

NMED

New
Mexico
Environment
Department



Air Quality Bureau

2015 Annual Network

Review

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**2015 Network Review
Air Quality Bureau
New Mexico Environment Department
July 1, 2015**

**Prepared by
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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 2014/15.

Introduction

In October 2006, US EPA issued final regulations concerning state and local agency ambient air monitoring networks. These regulations require states to submit an annual monitoring network review to US EPA. This network plan is required to provide the framework for establishment and maintenance of an air quality surveillance system and to list any changes that are proposed to take place to the current network during the 2014/15 season

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 the state fiscal year 2015 the Bureau operated 21 criteria air pollutant monitoring sites located in 11 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 of; NO₂, O₃, CO, Lead, particulate matter (PM₁₀ and PM_{2.5}), and SO₂ for ambient air monitoring networks.

In 2014/15 the Ambient Air Monitoring Section worked with a full-time staff of six, with two vacancies.

Table 1 (Network Element Worksheet) contains a listing of all New Mexico Environment Department, Air Quality Bureau ambient air monitoring sites operating at the end of the state fiscal year 2015.

Air Monitoring Network

NMED-AQB regulates air quality to protect public health and the environment in the State of New Mexico, excluding Bernalillo County. Air monitoring data are required by regulation and are used

to determine compliance with U.S. EPA's NAAQS. Other important uses of the air monitoring data includes, the production of a daily Air Quality Index (AQI), daily air quality forecast report, support of short and long-term health risk assessments, identification of a localized health concern, and tracking long-term trends in air quality. New Mexico monitors four of the six NAAQS criteria pollutants: NO₂, O₃, particulate matter (PM₁₀ and PM_{2.5}), and SO₂. NMED-AQB does not monitor for CO or Lead as New Mexico currently does not meet the criteria for monitoring these pollutants.

Air Quality Data

Overview of Monitored Parameters – Criteria Pollutants

Nitrogen Dioxide (NO₂)

NO₂ is a highly toxic, reddish brown gas that is created primarily from fuel combustion in industrial sources and vehicles. It creates an odorous haze that causes eye and sinus irritation, blocks natural sunlight, and reduces visibility.

Ozone (O₃)

Ground- level O₃, also known as photochemical smog, is not emitted into the atmosphere as ozone, but rather is formed by the reactions of other pollutants. The primary pollutants entering into this reaction, VOCs and oxides of nitrogen, create ozone in the presence of sunlight. Ozone is a strong irritant of the upper respiratory system and also causes damage to crops.

Particulate Matter (PM₁₀)

Particulate matter with a mean diameter of 10 microns or less is emitted from transportation and industrial sources. Exposure to particle pollution is linked to a variety of significant health problems ranging from aggravated asthma to premature death in people with heart and lung disease.

Fine Particulate Matter (PM_{2.5})

Fine particulate matter with a diameter of 2.5 microns or less is created primarily from industrial processes and fuel combustion. These particles are breathed deep into the lungs. Exposure to particle pollution is linked to a variety of significant health problems ranging from aggravated asthma to premature death in people with heart and lung disease.

Sulfur Dioxide (SO₂)

SO₂ is a gaseous pollutant that is emitted primarily by industrial furnaces or power plants burning coal or oil containing sulfur. At high concentrations, breathing can be impaired. Damage to vegetation can also result.

Meteorological Monitoring

NMED-AQB includes meteorological monitoring of the local area because the outcome of air pollutants is influenced by the movement and characteristics of the air mass into which they are emitted.

If the air is calm and pollutants cannot disperse, then the concentration of these pollutants will build up. Conversely, if a strong and turbulent wind is blowing, the pollutant will rapidly disperse into the atmosphere and will result in lower concentrations near the pollution source.

The measurements of wind speed and direction, temperature, humidity, rainfall, barometric pressure, ultraviolet radiation and solar radiation are important parameters used in the study of air quality monitoring results, and to further understand the chemical reactions that occur in the atmosphere.

Monitoring Methodology

NMED-AQB air monitoring network uses Thermo Environmental Instruments i-Series for all gaseous monitoring. The Model 42i Chemiluminescence monitor is used to collect NO/NO_x/NO₂ data, the Model 43i Pulsed Florescence monitor to collect SO₂ data, and the Model 49i UV Photometric monitor to collect Ozone data. For particulate matter NMED-AQB uses the Rupprecht and Patashnick models 1400a and 1400ab continuous samplers used to collect either for PM₁₀ or PM_{2.5} sized particulate matter. The Rupprecht and Patashnick model 2025A Partisol Sampler is used as our manual FRM sampling for PM_{2.5}. The bureau still uses the Wedding PM10 sampler for manual sampling for PM₁₀, although these samplers will eventually be phased out of the monitoring network. NMED-AQB will replace the aging Wedding samplers, and TEOM PM₁₀ continuous samplers with Met-One Instruments BAM-1020 PM₁₀ continuous samplers, upon approval of EPA Region VI.

2.0 Network Review by Air Quality Control Regions

NMED-AQB has reviewed its current ambient air quality network and proposed changes to the network to be implemented during 2014/15. Current NAAQS, data trends, siting concerns, site access concerns, and other monitoring issues all contribute to any proposed network revisions.

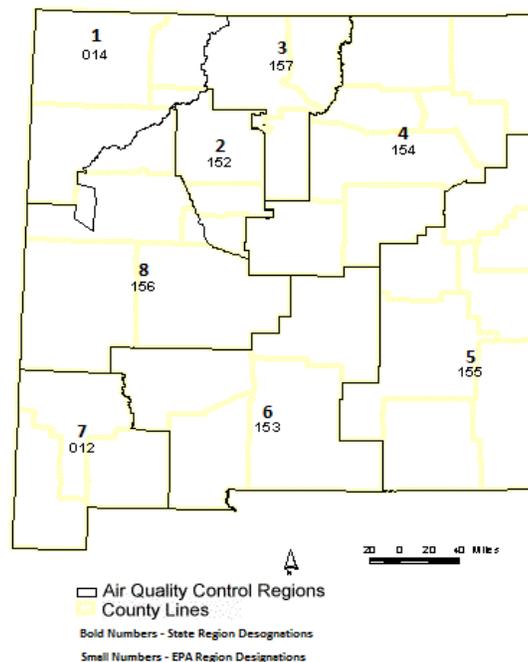


Figure 1

The Bureau's air monitoring network for 2014/15 consists of the sites and monitors listed in Table 1. All site changes which have occurred or plan to take place in 2014/15 are included along with any network modifications for 2014/15. Figure-1 is an overview of the state's and EPA's designation of Air Quality Control Regions (AQCR's). Figure-2 depicts AQB's current monitoring network and shows the locations where monitoring takes place in 2014/15. The number of monitoring locations operated by the State decreased from 26 sites to 21 sites.

