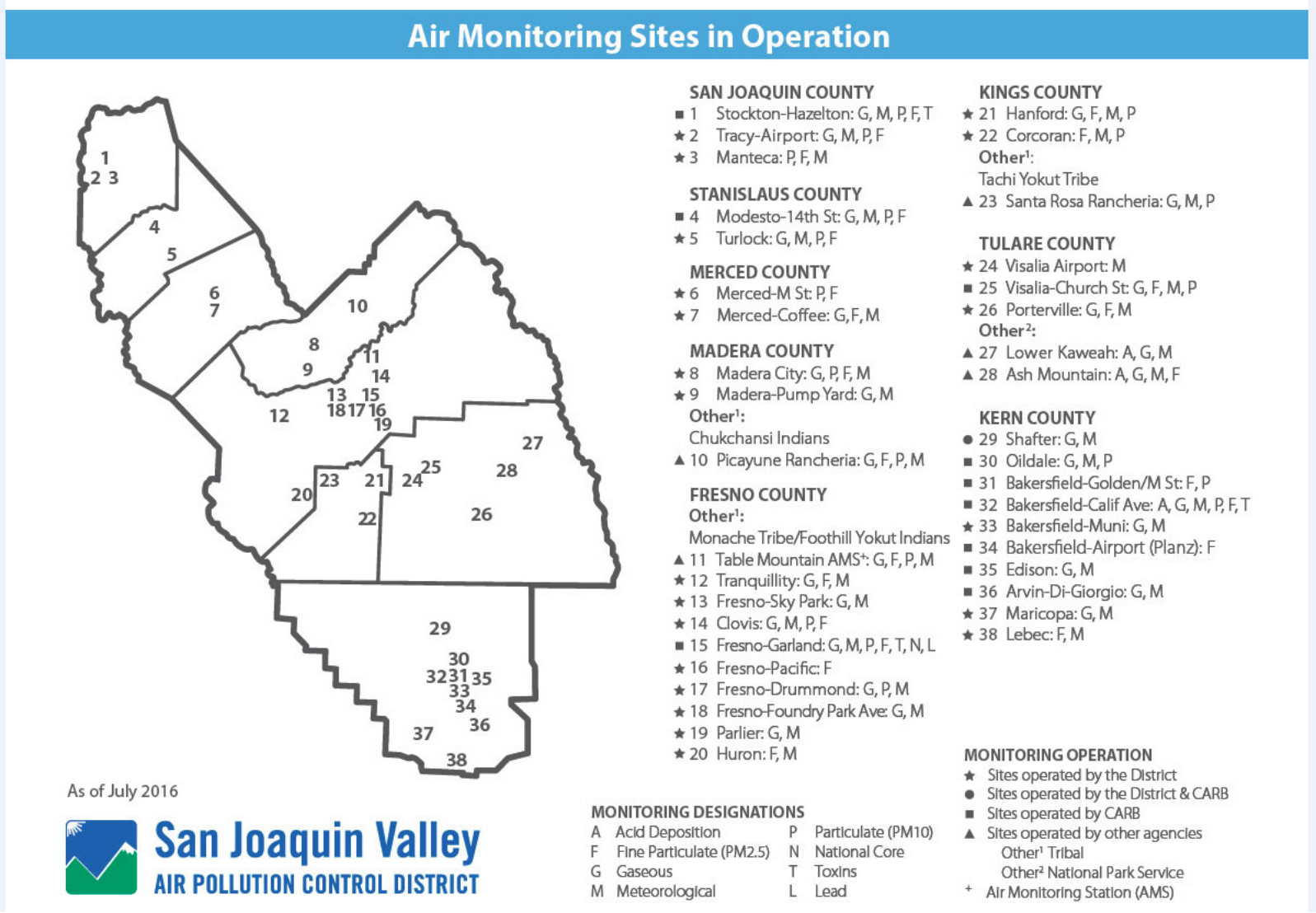
As part of the District's long–term efforts to improve public health, air monitors collect data that is rigorously analyzed by laboratory technicians and District staff. This monitoring data determines the Valley's air quality and is fundamental in the Valley's effort to improve air quality and achieve 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 PM2.5 and ozone standards, and is in attainment of the federal standards for lead (Pb), Nitrogen Dioxide (NO_2), Sulfur Dioxide (SO_2), 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. *Currently, there are no ARM monitors in the San Joaquin Valley.*
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	PM2.5 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 PM2.5 monitoring:

- The monitoring network plan must identify which sites are suitable and which are not suitable for comparison against the annual PM2.5 national ambient air quality standards (NAAQS) as described in 40 CFR 58.30 (see PM2.5 Monitors in the Valley section below).
- The plan must also document how the District provides for public review of changes to the PM2.5 monitoring network when the change impacts the location of a violating PM2.5 monitor, or the creation/change to a community monitoring zone.
- The District should submit any public comments received on PM2.5 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 PM2.5 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 PM2.5 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 (NOx) 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 ≥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, NOx, total– and speciated–VOC, CO, and meteorology concurrently. Although the Valley does not exceed federal or state standards for NO_2, NOx 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, NO_2, 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 NOy 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 NO_2 standard of 53 parts per billion (ppb), and established a new 1–hour NO_2 standard at the level of 100 ppb. Recognizing that the current NO_2 network is not adequate for fully assessing compliance with the new NAAQS, EPA finalized a Three–Tier Network design that will represent NO_2 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 NO_2 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 NO_2 monitor, the District operates an extensive NO_2 monitoring network consisting of 16 monitors, including one near-road NO_2 monitor in Fresno (with a second being constructed in Bakersfield). The District locates NO_2 analyzers as required at PAMS sites and generally collocates NO_2 analyzers wherever an ozone monitor is required. Currently, 15 of the District's NO_2 monitors are located accordingly and indicate that the District has low NO_2 levels that would be in compliance with both the NO_2 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 NO_2 monitors are added to the network and are collecting data.

(2) Near–road monitoring at locations of expected maximum 1–hour NO_2 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 NO_2 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 NO_2 air monitoring station and construction is currently underway.

Table 10 Near-road NO_2 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 NO_2 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 NO_2 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 NO_2 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 NO_2 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 NO_2 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 NO_2 levels in lower population areas would also fall below the standard threshold. Based on this, near-road NO_2 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 NO_2 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 NO_2 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 (NOy)

Reactive Nitrogen Compounds (NOy) are among the precursors to ozone and PM2.5. As part of the National Ambient Air Monitoring Strategy (NAAMS), EPA requires NOy monitoring at 75 locations across the United States in support of a number of objectives. NCore site requirements and the PAMS program include monitoring NOy in order to

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

Sulfur Dioxide

In 2010, EPA revised the SO_2 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 SO_2 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 SO_2 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 SO_2 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] SO_2 Tons per Year includes the entire county. The SO_2 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 SO_2 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 SO_2 monitors. A minimum of one SO_2 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 Distinct does not exceed the federal standard for SO2 and for CBSAs that do not exceed the federal SO_2 standard there is no required number of SO_2 monitors. As a result, there are no SO_2 monitoring requirements for the District. Despite not having any monitoring requirements, there is one SO_2 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 (PM2.5).
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 PM2.5 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 PM2.5 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 PM2.5 inlet instead of a Very Sharp Cut Cyclone PM2.5 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 PM2.5 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 PM2.5 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 PM2.5 Monitoring Network

