

# Air Quality Update and the Advance Program

# **ADVANCE**

A U.S. Environmental Protection Agency Program

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Mia South

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Office of Air Quality Planning and Standards, US EPA



# Overview

- Air Quality update for Ozone and PM
- What is the Advance program?
  - What are the goals of the program?
  - Who is participating?
  - How might you benefit from participating in PM Advance?
  - What are the requirements
- Why is PM a concern?
  - Why should attainment areas care about reducing PM?
  - Will we avoid a future nonattainment designation if we sign up for PM Advance?
  - How would the timing of PM Advance relate to the timing of designations for any revised PM<sub>2.5</sub> NAAQS?
  - Where can I get more information?



# Air Quality Update for PM

## Particulate Matter Final Rule

- On February 7, 2024, the U.S. Environmental Protection Agency (EPA) announced a final rule to strengthen the nation's National Ambient Air Quality Standards (NAAQS) for fine particle pollution, also known as fine particulate matter (PM<sub>2.5</sub>) or soot.
- EPA is revising the level of the primary (health-based) annual PM<sub>2.5</sub> standard from 12.0 micrograms per cubic meter (µg/m<sup>3</sup>) to 9.0 µg/m<sup>3</sup>, based on scientific evidence that shows the current standard does not protect public health with an adequate margin of safety, as required by the Clean Air Act (CAA).
- EPA is retaining the primary 24-hour PM<sub>2.5</sub> standard at the level of 35 µg/m<sup>3</sup>. The EPA Administrator concluded that the revised annual standard together with the current 24-hour standard will protect public health with an adequate margin of safety.
- EPA is retaining the primary (health-based) 24-hour PM<sub>10</sub> standard, which provides public health protection against exposures to coarse particles. The EPA Administrator concluded that the current evidence does not call into question the adequacy of that standard.
- EPA is not changing the current secondary (welfare-based) standards for both PM<sub>2.5</sub> and PM<sub>10</sub> at this time. The EPA Administrator concluded that the available scientific evidence and information do not call into question the adequacy of protection provided by the current secondary PM standards for non-ecological effects (i.e., visibility, climate, and material effects) at this time. EPA is reviewing the ecological effects of PM in a separate action.
- The [final rule](#) published today 3/6/2024.
- For more information, see the [EPA website](#).

# Review of the Ozone NAAQS

- This spring, the EPA will hold a virtual public science and policy workshop to gather input from the scientific community and the public and will summarize that information over the summer regarding how the information can be used to inform the review.
- EPA anticipates releasing Volumes 1 and 2 of Integrated Review Plan (IRP), which lays out the agency's plan for the review, in Fall 2024 for public comment and CASAC consultation
- There are 3 volumes of the IRP: the first is a background document, the second details the plan for the Integrated Science Assessment, the third details the plans for any quantitative risk assessments to inform the review and is usually released after the first draft of the Integrated Science Assessment.
- For more information, see EPA's [website](#).

# What is the Advance Program

The Advance Program is a voluntary, collaborative initiative between EPA, state and local governments, and tribes established in 2012

Areas designated as attainment for the Ozone and/or PM2.5 NAAQS develop plans and take actions in their communities to proactively reduce emissions, improve air quality, and remain in attainment

Program promotes opportunities for addressing climate, toxics, and environmental justice concerns and leverages resources from the Climate Pollution Reduction Grants Program.