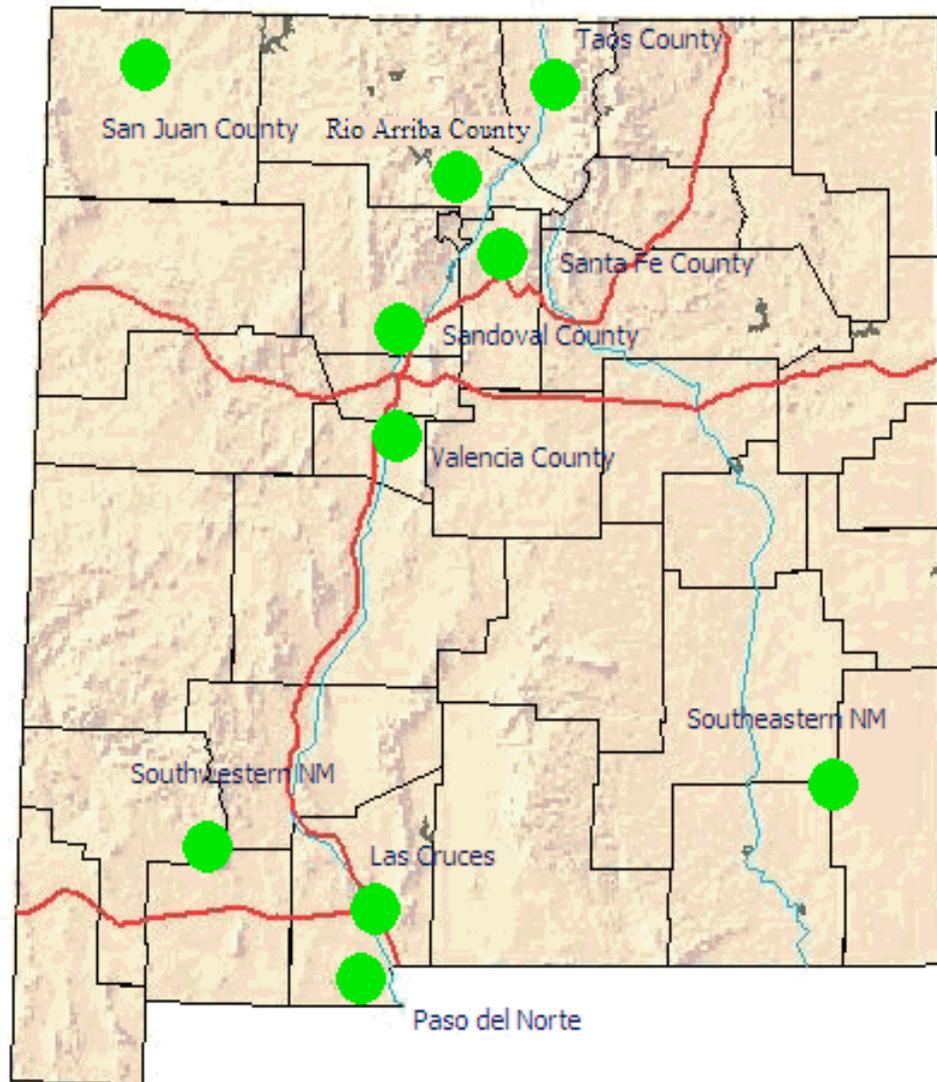


Figure 2

Air Quality Control Region 1 (EPA Region 014)

The Bureau operates four air monitoring sites in AQCR-1 which are located in San Juan County consisting of the Substation, Farmington Office, Bloomfield, and Navajo Lake sites. Figure 3 below indicates the location of the monitoring sites.