Public input is required whenever the District proposes to move an existing violating PM2.5 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 PM2.5 network. The public is provided 30 days to comment on the Air Monitoring Network Plan and any PM2.5 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 PM2.5 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 PM10 NAAQS by 20% or more (≥180 µg/m³)	Medium concentration: Ambient concentrations exceed 80% of the PM10 NAAQS (≥120 µg/m³)	Low concentration: Ambient concentrations less than 80% of the PM10 NAAQS (< 120 µg/m³), 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	PM10		
			24–hour 2015 Highest concentration in MSA (µg/m³)	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 (µg/m³)	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 PM_{10} 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 ≥85% of any PM2.5 NAAQS** (equivalent to an annual design value ≥ 10.2 µg/m³ or a 24–hour design value ≥ 29.8 µg/m³)	**Most recent 3–year design value <85% of any PM2.5 NAAQS** (equivalent to an annual design value < 10.2 µg/m³ or a 24–hour design value < 29.8 µg/m³), 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 (µg/m³)	Annual 2013–2015 Design Value in MSA (µg/m³)	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 PM2.5 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 PM2.5, speciated PM2.5, ozone, and meteorology. In December 2010, CARB installed trace level CO, trace level SO_2, trace level NOy, 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	
NO2	SLAMS	FRM	MxPEI	U	NC,RS	Hourly	
CO	SLAMS	FRM	PE	U	NC,RS	Hourly	
SO2	SLAMS	FEM	PE	U	NC,RS	Hourly	
NOy	SLAMS	Other	PE	U	NC,RS	Hourly	
Toxics	SLAMS	Other	PE	N	RS,TP	Hourly	
PM2.5 (manual)	SLAMS	FRM	HC	N	NC,RS	1:1	
PM2.5 (manual)	SLAMS	FRM	HC,PE, QA	N	RS	1:6	✓
PM2.5 (continuous)	SLAMS	FEM	HC,QA	N	RS	Hourly	✓
PM2.5 Speciation (STN)	Other	Other	PE	N,U	RS	1:3	
	Other	Other	PE	N,U	RS	1:3	
PM10 STP (continuous)	SLAMS	FEM	PE	N	NC,RS	Hourly	
PM10 STP (Lead TSP) (manual)	SLAMS	Other	PE	N	NC	1:6	
PM10 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 NO_2

The Fresno-Foundry near-road NO_2 site became operational in January 1, 2016, measuring both NO_2 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 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.

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 PM_{10} monitor has been suspended as of 8/28/2015 due to rooftop safety issues. The FRM PM_{10} monitor has been reinstalled. The FEM PM_{10} 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 request[1]. 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 NO_2 site

At this time, the District meets or exceeds all near-road NO_2 requirements. The District is being proactive by building a second near-road NO_2 site in the Bakersfield CBSA long before it is required considering the population growth rate. Construction of Bakersfield-Westwind near-road NO_2 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/aqd/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
NOx: Oxides of Nitrogen
NO_y: Reactive Nitrogen
NPS: National Park Service
O_3: Ozone
PAMS: Photochemical Assessment Monitoring Station
Pb: Lead
PM: Particulate Matter
PM2.5: Particulate Matter 2.5 microns or less in diameter
PM10: 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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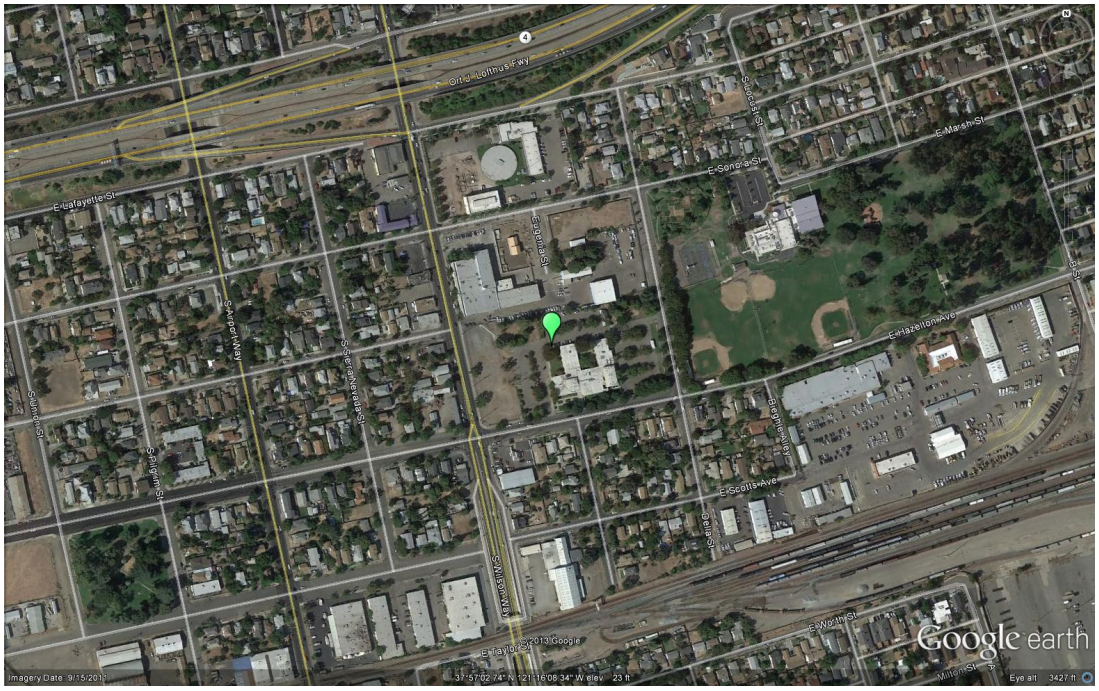
Stockton-Hazelton

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, NO_2, 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

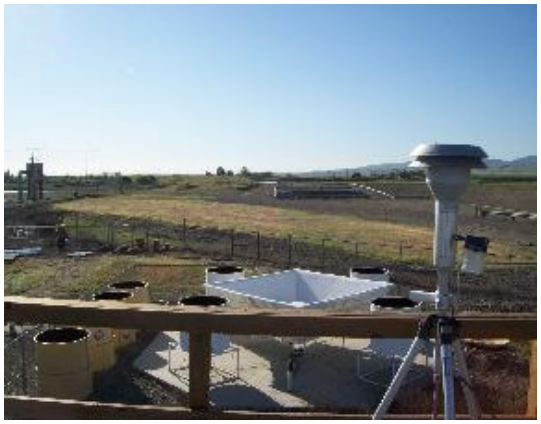
* - Average Daily Traffic count for nearest roads: Yosemite Ave and Airport Way
Source: TJKM Transportation Consultants

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, NO_2, PM2.5, 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

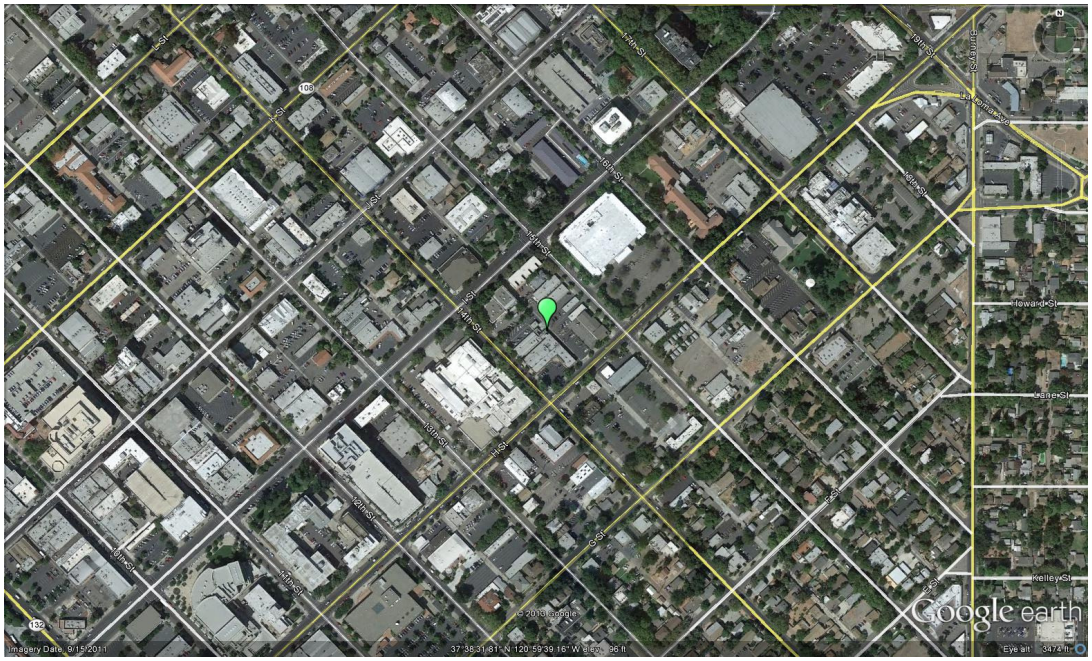


Modesto-14th St

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–14th 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

