



New Mexico Environment Department

Air Quality Monitoring Reporting
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Overview

- Proposed format changes to air quality report:
 - State and Local Air Monitoring Stations Network (SLAMS)
 - Federal Reference Method/Federal Equivalent Method data comparisons
 - Annual / Tri-annual reporting values
 - Representative of NAAQS
 - Data collaboration opportunity (Shared Documents)
- Goal is to provide comparable representative values between jurisdictions.



PM SLAMS Network

- Federal Reference Method (FRM)
 - Gold Standard
 - Filter based (HiVol/Partisol)
 - Lab turnaround time for results
 - Continuous
 - 1 exceedance = 6 exceedances with a 6-day sampling sch.
- Federal Equivalent Method (FEM)
 - Radiative frequency (BAM/TEOM)
 - Near real-time results
 - Continuous
 - 1 exceedance = 1 exceedance with single-day sampling sch.
- Siting Criteria, Quality Assurance, & Data Management



Paso del Norte SLAMS

▣ El Paso County

▣ FRM: (Validated)

- PM₁₀: Ivanhoe, Van Buren, Socorro Hueco, Mimosa, & Ojo de Agua
- PM_{2.5}: UTEP & Chamizal
- O₃: UTEP, Chamizal, Ascarate Park, Socorro, & Skyline
- NO₂: UTEP, Chamizal, & Ascarate Park
- SO₂: Chamizal

▣ Non-SLAMs Monitors

- PM₁₀: UTEP & Chamizal
- PM_{2.5}: Van Buren, Ascarate Park, & Socorro Hueco
- O₃: Ivanhoe



Paso del Norte SLAMS Network (cont.)

▣ Doña Ana County

▣ FRM: (Validated)

- PM₁₀: Anthony
- PM_{2.5}: Anthony & Santa Teresa
- O₃: Desert View, Santa Teresa, Chaparral, La Union, & Solano
- NO₂: Desert View & Santa Teresa

▣ FEM: (Validated)

- PM₁₀: Anthony, Chaparral, Desert View, Holman, & West Mesa
- PM_{2.5}: Anthony, Desert View, Las Cruces, & Santa Teresa



Annual vs. Mid-Year Reports

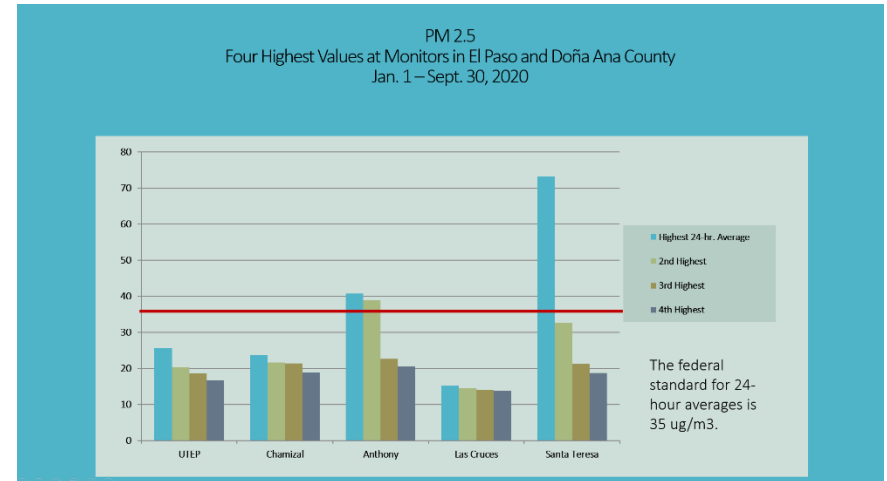
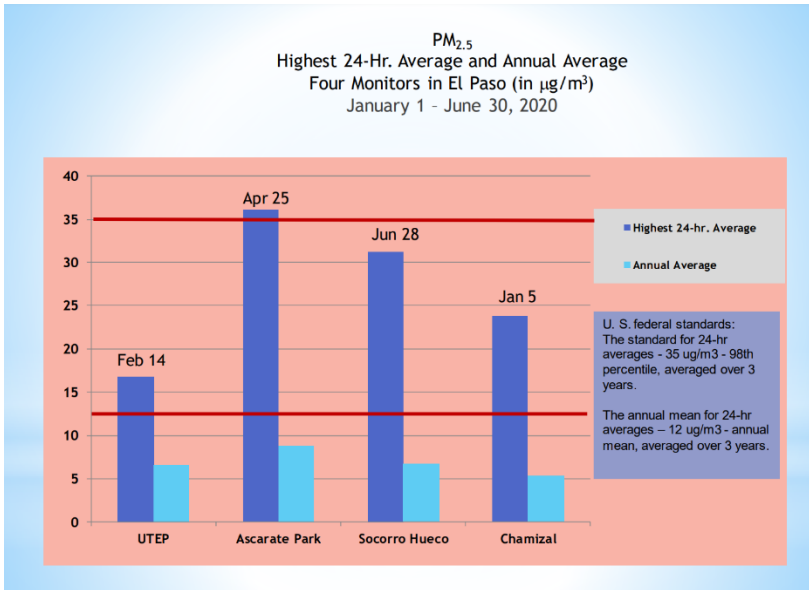
- **Annual Reports (Jan./Feb.)**
 - Preliminary Calculated Design Values (DV's)
 - Compare DV with NAAQS from years worth of data
- **Mid-Year Reports (July & October)**
 - End of May EPA certifies DV's (July)
 - Focus on 4th highest values (October)
 - 98th percentile averages for PM_{2.5} and NO₂
 - 4th highest daily maximum 8-hr average for ozone
 - Provide Exceptional Events Trends for PM
- **PM₁₀ Exceptional Events & Demonstrations**
 - Updated data each report



Proposed PM Graph Reformat

Single Highest 24-Hr. Average

Four Highest 24-Hour Averages





NAAQS Comparisons

□ **PM₁₀**

- 24-Hour Average not to exceed $150 \mu\text{g}/\text{m}^3$ more than once per year, averaged over 3 years.
 - Reference and marker provided on graphs on all reports.