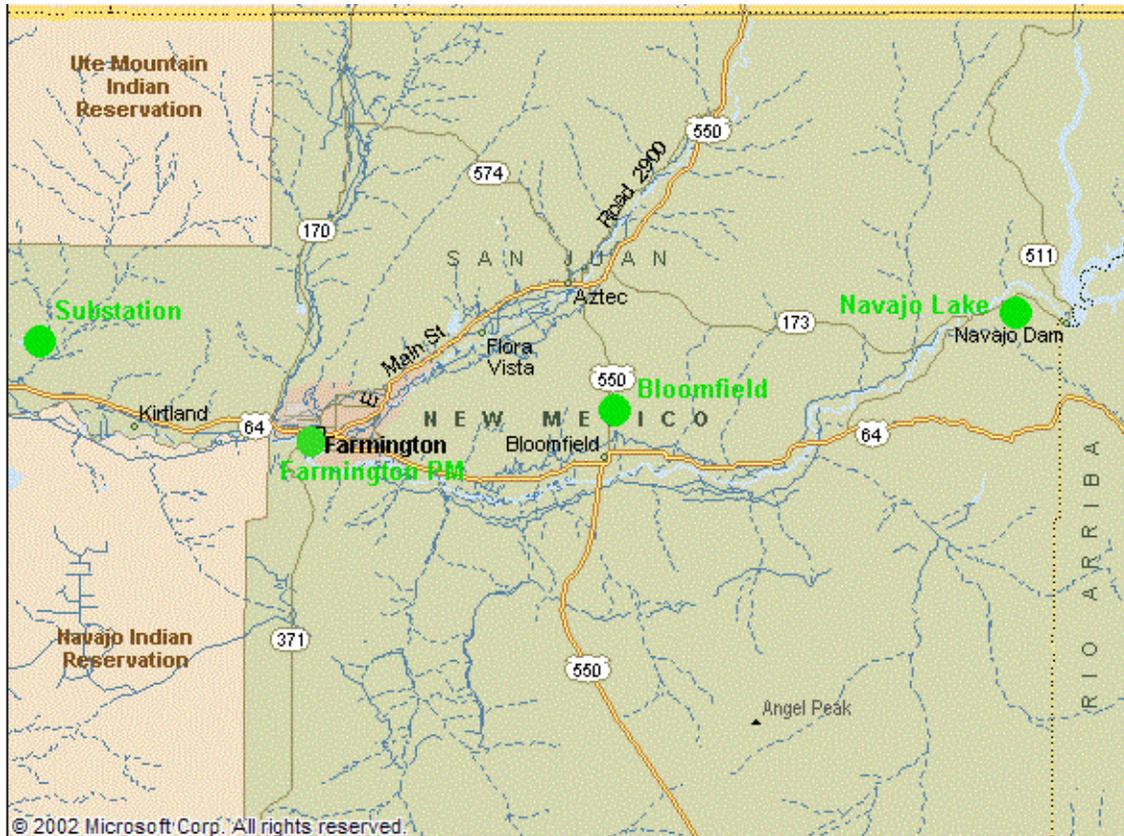


Figure 3

Substation Site AQS #: 35-045-1005:

Substation O₃ Parameter 44201, Method 047, POC 1

The Bureau continues to operate the Ozone monitor at the Substation air monitoring site. No changes are anticipated for 2015.

Substation NO₂ Parameter 42602, Method 074, POC 2

The Bureau continues to operate the NO₂ monitor at the Substation air monitoring site. No changes are anticipated for 2015.

Substation SO₂ Parameter 42401, Method 060, POC 3

The Bureau continues to operate the SO₂ monitor at the Substation air monitoring site. No changes are anticipated for 2015.

Substation PM_{2.5} FRM None

Substation PM_{2.5} Continuous None

Substation PM₁₀ FRM None

Substation PM₁₀ Continuous None

Farmington Office Site AQS # 35-045-0019:

| | |
|----------------------------------|------|
| Farmington O₃ | None |
| Farmington NO₂ | None |
| Farmington SO₂ | None |

| | |
|--|---|
| Farmington PM_{2.5} FRM | (Primary), Parameter 88101, Method 118, POC 1 |
| Farmington PM_{2.5} FRM | (Collocation), Parameter 88101, Method 118, POC 2 |

The Bureau continues to operate the PM_{2.5} samplers at the Farmington Office monitoring site as the designated co-located FRM PM_{2.5}. However, AQB requests to re-locate the FRM PM_{2.5} samplers to the Desert View site in Sunland Park, NM. Daily concentrations within ± 20% of the NAAQS are being observed at the Desert View site, and due to residential and commercial growth currently in progress on the Mexican side along the US/Mexican border we have determined that it would be more suitable for co-location.

| | |
|---|------|
| Farmington PM_{2.5} Continuous | None |
| Farmington PM₁₀ FRM | None |
| Farmington PM₁₀ Continuous | None |

Bloomfield Site AQS #:35-045-0009:

| | |
|---------------------------------|------------------------------------|
| Bloomfield O₃ | Parameter 44201, Method 047, POC 1 |
|---------------------------------|------------------------------------|

The Bureau continues to operate the Ozone monitor at the Bloomfield air monitoring site. No changes are anticipated for 2015.

| | |
|----------------------------------|------------------------------------|
| Bloomfield NO₂ | Parameter 42602, Method 074, POC 1 |
|----------------------------------|------------------------------------|

The Bureau continues to operate the NO₂ monitor at the Bloomfield air monitoring site. No changes are anticipated for 2015.

| | |
|----------------------------------|------------------------------------|
| Bloomfield SO₂ | Parameter 42401, Method 060, POC 3 |
|----------------------------------|------------------------------------|

The Bureau continues to operate the SO₂ monitor at the Bloomfield air monitoring site. No changes are anticipated for 2015.

| | |
|--|------|
| Bloomfield PM_{2.5} FRM | None |
| Bloomfield PM_{2.5} | None |
| Bloomfield PM₁₀ FRM | None |

| | |
|--|------------------------------------|
| Bloomfield PM₁₀ Continuous | Parameter 81102, Method 079, POC 1 |
|--|------------------------------------|

The Bureau will install a Met-One BAM-1020 FEM PM₁₀ sampler as an SPM to obtain representative sampling of PM₁₀ for San Juan County per approval of EPA letter, dated April 14, 2015 referring to NMED's 2014 Annual Ambient Air Monitoring Network Plan technical comments. Over the last few years, the area has seen increased traffic, oil and gas development, in addition to presence of dirt roads with more frequent dust storms.

Navajo Lake Site AQS# 35-045-0018:

| | |
|----------------------------------|------------------------------------|
| Navajo Lake O₃ | Parameter 44201, Method 047, POC 1 |
|----------------------------------|------------------------------------|

The Bureau continues to operate the Ozone monitor at the Navajo Lake air monitoring site. No changes are anticipated for 2015.

Navajo Lake NO₂

Parameter 42602, Method 074, POC 2

The Bureau continues to operate the NO₂ monitor at the Navajo Lake air monitoring site. No changes are anticipated for 2015.

Navajo Lake SO₂

None

Navajo Lake PM_{2.5} FRM

None

Navajo Lake PM_{2.5} Continuous

None

Navajo Lake PM₁₀ FRM

None

Navajo Lake PM₁₀ Continuous

None

Air Quality Control Region 2 (EPA Region 152)

The Bureau operates two air monitoring sites in AQCR-2, one located in Sandoval County, and the second in Valencia County consisting of the Bernalillo and Los Lunas sites respectively. Figure 4 indicates the location of the Bernalillo site and Figure 5 the Los Lunas site.

