

NMED

New
Mexico
Environment
Department



Air Quality Bureau

5-Year Network

Assessment

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**2015 5-Year Network Assessment
Air Quality Bureau
New Mexico Environment Department
October 6, 2015**

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1.0 Purpose of 5-Year Assessment

The 5-Year Assessment determines if the network meets the monitoring objectives defined in 40 CFR Appendix D. It principally focuses on necessary adjustments because of changes in population, behaviors and air quality. Incorporated are: existing sites to be terminated, proposed new sites and technologies to the ambient air monitoring network and their effects on other data users such as nearby states.

“The network assessment should include (1) re-evaluation of the objectives and budget for air monitoring, (2) evaluation of a network’s effectiveness and efficiency relative to its objectives and costs, and (3) development of recommendations for network reconfigurations and improvements.”¹

2.0 Overview of NMED Air Quality Bureau Air Monitoring Network

The mission of the New Mexico Environment Department Air Quality Bureau (NMED/AQB) is to protect the inhabitants and natural beauty of New Mexico by preventing the deterioration of air quality. Strategic planning ensures that air quality standards are maintained with the issuing of Air Quality Construction and Operating Permits and the enforcement of air quality regulations.

NMED/ABQ is a SLAMS network which supports the NAAQS. AQB has authority over air quality in all New Mexico counties except Bernalillo and the facilities on Tribal Lands.

3.0 Network Assessment by MSA’s, MSA’s and CBSA’s

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

The number of monitoring locations operated by the State decreased from 26 to 21. Criteria pollutants NMED monitors are: ozone, NO₂, SO₂, particulate matter PM₁₀ and PM_{2.5}.

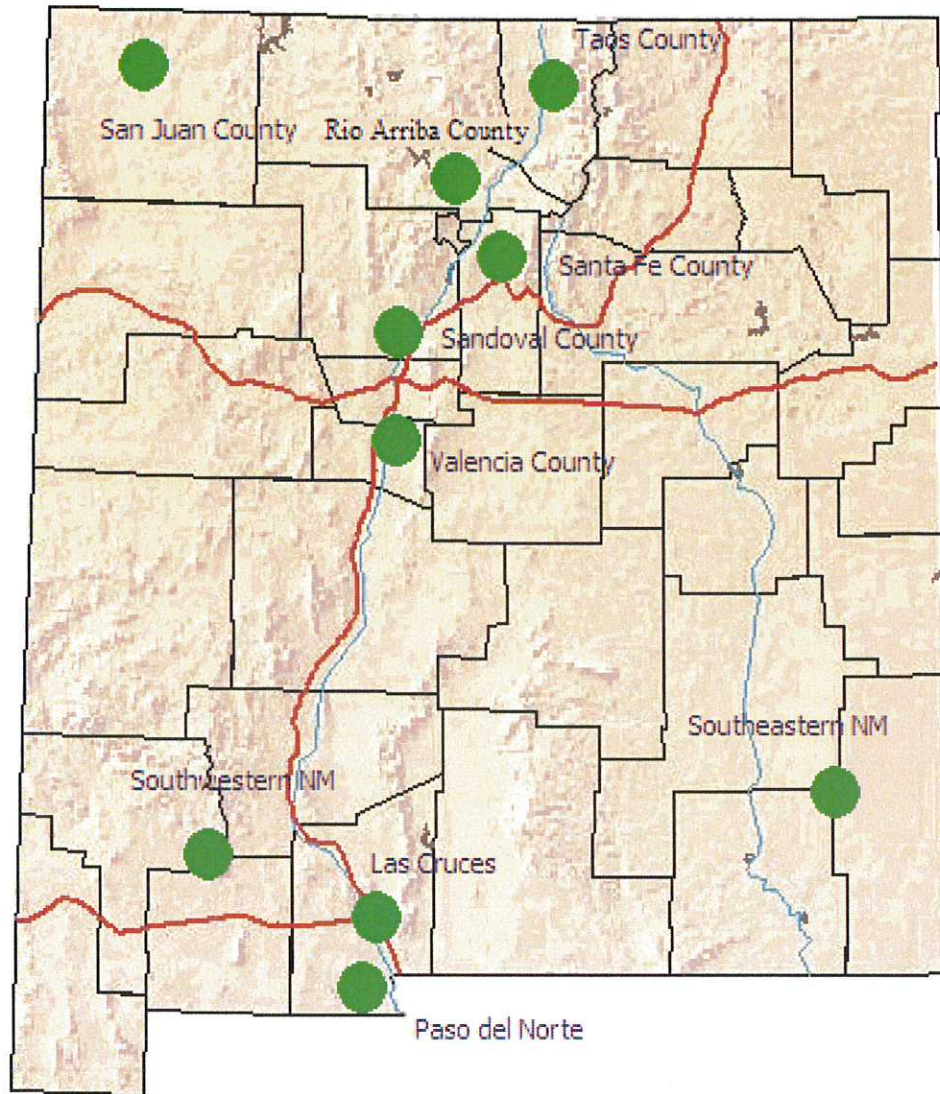


Figure 1

Farmington Metropolitan Statistical Area:

Population US Census Bureau 2013 Estimate:

San Juan County: 123,785 (Decrease of 4.8% since 2010 Census)

Farmington: 45,426

Aztec: 6,578

Bloomfield: 7,801

Kirtland: 7,875 (2010 Data)

Navajo Dam: 281

The four air monitoring sites located in San Juan County are the Substation, the Farmington Office and the Bloomfield and Navajo Lake sites. Figure 2 below indicates the locations.