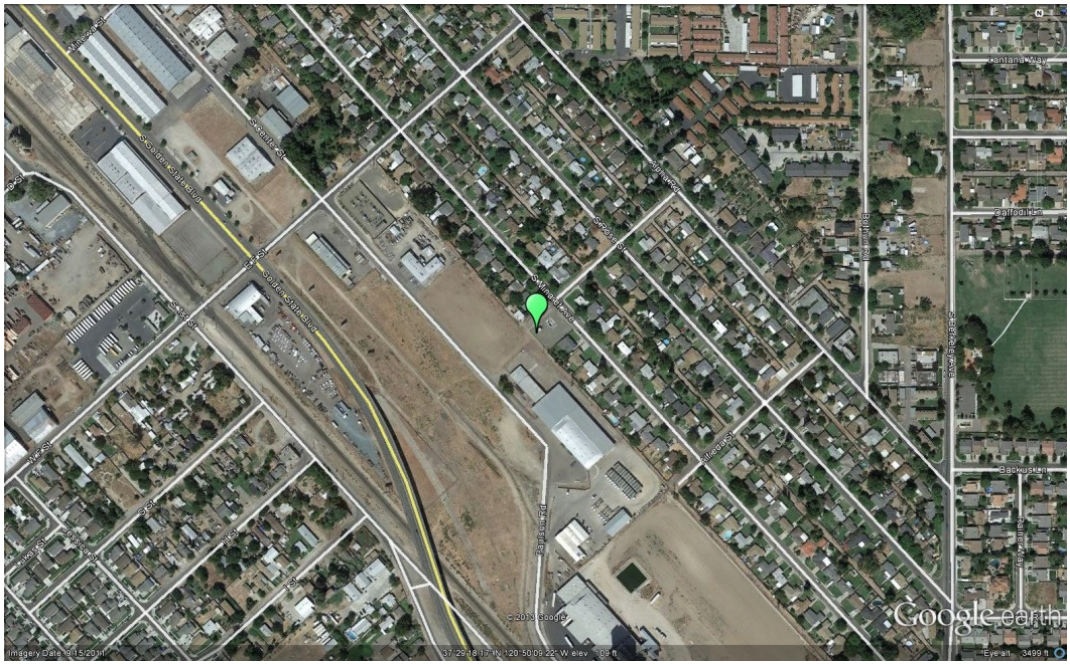


Turlock

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 NO_2, 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

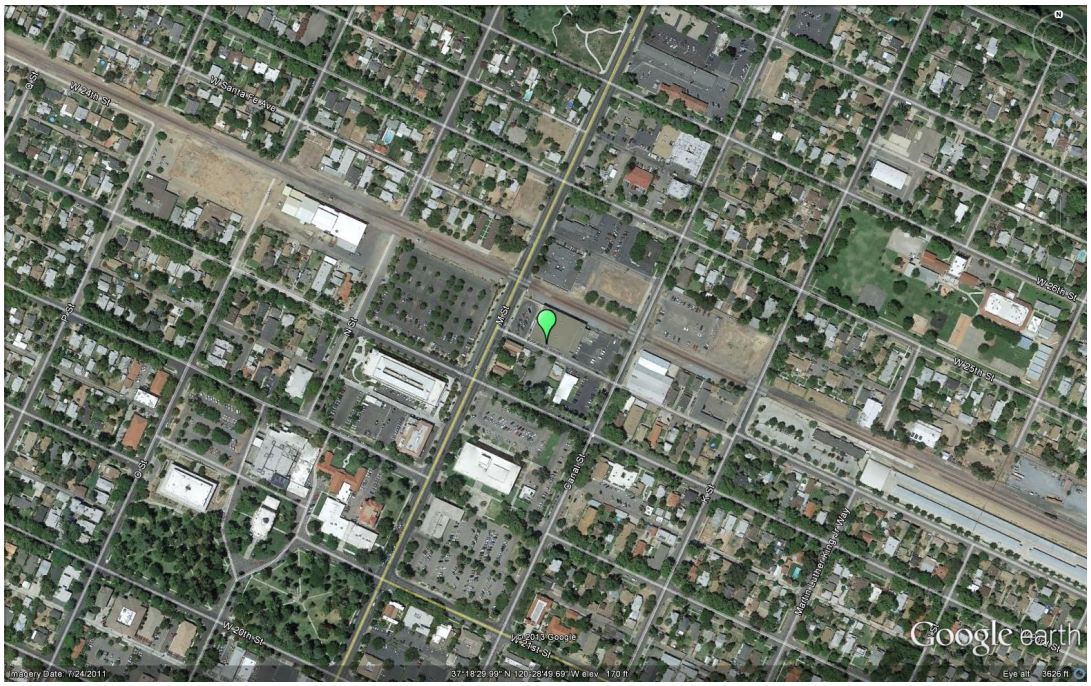


Merced-M St

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, NO_2, 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

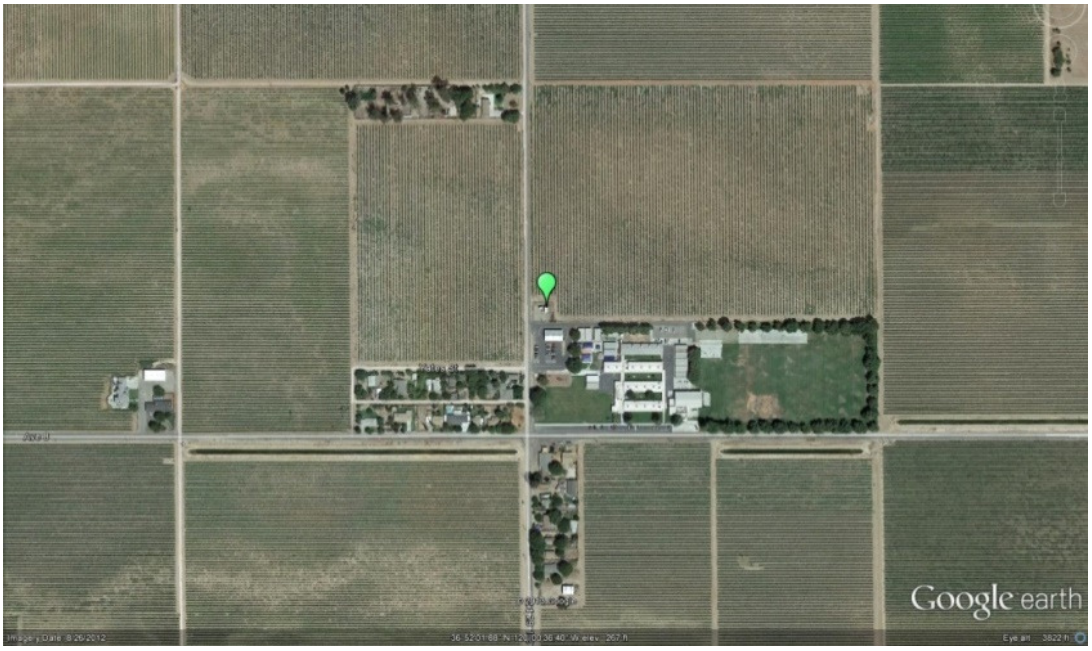
* - Traffic count for nearest roads: Avenue14 west of Road 29, westbound trips per hour in 24 hours. Source: Madera County Transportation Commission 2015 Traffic Volumes Report.

