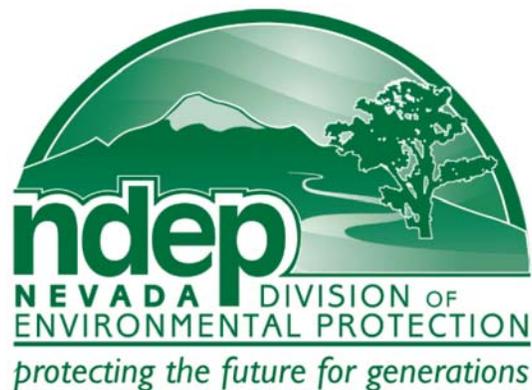


AMBIENT AIR MONITORING NETWORK PLAN 2007



STATE OF NEVADA DIVISION OF ENVIRONMENTAL PROTECTION BUREAU OF AIR QUALITY PLANNING

Contact: Terry R. Hall
Supervisor, Ambient Monitoring
Bureau of Air Quality Planning
901 S. Stewart Street, Suite 4001
Carson City, Nevada 89701
(775)-687-9375 or (775)687-6396 fax
email: thall@ndep.nv.gov

Table of Contents

Definition of Terms.....	3
Overview.....	4
Goals.....	4
Background.....	5
Network Design.....	6
Table 1.....	7
Purpose of Monitors.....	8
Monitoring Sites (map).....	13
Detailed Site Information	14-29

Definition of Terms

CAA:	Clean Air Act
AQS:	Air Quality System
BAQP:	Bureau of Air Quality Planning
BAM	Beta Attenuated Monitor
CFR:	Code of Federal Regulations
CO:	Carbon Monoxide
DCNR:	Department of Conservation and Natural Resources
EPA:	Environmental Protection Agency
FEM:	Federal Equivalent Method
FRM:	Federal Reference Method
IMPROVE:	Interagency Monitoring of Protected Visual Environments
NAAQS:	National Ambient Air Quality Standards
NAC:	Nevada Administrative Code
NDEP:	Nevada Division of Environmental Protection
O ₃ :	Ozone
PM:	Particulate Matter (2.5 or 10 microns)
SLAMS:	State and Local Air Monitoring Stations
SPMS:	Special Purpose Monitoring Stations

Overview

The monitoring program of the Nevada Division of Environmental Protection (NDEP) operates an ambient air quality monitoring network of gaseous and particulate pollutant monitors. The monitors are located in small communities throughout rural Nevada. In the metropolitan areas of Reno and Las Vegas; the Washoe County District Health Department, Air Quality Management Division and the Clark County Department of Air Quality and Environmental Management operate and maintain their respective monitoring networks separate from NDEP and submit their Network Plan independently to EPA.

Goals

NDEP created an ambient air quality monitoring program to provide useful and accurate information on air quality, which is used to evaluate the success of the State's air quality programs. The Clean Air Act of 1970, and subsequent amendments, defines air quality standards for various air pollutants necessary to protect the public from injurious pollution concentrations. Air pollution concentrations that exceed these established standards, National Ambient Air Quality Standards (NAAQS), can cause a public health hazard, nuisance, annoyance, or damage to flora, fauna and personal property.

The NAAQS, published by the U.S. EPA, can be found in 40 CFR Part 50 and define the levels of air quality necessary to protect human health and welfare. An area is considered to be in nonattainment for a pollutant if it has violated the NAAQS for that pollutant. The CFR

includes procedures for evaluating measured air quality against the NAAQS. State air quality standards can be found in Nevada Administrative Code (NAC) 445B.22097.

Background

The State of Nevada has three jurisdictions which independently manage their own air programs, as designated by Statute. The Department of Conservation and Natural Resources (DCNR), Division of Environmental Protection (NDEP), Bureau of Air Quality Planning (BAQP) is responsible for air quality surveillance in all areas of the State other than Clark and Washoe Counties.

In addition to these three independent monitoring networks, air quality monitoring is being conducted through the Interagency Monitoring of Protected Visual Environments (IMPROVE) network by the federal land management agencies. There is only one IMPROVE monitoring site left in Nevada, at the Jarbidge Wilderness area in northeastern Nevada.

State agencies that conduct ambient monitoring using SLAMS or SPMS, that utilize Federal Reference Methods (FRM) or Federal Equivalent Methods (FEM), must comply with federal quality assurance requirements listed in 40 CFR 58, Appendix A. In conjunction with the Network Plan, a BAQP quality assurance plan was developed to form the framework for planning, implementing, assessing and reporting work performed by the BAQP and for implementing quality assurance and quality control tasks.

The Ambient Air Monitoring Program Quality Assurance Project Plan was developed to address quality management as well as quality assurance. The Quality Management Plan (QMP) describes the organizational structure, functional responsibilities of management and staff, lines of authority, and required interfaces with those planning, implementing, assessing

and reporting activities involving environmental data operations. The Quality Assurance Project Plan (QAPP) defines the policies, procedures, specifications, standards, and documentation necessary to: 1) provide data of adequate quality to meet monitoring objectives, and 2) minimize loss of air quality data due to malfunctions or out-of-control conditions.