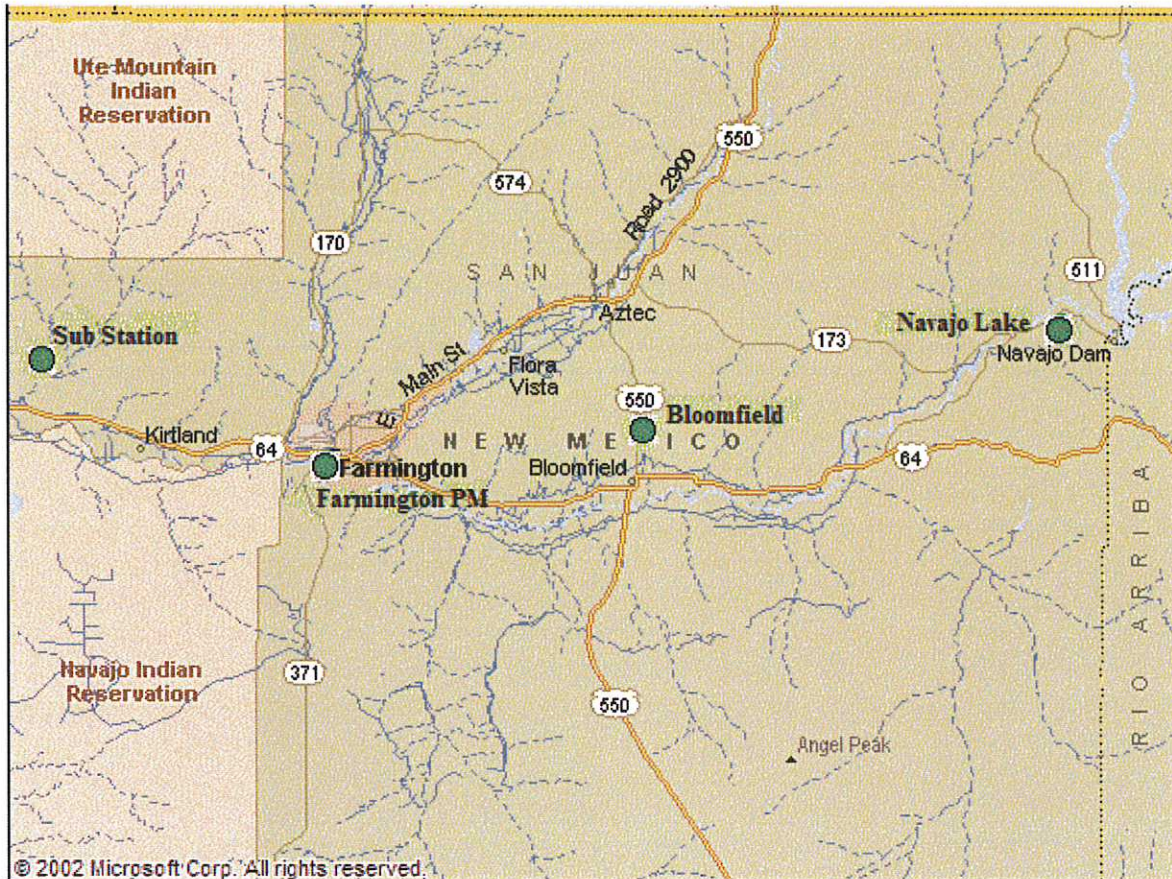


Figure 2

Gaseous Monitors

Ozone:

The Bureau will continue to operate and maintain the current three ozone monitors located throughout the Farmington MSA. Adding or discontinuing any ozone monitors over the next five years is not anticipated. San Juan County Ozone Design Values for 2011-2013 is 0.071ppm, below the current NAAQS of 0.075 ppm and unchanged from the last 5-Year Network Assessment. On December 31, 2013, Arizona Power Service-Four Corners Generating Station shut down 3 out of the 5 coal burning units. Over the next five years, Power New Mexico-San Juan Generating Station will shut down 2 of the 4 coal burning units. It is anticipated that Ozone levels should remain unchanged or decrease.

NO₂:

The Bureau will continue to operate and maintain the current three NO₂ monitors located throughout the Farmington MSA. Adding or discontinuing any NO₂ monitors over the next five years is not anticipated. San Juan County NO₂ Design Values for 2013 is 12 ppb, below the current NAAQS of 53ppb (annual). The recent shut down of coal burning units at the Four Corners Generating Station

and the future shutdown of two coal burning units at the San Juan Generating Station should remain unchanged or decreased NO, NOx and NO₂ levels.

SO₂:

The Bureau continues to operate and maintain the current two SO₂ monitors located throughout the Farmington MSA. Adding or discontinuing any SO₂ monitors over the next five years is not anticipated. San Juan County SO₂ Design Values for 2013 is 0.0 ppb, well below the current NAAQS of 30 ppb (annual). SO₂ levels should remain unchanged with recent shut down of coal burning units at the Four Corners Generating Station and future shutdown of two coal burning units at the San Juan Generating Station.

Particulate Monitors

PM₁₀:

The Bureau will install a Met-One BAM-1020 FEM PM₁₀ sampler at the Bloomfield air monitoring station as an SPM to obtain a representative sampling of PM₁₀ for San Juan County per approval of EPA letter dated April 14, 2015. 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. No additional PM₁₀ samplers are anticipated to be added to the Farmington MSA.

