

010H  
\$0.07  
Mailed F  
US P

Hasler



State of New Mexico

**ENVIRONMENT DEPARTMENT**  
Air Quality Bureau  
1301 Siler Road Building B  
Santa Fe, NM 87507

Ms. Maria Martinez  
Section Chief, Air Quality Analysis  
USEPA Region 6  
1445 Ross Avenue  
Suite 1200  
Dallas, TX 75202

**MARIA MARTINEZ**

Location:  
MULTIMEDIA

Sender:  
STATE OF NEW MEXICO

07/09/12 11:44

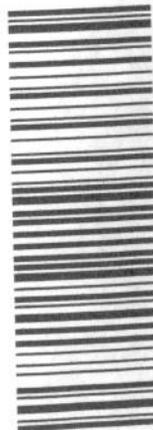
1 of 1



07092114442

PLACE STICKER AT TOP OF ENVELOPE TO THE RIGHT  
OF THE RETURN ADDRESS, FOLD AT DOTTED LINE

**CERTIFIED MAIL™**





SUSANA MARTINEZ  
Governor  
JOHN A. SANCHEZ  
Lieutenant Governor

**NEW MEXICO  
ENVIRONMENT DEPARTMENT**

***Air Quality Bureau***

1301 Siler Road, Building B  
Santa Fe, New Mexico, 87507  
Phone (505) 476-4300 Fax (505) 476-4375  
[www.nmenv.state.nm.us](http://www.nmenv.state.nm.us)



DAVE MARTIN  
Cabinet Secretary  
BUTCH TONGATE  
Deputy Secretary

July 3, 2012

Ms. Maria Martinez  
Section Chief, Air Quality Analysis  
USEPA Region 6  
1445 Ross Avenue, Suite 1200  
Dallas, Texas 75202

Dear Ms. Martinez:

The purpose of this document is to provide information concerning the operation of the ambient air monitoring network by the New Mexico Environment Department (NMED) Air Quality Bureau (AQB) in 2011.

Under 40 CFR, Part 58, Subpart B, States are required to submit an annual monitoring network review to the Environmental Protection Agency (EPA) regional office in Dallas Texas. This network plan is required to provide the framework for establishment and maintenance of an air quality surveillance system. The annual monitoring network plan must be made available for public inspection for at least 30 days prior to submission to EPA. The plan was posted May 30, 2012 through June 30, 2012.

No comments were received.

Any comments pertaining to this document should be sent to the following contact:

Terry Hertel  
Monitoring Program Manager  
New Mexico Environment Department  
Air Quality Bureau  
1301 Siler Road, Bldg B  
Santa Fe, NM 87507

Or email at:  
[terry.hertel@state.nm.us](mailto:terry.hertel@state.nm.us)

Regards,

A handwritten signature in black ink, appearing to be 'TH' with a stylized flourish below it.

Terry Hertel  
Manager, Ambient Air Monitoring Section

xc: Donna Intermont; Operations Section Chief

**2011-2012 Network Review  
Air Quality Bureau  
New Mexico Environment Department  
July 1, 2012**

**Prepared by  
Terry Hertel, Manager, Ambient Air Monitoring Program**

The purpose of this document is to provide information concerning the operation of the ambient air monitoring network by the New Mexico Environment Department (NMED) Air Quality Bureau (AQB) in 2011.

Under 40 CFR, Part 58, Subpart B, States are required to submit an annual monitoring network review to the Environmental Protection Agency (EPA) regional office in Dallas Texas. This network review is required to provide the framework for establishment and maintenance of an air quality surveillance system. The annual monitoring network review must be made available for public inspection for at least 30 days prior to submission to EPA.

## **1.0 Overview**

At the end of 2011 the Bureau operated 25 criteria air pollutant monitoring sites located in 10 of the State's 33 counties. Each air monitoring location is sited to meet the three basic monitoring objectives and at least one of the six federal criteria for ambient air monitoring networks.

In 2011 the Ambient Air Monitoring Section worked with a full-time staff of six, holding one vacancy.