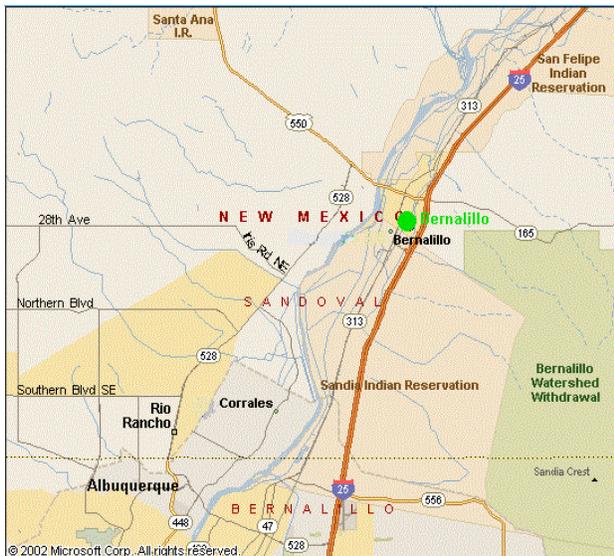


Figure 4



Figure 5

Bernalillo (DOT Yard) Site AQS#: 35-043-1001:

Bernalillo O₃

Parameter 44201, Method 047, POC 1

The Bureau continues to operate the Ozone monitor at the Bernalillo air monitoring site. EPA has noted that this site is not required due to the City of Albuquerque (COA) currently operating more than the required Ozone sites. However, NMED requests to continue operating the O₃ monitor at the Bernalillo and will provide explanation for continuing ozone monitoring in the 5-Year Network Assessment.

Bernalillo NO₂

None

Bernalillo SO₂

None

Bernalillo PM_{2.5} FRM

None

Bernalillo PM_{2.5} Continuous

None

Bernalillo PM₁₀ FRM

None

Bernalillo PM₁₀ Continuous

None

Los Lunas AQS #: 35-061-0008:

Los Lunas O₃ Parameter 44201, Method 047, POC 1

The Bureau continues to operate the Ozone monitor at the Los Lunas air monitoring site. No changes are anticipated for 2015.

| | |
|--|------|
| Los Lunas NO₂ | None |
| Los Lunas SO₂ | None |
| Los Lunas PM_{2.5} FRM | None |
| Los Lunas PM_{2.5} Continuous | None |
| Los Lunas PM₁₀ FRM | None |
| Los Lunas PM₁₀ Continuous | None |

Air Quality Control Region 3 (EPA Region 157)

The Bureau operates three air monitoring sites in AQCR-3, located in Santa Fe County, Taos County, and Rio Arriba County consisting of the Santa Fe Airport, Coyote Ranger District, and Taos site.

The Santa Fe Runnels Lab site Wedding PM₁₀ samplers were discontinued on April 14, 2015 following an audit by NMED-AQB QA staff, and the monitoring site decommissioned. The monitors were approved for discontinuation due to historically low PM₁₀ concentrations, and per EPA letter, dated February 19, 2014 referring to NMED's 2013 Annual Ambient Air Monitoring Network Plan technical comments.

Figure 6 indicates the location of the Santa Fe sites, Figure 7 the Taos and Coyote sites.

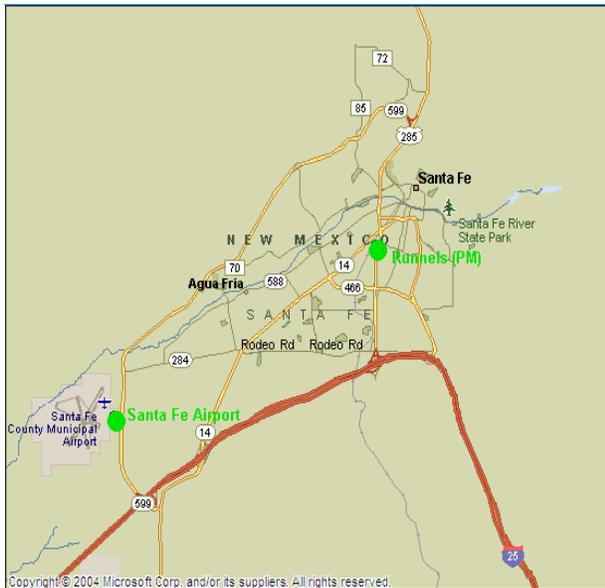


Figure 6

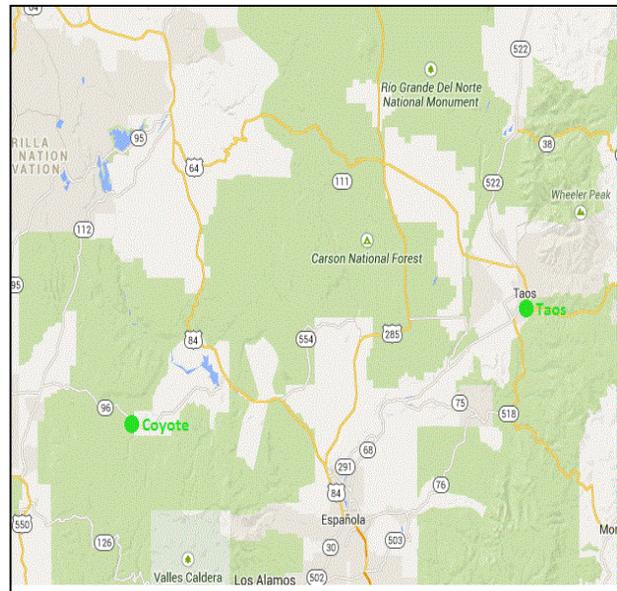


Figure 7

Santa Fe (Runnels) AQS #: 35-049-0020:

| | |
|--|------|
| Santa Fe (Runnels) O₃ | None |
| Santa Fe (Runnels) NO₂ | None |
| Santa Fe (Runnels) SO₂ | None |
| Santa Fe (Runnels) PM_{2.5} FRM | None |
| Santa Fe (Runnels) PM_{2.5} Continuous | None |
| Santa Fe (Runnels) PM₁₀ FRM (Primary) | None |
| Santa Fe (Runnels) PM₁₀ FRM (Co-located) | None |

Santa Fe Airport AQS #: 35-049-0021:

Santa Fe Airport O₃ Parameter 44201, Method 047, POC 1

The Bureau continues to operate the Ozone monitor at the Santa Fe Airport air monitoring site. No changes are anticipated for 2015.

| | |
|--|------|
| Santa Fe Airport NO₂ | None |
| Santa Fe Airport SO₂ | None |
| Santa Fe Airport PM_{2.5} FRM | None |

Santa Fe Airport PM_{2.5} Continuous Parameter 88502, Method 701, POC 3

The Bureau continues to operate the TEOM PM_{2.5} sampler at the Santa Fe Airport air monitoring site. No changes are anticipated for 2015.

| | |
|--|------|
| Santa Fe Airport PM₁₀ FRM | None |
| Santa Fe Airport PM₁₀ Continuous | None |

Coyote Ranger District AQS #: 35-039-0026:

Coyote Ranger District O₃ Parameter 44201, Method 047, POC 1

The Bureau continues to operate the Ozone monitor at the Coyote Ranger District air monitoring site. No changes are anticipated for 2015.

| | |
|---|------|
| Coyote Ranger District NO₂ | None |
| Coyote Ranger District SO₂ | None |
| Coyote Ranger District PM_{2.5} FRM | None |
| Coyote Ranger District PM_{2.5} Continuous | None |
| Coyote Ranger District PM₁₀ FRM | None |
| Coyote Ranger District PM₁₀ Continuous | None |

Taos AQS #: 35-055-0005:

NMED-AQB had concerns with the tree growth adjacent to the monitoring site, and has determined that it is not meeting the siting criteria due to growth of a tree on the adjacent residential property. The Bureau is trying to relocate the monitoring site elsewhere within the fire station property and has obtained permission from the Town of Taos and Taos Fire Department.

| | |
|--|------------------------------------|
| Taos O₃ | None |
| Taos NO₂ | None |
| Taos SO₂ | None |
| Taos PM_{2.5} FRM | None |
| Taos PM_{2.5} Continuous | Parameter 88502, Method 701, POC 3 |
| The Bureau continues to operate the TEOM PM _{2.5} sampler at the Taos air monitoring site. No changes are anticipated for 2015. | |
| Taos PM₁₀ FRM | None |
| Taos PM₁₀ Continuous | None |

Air Quality Control Region 5 (EPA Region 155)

The Bureau operates two air monitoring sites in AQCR-5, located in Eddy County, and Lea County consisting of the Carlsbad and Hobbs sites.



Figure 8

Carlsbad AQS #: 35-015-1005:

Carlsbad O₃ Parameter 44201, Method 047, POC 1
 The Bureau continues to operate the Ozone monitor at the Carlsbad air monitoring site. No changes are anticipated for 2015.

Carlsbad NO₂ Parameter 42602, Method 074, POC 1
The Bureau continues to operate the NO₂ monitor at the Carlsbad air monitoring site. No changes are anticipated for 2015.

Carlsbad SO₂ None

Carlsbad PM_{2.5} FRM None

Carlsbad PM_{2.5} Continuous Parameter 88502, Method 701, POC 3
Due to historically low concentrations the Bureau discontinued the TEOM PM_{2.5} continuous sampler following an audit by NMED-AQB QA staff on November 18, 2014. The monitor was approved for discontinuation per EPA letter, dated February 19, 2014 referring to NMED's 2013 Annual Ambient Air Monitoring Network Plan technical comments.

Carlsbad PM₁₀ FRM None

Carlsbad PM₁₀ Continuous None

Hobbs AQS #: 35-025-0008:

NMED-AQB is currently negotiating with the City of Hobbs Water Treatment Facility in relocating the Hobbs monitoring site within the water treatment facility property. NMED-AQB had concerns with the car port installed adjacent to the monitoring site, and has determined that it is not meeting the siting criteria. The car port is 126 inches in height and 190 inches in distance from the sample probe inlet. Per siting criteria requirement of the 40 CFR Part 58 App. E, distance from the car port to the probe inlet is required to be 232 inches. NMED-AQB will submit a separate request to re-locate the monitoring site within the Water Treatment Facility property.

Hobbs O₃ Parameter 44201, Method 047, POC 1
The Bureau continues to operate the Ozone monitor at the Hobbs air monitoring site. No changes are anticipated for 2015.

Hobbs NO₂ Parameter 42602, Method 074, POC 2
The Bureau continues to operate the NO₂ monitor at the Hobbs air monitoring site. No changes are anticipated for 2015.

Hobbs SO₂ None

Hobbs PM_{2.5} FRM Parameter 88101, Method 118, POC 1
The Bureau continues to operate the PM_{2.5} sampler at the Hobbs monitoring site. This site is the NMED-AQB designated General Background site. No changes are anticipated for 2015.

Hobbs PM_{2.5} Continuous Parameter 88502, Method 701, POC 3
Due to historically low concentrations the Bureau discontinued the TEOM PM_{2.5} continuous sampler following an audit by NMED-AQB QA staff on October 23, following an audit by NMED-AQB QA staff conducted on September 3, 2014. The monitor was approved for discontinuation per EPA letter, dated February 19, 2014 referring to NMED's 2013 Annual Ambient Air Monitoring Network Plan technical comments.

Hobbs PM_{2.5} Continuous

Parameter 88101, Method 170, POC 1

The Bureau will discontinue operating the existing Met-One BAM-1020 PM_{2.5} FEM sampler as an SPM per EPA letter for the 2014 Annual Ambient Air Monitoring Network Plan technical comments, dated April 14, 2015. EPA stated in the letter that the BAM-1020 PM_{2.5} is not approved for sampling, and that re-evaluation of siting criteria needs to be performed in determining if the site meets criteria for PM_{2.5} sampling.

Hobbs FRM PM₁₀

Parameter 81102/85101, Method 62, POC 1

The sampler was inadvertently discontinued on June 11, 2014 due to miscommunication. Discontinuation was actually intended for the Hurley PM₁₀ monitor. The monitor was audited prior to discontinuation by NMED-AQB QA staff on March 12, 2014. Since 2005, this monitor's 24-hour average for PM₁₀ has not exceeded the NAAQS, and historically has low PM₁₀ concentrations.

Hobbs PM₁₀ Continuous

None

Air Quality Control Region 6 (EPA Region 153)

The Bureau operates eight air monitoring sites in AQCR-6, located in Dona Ana County, consisting of the Anthony, Chaparral, Desert View, Holman Road, La Union, Las Cruces, Santa Teresa, Solano, and West Mesa sites.