PM_{2.5}:

Based on 40 CFR Part 58 App. A 3.2.5.1 (b) this is NMED-AQB's first co-located monitor designated as FRM at the Farmington Office site. The 2011-13 Design Value for the sampler site is 4.7 μg/m³, below the current NAAQS of 12 μg/m³ (annual). The 24-Hour Design Value is 13 μg/m³, well below the current 24-Hour Design Value of 150 μg/m³. Per 40 CFR Part 58 App. D, only one sampler is required provided it meets ≥85% of the NAAQS (≥10.2 μg/m³ annual mean averaged over 3 years). Based on EPA Design Values the Farmington site is well below the required minimum concentration and would not require sampling for PM_{2.5}. In addition, the San Juan Power Generating Station will be permanently shutting down two of the four coal burning boiler units in 2017. However, AQB is requesting to re-locate the FRM PM_{2.5} samplers to the Desert View site in Sunland Park, NM because daily concentrations within ± 20% of the NAAQS are being observed at the Desert View site.

Also, in the last two years there has been substantial commercial and residential growth in the Sunland Park/Santa Teresa area on the Mexican side along the US/Mexican border. This is in conjunction with the commercial and residential growth that is occurring in Santa Teresa, New Mexico. We have determined that the Desert View site would be more suitable for colocation.

Santa Fe Metropolitan Statistical Area & Santa Fe/Espanola CSA

Population US Census Bureau 2014 Estimate:

Santa Fe County: 148,164 (Increase of 2.77% since 2010 Census)

City of Santa Fe: 70,297

Town of Espanola: 10,130

The Bureau operates one air monitoring site in the Santa Fe MSA. This is the Santa Fe Airport site which has an ozone monitor and PM_{2.5} particulate sampler. Figure 3 indicates the location of the Santa Fe site. Currently, the bureau does not have any monitoring sites in the town.



Figure 3

Gaseous Monitors

Ozone:

The Bureau will continue to operate and maintain the current ozone monitor located throughout the Santa Fe MSA. Adding or discontinuing any ozone monitors over the next five years is not anticipated. Santa Fe County Ozone Design Values for 2011-2013 are 0.066 ppm which is below the current NAAQS of 0.075 ppm but an increase by 0.003 ppm from the last 5-Year Network Assessment.

NO₂:

The Bureau does not operate any NO₂ monitors in the Santa Fe MSA. Addition of any NO₂ monitors over the next five years is not anticipated as there are no major NO₂ emission sources located in the Santa Fe MSA.

SO₂:

The Bureau does not operate any SO₂ monitors in the Santa Fe MSA. Addition of any SO₂ monitors over the next five years is not anticipated as there are no major SO₂ emission sources located in the Santa Fe MSA as well.

Particulate Monitors

PM₁₀:

The Bureau no longer operates any PM₁₀ sampler sites in the Santa Fe MSA. No additional PM₁₀ samplers are anticipated to be added to the Santa Fe MSA over the next five years. Per 40 CFR Part 58 App. D Table D-4 based on population of 100,000 to 250,000 and Low Concentration, which the Santa Fe MSA falls under Low Concentration. Therefore, no particulate monitoring station is required since data indicates that concentrations are below 80% (120µg/m³) of the NAAQS. From 2001 through 2013, the maximum PM₁₀ concentration recorded was 83.1µg/m³ which is 55.4% of the NAAQS.

PM_{2.5}:

The Air Quality Bureau operates one continuous PM_{2.5} sampler in the Santa Fe MSA per 40 CFR Part 58 App. D, 4.7.1. Table D-5 states that based on population of 50,000 to <500,000 and 3-Year Design Value of ≥85% of the NAAQS, one sampler is required. However, since this sampler is not FRM or FEM there is no design value data available. The Bureau is requesting to continue with the PM_{2.5} sampling due to wildfires which also contributes to ozone increase, regional haze, population and tourism. The surrounding area of the monitoring site is also experiencing increased residential and commercial growth. The Bureau requests to install a Met-One BAM-1020 PM_{2.5} FEM designated continuous sampler. The current sampler is not FRM or FEM and due to age has experienced loss of the operating program during power outages. The manufacturer of the current TEOM PM_{2.5} sampler has indicated that the Bureau's equipment is obsolete and that some parts are no longer available.

Taos Core Based Statistical Area

Taos County: 33,084 (Increase of 0.45% since 2010 Census)

Town of Taos: 5,766

Rio Arriba Core Based Statistical Area

Rio Arriba County: 39,777 (Decrease of 1.165% since 2010 Census)

The Bureau operates one air monitoring site in the Taos CBSA, located in Taos County. It is known as the Taos Volunteer Fire Department site and has a PM_{2.5} continuous particulate sampler. In the Rio Arriba CBSA, located in Rio Arriba County, the Bureau operates one air monitoring site which is the Coyote Ranger District ozone monitor site. Figure 4 indicates the both locations.