Table 1 contains a listing of all New Mexico Environment Department, Air Quality Bureau ambient air monitoring sites operating at the end of 2011.

## **2.0 PM2.5 FRM Network**

The Bureau operated six PM2.5 FRMs at five monitoring locations at the end of 2011.

Farmington	35-045-0019	(Collocation)
Santa Fe	35-049-0020	
Hobbs	35-025-0008	
Las Cruces	35-013-0025	
Sunland Park	35-013-0017	

At the Farmington site the Bureau continues to operate the only collocated sampler in the FRM PM2.5 network.

The Bureau intends to begin shifting from sequential FRM sampling to continuous FEM sampling in 2012. The FEM samplers that the Bureau intends to deploy are BAM 1020s manufactured by MetOne. This shift to continuous sampling will allow quicker data submittal to EPA and will save the Bureau about \$23,000 annually in contractual laboratory services. The Bureau also expects to save a significant amount of staff travel time, with fewer regular site visits required to maintain the continuous monitors.

### **3.0 Continuous PM2.5 Network**

The Bureau operated continuous TEOM analyzers for PM2.5 at eleven monitoring locations at the end of 2011.

Santa Fe Runnels	35-049-0020	(Collocated with FRM)
Taos	35-055-0005	
Carlsbad	35-015-1005	
Anthony	35-013-0016	
Sunland Park	35-013-0017	(Collocated with FRM)
Desert View	35-013-0021	
Santa Teresa	35-013-0022	
Hobbs	35-025-0008	
Navajo Lake	35-045-0018	
Los Lunas	35-061-0008	
Santa Fe Airport	35-049-0021	

The Bureau still intends to begin shifting from TEOM sampling to continuous FEM sampling in 2012. The FEM samplers that the Bureau intends to deploy are BAM 1020s manufactured by MetOne. This shift to FEM samplers will allow the Bureau to compare PM data at each site to the NAAQS, something that could not be done using the TEOMs.

### **4.0 PM10 FRM Network**

The Bureau operated a total of thirteen PM10 samplers at eleven monitoring locations at the end of 2011.

Farmington	35-045-0019	
Bernalillo	35-043-0001	
Santa Fe	35-049-0020	(Collocation)
Taos	35-055-0005	
Roswell	35-005-0005	
Hobbs	35-025-0008	
Anthony	35-013-0016	
Sunland Park	35-013-0017	
Deming	35-029-0001	(Collocation)

Hurley Smelter	35-017-1003
Silver City	35-017-1002

The northern counties continue to report relatively low values when compared to the southern counties.

In 2012 the Bureau intends to begin phasing out the PM10 FRM monitors and replacing them with TEOMs to sample for PM10. This shift to continuous sampling will allow quicker data submittal to EPA.

**5.0 Continuous PM10 Network**

The Bureau operated a total of seven continuous TEOM PM10 analyzers at the end of 2011.

Anthony	35-013-0016
Sunland Park	35-013-0017
Chaparral	35-013-0020
Holman Road	35-013-0019
West Mesa	35-013-0024
Deming Airport	35-029-0003
Desert View	35-013-0021

In 2012 the Bureau plans to increase the number of continuous PM10 sites from six to seventeen by virtue of the phasing out of the PM10 FRM monitors.

**6.0 CO Network**

The Bureau no longer conducts carbon monoxide monitoring.

**7.0 SO2 Network**

The Bureau operated a total of three SO2 monitoring stations at the end of 2011.

Substation	35-045-1005
Bloomfield	35-045-0009
Hurley Smelter	35-017-1003

In 2012 the Bureau plans to upgrade the SO2 monitors at all three sites. Monitoring for SO2 at Hurley continues under a maintenance plan, even though there is no longer a source at Hurley. A re-designation request is pending with USEPA Region 6.

The Bureau is now reporting “five minute” data for SO2.

## 8.0 NO2 Network

The Bureau operated a total of eight NO2 monitoring stations at the end of 2011.