Additionally, the BAQP has developed ambient monitoring guidelines in order to ensure that ambient air quality data collected, at regulated facilities in the State, are of the highest quality and conform to federal requirements for quality assurance listed under 40 CFR 58.

Ambient air quality monitoring data must certify on an annual basis that those data are accurate and complete. The certification process begins with the complete submittal of all SLAMS data to federal Air Quality System (AQS) for the calendar year. Submittal of data into AQS for 2006 has been accomplished. BAQP is hopeful to complete entry of 2007 data into AQS during this calendar year. Precision and accuracy reports and certification of that data should also be accomplished within that time frame.

Network Design

There are currently ten ambient air quality monitoring stations in Nevada under the jurisdiction of NDEP. Air quality monitoring is represented by both SLAMS and SPMS. There are two meteorological stations, one in Carson City and the other in Pahrump. These are used to confirm the local meteorological data from the monitoring stations, modeling and natural events.

The only monitors required in the NDEP monitoring network are Stateline (CO) and Pahrump (PM₁₀). The Stateline monitoring site is a continuation of a highest concentration site started by the California Air Resources Board (CARB), and through a Maintenance Plan with EPA, monitoring and maintenance of this site was assumed by NDEP in July 2006. The four PM₁₀ monitoring sites in Pahrump are required through a Memorandum of Understanding (MOU)

between NDEP, EPA, Nye County and the Town of Pahrump. Otherwise, according to 40 CFR Appendix D, additional monitoring for criteria pollutants is not presently required.

The following table shows the locations and types of monitors operated by NDEP.

Table 1: NDEP’S AMBIENT AIR MONITORING NETWORK

Location	Ozone	Carbon Monoxide	PM10	PM2.5
Elko			1 (S)	
Fallon	*1 (SPM)			
Harvey’s - Stateline		1 (S)		
Fernley	*1 (SPM)			1 (SPM)
Long St. - Carson	1 (S)	1 (S)		1 (SPM)
5th St. - Carson				
Gardnerville Rancho’s				1 (SPM)
Church Site - Pahrump			1 (S)	
Manse Elem. - Pahrump			1 (S)	
Willow Creek - Pahrump			1 (S)	
Linda St. - Pahrump			1 (S)	
Total	3	2	5	3

(S) – SLAMS, (SPM) – Special Purpose Monitor

*Reclassified as SLAMS starting in 2008

Changes in Monitoring Network

This annual network monitoring plan will be used to identify changes in the PM_{2.5} monitoring network during the next 18 months. Presently there are no violating PM_{2.5} monitors in the NDEP monitoring network... Over the next three years, through 2011, NDEP will propose no new monitoring sites to be added to the existing monitoring network.

Due to the population growth experienced over the past five years in Nevada, especially the Carson City, Fernley, Fallon and Gardnerville communities, NDEP anticipates required monitoring for ozone and PM_{2.5}, based upon the findings of the 2011 U.S. Population Census. To address this potential finding, NDEP is proposing to change the Met One BAM 1020 PM_{2.5} monitors, in Carson City, Gardnerville, and Fernley, to the FEM Met One BAM 1020 monitor. Carson City and Gardnerville will be converted to the FEM BAM 1020 in the summer of 2008. The Fernley site will be changed to a FEM BAM 1020 in 2009.

The monitoring site at Carson City Long Street has adjacent trees that have now grown tall enough and are possibly interfering with CO monitoring. Therefore, a letter requesting discontinuation of CO monitoring has been submitted to EPA based on the last five years of low pollutant levels. The ozone analyzer has been relocated from Long Street to East Fifth Street monitoring site for the 2008 ozone monitoring season. Although PM_{2.5} is still being monitored at the Long Street site, the proposal is to have the PM_{2.5} monitor also relocated to East Fifth Street. There is an underlying concern with the Long Street monitor site, and that is lack of access to the site during non-business hours; monitor site is located in a secure construction yard.

As previously indicated in Table 1, the ozone monitors located in Fallon and Fernley will be classified as SLAMS beginning in 2008. That reclassification will leave the three PM_{2.5} sites as the only SPMS in the monitoring network. The proposal is to operate the PM_{2.5} sites, Fernley, Carson City and Gardnerville, for two years as SPMS using the FEM BAM 1020 monitors.

There is also a proposal to relocate the PM₁₀ in Elko to a safer site. Currently, the monitor is located on a steel roof, and during the winter months, access to the monitor for maintenance is very unsafe. The relocation to a ground-level site and changing monitors from a TEOM to a BAM 1020 is in the proposal for 2009.