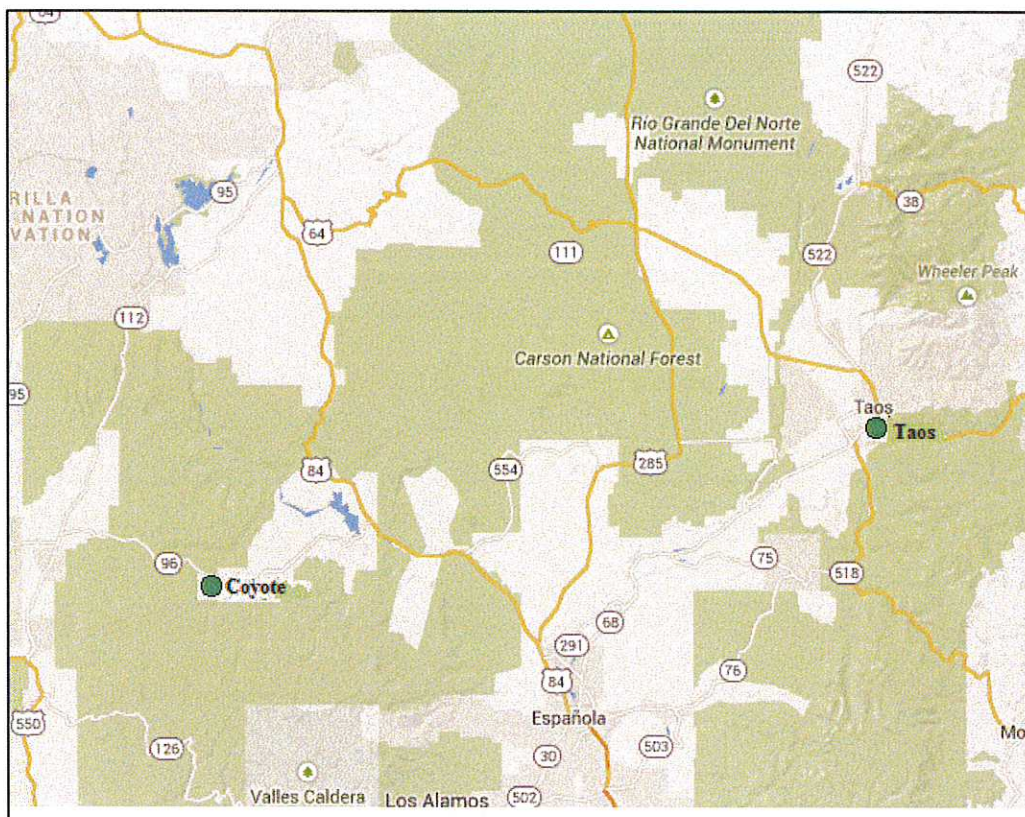


Figure 4

Gaseous Monitors

Ozone:

The Bureau will continue to operate and maintain the current ozone monitor located in the Rio Arriba CBSA. Adding or discontinuing any ozone monitors over the next five years is not anticipated. No Ozone Design Values for 2011-2013 are available for this site as it was installed in 2013 and a 3-Year design value will not be available until 2016.

NO₂:

The Bureau does not operate any NO₂ monitors in the Taos or Rio Arriba CBSAs. Addition of any NO₂ monitors over the next five years is not anticipated because there are no major NO₂ emission sources located in either Taos or Rio Arriba CBSAs.

SO₂:

The Bureau does not operate any SO₂ monitors in the Taos or Rio Arriba CBSAs. Addition of any SO₂ monitors over the next five years is not anticipated as there are no major SO₂ emission sources located in either Taos or Rio Arriba CBSAs.

Particulate Monitors

PM₁₀:

The Bureau no longer operates any PM₁₀ sampler sites in either the Taos or Rio Arriba CBSAs. No additional PM₁₀ samplers are anticipated to be added over the next five years. Per 40 CFR Part 58 App. D Table D-4 both CBSAs do not meet the minimum population criteria for PM₁₀ monitoring.

PM_{2.5}:

The Air Quality Bureau operates one continuous PM_{2.5} sampler in the Taos CBSA per 40 CFR Part 58 App. D, 4.7.1. Table D-5 states that based on population of 50,000 to <500,000 and a 3-Year Design Value of $\geq 85\%$ of the NAAQS, one sampler is required. Since Taos County is below the minimum population criteria for PM_{2.5} sampling requirements and TEOM PM_{2.5} samplers are not FRM or FEM designated, there is no design value data available. However, the Bureau is requesting to continue with the PM_{2.5} sampling due to wildfires which also contributes to increased ozone increase, regional haze, population and tourism. In addition, the Bureau requests to install a Met-One BAM-1020 PM_{2.5} FEM designated continuous sampler because the current sampler is not FRM or FEM designated and due to age has experienced loss of the operating program during power outages. The manufacturer of the current TEOM PM_{2.5} sampler has indicated that the Bureau's equipment is obsolete and some parts are no longer available.

Albuquerque Metropolitan Statistical Area

Population US Census Bureau 2014 Estimate:

Bernalillo County: 675,551 (Increase of 2.0% since 2010 Census)

City of Albuquerque: 556,495

Sandoval County: 137,608 (Increase of 4.6% since 2010 Census)

Town of Bernalillo: 8,338

Valencia County: 75,817 (Decrease of 1.0% since 2010 Census)

Village of Los Lunas: 15,308

Torrance County: 15,611 (Decrease of 4.7% since 2010 Census)

The Bureau operates two air monitoring sites in the Albuquerque MSA located in Sandoval County. The New Mexico DOT Maintenance Yard site in the Town of Bernalillo and the Los Lunas Site in Valencia County each have an ozone monitor. Figure 5 indicates the location of the NM DOT Yard site and Figure 6 indicates the location of the Los Lunas site.

NMED/AQB does not operate any monitoring sites in Bernalillo County as that falls under the City of Albuquerque Air Quality Division. The Bureau does not operate any monitoring sites in Torrance County.