Substation	35-045-1005
Bloomfield	35-045-0009
Carlsbad	35-015-1005
Desert View	35-013-0021
Santa Teresa	35-013-0022
Hobbs	35-025-0008
Navajo Lake	35-045-0018
Deming Airport	35-029-0003

In 2012 the Bureau plans to upgrade six of the NO2 monitors, at Substation, Bloomfield, Navajo Lake, Carlsbad, Desert View, and Santa Teresa.

## 9.0 O3 Network

The Bureau operated sixteen O3 monitoring stations in its statewide network in 2011.

Substation	35-045-1005
Bloomfield	35-045-0009
Bernalillo	35-043-1001
Carlsbad	35-015-1005
La Union	35-013-0008
Solano Road	35-013-0023
Sunland Park	35-013-0017
Chaparral	35-013-0020
Desert View	35-013-0021
Santa Teresa	35-013-0022
Hobbs	35-025-0008
Navajo Lake	35-045-0018
Deming Airport	35-029-0003
Santa Fe Airport	35-049-0021
Hurley Smelter	35-017-1003
Los Lunas	35-061-0008

In 2012 the Bureau plans to upgrade 12 of the O3 monitors: at Substation, Navajo Lake, Los Lunas, Bernalillo, Santa Fe Airport, Carlsbad, Hobbs, La Union, Chaparral, Desert View, Santa Teresa, and Solano.

## **10.0 Network Changes**

In July of 2011 the PM sites at Roswell and Silver City were shut down.

## **11.0 Other Projects**

There are three other monitoring projects underway in New Mexico that are supported by NMED/AQB air monitoring staff.

1. Northern air monitoring staff is continuing a second EPA-sponsored project to collect passive ammonia monitoring data in San Juan County, New Mexico. This project will hopefully continue for the next two years. Ammonia is a precursor of fine particulate matter which adversely affects public health and visibility. This continued study will augment the baseline data collected in 2007 to assess any significant changes in ambient ammonia levels.
2. Acid rain sites at Capulin and at the Gila Wilderness are NTN sites maintained by the Bureau. The National Trends Network is the only network providing a long-term record of precipitation chemistry across the United States, with the goal of providing data on the amounts, trends, and geographic distributions of acids, nutrients, and base cations in precipitation. This data helps to improve understanding of the causes and effects of acidic precipitation.
3. Wet deposition mercury monitoring is done at the Navajo Lake site. This monitor is part of the national Mercury Deposition Network. All MDN samples are analyzed for total mercury, and some for the more toxic methyl mercury. Researchers use MDN data to evaluate the role of precipitation as a source of mercury in national water bodies for the purpose of generating fish consumption advisories.

## **12.0 Summary**

The intention of the Bureau is to continue to focus on pollutants of concern while also striving to continue to serve the public health needs and to satisfy the expectations of the New Mexico communities. The Bureau will inform Region VI staff early in the process of any plans to make changes to the ambient air monitoring network, other than those described in this review, to ensure that state and federal priorities continue to be aligned.

## **13.0 Addressing New Monitoring Requirements in Monitoring Network**

### **13.1 Lead (Pb)**

Two federal criteria have been set up for Pb monitoring:

- Source-oriented – For sources over 0.5 Tons per year.
- “Non-source”-oriented in every urban area with NCore monitoring sites, that have a population of 500,000 or more.

Based on these criteria, no Pb monitors are required in regions under NMED / AQB jurisdiction.

### **13.2 Nitrogen Dioxide**

Two federal criteria have been set up for NO<sub>2</sub> monitoring:

- Near-road NO<sub>2</sub> monitoring; 1 micro-scale site would be required in Core Based Statistical Areas (CBSA)  $\geq$  350,000 at a location of expected highest hourly NO<sub>2</sub> concentrations sited near a major road with high Annual Average Daily Traffic (AADT) counts.
- Community-wide; required in CBSAs  $\geq$  1 million at a location of expected highest NO<sub>2</sub> concentrations representing neighborhood or larger (urban) spatial scale.