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:	36.867125 N, -120.010158 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 NO_2, 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

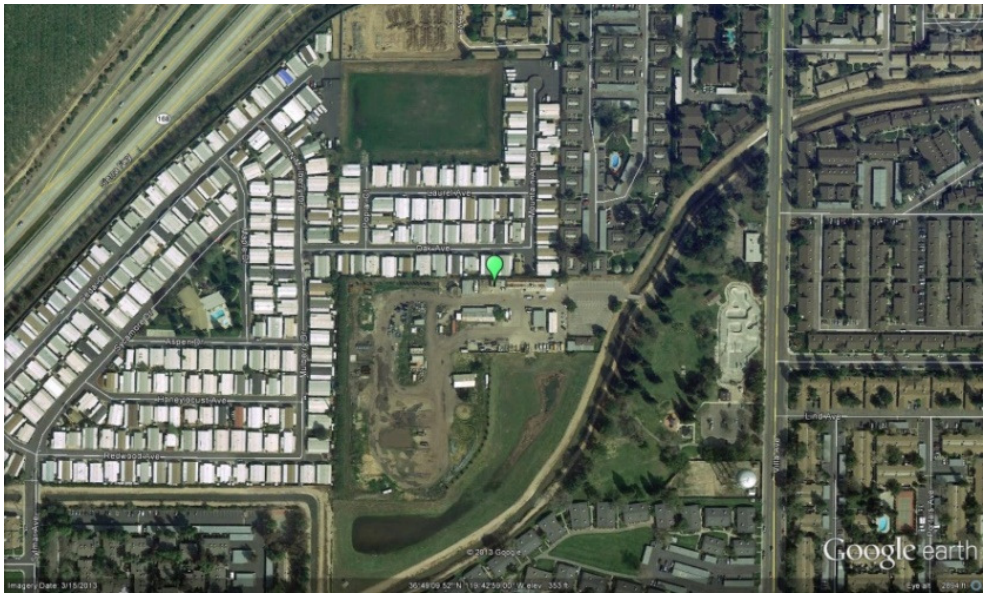
*- Raw traffic count in a 24-hour period for nearest roads: Spruce Avenue east of Milburn Avenue. Source: Fresno COG Fresno County Regional Traffic Monitoring Report 2013.

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, NO_2, 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, NO_2, NOy, SO_2, 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

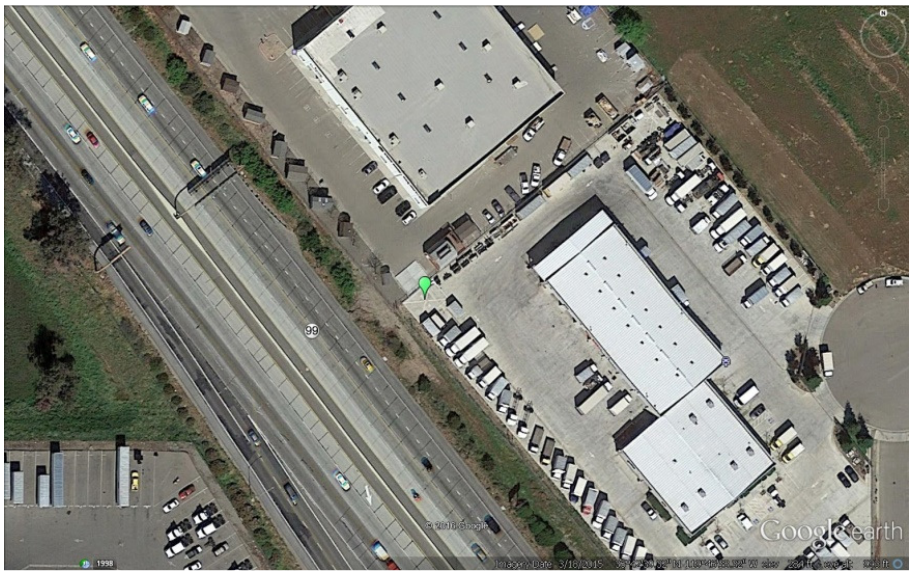
*- Raw traffic count in a 24-hour period for nearest roads: Butler Avenue east of Chestnut Avenue, Source: Fresno COG Fresno County Regional Traffic Monitoring Report 2013.

Fresno-Foundry

The Fresno-Foundry near-road NO_2 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 NO_2 concentrations near a highly traffic roadway in an urban area. In addition to NO_2, 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, NO_2, 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

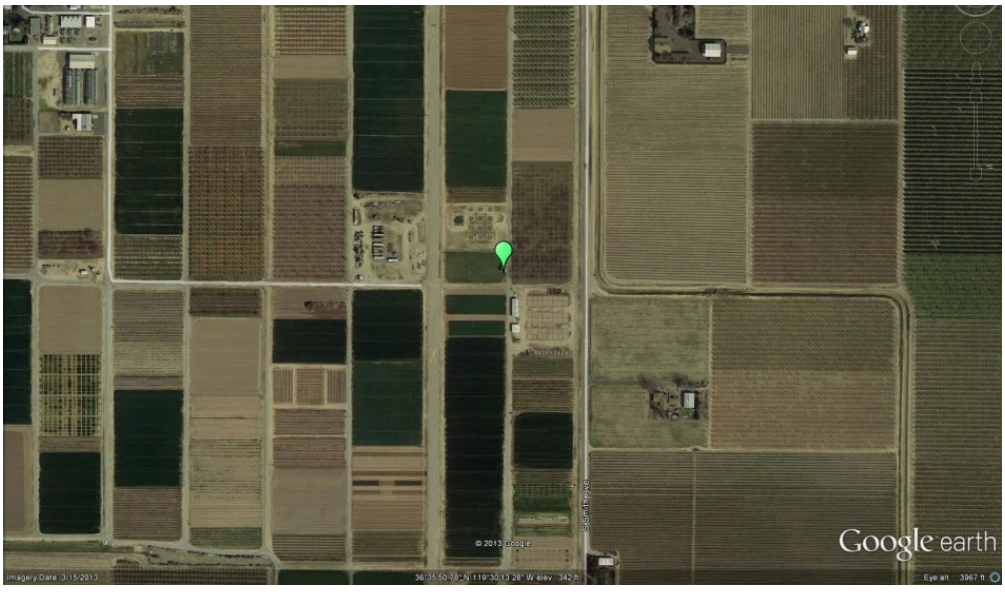
*- Raw traffic count in a 24-hour period for nearest roads: Jensen Avenue east of Chestnut Avenue, Source: Fresno COG Fresno County Regional Traffic Monitoring Report 2013.