Figure 9

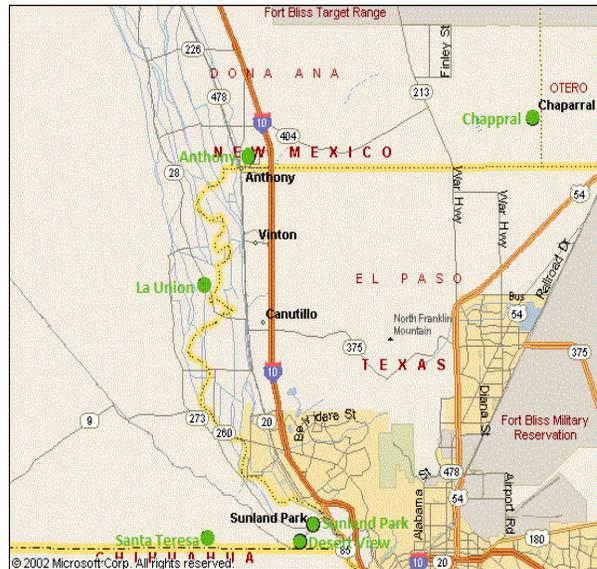


Figure 10

Anthony AQS #: 35-013-0016:

| | |
|-------------------------------------|------|
| Anthony O₃ | None |
| Anthony NO₂ | None |
| Anthony SO₂ | None |
| Anthony PM_{2.5} FRM | None |

Anthony PM_{2.5} Continuous

Parameter 88502, Method 701, POC 3

The Bureau discontinued the TEOM PM_{2.5} continuous sampler following an audit by NMED-AQB QA staff on October 10, 2014. The monitor was approved for discontinuation per EPA letter, dated February 19, 2014 referring to NMED's 2013 Annual Ambient Air Monitoring Network Plan Technical Comments. The Bureau has installed the Met-One BAM-1020 PM_{2.5} sampler as an SPM, which has been operating since April 2014, Parameter 88101, Method 170, POC 1, but it is not currently in AQS due to EPA-R6 requiring extensive review of the PM_{2.5} network in the 5-Year Network Assessment.

Anthony PM₁₀ FRM

Parameter 81102/85101, Method 062, POC 1

The Bureau will continue to operate the Wedding PM₁₀ non-continuous sampler in conjunction with a Met-One Instruments BAM-1020 PM₁₀ FEM sampler as this area experiences elevated ambient air particulate concentrations. Per EPA request, NMED will perform comparison between the Wedding PM₁₀, and BAM-1020 PM₁₀ data to determine potential impacts of PM₁₀ particulate matter in the area.

Anthony PM₁₀ Continuous

Parameter 81102, Method 079, POC 2

The Bureau's request to replace the TEOM PM₁₀ continuous FEM sampler as a Met-One Instruments BAM-1020 PM₁₀ FEM sampler Parameter 81102, Method 122, POC 2 has been approved per EPA letter, dated April 14, 2015 referring to NMED's 2014 Annual Ambient Air Monitoring Network Plan technical comments.

Chaparral AQS #: 35-013-0020:**Chaparral O₃**

Parameter 44201, Method 047, POC 1

The Bureau continues to operate the Ozone monitor at the Chaparral air monitoring site. No changes are anticipated for 2015.

Chaparral NO₂

None

Chaparral SO₂

None

Chaparral PM_{2.5} FRM

None

Chaparral PM_{2.5} Continuous

None

Chaparral PM₁₀ FRM

None

Chaparral PM₁₀ Continuous

Parameter 81102, Method 079, POC 2

The Bureau will replace the TEOM PM₁₀ continuous FEM sampler, and install a Met-One BAM-1020 FEM PM₁₀ continuous sampler Parameter 81102, Method 122, POC 1 approved per EPA letter, dated April 14, 2015 referring to NMED's 2014 Annual Ambient Air Monitoring Network Plan technical comments. NMED will provide a date of discontinuation of the present sampler and installation date of the BAM-1020 sampler, as well as to when data is submitted into AQS.

Desert View AQS #: 35-013-0021:**Desert View O₃**

Parameter 44201, Method 047, POC 1

The Bureau continues to operate the Ozone monitor at the Desert View air monitoring site. No changes are anticipated for 2015.

Desert View NO₂

Parameter 42602, Method 074, POC 2

The Bureau continues to operate the NO₂ monitor at the Desert View air monitoring site. No changes are anticipated for 2015.

Desert View PM_{2.5} FRM

NMED-AQB requests to designate the Desert View site in Sunland Park, NM as the co-located PM_{2.5} FRM sampling site Parameter 88101, Method 118, POC 1 for the primary, and Parameter 88101, Method 118, POC 2 for the co-located. Daily concentrations within $\pm 20\%$ of the NAAQS have been observed at the site for years 2010-2013. In addition, the area is experiencing residential and commercial development nearby in Santa Teresa as well as on the Mexican side along the US/Mexican border which is just one mile south of the Desert View site.

Desert View PM_{2.5} Continuous

Parameter 88502, Method 701, POC 3

The Bureau continues to operate the TEOM PM_{2.5} continuous sampler at the Desert View air monitoring site. Per EPA recommendation, and response on the 2014 Annual Ambient Air Monitoring Network Plan technical comments, NMED-AQB will provide an extensive review of the PM_{2.5} network as part of the 5-Year Network Assessment. The Bureau has installed the Met-One BAM-1020 which has been operating as an SPM since April 2014, Parameter 88101, Method 170, POC 1, but it is not currently in AQS.

Desert View PM₁₀ FRM

None

Desert View PM₁₀ Continuous

Parameter 81102, Method 079, POC 1

The Bureau will replace the TEOM PM₁₀ continuous FEM sampler and install a Met-One BAM-1020 FEM PM₁₀ continuous sampler as a SLAMS, per EPA approval letter for the 2014 Annual Ambient Air Monitoring Network Plan technical comments, dated April 14, 2015. NMED will provide date of discontinuation of present sampler and installation date of the BAM-1020 sampler, as well as to when data is submitted into AQS.

Holman Road AQS #: 35-013-0019:

| | |
|--|------|
| Holman Road O₃ | None |
| Holman Road NO₂ | None |
| Holman Road SO₂ | None |
| Holman Road PM_{2.5} FRM | None |
| Holman Road PM_{2.5} Continuous | None |
| Holman Road PM₁₀ FRM | None |

Holman Road PM₁₀ Continuous

Parameter 81102, Method 079, POC 1

The Bureau will replace the TEOM PM₁₀ continuous FEM sampler and install a Met-One BAM-1020 FEM PM₁₀ continuous sampler as a SLAMS, per EPA approval letter for the 2014 Annual Ambient Air Monitoring Network Plan Technical Comments, dated April 14, 2015. NMED will provide date of discontinuation of present sampler and installation date of the BAM-1020 sampler, as well as to when data is submitted into AQS.

