

What PM_{2.5} Nonattainment Might Mean for El Paso

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Joint Advisory Committee

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Overview

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Particulate Matter (PM) Background

Particle pollution includes fine particles (PM_{2.5}), which are 2.5 micrometers (μm) in diameter and smaller, and coarse particles, which have diameters between 2.5 and 10 μm

- Fine particles can be emitted *directly* from a variety of sources, including vehicles, smokestacks, and fires
- They also form when gases emitted by power plants, industrial processes, and gasoline and diesel engines react in the atmosphere (*secondary*)
- Coarse particles (PM₁₀) include road dust kicked up by traffic, some agricultural operations, construction and demolition operations, industrial processes, and biomass burning

PM NAAQS Reconsideration

The Clean Air Act (CAA) requires EPA to review National Ambient Air Quality Standards (NAAQS) every five years to determine whether they should be retained or revised

The CAA directs EPA to set the primary (health-based) NAAQS at a level that protects public health, including the health of sensitive or at-risk groups, with an adequate margin of safety

- The PM NAAQS were last revised in 2012
 - Annual & 24-hr. PM_{2.5} were lowered, 24-hr. PM₁₀ retained
- EPA last reviewed the PM NAAQS in 2020
 - All primary & secondary standards were retained, without revision

PM NAAQS Reconsideration (contd.)

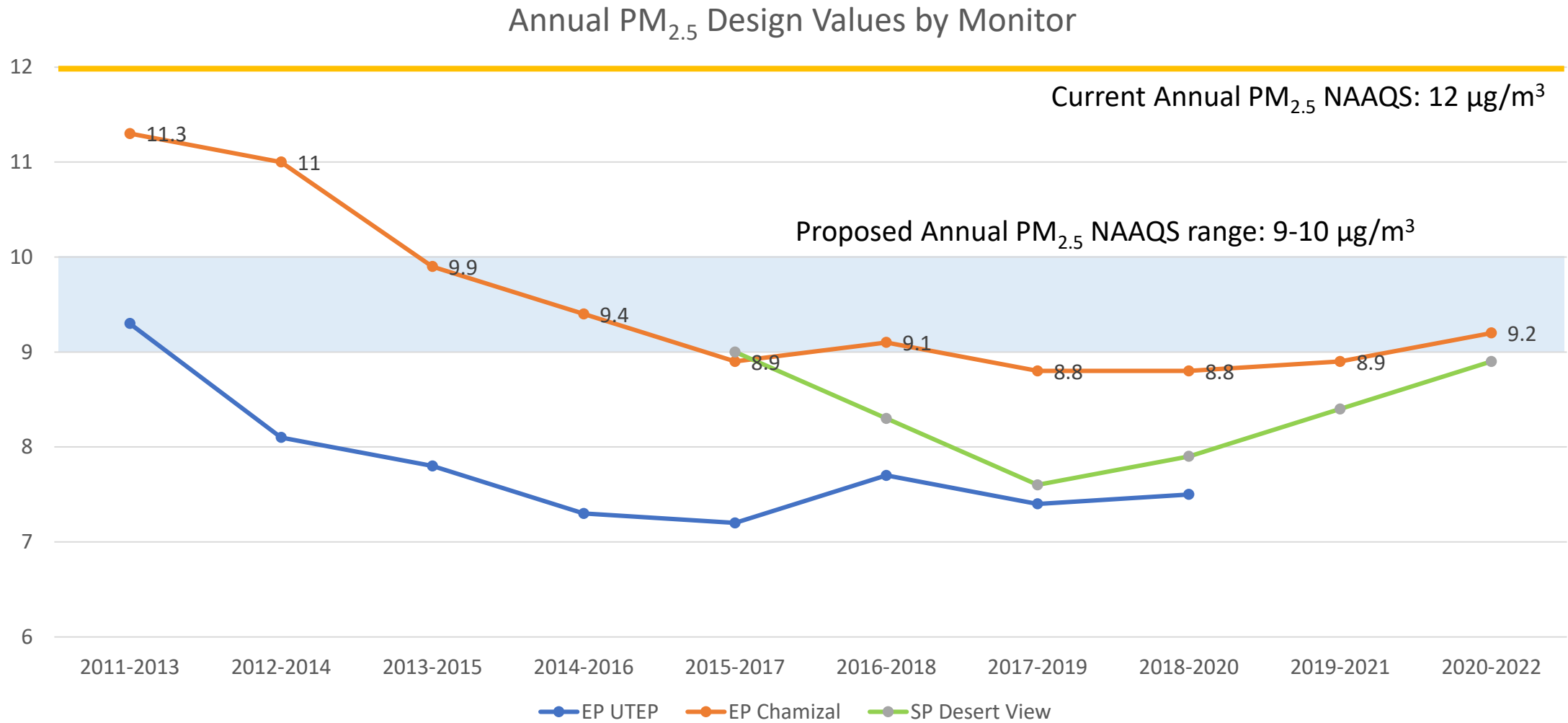
On June 10, 2021, EPA announced decision to reconsider the 2020 PM NAAQS final action