Historically, ambient air quality monitoring by BAQP has looked at trends in air quality to aid in the local planning process. Traffic, wood burning stoves, and growth related activities have prompted air quality monitoring in specific areas around the State. Data from these SPMS has lead to public education and outreach to communities identifying the potential health effects caused by air pollutants in the environment. Ordinances controlling surface area disturbances and other related activities that produce dust have also been implemented with the help of SPMS.

Purpose of Monitors

At many of the following sites, PM₁₀ sampling was discontinued during 1998 after years of monitoring low concentrations. The EPA Region IX office set a threshold for discontinuing PM₁₀ monitoring at 60 percent of the annual standard (30ug/m³) for a three-year average of the annual average concentrations, when exceedences of the 24-hour standard are absent.

- **Carson City – Long Street (ID # 32-510-0004 SLAMS/SPMS)**

This site began monitoring for the gaseous pollutants carbon monoxide, ozone and nitrogen dioxide at the beginning of 1997; for PM₁₀ in February 1997; PM_{2.5} in January 1998; The site is located in the Sierra Pacific Company construction yard at 875 East Long Street to monitor highest concentrations and typical concentration/population oriented downwind of the main traffic corridors and the commercial part of the City. Monitoring for nitrogen dioxide was discontinued in October 1997 and PM₁₀ sampling was discontinued at the end of June 1998. In 2008, NDEP requested EPA for discontinuation of the CO monitoring based upon attainment with the CO NAAQS standard for the past five years. Furthermore, trees that have matured adjacent to the monitoring site may be interfering with the O³ monitoring. Therefore, the O³ monitor has been relocated to the Carson City East Fifth Street site, starting in 2008. Access to the Long Street site has also been an issue and the PM_{2.5} monitor is also being relocated in 2008 to the Carson City East Fifth Street site where a meteorological station has been restarted, also in 2008. The plan is to entirely discontinue use of the Long Street monitoring site by the end of 2008.

- **Carson City – East Fifth Street (ID #32-510-0002 SLAMS)**

This site is located at 3300 East Fifth Street near the Carson City Public Works Department maintenance yard in a transition area, adjacent to wetlands, the City yard, sewage treatment plant, residential neighborhood and the new highway extension of 880. The pollutants monitored included carbon monoxide and ozone (through 1989) and PM₁₀ (March 1991-February 1997). The monitoring objective is to determine typical concentration/population

oriented. In 2007, an existing meteorological station was restarted, and as previously stated, the ozone monitor from Long Street site was relocated to East Fifth Street. And by the end of 2008, the PM_{2.5} will also be relocated to this monitoring site.

- **Gardnerville –Lyell Way (ID #32-005-0007 SPMS)**

This particulate monitoring site at 820 Lyell Way is located in Aspen Park in the Gardnerville Ranchos, a residential neighborhood. The site monitor objective is typical concentration/population oriented. PM₁₀ commenced at this site in December 1995 and was discontinued at the end of 1998. Monitoring for PM_{2.5} began in July 1998.

- **Stateline – Harvey’s Resort Hotel (ID #32-005-0009 SLAMS)**

This is a “micro-scale” monitoring site for carbon monoxide in the core of the Stateline casino hotel area at Lake Tahoe. The site is designed to monitor the highest CO concentrations at Lake Tahoe, and is, taken to be representative of the California and Nevada sides of the south shore casino district. Monitoring at this site began in October 1999 and was previously conducted by the California Air Resources Board by multi-agency cooperative agreement. Starting in July of 2006, NDEP took over the monitoring responsibility for this site under a maintenance agreement with EPA.

- **Fernley Intermediate School (ID #32-019-88501-1 SPMS and 32-019-0006-44201-1 SLAMS)**

Particulate and ozone monitoring is done at the Fernley Intermediate School which is located at 320 Hardie Lane. This is an area of mainly residential and agricultural use. There has recently been a large growth of industry both upwind and downwind of this site. Monitoring for PM₁₀ at this site commenced on May 1995, to determine the agricultural and industrial source impacts and population exposure. PM₁₀ sampling was discontinued in November 1998. Monitoring for PM_{2.5} began in June 1999. In addition to the PM_{2.5} monitoring, ozone monitoring began at this site July 2007. Ozone monitoring (SPMS) was previously conducted

at the Fernley Volunteer Fire Department starting in October 1997 and discontinued on October 2003.

- **Fallon (ID #32-001-0002 SLAMS)**

This PM₁₀ and ozone monitoring site at 280 South Russell Street is at the West End Elementary School in a residential neighborhood that may at times be affected by agricultural operations surrounding the City of Fallon. The monitoring objective is to determine typical concentration/population orientation. PM₁₀ sampling commenced at this site in May 1993 and was discontinued at the end of June 1998. Monitoring for ozone began in October 1999 as an ozone transport site downwind of Reno and Fernley.

- **Elko (ID #32-007-004 SLAMS)**

This continuous PM₁₀ monitoring site is located on the roof of the State offices at 850 Elm Street in a predominantly residential area. The monitoring objective is to determine typical concentration/population oriented. PM₁₀ monitoring commenced at this site on November 1992. The previous location for this sampler was the fire station at 723 Railroad Street (ID #32-007-003) in a commercial area. The monitor was moved to the State offices at 850 Elm Street in November 1992. The manual sampler was replaced with a continuous (TEOM) PM₁₀ monitor in December 1998.