La Union AQS #: 35-013-0008:

La Union O₃ Parameter 44201, Method 047, POC 2

The Bureau continues operating the Ozone monitor at La Union, no changes are anticipated for 2015.

La Union NO₂ None

La Union SO₂ None

La Union PM_{2.5} FRM None

La Union PM_{2.5} Continuous None

La Union PM₁₀ FRM None

La Union PM₁₀ Continuous None

Las Cruces AQS #: 35-013-0025:

Las Cruces PM_{2.5} FRM Parameter 88101, Method 118, POC 1

The Bureau continues to operate the PM_{2.5} FRM sampler at the Las Cruces Office monitoring site. However, NMED-AQB will be vacating the current office location and will submit a separate request to re-locate the PM_{2.5} FRM sampler to the new NMED Office location at 2301 Entrada Del Sol. The new office is located one and a quarter mile south-southeast from the current office. NMED is no longer a leased tenant as of August 1, 2015 and NMED has been requested to remove the sampler by the new occupant of the old building. This site is the NMED-AQB designated Regional Transport site.

Santa Teresa AQS #: 35-013-0022:

The Santa Teresa site and surrounding area is currently undergoing major commercial growth due to the New Mexico Governor's economic development initiative for Santa Teresa as a commercial zone between Mexico and the US. The surrounding area has become more industrial due to the Union Pacific Railroad's Intermodal Trans-shipment Terminal, Twin Cities Services which operates freight storage and transport facilities and started operating within the last year, and along with a host of other commercial entities.

Due to this continued growth NMED-AQB had requested in the 21014 Annual Network Review that the site which is currently designated as background scale be changed to urban scale. Per EPA approval letter for the 2014 Annual Ambient Air Monitoring Network Plan Technical Comments, dated April 14, 2015 the Santa Teresa site is now Urban Scale.

In addition, NMED-AQB had requested to relocate the Santa Teresa site approximately a half mile east of its present location due to increased traffic to and from Mexico occurring at the Santa Teresa Border crossing. The relocation request is under bureau revision to include EPA's requested inclusions. It will be sent to EPA for a second review.

Santa Teresa O₃ Parameter 44201, Method 047, POC 1

The Bureau continues to operate the Ozone monitor at Santa Teresa no monitoring equipment changes are anticipated for 2015.

Santa Teresa NO₂ Parameter 42602, Method 074, POC 2

The Bureau continues to operate the NO₂ monitor at the Santa Teresa air monitoring site. No changes are anticipated for 2015.

Santa Teresa SO₂ None
Santa Teresa PM_{2.5} FRM None

Santa Teresa PM_{2.5} Continuous Parameter 88502, Method 701, POC 3

Due to historically low concentrations, NMED-AQB discontinued the TEOM sampler following an audit by QA staff on December 5, 2014. The monitor was approved for discontinuation per EPA letter, dated February 19, 2014 referring to NMED's 2013 Annual Ambient Air Monitoring Network Plan technical comments.

Santa Teresa PM₁₀ FRM None
Santa Teresa PM₁₀ Continuous None

Solano Road AQS #: 35-013-0023:

Solano Road O₃ Parameter 44201, Method 047, POC 1

The Bureau continues operating the Ozone monitor at Solano road no changes are anticipated for 2015.

Solano Road NO₂ None
Solano Road SO₂ None
Solano Road PM_{2.5} FRM None
Solano PM_{2.5} Continuous None
Solano Road PM₁₀ FRM None
Solano Road PM₁₀ Continuous None

Sunland Park AQS #: 35-013-0017:

Sunland Park O₃ Parameter 44201, Method 047, POC 1

The Bureau discontinued the Ozone monitor at Sunland Park on May 5, 2015 following an audit by NMED-AQB QA staff, and the monitoring site is decommissioned. This was based on determination that the conditions and circumstances at this site do not support continued monitoring for ozone, according to NMED-AQB technical analysis siting criteria document dated March 28, 2014. Discontinuation was also approved per EPA letter, dated April 14, 2015 referring to NMED's 2014 Annual Ambient Air Monitoring Network Plan technical comments.

Sunland Park NO₂ None
Sunland Park SO₂ None
Sunland Park PM_{2.5} FRM None
Sunland Park PM_{2.5} Continuous None
Sunland Park PM₁₀ FRM None
Sunland Park PM₁₀ Continuous None

West Mesa AQS #:35-013-0024:

West Mesa O₃ None
West Mesa NO₂ None
West Mesa SO₂ None
West Mesa PM_{2.5} FRM None
West Mesa PM_{2.5} Continuous None
West Mesa PM₁₀ FRM None

West Mesa PM₁₀ Continuous

Parameter 81102, Method 079, POC 1

The Bureau will replace the TEOM PM₁₀ continuous FEM sampler and install a Met-One BAM-1020 FEM PM₁₀ continuous sampler as a SLAMS, per EPA approval letter for the 2014 Annual Ambient Air Monitoring Network Plan technical comments, dated April 14, 2015. NMED will provide date of discontinuation of present sampler and installation date of the BAM-1020 sampler, as well as to when data is submitted into AQS.

Air Quality Control Region 7 (EPA Region 012)

The Bureau operates two air monitoring sites in AQCR-7, located in Luna County and Grant County consisting of the Deming Airport and Hurley site. The Deming (Post Office) site was decommissioned in October 2014.