- EPA reconsidering the December 2020 decision because the available scientific evidence & technical information indicate that current standards may not be adequate to protect public health/welfare of at-risk groups with an adequate margin of safety

On January 27, 2023, EPA proposed to revise level of the primary annual PM_{2.5} NAAQS from 12.0 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) to a level within the range of 9.0 to 10.0 $\mu\text{g}/\text{m}^3$

- Proposed to retain all other primary/secondary standards
- 60-day public comment period closed March 28, 2023
- EPA expects to issue final decision on PM NAAQS by EOY 2023

El Paso Area PM_{2.5} Trends ($\mu\text{g}/\text{m}^3$)



Potential NAAQS Implementation Schedule

EPA expects to issue final decision on PM NAAQS reconsideration by the end of 2023

- If the Administrator decides to revise the PM NAAQS as proposed, EPA will, in accordance with the CAA, make initial attainment/nonattainment area designations no later than 2 years after new NAAQS finalized:
 - State area recommendations due to EPA within 1 year of final NAAQS (end of 2024)
 - EPA makes initial area designations within 2 years of final NAAQS (end of 2025)
 - ALL PM_{2.5} nonattainment areas are initially designated as “Moderate” (6-year attainment schedule)
- Based on this projected schedule, EPA designations would be based on 2022-2024 monitoring data

Permitting & SIP Requirements

Permitting Requirements:

- Prevention of Significant Deterioration (attainment area permitting) applies upon effective date of new NAAQS (end of 2023)
- Nonattainment New Source Review applies in nonattainment areas at/after effective date of nonattainment designations (end of 2025)

State Implementation Plan (SIP) Requirements:

- CAA section 110 (Infrastructure) SIPs due within 3 years of final NAAQS (end of 2026)
- Nonattainment area SIPs (attainment demonstration, reasonable further progress) due within 18 months after EPA designations (mid-2027)
 - Must provide for attainment as expeditiously as practicable but no later than end of 6th calendar year after nonattainment designations (“Moderate” area attainment date, end of 2031)

Permitting & SIP Requirements (contd.)

Because ambient concentrations of PM_{2.5} are due to both *direct emissions* and *secondary formation*, consideration must be given to [precursors](#):

- Sulfur Dioxide (SO₂)
- Nitrogen Oxides (NO_x)
- Volatile Organic Compounds (VOCs)
- Ammonia (NH₃)

The PM_{2.5} NAAQS Final SIP Requirements Rule (July 2016, 81 FR 58010) contains details on planning requirements that apply to areas designated nonattainment for any PM_{2.5} NAAQS

- All PM_{2.5} precursor pollutants must be evaluated for potential control measures in the development of any PM_{2.5} attainment plan or any Nonattainment New Source Review (NNSR) program

Next Steps

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Questions?

For more information, contact U.S. EPA Region 6:

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