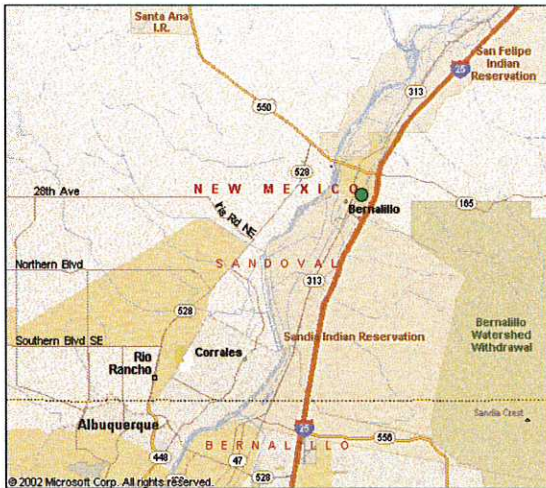


Figure 5

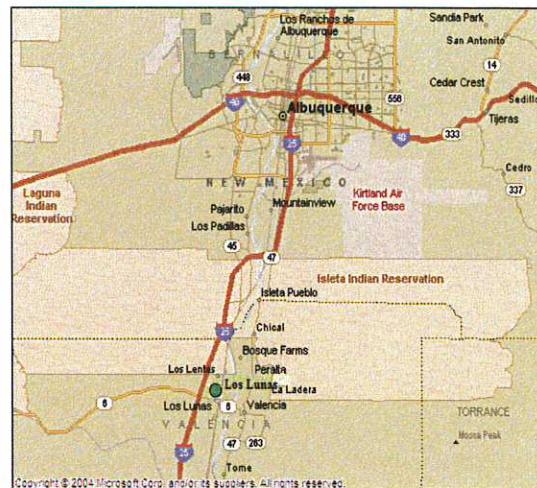


Figure 6

Gaseous Monitors

Ozone:

The Bureau continues to operate and maintain the two current ozone monitor sites throughout the Albuquerque MSA counties of Sandoval and Valencia. There are no ozone monitoring sites in Torrance County. Adding or discontinuing any ozone monitors over the next five years is not anticipated. Sandoval County Ozone Design Values for 2011-2013 ozone is 0.063ppm, below the current NAAQS of 0.075 ppm. Valencia County Ozone Design Values for 2011-2013 ozone is 0.070ppm, below the current NAAQS of 0.075ppm and a slight increase for both sites from the last 5-Year Network Assessment. The EPA has stated that the Highway Department ozone monitor site (2ZJ in the Town of Bernalillo) in Sandoval County is not necessary since the City of Albuquerque has five SLAMS Ozone monitoring sites operating within Bernalillo County. However, the Bureau is requesting to continue with the Highway Department ozone monitor site in order to establish Attainment/Non-Attainment borders between Bernalillo and Sandoval Counties. If the Highway Department ozone site were to be discontinued, NMED would rely on the ozone values of Bernalillo County. Sandoval County would then run the risk of going into non-attainment if the new ozone standard is implemented. This could cause economic hardship for the rural communities of Sandoval County.

NO₂:

The Bureau does not operate any NO₂ monitors in the Albuquerque MSA counties of Sandoval, Torrance or Valencia. Addition of any NO₂ monitors over the next five years is not anticipated as there are no major NO₂ emission sources located in Sandoval, Torrance or Valencia counties. The City of Albuquerque Air Quality Division does operate NO₂ monitors in Bernalillo County.

SO₂:

The Bureau does not operate any SO₂ monitors in the Albuquerque MSA counties of Sandoval, Torrance or Valencia. Addition of any SO₂ monitors over the next five years is not anticipated as there are no major SO₂ emission sources located in Sandoval, Torrance or Valencia Counties. The City of Albuquerque Air Quality Division does operate SO₂ monitors in Bernalillo County.

Particulate Monitors

PM₁₀:

The Bureau no longer operates any PM₁₀ sampler sites in the Albuquerque MSA counties of Sandoval, Torrance or Valencia. No additional PM₁₀ samplers are anticipated to be added over the next five years due to historically low concentrations of PM₁₀. Over the last 13 years the highest concentration was 62.7µg/m³ which is 41.8% of the NAAQS, well below the ≥80% of any PM₁₀ concentration requiring monitoring.

PM_{2.5}:

The Air Quality Bureau does not operate any PM_{2.5} sampler sites in the Albuquerque MSA counties of Sandoval, Torrance or Valencia. The City of Albuquerque Air Quality Division does operate PM_{2.5} samplers in Bernalillo County. Per 40 CFR Part 58 App. D, 4.7.1, Table D-5 states that based on population of 50,000 to <500,000 and 3-Year Design Value of ≥85% of the NAAQS, one sampler is required. Although the PM_{2.5} design values for Albuquerque MSA are below the NAAQS, NMED-AQB requests to install a Met-One BAM-1020 PM_{2.5} FEM designated continuous sampler in Sandoval County due to recent citizen concerns in the Placitas housing community (part of the Town of Bernalillo) where there have been numerous complaints of the adjacent Vulcan Crushing facility. In addition that area of Sandoval County is experiencing continued residential and commercial growth, as well as increased vehicular traffic along the I-25 and NM 550 Highways. The addition of the sampler would also assist the Bureau in characterizing growth patterns in Sandoval County.

Clovis/Portales Combined Statistical Area

Population US Census Bureau 2014 Estimate:

Curry County: 50,969 (Increase of 5.4% since 2010 Census)

City of Clovis: 39,508

Roosevelt County: 19,536 (Decrease of 1.6% since 2010 Census)

City of Portales: 12,497

NMED-AQB does not operate any monitoring sites in the Clovis/Portales CSA.

Carlsbad-Artesia and Hobbs Core Based Statistical Areas

Population US Census Bureau 2014 Estimate:

Eddy County: 56,395 (Increase of 4.8% since 2010 Census)

City of Artesia: 11,484

City of Carlsbad: 27,653

Lea County: 69,999 (Increase of 8.1% since 2010 Census)

City of Hobbs: 36,041

The Bureau operates two air monitoring sites in the Carlsbad-Artesia and Hobbs CBSA's. The first in Eddy County is the Carlsbad, where the Bureau operates an ozone and NO₂ monitor. The second in Lea County is the Jefferson-Hobbs site where the Bureau operates ozone and NO₂ monitors and a Partisol PM_{2.5} FRM particulate sampler. Figure 7 indicates the locations of both.