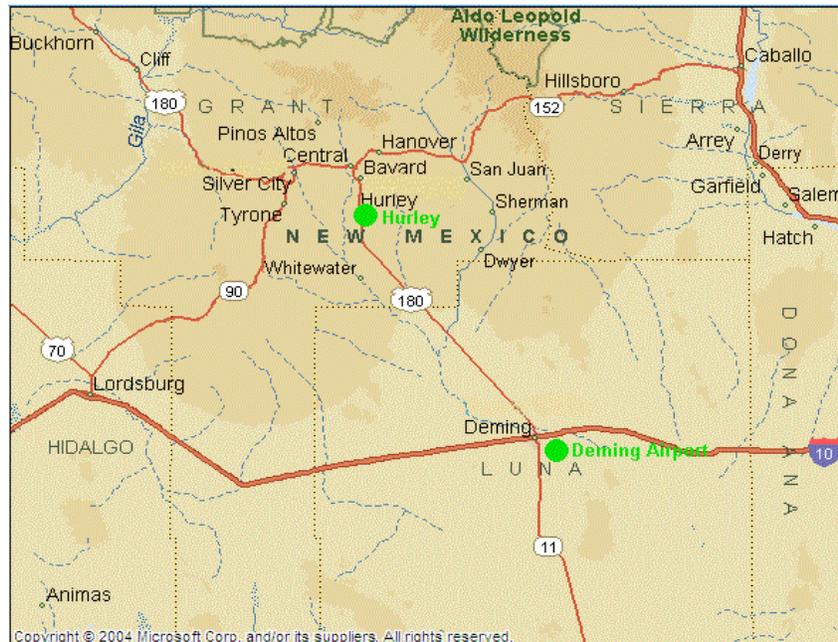


Figure 11

Deming (Post Office) AQS #: 35-029-0001:

Deming (Post Office) FRM PM₁₀ Primary-Parameter 81102/85101, Method 062, POC 1

Deming (Post Office) FRM PM₁₀ Collocation-Parameters 81102, Method 062, POC 2

Due to historically low PM₁₀ concentrations, the Bureau discontinued both samplers on October 7, 2014 following audit by QA staff, and the site decommissioned. The monitors were approved for discontinuation per EPA letter, dated February 19, 2014 referring to NMED's 2013 Annual Ambient Air Monitoring Network Plan technical comments.

Deming Airport AQS #: 35-029-0003:

Deming Airport O₃ Parameter 44201, Method 047, POC 1

Due to historically low concentrations of Ozone data, the monitor was discontinued following an audit by NMED-AQB QA staff on November 20, 2014. The monitor was approved for discontinuation per EPA letter, dated February 19, 2014 referring to NMED's 2013 Annual Ambient Air Monitoring Network Plan technical comments.

Deming Airport NO₂

Parameter 42602, Method 074, POC 1

Due to historically low concentrations of NO₂ data, the monitor was discontinued following an audit by NMED-AQB QA staff on May 1, 2015. The monitor was approved for discontinuation per EPA letter, dated April 14, 2015 referring to NMED's 2014 Annual Ambient Air Monitoring Network Plan technical comments.

Deming Airport SO₂

None

Deming Airport PM_{2.5} FRM

None

Deming Airport PM_{2.5} Continuous

None

Deming Airport PM₁₀ FRM

None

Deming Airport PM₁₀ Continuous Parameter 81102, Method 079, POC 1

The Bureau will replace the TEOM PM₁₀ continuous FEM sampler and install a Met-One BAM-1020 FEM PM₁₀ continuous sampler as a SLAMS, The monitor was approved for replacement per EPA letter, dated April 14, 2015 referring to NMED's 2013 Annual Ambient Air Monitoring Network Plan technical comments

Hurley Smelter AQS #: 35-017-1003:**Hurley Smelter O₃**

Parameter 44201, Method 047, POC 1

Due to historically low concentrations of ozone data, the monitor was discontinued following an audit by NMED-AQB QA staff on November 19, 2014. The monitor was approved for discontinuation per EPA letter, dated February 19, 2014 referring to NMED's 2013 Annual Ambient Air Monitoring Network Plan technical comments.

Hurley Smelter NO₂

None

Hurley Smelter SO₂

Parameter 42401, Method 060, POC 3

Due to historically low concentrations of SO₂ data and per NMED's maintenance plan identified by Docket ID No: EPA-R06-OAR-2013-0764 monitoring had been approved for discontinuation to take effect on September 16, 2014. The monitor was audited by NMED-AQB QA staff on March 24, 2015 prior to discontinuation and monitoring site decommissioned on May 1, 2015.

Hurley PM_{2.5} FRM

None

Hurley PM_{2.5} Continuous

None

Hurley Smelter PM₁₀ FRM Parameter 81102/85101, Method 062, POC 1

Due to historically low PM₁₀ concentrations, the Bureau discontinued sampling on October 23, 2014 following audit by QA staff conducted on October 7, 2014. The sampler was approved for discontinuation per EPA letter, dated February 19, 2014 referring to NMED's 2013 Annual Ambient Air Monitoring Network Plan technical comments.

3.0 Other Projects

There are two other projects continuing in New Mexico and are supported by NMED/AQB staff.

1. Northern air monitoring staff is continuing a second NADP-sponsored project to collect passive ammonia monitoring data in San Juan County, New Mexico. This project will hopefully continue for the next year. 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. NMED has submitted a development plan for Ozone nonattainment in the southern border region of New Mexico from the FY14 Border Grant.

4.0 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.

5.0 Addressing New Monitoring Requirements in Monitoring Network

5.1 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.

5.2 Nitrogen Dioxide

Two federal criteria have been set up for NO₂ monitoring:

- Near-road NO₂ monitoring; 1 micro-scale site would be required in Core Based Statistical Areas (CBSA) \geq 500,000 at a location of expected highest hourly NO₂ 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 NO₂ concentrations representing neighborhood or larger (urban) spatial scale.

Based on these criteria, no new NO₂ monitors are required in regions under NMED/AQB jurisdiction.

5.3 Sulfur Dioxide

Two federal criteria have been set up for SO₂ monitoring:

- Based on population per CBSA and amount of SO₂ emissions within that CBSA, that is, the Population Weighed Emissions Index (PWEI) and
- Based on individual state contribution to national SO₂ inventory in the 2005 National Emissions Inventory (NEI).

Based on the PWEI criteria, NMED/AQB would not need to deploy any new monitors. NMED/AQB will consider adding an additional SO₂ monitor at the Hobbs site once the Data Requirements Rule for the 1-Hour SO₂ Primary NAAQS has been finalized and a re-evaluation of the SO₂ network is done to determine if monitoring is necessary.

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.

5.4 Ozone

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

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

6.0 Other Issues

The Bureau filled one vacant supervisor position in the Monitoring Section at the end of 2014. However, both of the Monitoring Section's Environmental Scientist & Specialist Supervisors (ESS-S) resigned. The Southern Network Supervisor resigned in April 2015 and the Northern Network Supervisor resigned in May 2015.

A draft of this document will be made available to the public in June of 2015, at <http://www.nmenv.state.nm.us/aqb/>. Any comments pertaining to this document should be sent to the following contact:

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