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 NO_2, 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 4th 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

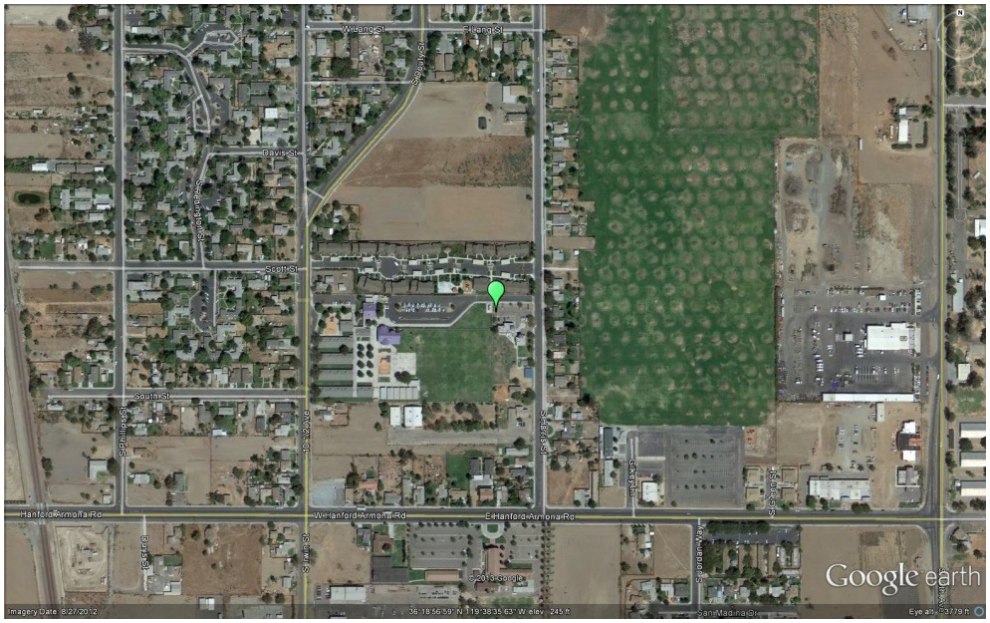
*- Traffic count for nearest roads: Rte 269/Rte 198, Source: Caltrans 2014

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 NO_2 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.)

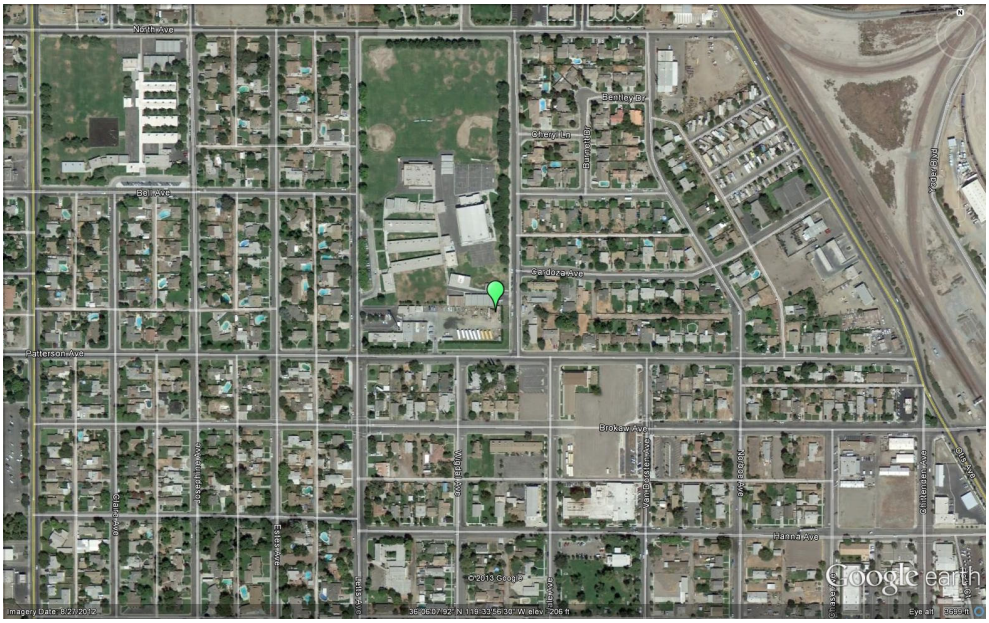


Corcoran-Patterson

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.

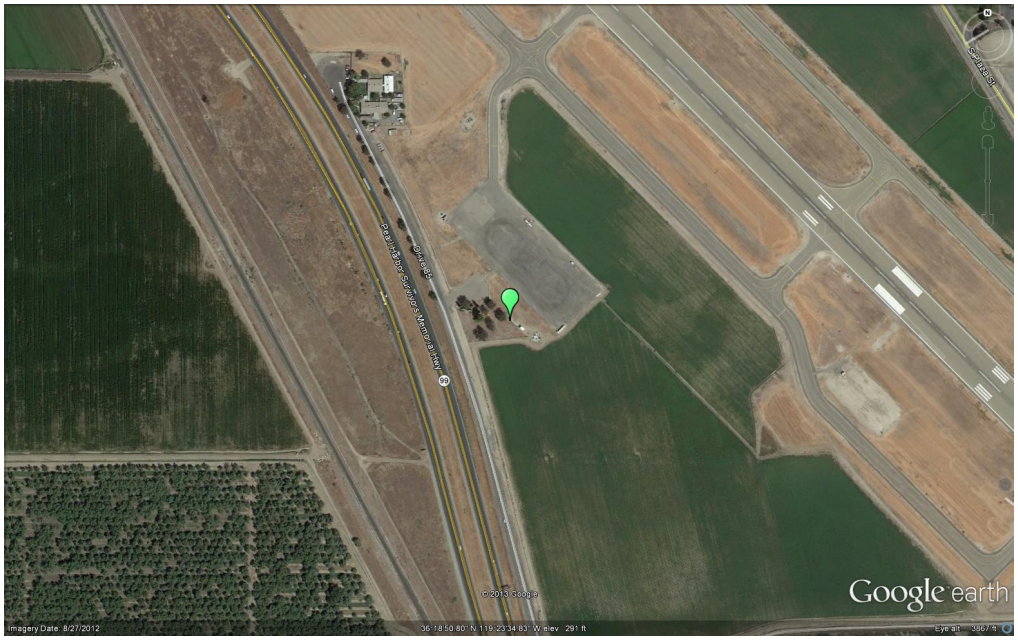


Visalia-Airport

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.

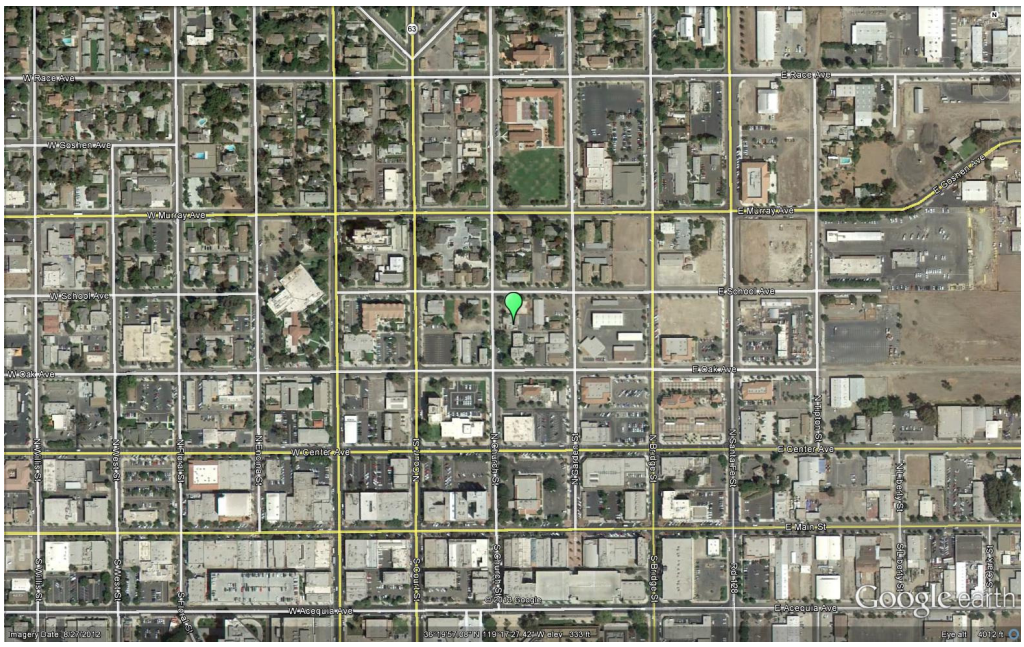


Visalia-Church St

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 NO_2 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.