Based on these criteria, no new NO<sub>2</sub> monitors are required in regions under NMED / AQB jurisdiction.

### **13.3 Sulfur Dioxide**

Two federal criteria have been set up for SO<sub>2</sub> monitoring:

- Based on population per CBSA and amount of SO<sub>2</sub> emissions within that CBSA, that is, the Population Weighed Emissions Index (PWEI) and
- Based on individual state contribution to national SO<sub>2</sub> inventory in the 2005 National Emissions Inventory (NEI).

Based on the PWEI criteria, NMED / AQB would not need to deploy any new monitors.

Based on the 2005 NEI criteria, NMED / AQB would need one monitor. This requirement is already being complied with by virtue of the Substation site.

### **13.4 Ozone**

Previous to this writing three federal criteria had been set up for ozone monitoring. Although these criteria are no longer required, they are still listed because NMED/AQB set up a new ozone site based on one of these criteria.

- 1 monitor in a Micropolitan Statistical Area (10,000-<50,000).

Three sites already meet this criterion: Hobbs, Deming, and Carlsbad.

- 1 monitor in an area of high ozone concentration outside of currently monitored MSAs and Micropolitan areas.

NMED / AQB has been working with the US Forest Service to commission a site at the Coyote Ranger Station on the Santa Fe National Forest. Commissioning of the site began in the Fall of 2011 and will be complete by the summer of 2012.

- 1 monitor in an area set aside to conserve scenic value and the natural vegetation and wildlife within such area.

The existing Navajo Lake site, located close to Navajo Lake State Park, fulfills this requirement.

### **14.0 Other Issues**

The Bureau filled one of the two vacant operator positions in 2011.

A draft of this document will be made available to the public in May of 2012, at <http://www.nmenv.state.nm.us/aqb/>. Any comments pertaining to this document should be sent to the following contact:

Terry Hertel  
Monitoring Program Manager  
New Mexico Environment Department  
Air Quality Bureau  
1301 Siler Road, Bldg B  
Santa Fe, NM 87507

Or email at:  
[terry.hertel@state.nm.us](mailto:terry.hertel@state.nm.us)