- **Pahrump – Church Site (ID #32-023-0013 SLAMS)**

The Church Site began operation in 2004 to compliment the existing three other sites in the Pahrump monitoring network. Monitoring is accomplished with a continuous beta attenuated monitor located in the southeast corner of the Catholic Church. This site represents the southern-most monitoring in Pahrump Valley. The monitoring objective of this site is typical concentrations/population oriented of PM₁₀. The surrounding area represents residential with little commercial, some native desert with a mix of dirt and paved roads.

- **Pahrump – Manse Elementary (ID #32-023-0014 SLAMS)**

The Manse site represents the monitoring objective for highest concentrations of PM₁₀ in Pahrump. This site replaces the Community Pool site, which at the time it was operating, represented the highest concentrations of PM₁₀ in Pahrump. Located at 1020 E. Wilson Road, the Manse Elementary site is located on the roof of the school and monitors for PM₁₀ using the continuous beta attenuation monitor. The area adjacent to this site represents mostly commercial, some residential, and is adjacent to the busiest activity area of Pahrump. This site is located downwind from residential construction developments that have cleared large parcels of ground for building, as well as agricultural areas that cultivate large areas of farm-ground and raise livestock. Roads are both paved and dirt surrounding this site.

- **Pahrump – Willow Creek Gold Course (ID #32-023-0012-81102-1 SLAMS)**

The Willow Creek site was started in 2003 and is located at 1500 Red Butte on the roof of a building in which irrigation equipment for the golf course is housed. The monitoring objective of this site is to measure typical concentrations/population oriented of PM₁₀ using the beta attenuated monitor. The surrounding area adjacent to this site is fairway/golf course and residential structures.

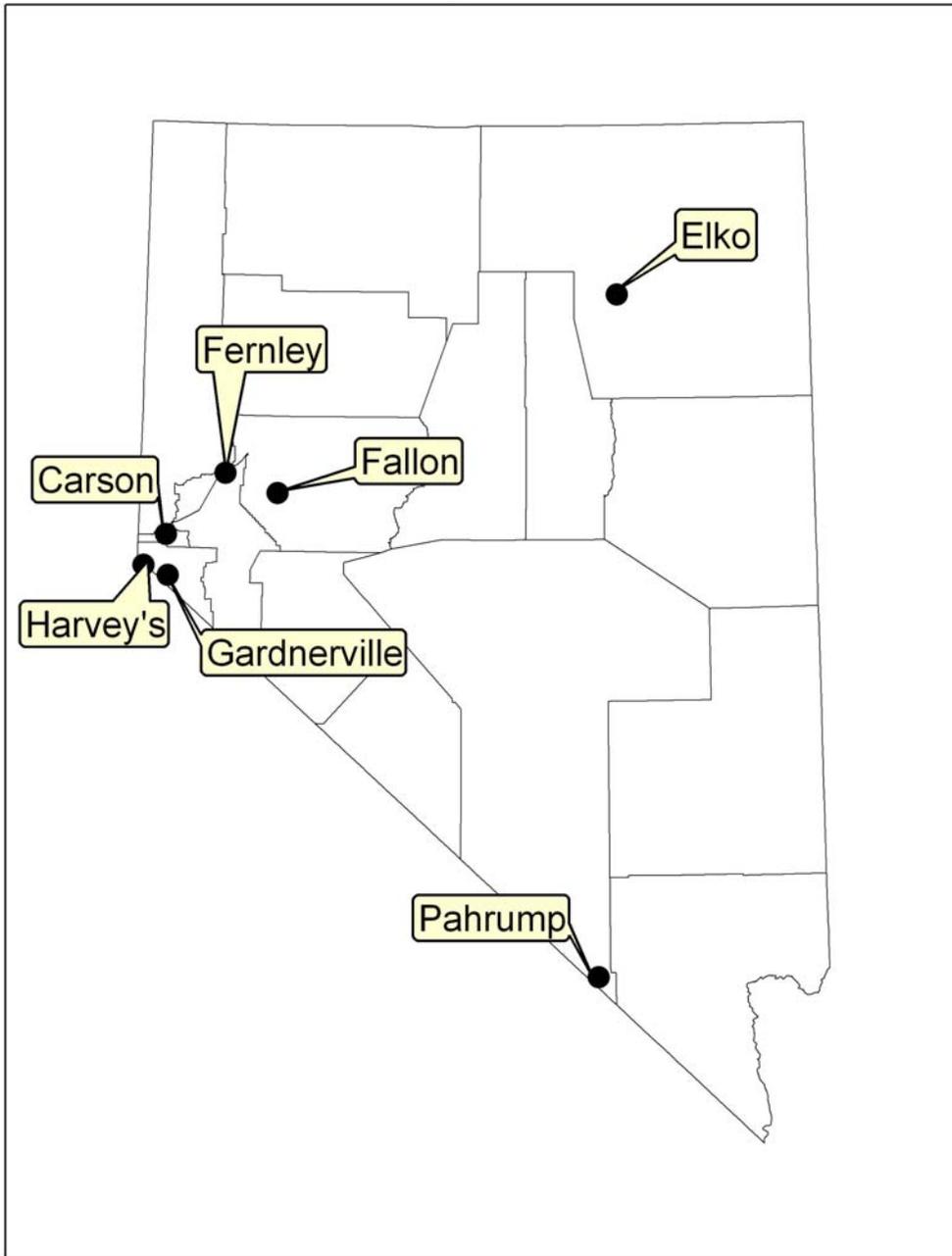
- **Pahrump – Linda Street (ID #32-023-0011-81102-1 SLAMS)**