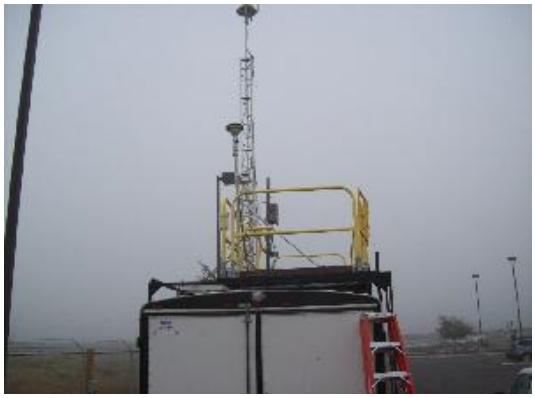


Porterville

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

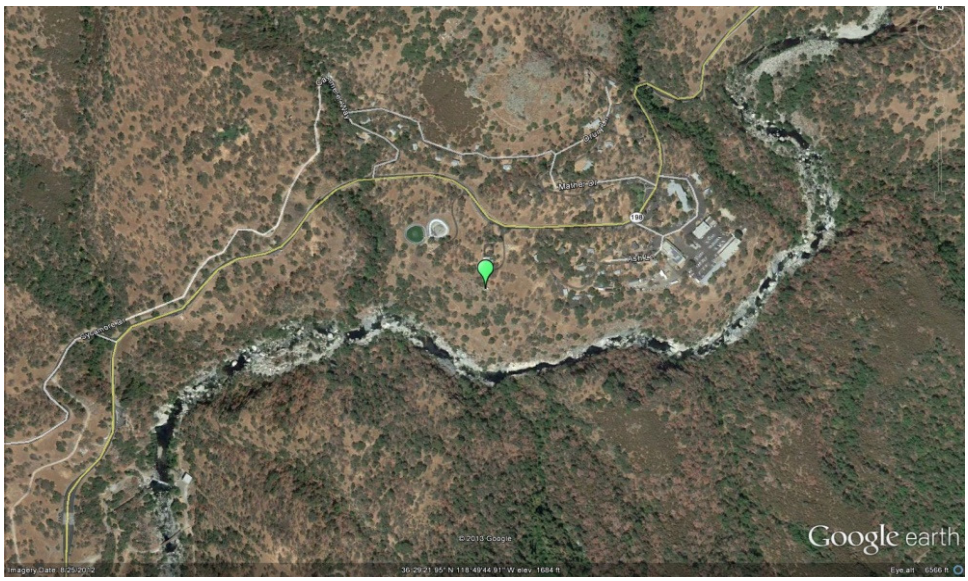


Sequoia-Ash Mountain

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-feet 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-feet 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

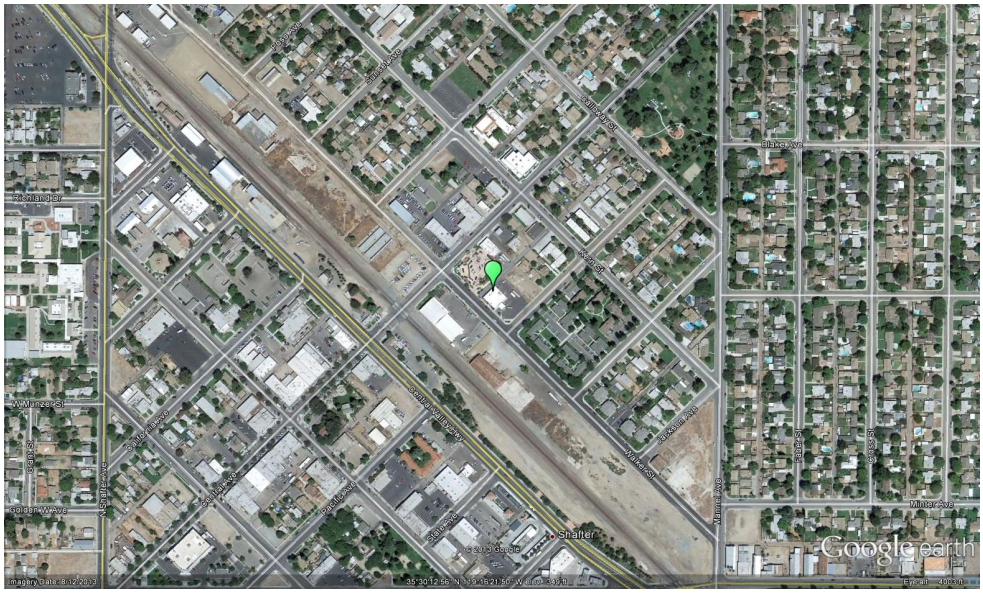
* - Rte 198 / Sequoia National Park boundary, Source: Caltrans Back AADT 2014

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 NO_2, 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.

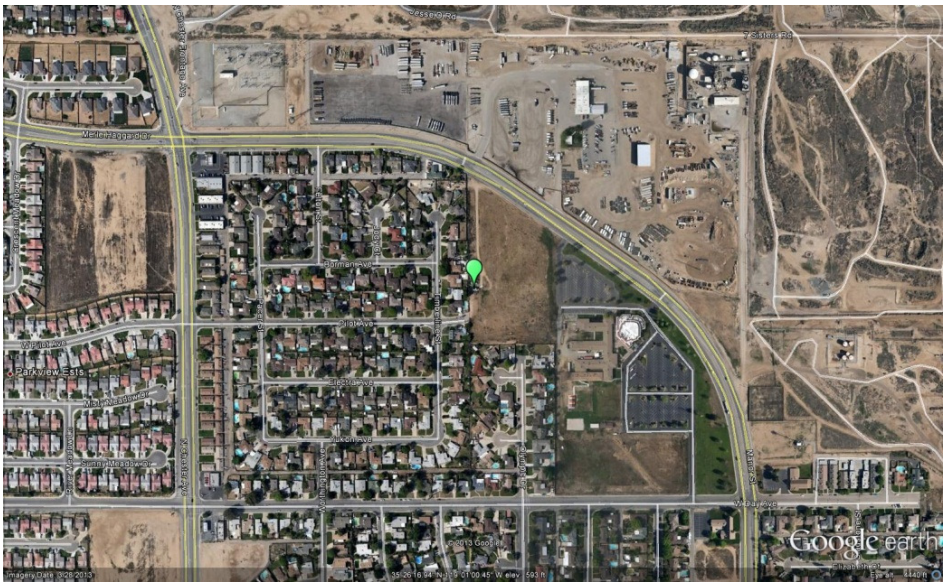


Oildale

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.

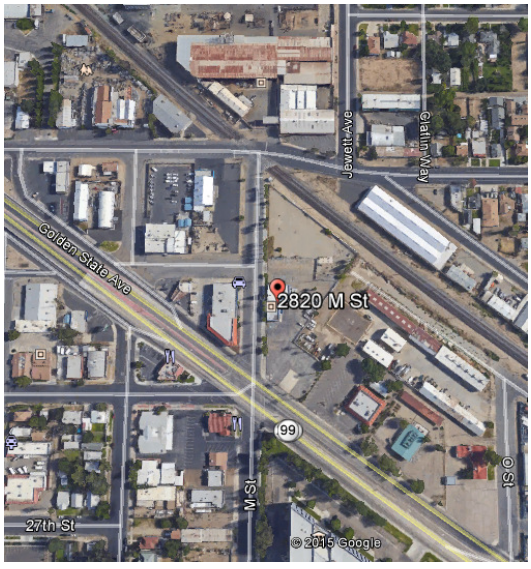


Bakersfield-Golden / M St

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.