□ **PM_{2.5}**

- Primary – $12 \mu\text{g}/\text{m}^3$ limit annual mean, averaged over 3 years.
- Primary - 24-Hr average $35 \mu\text{g}/\text{m}^3$ limit 98th percentile, averaged over 3 years
 - NAAQS reference on all graph's; marker provided only on annual trends to compare NAAQS with DV's.



Exceptional Events Demonstrations

Exceptional Events

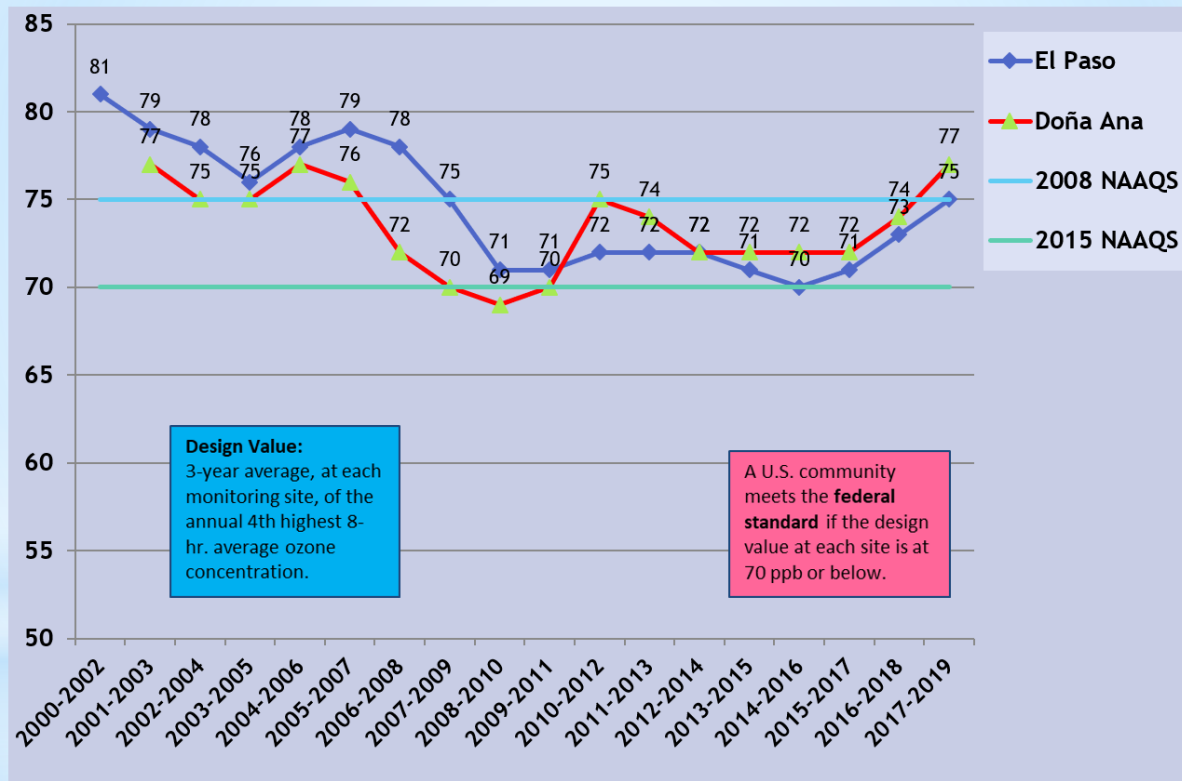
- NMED 2016 & 2017 Demonstrations received EPA concurrence for PM₁₀ 24-Hour averages exceeding the NAAQS of 150 µg/m³

Year	Events	Observed Exceedances	Concentrations (µg/m ³)	EPA Review Process
2019	8	25	156-734	Preliminary Engagement
2018	7	18	158-326	Submitting to EPA for Review
2017	11	27	157-721	Concurrence
2016	11	28	162-689	Concurrence



Design Value Trend Lines

Ozone 8-Hr. Design Values
El Paso and Doña Ana County only
(highest value of all sites in each area, 2002 - 2019)





Design Value Trend Lines (cont.)

24- Hr. PM2.5 Design Value

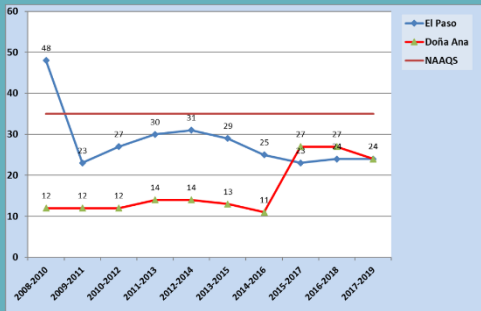
Annual Mean PM2.5 Design Value

PM_{2.5}
Compliance with U.S. Federal Standards
El Paso and Doña Ana Counties

24-Hour Design Value

U.S. Standard

35 µg/m³



PM_{2.5}
Compliance with U.S. Federal Standards
El Paso and Doña Ana Counties

Annual Design Value

U.S. Standard

12 µg/m³





Questions and Contact Information

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