The Linda Street site was started in 2003 and is located at 8825 North Linda Street. The beta attenuated monitor is located on the roof of an old railroad box car and represents not only the northern-most site in the Pahrump monitoring network, but the most rural area. There is some residential surrounding this site, but mainly native desert vegetation with little or no surface disturbances. The monitoring objective for this site is general background levels of PM₁₀ in Pahrump.

Site Map

A map showing the location of the monitoring stations maintained by BAQP is provided.

Nevada Division of Environmental Protection - Bureau of Air Quality Planning -
Monitoring Network Plan



A table showing detailed site information for each monitoring station is provided on the following pages.

Detailed Site Information

Elko

Site Name	Elko			
AQS ID	32-007-0004			
GIS coordinates	Lat +40.840278 Long -115.767500			
Location	State Offices			
Address	850 Elm Street			
County	Elko			
Dist. to road	20 meters			
Traffic count	2050 AADT (2006)			
Groundcover	Asphalt			
Representative Area	Elko MSA			
Pollutant	PM10			
Classification	SLAMS			
Monitor objective (site type)	Typical Concentrations/Population Oriented			
Spatial scale	Neighborhood			
Sampling method	Teom 1400AB & Met			
Analysis method	N/A			
Start date	12/10/98			
Operation schedule	Continuous			
Sampling season	All Year			
Probe height	6.4 meters			
Distance from supporting structure	Vertical Distance 1.8			
Distance from obstructions on roof	N/A			
Distance from obstructions not on roof	N/A			
Distance from trees	13.7 meters			
Distance to furnace or incinerator flue	N/A			
Distance between collocated monitors	N/A			

Unrestricted airflow	360			
Probe material	N/A			
Residence time	N/A			
Will there be changes within the next 18 months?	Yes			
Is it suitable for comparison against the annual PM _{2.5} ?	N/A			
Frequency of flow rate verification for manual PM samplers audit	N/A			
Frequency of flow rate verification for automated PM analyzers audit	Monthly			
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	3/17/07, 12/6/06			

Detailed Site Information

Fallon

Site Name	Fallon			
AQS ID	32-001-002-44201-1			
GIS coordinates	Lat +39.4725 Long -118.7836			
Location	On West End Elementary School			
Address	280 South Russell St. Fallon, Nevada			
County	Churchill			
Dist. to road	65 meters			
Representative Area	Fallon MSA			
Traffic count	430 AADT (2006)			
Groundcover	Paved, grass and dirt			
Pollutant	O ₃			
Classification	SPM			
Monitor objective (site type)	Typical Concentrations/Population Oriented			
Spatial scale	Neighborhood			

Sampling method	API 400A			
Analysis method	N/A			
Start date	10/01/99			
Operation schedule	Seasonal			
Sampling season	April-October			
Probe height	3.7 meters			
Distance from supporting structure	0.3 meters			
Distance from obstructions on roof	N/A			
Distance from obstructions not on roof	N/A			
Distance from trees	4.5 meters			
Distance to furnace or incinerator flue	N/A			
Distance between collocated monitors	N/A			
Unrestricted airflow	180			
Probe material	Glass Funnel W/Teflon tubing			
Residence time	4 seconds			
Will there be changes within the next 18 months?	No			
Is it suitable for comparison against the annual PM2.5?	N/A			
Frequency of flow rate verification for manual PM samplers audit	N/A			
Frequency of flow rate verification for automated PM analyzers audit	N/A			
Frequency of one-point QC check (gaseous)	Bi-weekly			
Last Annual Performance Evaluation (gaseous)	9/27/07, 6/22/07			
Last two semi-	N/A			