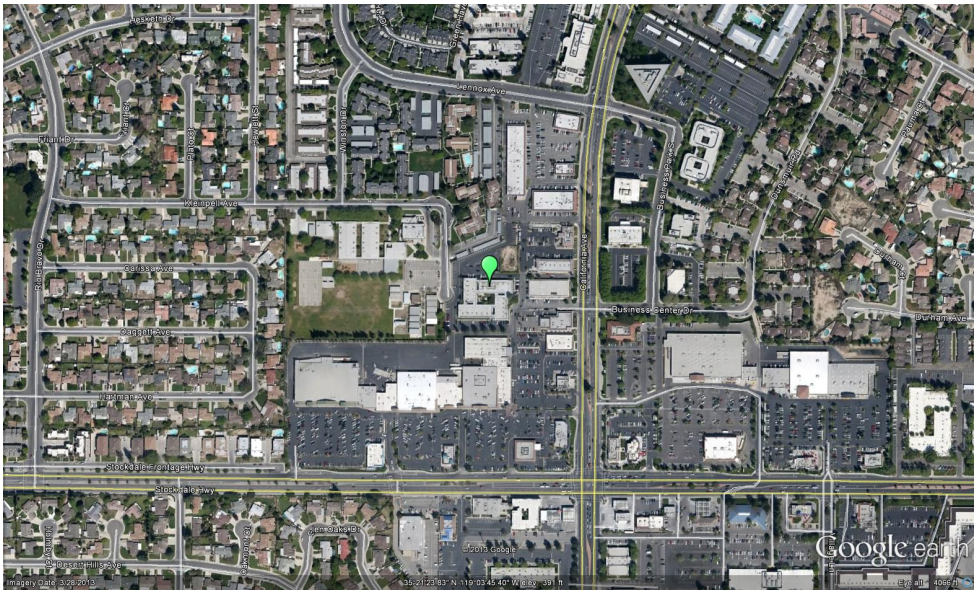


Bakersfield-California

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 NO_2, 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, NO_2, 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

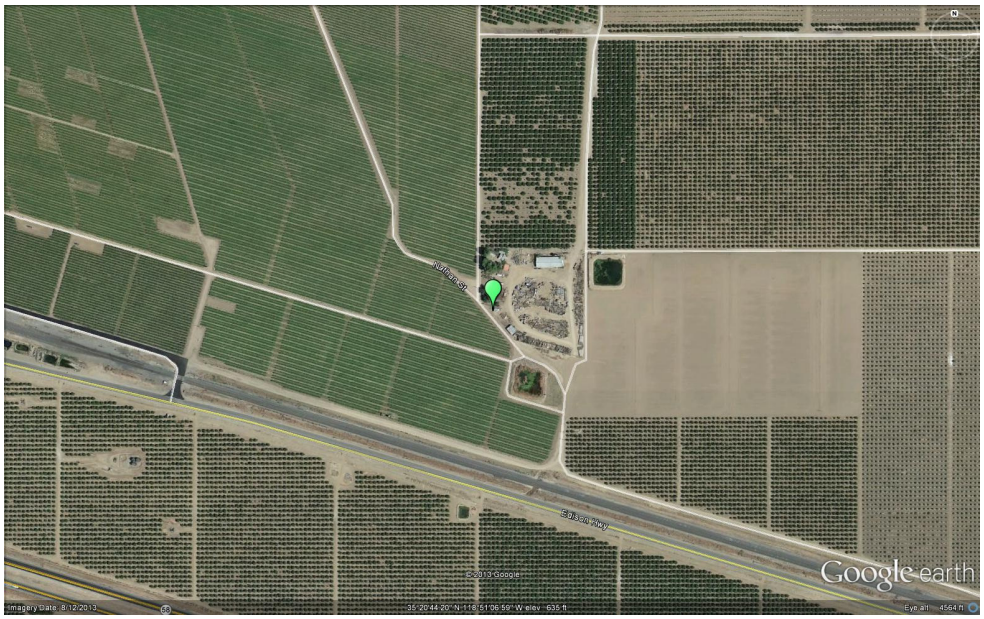
* - Traffic count for nearest cross street: S. Union Ave between E. Planz Rd and E White Lane.
** - Traffic count for monitoring station's street address.
Source: Kern Council of Governments

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 NO_2 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.

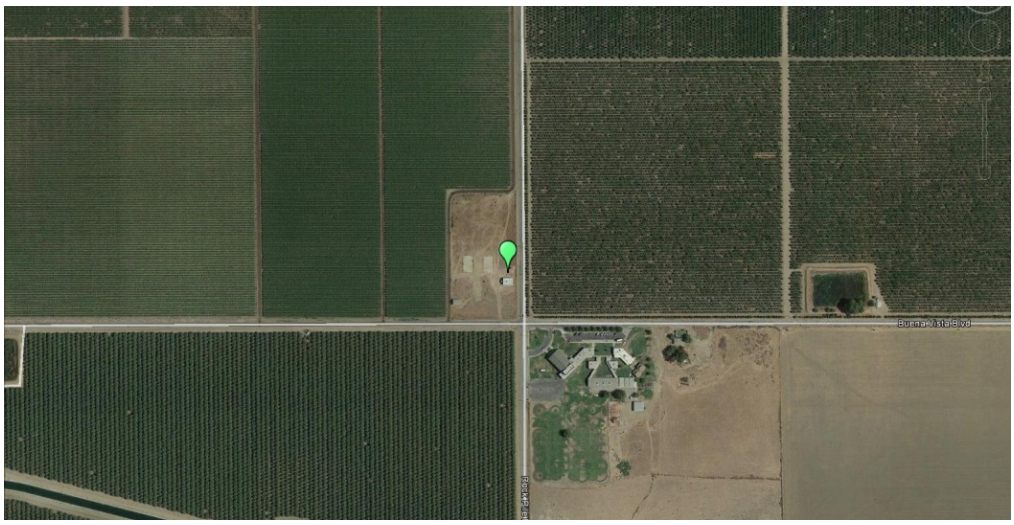


Arvin-Di Giorgio

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

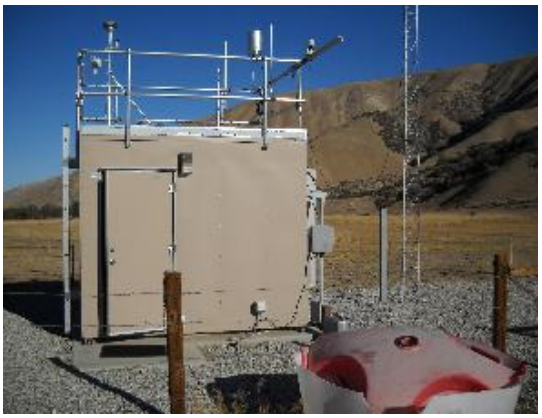
* - Traffic count for nearest roads: Union St. at California St., Source: Kern Council of Governments.