TABLE 1  
New Mexico Monitoring Network in 2011

Site AQS #	Site Name	Station Type	Site Address	Latitude	Longitude	Pollutants Measured	Analysis Method	Operating Schedule	Is site proposed to be removed/moved within next 18 months?	Monitoring Objective	NAAQS Comparable?	msa/cbs/asa represented	Spatial Scale
35-045-1005	1H Substation	SLAMS	Shiprock Electrical Substation, Waterflow, NM	36.797614	-108.48005	Ozone Nitrogen Dioxide Sulfur Dioxide	U.V. Photometric Chemiluminescence Pulsed Fluorescence	Continuous	No	General Background	Yes	Not in an MSA	Regional
35-045-0009	12B Bloomfield	SLAMS	2200 N 1st Street, Bloomfield, NM	36.74205	-107.87737	Ozone Nitrogen Dioxide Sulfur Dioxide	U.V. Photometric Chemiluminescence Pulsed Fluorescence	Continuous	No	General Background	Yes	Not in an MSA	Neighborhood
35-045-0018	1NL Navajo Lake	SLAMS	423 Highway 539, Navajo Lake Airport, Navajo Lake, NM	36.80973	-107.85138	Ozone Nitrogen Dioxide PM <sub>2.5</sub>	U.V. Photometric Chemiluminescence Continuous; TEOM	Continuous	No	Regional Transport	Yes	Not in an MSA	Middle
35-061-0008	2LL Los Lunas	SLAMS	1000 W. Main St, Los Lunas, NM	34.81467	-106.74097	Ozone PM <sub>2.5</sub>	U.V. Photometric Continuous; TEOM	Continuous	No	General Background	Yes	Not in an MSA	Regional
35-043-1001	2ZJ Bernalillo	SLAMS	1040 Oak Street, Bernalillo, NM	35.29978	-106.54701	Ozone PM <sub>2.5</sub>	U.V. Photometric Continuous; TEOM	Continuous	No	Population Exposure	Yes	Santa Fe	Neighborhood
35-049-0020	3HM Runnels	SLAMS	1190 St. Francis Drive, Santa Fe, NM	35.67134	-105.9558	PM <sub>2.5</sub> PM <sub>10</sub>	Sequential FRM Gravimetric	Every 3rd Day Every 6th Day	No	Population Exposure	Yes	Santa Fe	Neighborhood
35-049-0020	3HM Runnels	SLAMS	1190 St. Francis Drive, Santa Fe, NM	35.67134	-105.9558	PM <sub>10</sub>	Gravimetric	Every 6th Day	No	Population Exposure	Yes	Santa Fe	Neighborhood
35-049-0021	3SFA Santa Fe Airport	SLAMS	2001 Aviation Dr, Santa Fe, NM	35.61975	-106.07968	Ozone PM <sub>2.5</sub>	U.V. Photometric Continuous; TEOM	Continuous	No	Population Exposure	Yes	Santa Fe	Neighborhood
35-055-0005	3ZD Taos	SLAMS	Santiago Road Fire Station, Taos, NM	36.383294	-105.68493	PM <sub>2.5</sub> PM <sub>10</sub>	Continuous; TEOM Sequential FRM	Continuous Every 6th Day	No	Population Exposure	No	Taos, NM 45340 Taos, NM 45340	Neighborhood
35-015-1005	5ZR Carlsbad	SLAMS	2811 Holland St., Carlsbad, NM	32.383958	-104.26403	Ozone Nitrogen Dioxide PM <sub>2.5</sub>	U.V. Photometric Chemiluminescence Continuous; TEOM	Continuous	No	General Background	Yes	Carlsbad-Artesia, NM 16100 Carlsbad-Artesia, NM 16100	Urban
35-025-0008	5ZS Hobbs Jefferson	SLAMS	2320 N. Jefferson St., Hobbs, NM	32.72663	-103.12298	Ozone Nitrogen Dioxide PM <sub>2.5</sub> PM <sub>10</sub>	U.V. Photometric Chemiluminescence Continuous; TEOM Sequential FRM	Continuous Continuous Every 3rd Day Every 6th Day	No	Population Exposure	Yes	Hobbs, NM 28020 Hobbs, NM 28020 Hobbs, NM 28020 Hobbs, NM 28020	Neighborhood
35-013-0016	6CM Anthony	SLAMS	705 Church St., Anthony, NM	32.0033	-106.5992	PM <sub>2.5</sub> PM <sub>10</sub>	Continuous; TEOM Continuous; TEOM	Continuous	No	Population Exposure	No	Not in an MSA	Neighborhood
35-013-0008	6O La Union	SLAMS	7048 McMurt, La Union, NM	31.9187	-106.633	Ozone PM <sub>10</sub>	U.V. Photometric Continuous; TEOM	Continuous	No	Population Exposure	Yes	Not in an MSA	Neighborhood
35-013-0024	6WM West Mesa	SLAMS	West Mesa Well #46, Las Cruces, NM	32.27805	-106.865	Ozone PM <sub>10</sub>	U.V. Photometric Continuous; TEOM	Continuous	No	Up Wind Background	Yes	Las Cruces	Urban
35-013-0017	6ZG Sunland Park	SLAMS	1000 McMurt Rd, Sunland Park, NM	31.7972	-106.56892	Ozone Sulfur Dioxide (stopped 10/09/06) PM <sub>2.5</sub> PM <sub>10</sub> PM <sub>2.5</sub> PM <sub>10</sub>	Pulsed Fluorescence Continuous; TEOM Continuous; TEOM Two Sequential FRMs Gravimetric	Continuous Continuous Continuous Daily Every 6th Day	No	General Background	Yes	El Paso, TX-NM El Paso, TX-NM El Paso, TX-NM El Paso, TX-NM El Paso, TX-NM	Urban
35-013-0019	6ZL Hofman Road	SLAMS	Las Cruces Well #41, Las Cruces, NM	32.424633	-106.67397	PM <sub>10</sub>	Continuous; TEOM	Continuous	No	Population Exposure	Yes	Las Cruces	Urban
35-013-0020	6ZK Chaparral	SLAMS	880 McCombs, Chaparral, NM	32.0409	-106.4095	Ozone PM <sub>10</sub>	U.V. Photometric Continuous; TEOM	Continuous	No	General Background	Yes	Not in an MSA	Neighborhood
35-013-0021	6ZM Desert View	SLAMS	5835 Valia Vista, Sunland Park, NM	31.79611	-106.58389	Ozone Nitrogen Dioxide PM <sub>2.5</sub> PM <sub>10</sub>	U.V. Photometric Chemiluminescence Continuous; TEOM Continuous; TEOM	Continuous Continuous Continuous	No	General Background	Yes	El Paso, TX-NM El Paso, TX-NM El Paso, TX-NM	Neighborhood
35-013-0022	6ZN Santa Teresa	SLAMS	104-2 Santa Teresa Int'l Blvd., Santa Teresa, NM	31.7881	-106.68257	Ozone Nitrogen Dioxide PM <sub>2.5</sub>	U.V. Photometric Chemiluminescence Continuous; TEOM	Continuous	No	General Background	Yes	Not in an MSA	Urban
35-013-0023	6ZQ Solano	SLAMS	750 N. Solano Drive, Las Cruces, NM	32.31865	-106.76745	Ozone	U.V. Photometric	Continuous	No	General Background	Yes	Las Cruces	Urban
35-028-0003	7E Deming Airport	SLAMS	3412 Raymond Reed Blvd., Deming, NM	32.256833	-107.72266	Ozone Nitrogen Dioxide PM <sub>10</sub>	U.V. Photometric Chemiluminescence Continuous; TEOM	Continuous	No	Population Exposure	Yes	Deming, NM 19700 Deming, NM 19700	Neighborhood
35-017-1003	7T Hurley Smelter	SLAMS	Chino Blvd., Hurley, NM	32.69194	-108.12444	Sulfur Dioxide Ozone PM <sub>10</sub>	Pulsed Fluorescence U.V. Photometric Gravimetric	Continuous Continuous Every 6th Day	No	Source Oriented	Yes	Not in an MSA	Neighborhood