annual flow rate audits for PM monitors				
---	--	--	--	--

Detailed Site Information

Harvey's – Stateline

Site Name	Harvey's Resort & Hotel			
AQS ID	32-005-0009			
GIS coordinates	Lat +38.956389 Long -119.945000			
Location	1 st level of parking garage facing HWY			
Address	Harvey's Resort & Hotel Stateline, NV 89449			
County	Douglas, NV			
Dist. to road	9 meters			
Traffic count	31,000 AADT (2006)			
Groundcover	Paved -Asphalt			
Representative Area	Sacramento-Arden-Arcade-Truckee CSA			
Pollutant	CO			
Classification	SLAMS			
Monitor objective (site type)	Highest Concentrations			
Spatial scale	Micro			
Sampling method	Dasibi 3008			
Analysis method	N/A			
Start date	10/1/99			
Operation schedule	Continuous			
Sampling season	All Year			
Probe height	3.2 meters			
Distance from supporting structure	1 meter Horizontally			
Distance from obstructions on roof	N/A			
Distance from obstructions not on roof	N/A			
Distance from trees	4 meter			
Distance to furnace or incinerator flue	N/A			
Distance between collocated monitors	N/A			
Unrestricted airflow	270 degrees			
Probe material	Teflon			
Residence time	8 seconds			
Will there be changes within the	No			

next 18 months?				
Is it suitable for comparison against the annual PM2.5?	N/A			
Frequency of flow rate verification for manual PM samplers audit	N/A			
Frequency of flow rate verification for automated PM analyzers audit	N/A			
Frequency of one-point QC check (gaseous)	Bi-weekly			
Last Annual Performance Evaluation (gaseous)	12/11/07, 8/28/07, 6/15/07, 3/15/07			
Last two semi-annual flow rate audits for PM monitors				

Detailed Site Information Fernley

Site Name	Fernley Intermediate School			
AQS ID	32-019-0006-88501-1 and 32-019-0006-44201-1			
GIS coordinates	Lat +39.600859 Long 119.246945			
Location	Fernley, NV			
Address	320 Hardie Lane, Fernley, NV			
County	Lyon County			
Dist. to road	220 meters			
Traffic count	1550 AADT (2006)			
Groundcover	Paved -Asphalt			
Representative Area	Fernley MSA			
Pollutant	PM 2.5	O3		
Classification	SPM	SPM		
Monitor objective (site type)	Typical Concentrations/Population oriented	Typical Concentrations/Population Oriented		
Spatial scale	Neighborhood	Urban		
Sampling method	GT-640	API 400 Photometric		
Analysis method	N/A	N/A		
Start date	6/08/99	7/6/07		
Operation schedule	Continuous	Continuous		
Sampling season	All Year	April to October		

Probe height	6 Meters	9 meters		
Distance from supporting structure	1.5 Vertical meters	Vertical distance above 2.1meters		
Distance from obstructions on roof	N/A (Elevated)	N/A		
Distance from obstructions not on roof	N/A	3 meters		
Distance from trees	15 Meters	3 meters		
Distance to furnace or incinerator flue	N/A	N/A		
Distance between collocated monitors	N/A	N/A		
Unrestricted airflow	360 Degrees	360 degrees		
Probe material	Aluminum	Teflon		
Residence time	N/A	3 seconds		
Will there be changes within the next 18 months?	Yes	Yes		
Is it suitable for comparison against the annual PM2.5?	N/A	N/A		
Frequency of flow rate verification for manual PM samplers audit	N/A	N/A		
Frequency of flow rate verification for automated PM analyzers audit	Bi-weekly	N/A		
Frequency of one-point QC check (gaseous)	N/A	Bi-weekly		
Last Annual Performance Evaluation (gaseous)	N/A	9/27/07		
Last two semi-annual flow rate audits for PM monitors	N/A	N/A		

Detailed Site Information

Long Street – Carson

Site Name	Long Street			
AQS ID	32-510-0004			
GIS coordinates	Lat +39.173056 Long -119.759167			
Location	Sierra Pacific Power Company Yard			
Address	875 E. Long Street			
County	Carson			
Dist. to road	70 meters-North 70meters West			
Traffic count	15,700 AADT (2006)			
Groundcover	Paved, gravel			
Representative Area	Carson City MSA			
Pollutant	O3	PM2.5	CO	
Classification	SLAMS	SPM	SLAMS	
Monitor objective (site type)	Typical Concentrations/Population Oriented	Typical Concentrations/Population Oriented	Highest concentrations	
Spatial scale	Neighborhood	Neighborhood	Middle	
Sampling method	API 400 Photometric	Met-One ES-640 Forward light scattering detector	API 300 Gas Correlation	
Analysis method	N/A	NA	NA	
Start date	1/1/97	1/6/99	1/1/97	
Operation schedule	Continuous	Continuous	Continuous	
Sampling season	April to October	All year	All year	
Probe height	4.6 meters	5 meters	4.6 meters	
Distance from supporting structure	Vertical distance above 2.1meters	Vertical distance above 3.0 meters	Vertical distance above 2.1 meters	
Distance from obstructions on roof	N/A	N/A	N/A	
Distance from obstructions not on roof	3 meters	3 meters	3 meters	
Distance from trees	3 meters	3 meters	3 meters	
Distance to furnace or incinerator flue	N/A	N/A	N/A	
Distance between collocated monitors	N/A	N/A	N/A	
Unrestricted airflow	270 degrees	270 degrees	270 degrees	
Probe material	Teflon	N/A	Teflon	
Residence time	3 seconds	N/A	3 seconds	
Will there be changes within the next 18 months?	Yes	Yes	Yes	