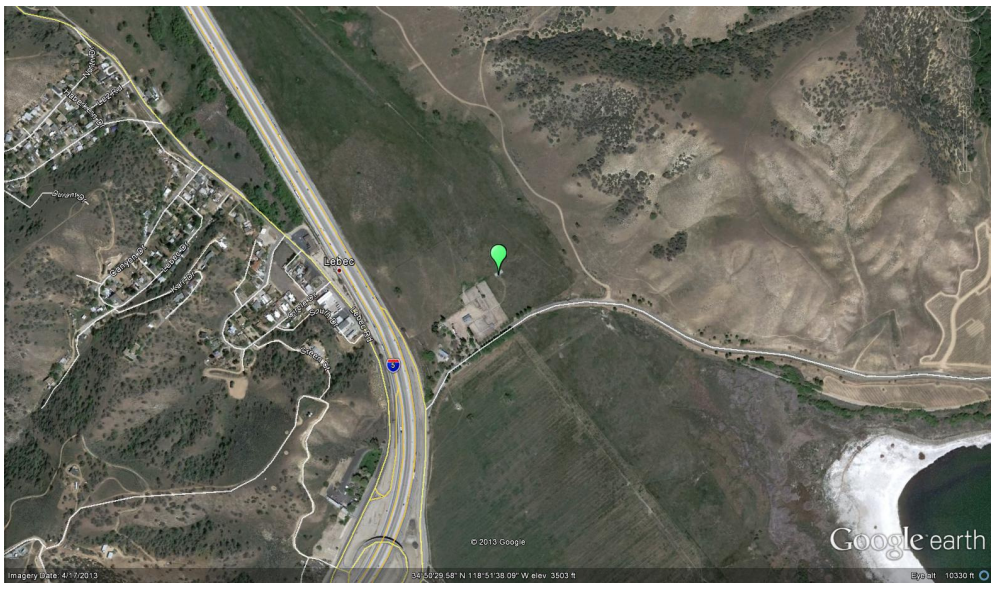
Lebec

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

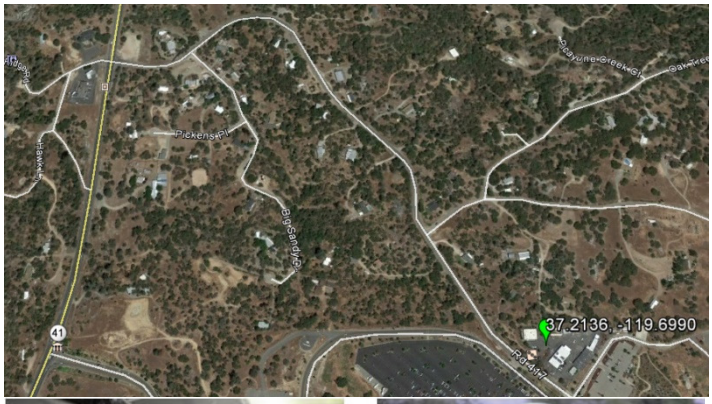
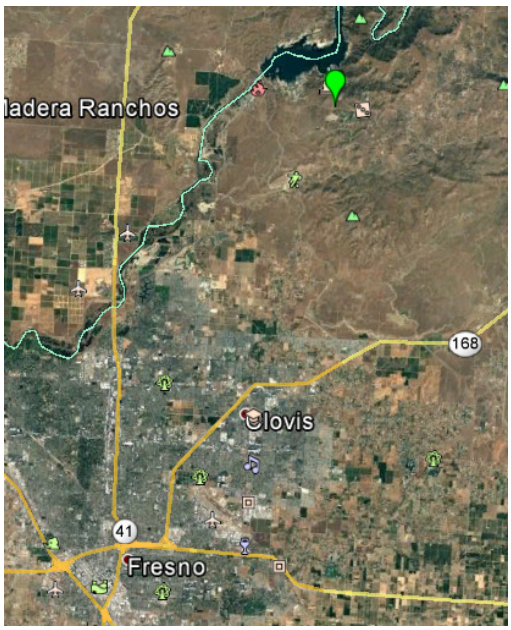


Table Mountain Rancheria

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.

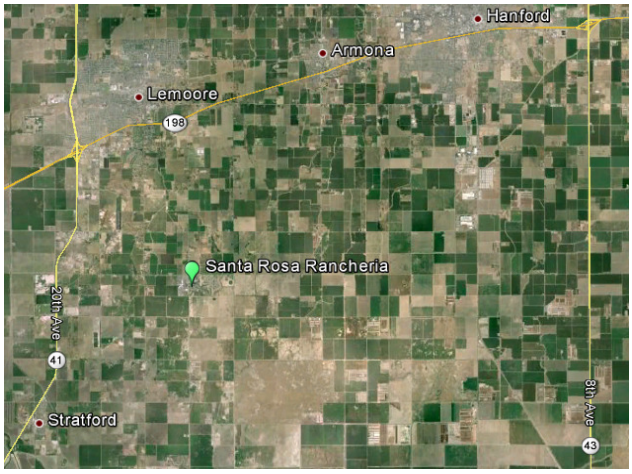


Santa Rosa Rancheria

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 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
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 lovol? 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 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)	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–14th 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 lovol? 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	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
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**	**NO_2**	**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 lovol? 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 lovol? 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)	36.867125 N, -120.010158 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}, $PM_{10\text{-}2.5}$, 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 lovol? 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 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)	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, NOy, 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 lovol? 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	**$PM_{10-2.5}$**	**PM2.5**	**PM2.5**	**PM2.5**	**PM2.5 Speciation**	**PM2.5 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	$PM_{10-2.5}$	PM2.5	PM2.5	PM2.5	PM2.5 Speciation	PM2.5 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 4th 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 lovol? 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 lovol? 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 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)	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, NO2;	SJVAPCD: Meteorology, Speciated VOC, NMH
Analytical Lab (i.e. weigh lab, toxics lab, other)	CARB: Ozone, NO2	SJVAPCD contracts out so lab varies from year to year: Speciated VOC, NMH
Reporting Agency	CARB: Ozone, NO2	SJVAPCD: Speciated VOC, NMH, Meteorology
Site Start Date	1/1/1989	
Pollutant Parameters	Ozone, NO2, 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 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)	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 lovol? 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	**NO_2**	**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	NO_2	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	NO_2	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 (O_3) 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 O_3 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 O_3 concentrations using monitoring data from the most recent complete (May through October 2008) O_3 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 O_3 monitoring at the two sites. As described in CARB's relocation request, O_3 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 O_3 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 O_3 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 O_3 concentrations at the Arvin - Bear Mountain O_3 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 O_3 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 O_3 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 O_3 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 O_3 site in the Bakersfield MSA.

Conclusion

Based on the above assessment of O_3 concentrations, land use, and nearby sources, EPA approves CARB's relocation of the Arvin - Bear Mountain O_3 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
Jon Klassen, SJVAPCD

APPENDIX D:

San Joaquin Valley Air Pollution Control District Notice of Public Inspection Period on the 2016 Air Monitoring Network Plan

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SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT NOTICE OF PUBLIC INSPECTION PERIOD ON THE DRAFT 2016 AIR MONITORING NETWORK PLAN

NOTICE IS HEREBY GIVEN that a 30-day public inspection period is being held on the San Joaquin Valley Air Pollution Control District's (District) Draft 2016 Air Monitoring Network Plan.

Interested persons may submit comments to:

Jon Klassen
San Joaquin Valley Unified Air Pollution Control District
1990 East Gettysburg Avenue
Fresno, CA 93726
Email: jon.klassen@valleyair.org

The public inspection period begins August 4, 2016 and will end September 3, 2016.

Copies of the Draft 2016 Air Monitoring Network Plan can be obtained by calling (559) 230-6100. You may download a copy of the Draft 2016 Air Monitoring Network Plan from the District's website on or after August 4, 2016 under the Other Notices portion of the following page:

http://www.valleyair.org/notices/public_notices_idx.htm

For additional information, contact Jon Klassen by phone at (559) 230-6100.

APPENDIX E:

Comments and Responses

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Appendix E: Comments and Responses

The District received no public comments on the 2016 Air Monitoring Network Plan.