NMED-AQB is currently negotiating with the City of Hobbs water treatment facility on relocating the Hobbs monitoring site situated within the water treatment facility property. NMED-AQB has 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. NMED-AQB will submit a separate document as to relocating the site.

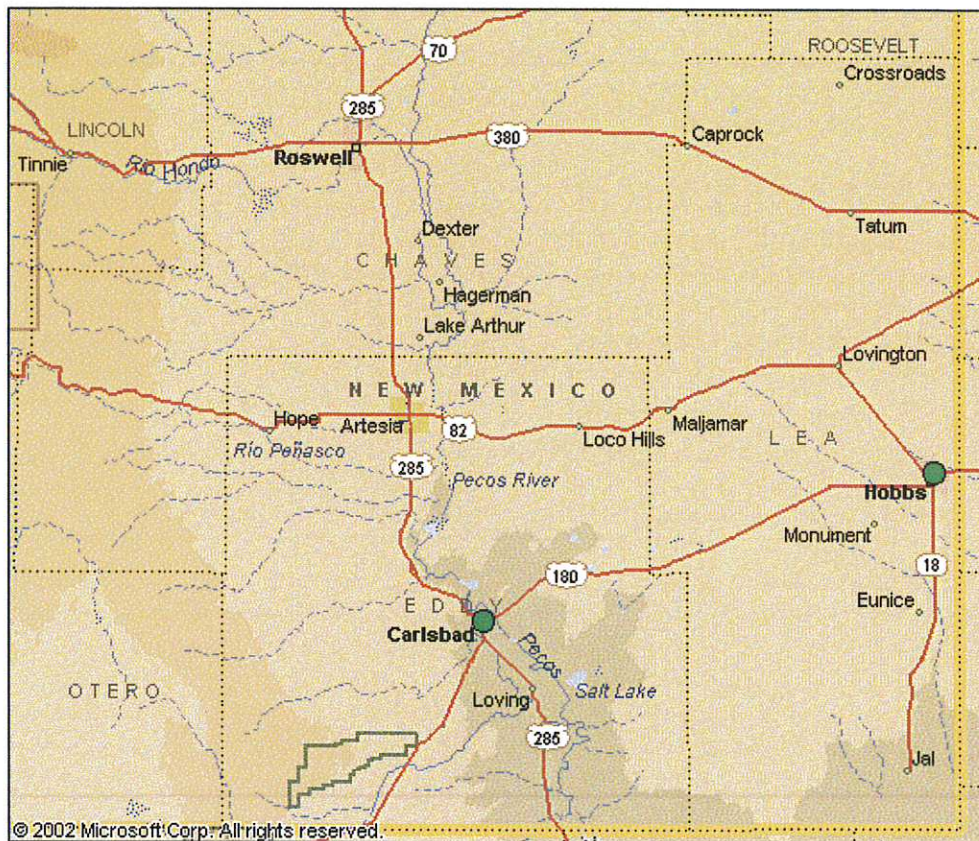


Figure 7

Gaseous Monitors

Ozone:

The Bureau will continue to operate and maintain the current two ozone monitors in the Carlsbad-Artesia and Hobbs CBSAs. Adding or discontinuing any ozone monitors over the next five years is not anticipated. The Eddy County Ozone Design Values for 2011-2013 is 0.071 ppm, below the current NAAQS of 0.075 ppm, but an increase of 0.002 ppm from the last 5-Year Network Assessment. The Lea County Ozone Design Values for 2011-2013 is 0.066 ppm, below the current NAAQS of 0.075 ppm and a decrease of 0.002 ppm from the last 5-Year Network Assessment.

NO₂:

The Bureau will continue to operate and maintain the current two NO₂ monitors in the Carlsbad-Artesia and Hobbs CBSAs. Adding or discontinuing any NO₂ monitors over the next five years is not anticipated. The Eddy County NO₂ Design Values for 2011-2013 is 2.3 ppb, below the current NAAQS of 53ppb (annual) and a decrease of 0.8 ppb from the last 5-Year Network Assessment. The Lea County NO₂ Design Values for 2011-2013 is 5.3 ppb, below the current NAAQS of 53ppb (annual) and a decrease of 1.2 ppb from the last 5-Year Network Assessment.

SO₂:

The Bureau does not currently operate any SO₂ monitors in the Carlsbad-Artesia and Hobbs CBSA's. However, due to recently established SO₂ Data Requirements Rule NMED/AQB with EPA Region-6 will re-evaluate the SO₂ network in determining if additional monitors and/or a monitoring site will be necessary

Particulate Monitors**PM₁₀:**

The Bureau no longer operates any PM₁₀ sampler sites in either the Carlsbad-Artesia or Hobbs CBSAs. No additional PM₁₀ samplers are anticipated to be added in the Carlsbad-Artesia CBSA over the next five years. Per 40 CFR Part 58 App. D Table D-4 both CBSA's do not meet the minimum population criteria for PM₁₀ monitoring. However, the Bureau requests to install a Met-One BAM-1020 FEM PM₁₀ continuous sampler at the Hobbs air monitoring station. It would be the SLAMS monitor for the representative sampling of PM₁₀ for Lea County. The Bureau feels that the previous non-continuous PM₁₀ sampler which ran on a 1 in every 6 day schedule may have missed days in which the daily concentrations could have been exceeding the NAAQS. Over the nine year period from 2005 to 2013 which the Bureau operated the PM₁₀ sampler, the highest concentration was 131.0µg/m³ which is 87.3% of the NAAQS. The area is experiencing growth in population and in the oil and gas industries and the Bureau needs to continue with PM₁₀ sampling.