Is it suitable for comparison against the annual PM2.5?	N/A	No, Continuous Trend	N/A	
Last Annual Performance Evaluation	9/19/07, 6/26/07		12/20/07, 8/23/07, 6/25/07, 3/22/07	
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	Bi-weekly	N/A	
Last two semi-annual flow rate audits for PM monitors	N/A	N/A	N/A	
Frequency of one-point QC check (gaseous)	Bi-weekly	N/A	Bi-weekly	

Detailed Site Information

5th Street –Carson

Site Name	5 th Street			
AQS ID	32-510-0002			
GIS coordinates	Lat +39.1671 Long -119.7314			
Location	Carson City			
Address	3300 East Fifth Street			
County	Carson			
Dist. to road	10 meters			
Traffic count	4300 AADT (2006)			
Groundcover	Dirt			
Representative Area	Carson City MSA			
Pollutant	Met Site			
Classification	NA			
Monitor objective (site type)	Modeling, Natural Events and Confirmation			
Spatial scale	middle			
Sampling method	N/A			
Analysis method	N/A			
Start date	1/1/89			
Operation schedule	Continuous			
Sampling season	All Year			
Probe height	10 meters			

Distance from supporting structure	Vertical distance above 7 meters			
Distance from obstructions on roof	N/A			
Distance from obstructions not on roof	N/A			
Distance from trees	N/A			
Distance to furnace or incinerator flue	N/A			
Distance between collocated monitors	N/A			
Unrestricted airflow	360 degrees			
Probe material	N/A			
Residence time	N/A			
Will there be changes within the next 18 months?	Yes			
Is it suitable for comparison against the annual PM2.5?	N/A			
Frequency of flow rate verification for manual PM samplers audit	N/A			
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			

Detailed Site Information Gardnerville Rancho's

Site Name	Gardnerville Rancho's
AQS ID	32-005-0007
GIS coordinates	Lat + 38.8989 Long -119.7322
Location	Aspen Park maintenance yard
Address	820 Lyell Way
County	Douglas

Dist. to road	12 meters East, 100meters South 200meters North			
Traffic count	7550 AADT (2006)			
Groundcover	Gravel			
Representative Area	Gardnerville Ranchos MSA			
Pollutant	PM 2.5			
Classification	SPM			
Monitoring objective (site type)	Typical Concentrations/Population Oriented			
Spatial scale	Neighborhood			
Sampling method	Met-One BAM 1020			
Analysis method	N/A			
Start date	7/98			
Operation schedule	Continuous			
Sampling season	All year			
Probe height	3 meters			
Distance from supporting structure	Vertical distance above 1.5 meters			
Distance from obstructions on roof	N/A			
Distance from obstructions not on roof	4 meters			
Distance from trees	N/A			
Distance to furnace or incinerator flue	N/A			
Distance between collocated monitors	N/A			
Unrestricted airflow	360 degrees			
Probe material	Aluminum			
Residence time	N/A			
Will there be changes within the next 18 months?	Yes			
Is it suitable for comparison against the annual PM2.5?	N/A			
Frequency of flow rate verification for manual PM samplers audit	N/A			
Frequency of flow rate verification	Monthly			

for automated PM analyzers audit				
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	N/A			

Detailed Site Information Church Site -Pahrump

Site Name	Church Site			
AQS ID	32-023-0013			
GIS coordinates	Lay +36.161319 Long -115.996267			
Location	Pahrump			
Address	781 E. Gamebird			
County	Nye			
Dist. to road	100 Meters			
Traffic count	1350 AADT (2006)			
Groundcover	Desert			
Representative Area	Pahrump MSA Las Vegas-Paradise-Pahrump CSA			
Pollutant	PM-10			
Classification	SPM			
Monitor objective (site type)	Typical Concentrations/Population Oriented			
Spatial scale	Urban			
Sampling method	BAM-1020			
Analysis method	N/A			
Start date	2/14/04			
Operation schedule	Continuous			
Sampling season	All Year			
Probe height	4 meters			
Distance from supporting structure	Vertical distance above 2 meters			
Distance from obstructions on roof	N/A			
Distance from obstructions not on roof	10 meters			
Distance from	N/A			

trees				
Distance to furnace or incinerator flue	N/A			
Distance between collocated monitors	N/A			
Unrestricted airflow	360 degrees			
Probe material	Aluminum			
Residence time	N/A			
Will there be changes within the next 18 months?	No			
Is it suitable for comparison against the annual PM2.5?	N/A			
Frequency of flow rate verification for manual PM samplers audit	N/A			
Frequency of flow rate verification for automated PM analyzers audit	Monthly			
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	9/26/07, 3/06/07			