Non-Continuous Particulate Sites

35-045-0019	1FO Farmington	SLAMS	3400 Messina Dr. Suite 5000, Farmington, NM 87402	36.774139	-108.16439	PM <sub>10</sub> PM <sub>2.5</sub>	Gravimetric Sequential FRM	Every 6th Day Every 3rd Day	No	Population Exposure	Yes	Farmington, NM 22140 Farmington, NM 22140	Neighborhood
35-043-0001	2U Bernalillo	SLAMS	828 Camino del Pueblo, Bernalillo, NM	35.3043	-106.54975	PM <sub>10</sub>	Co-located Sequential FRM	Every 3rd Day	No	Population Exposure	Yes	Farmington, NM 22140	Neighborhood
35-013-0025	6Q Las Cruces	SLAMS	1170 N. Solano Drive, Las Cruces, NM	32.3205	-107.7703	PM <sub>2.5</sub> PM <sub>10</sub>	Sequential FRM Gravimetric	Every 6th Day Every 3rd Day	No	Population Exposure	Yes	Not in an MSA Las Cruces	Neighborhood
35-028-0001	7D Deming	SLAMS	Pine Street, Deming, NM	32.26722	-107.75528	PM <sub>2.5</sub> PM <sub>10</sub> (Co-located)	Sequential FRM Gravimetric	Every 6th Day Every 6th Day	No	Population Exposure	Yes	Deming, NM 19700 Deming, NM 19700	Neighborhood

All NMED/AQB sites and monitors conform to 40 CFR, Subchapter C, Part 58 appendix A