PM_{2.5}:

The Bureau operates one FRM PM_{2.5} non-continuous sampler in Lea County (Hobbs CBSA) at the Hobbs monitoring site. The 2011-2-13 Design Value for the sampler site is 8.4µg/m³, below the current NAAQS of 12 µg/m³ (annual). The 24-Hour Design Value is 22µg/m³, well below the current 24-Hour Design Value of 35 µg/m³. The Bureau is requesting to discontinue with the FRM PM_{2.5} non-continuous sampler and install a Met-One BAM-1020 FEM PM_{2.5} continuous sampler at the Hobbs air monitoring station. It would be a SLAMS monitor to obtain representative sampling of PM_{2.5} for Lea County.

The previous non-continuous PM_{2.5} sampler which ran on a 1 in every 3 day schedule may have missed days in which the daily concentrations could have been exceeding the NAAQS. In addition, a continuous sampler would eliminate the need for lab requirement in filter processing and saved time for the field technician. Per 40 CFR Part 58 App. D the sampler meets the requirement for population and the most recent design value is below ≥85% of the NAAQS (≥10.2 µg/m³ annual mean averaged over 3 years). However, since the area is experiencing growth in population and the oil and gas industries the Bureau needs to continue with PM_{2.5} sampling.

Las Cruces Metropolitan Statistical Area

Population US Census Bureau 2014 Estimate:

Dona Ana County: 213,676 (Increase of 2.1% since 2010 Census)

City of Las Cruces: 101,324

City of Anthony: 9,378

City of Chaparral: 14,631

City of Sunland Park: 15,069

The Bureau operates nine air monitoring sites throughout the Las Cruces MSA, consisting of the Anthony, Chaparral, Desert View, Holman Road, La Union, Las Cruces, Santa Teresa, Solano, and West Mesa sites. NMED-AQB monitors for ozone, NO₂, and particulate matter both PM₁₀ and PM_{2.5}. Figure 8 indicates the locations of the Holman Road, Las Cruces, Solano, and West Mesa sites and Figure 9 indicates the locations of the Chaparral, Anthony, La Union, Desert View and Santa Teresa sites.

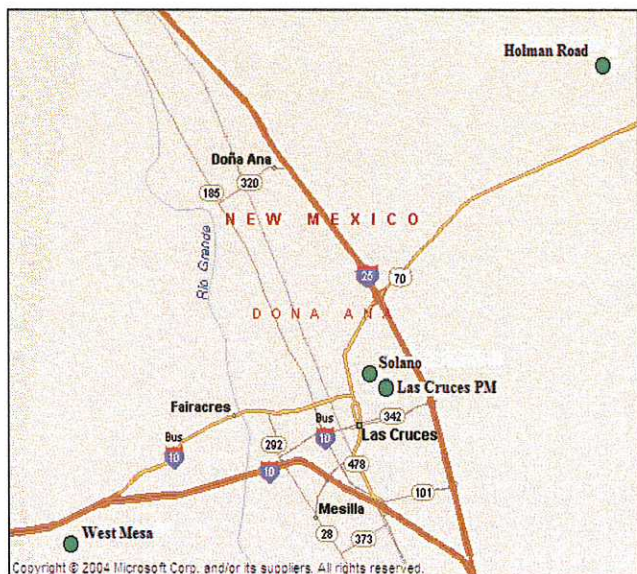


Figure 8



Figure 9

Gaseous Monitors

Ozone:

The Bureau will continue to operate and maintain the five current ozone monitors located in the Las Cruces MSA at the Chaparral, La Union, Desert View, Santa Teresa, and Solano sites. Adding or discontinuing any ozone monitors over the next five years is not anticipated. The Dona Ana County Ozone Design Values for 2011-2013 is 0.075 ppm which is at the current NAAQS limit of 0.075 ppm, and a decrease of 0.001ppm from the last 5-Year Network Assessment. The Bureau foresees that with the new proposed Ozone Standard the Las Cruces MSA will be a non-attainment area. All of the current ozone monitors will be necessary especially in determining partial attainment/non-attainment ozone boundaries within Dona Ana County. The Bureau discontinued the ozone monitoring at the

Sunland Park site on May 5, 2015 per EPA approval. NMED's technical analysis of March 28, 2014 had concluded that the site conditions and circumstances could bias the ambient air data.

NO₂:

The Bureau operates two NO₂ monitors in the Las Cruces MSA at the Desert View and Santa Teresa monitoring sites. Adding or discontinuing any NO₂ monitors over the next five years is not anticipated as there are no major NO₂ emission sources located in either Las Cruces or El Paso MSAs.

SO₂:

The Bureau does not operate any SO₂ monitors in the Las Cruces MSA. Addition of any SO₂ monitors over the next five years is not anticipated as there are no major SO₂ emission sources in either the Las Cruces or El Paso MSAs.

Particulate Monitors

PM₁₀:

The Bureau operates six PM₁₀ samplers in the Las Cruces MSA. There are five continuous TEOM PM₁₀ samplers and one non-continuous Wedding PM₁₀ sampler as SLAMS at the Anthony, Chaparral, Desert View, Holman Road, and West Mesa monitoring sites. The 2011-13 Design Value for the sampler site in Dona Ana County indicates the Average Estimated Exceedances at 14.2 and that it does not meet the 2011-2013 NAAQS. The Bureau will continue PM₁₀ sampling at the current monitoring sites and will be replacing the TEOM PM₁₀ samplers in 2015 with Met-One BAM-1020 PM₁₀ continuous samplers as SLAMS at the Anthony, Chaparral, Desert View, Holman Road, and West Mesa monitoring sites per EPA letter, dated April 14, 2015 referring to NMED's 2014 Annual Ambient Air Monitoring Network Plan technical comments.