Detailed Site Information
Manse Elementary -Pahrump

Site Name	Manse Elementary
AQS ID	32-023-0014
GIS coordinates	Lat +36.225093 Long -115.997467
Location	Pahrump
Address	1020 E. Wilson Rd
County	Nye
Dist. to road	50 meters South, 100 meters South East, 68 meters South West
Traffic count	3,000 AADT (2006)
Groundcover	Gravel school yard
Representative	Pahrump MSA

Area	Las Vegas-Paradise-Pahrump CSA			
Pollutant	PM-10	Met-site		
Classification	SLAMS	NA		
Monitor objective (site type)	Highest Concentrations	Modeling, Natural Events and Confirmation		
Spatial scale	middle	middle		
Sampling method	BAM-1020	N/A		
Analysis method	N/A	N/A		
Start date	11/17/05	04/09/03		
Operation schedule	Continuous	Continuous		
Sampling season	All Year	All Year		
Probe height	5 meters	10 meters		
Distance from supporting structure	Vertical distance above 1 meter	Vertical distance above 7 meters		
Distance from obstructions on roof	N/A	N/A		
Distance from obstructions not on roof	N/A	N/A		
Distance from trees	7&10 meters	N/A		
Distance to furnace or incinerator flue	N/A	N/A		
Distance between collocated monitors	N/A	N/A		
Unrestricted airflow	360 degrees	360 degrees		
Probe material	Aluminum	N/A		
Residence time	N/A	N/A		
Will there be changes within the next 18 months?	No	No		
Is it suitable for comparison against the annual PM2.5?	N/A	N/A		
Frequency of flow rate verification for manual PM samplers audit	N/A	N/A		
Frequency of flow rate verification for automated PM analyzers audit	Monthly	N/A		
Frequency of one-point QC check (gaseous)	N/A	N/A		
Last Annual Performance Evaluation (gaseous)	N/A	N/A		

Last two semi-annual flow rate audits for PM monitors	9/26/07, 03/06/07	N/A		
---	-------------------	-----	--	--

Detailed Site Information

Willow Creek Golf Course

Site Name	Willow Creek Golf Course			
AQS ID	32-023-0012-81102-1			
GIS coordinates	Lat +36.195996 Long -116.004882			
Location	Pahrump			
Address	1500 Red Butte			
County	Nye			
Dist. To road	200 Meters			
Traffic count	1350 AADT (2006)			
Groundcover	Grass			
Representative Area	Pahrump MSA Las Vegas-Paradise-Pahrump CSA			
Pollutant	PM-10			
Classification	SLAMS			
Monitor objective (site type)	Typical Concentrations/Population Oriented			
Spatial scale	Neighborhood			
Sampling method	BAM-1020			
Analysis method	N/A			
Start date	11/20/03			
Operation schedule	Continuous			
Sampling season	All Year			
Probe height	5 meters			
Distance from supporting structure	Vertical distance above 2 meters			
Distance from obstructions on roof	N/A			
Distance from obstructions not on roof	N/A			
Distance from trees	12 meters			
Distance to furnace or incinerator flue	N/A			
Distance between collocated monitors	N/A			
Unrestricted airflow	360 degrees			

Probe material	Aluminum			
Residence time	N/A			
Will there be changes within the next 18 months?	No			
Is it suitable for comparison against the annual PM2.5?	N/A			
Frequency of flow rate verification for manual PM samplers audit	N/A			
Frequency of flow rate verification for automated PM analyzers audit	Monthly			
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	9/26/07, 3/7/07,			

Detailed Site Information

Linda Street – Pahrump

Site Name	Linda St.			
AQS ID	32-023-0011-81102-1			
GIS coordinates	Lat +36.351622 Long -116.031916			
Location	Pahrump			
Address	8825 N. Linda			
County	Nye			
Dist. To road	20 Meters			
Traffic count	100 AADT (2006)			
Groundcover	Desert			
Representative Area	Pahrump MSA Las Vegas-Paradise-Pahrump CSA			
Pollutant	PM-10			
Classification	SLAMS			
Monitor objective (site type)	General Background			
Spatial scale	Urban			
Sampling method	BAM-1020			
Analysis method	N/A			
Start date	5/23/03			

Operation schedule	Continuous			
Sampling season	All Year			
Probe height	6 meters			
Distance from supporting structure	Vertical distance above 3 meters			
Distance from obstructions on roof	N/A			
Distance from obstructions not on roof	10 meters			
Distance from trees	NA			
Distance to furnace or incinerator flue	N/A			
Distance between collocated monitors	N/A			
Unrestricted airflow	360 degrees			
Probe material	Aluminum			
Residence time	N/A			
Will there be changes within the next 18 months?	No			
Is it suitable for comparison against the annual PM2.5?	N/A			
Frequency of flow rate verification for manual PM samplers audit	N/A			
Frequency of flow rate verification for automated PM analyzers audit	Monthly			
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	9/26/07, 3/7/07			