The Bureau is requesting to replace the Wedding PM₁₀ non-continuous sampler with a Partisol 2025 PM₁₀ FRM sampler at the Anthony site to reduce travel costs. The Partisol sampler can accommodate a month's worth of filters. It can also be connected to our data acquisition system and monitored for any possible alarms prior to a run date preventing sample loss. Installing the Partisol 2025 PM₁₀ FRM sampler will meet the 15% collocation requirement per 40 CFR Part 58, App. A, 3.3.1. Furthermore, the Partisol samplers were designed to operate in the 16.7 lpm flow range or 0.0167 m³/min. This is considered low flow like the TEOM and BAM-1020 samplers. The Wedding sampler operates at 1.13 m³/min range and considered high flow. The request to replace the Wedding with the Partisol is to have sampling equipment comparable to one another in order to obtain representative data. Operating the Partisol along with the continuous PM₁₀ sampler will also meet the requirements for PM₁₀ collocation.

A BAM-1020 PM₁₀ continuous sampler will be added at the Anthony site per approval of the EPA letter dated April 14, 2015 referencing the NMED 2014 Annual Ambient Air Monitoring Network Plan technical comments. The Bureau is requesting to discontinue operating the TEOM PM₁₀. Due to its age, the sampler has experienced a loss of the operating program during power outages. Also, the manufacturer of the TEOM PM₁₀ sampler has indicated that the Bureau's equipment is obsolete and that some parts are no longer available. The Bureau would like to transition to equipment keeping up with current technology and compatible with current computer software in order to achieve maximum data capture.

PM_{2.5}:

The Air Quality Bureau operates three continuous PM_{2.5} samplers and three non-continuous PM_{2.5} samplers in the Las Cruces MSA at the Anthony, Desert View, and Las Cruces Office monitoring sites. The Anthony site has a BAM-1020 operating as a SPM. The Desert View site has one TEOM sampler and a BAM-1020 sampler operating as a SPM and two Partisol samplers also operating as a SPM. The Las Cruces office site has one Partisol FRM sampler operating as a SLAMS.

The 2011-2013 PM_{2.5} Design Value for Dona Ana County is 6.3µg/m³, below the current annual NAAQS of 12 µg/m³. The 24-Hour Design Value is 14µg/m³, well below the current 24-Hour Design Value of 35 µg/m³. However, in the last two years there has been substantial commercial and residential growth in the Sunland Park/Santa Teresa area on both the US and Mexican sides of the border. The 40 CFR Part 58 App. D, 4.7.1, Table D-5 states that based on population of 50,000 to <500,000 and 3-Year Design Value of ≥85% of the NAAQS, one sampler is required. However, the Bureau believes it is necessary to continue with the PM_{2.5} sampling. The Bureau is requesting that the Desert View site be the co-located monitor site designated as FRM.

Deming Core Based Statistical Area

Population US Census Bureau 2014 Estimate:

Luna County: 24,673 (Decrease of 1.7% since 2010 Census)

City of Deming: 14,805

The Bureau operates one air monitoring site located in Luna County consisting of the Deming Airport site. The current TEOM PM₁₀ sampler will be replaced with a Met-One BAM-1020 FEM PM₁₀ sampler as the TEOM PM₁₀ is aging and considered obsolete by the manufacturer. Figure 10 indicates the location of the Deming Airport site

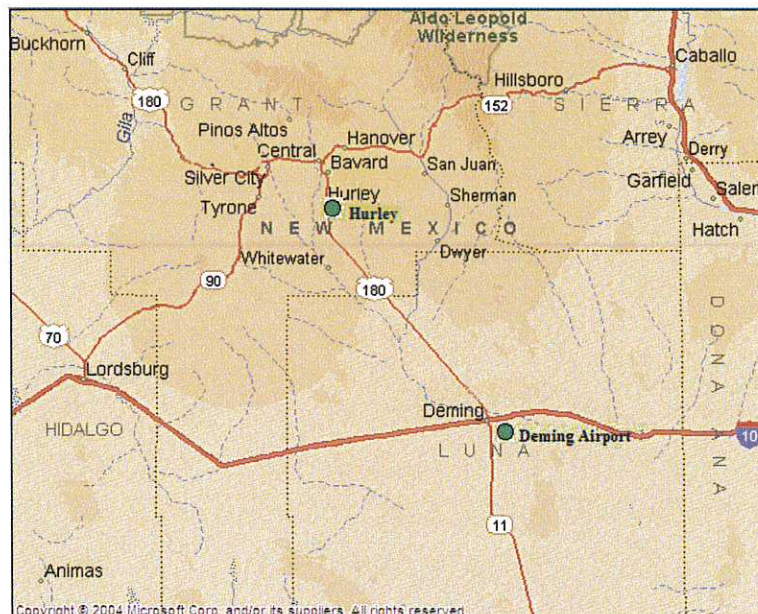


Figure 10

Gaseous Monitors

None:

Particulate Monitors

PM₁₀:

The Bureau operates one TEOM PM₁₀ sampler site in the Deming CBSA. The Bureau will continue PM₁₀ sampling at the current monitoring site and will be replacing the TEOM PM₁₀ sampler in 2015 with Met-One BAM-1020 PM₁₀ continuous samplers as a SLAMS at the Deming Airport monitoring sites per EPA approval letter of April 14, 2015 referenced the NMED 2014 Annual Ambient Air Monitoring Network Plan technical comments.

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