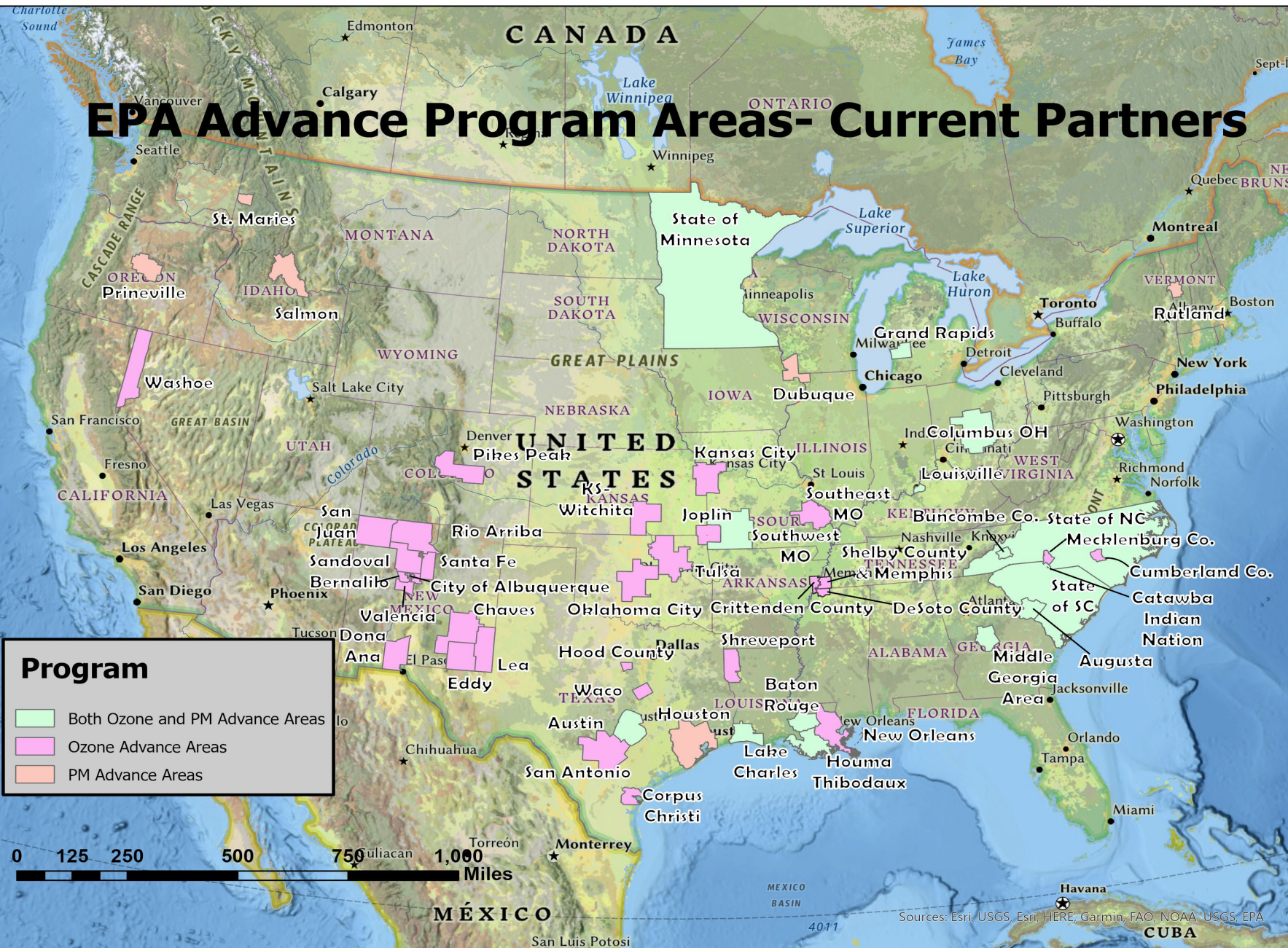
# GOALS

- **Meet** the objectives of air quality, sustainability, climate change, environmental justice in concert with economic development
- **Maintain** and improve air quality and public health
- **Prevent** Ozone and PM nonattainment areas
  - Efficiently direct available resources toward actions to address air quality problems quickly
- **Integrate** work on Advance with other priorities
  - Climate and sustainability
  - Environmental justice
  - Multipollutant risk areas



# EPA Advance Program Areas- Current Partners

- 50 Areas
  - 29 Ozone
  - 6 PM2.5
  - 15 Both
- Greater than 52 million population



Mobile Source Programs

Energy Efficiency; Renewable Energy

Green Infrastructure; Heat Island Programs

Wood Smoke Reduction

Education and Increased Awareness

Stationary Source Programs

All plans submitted to EPA on SharePoint



Programs  
and  
initiatives  
in  
Advance  
plans

# Why Areas Join the Advance Program

Cost of remaining in attainment is less than cost of meeting nonattainment/maintenance area requirements

Reduce emissions, improve air quality, improve public health, achieve climate co-benefits

Multi- pollutant emphasis

Provides forum for community and stakeholder collaboration on clean air and related issues

Participation with EPA provides credibility and demonstrates the area's clean air commitment

Access to EPA expertise and technical assistance opportunities

Advance areas have flexibility to include broad array of programs and initiatives in their plans

- Air quality, sustainable economic development, energy efficiency and climate, air toxics/environmental justice, cleaner transportation, etc.

Learn best practices from other Advance areas through collaboration, and with EPA index of programs and initiatives in previously submitted plans.

Educates public and community about air quality and health

Promotes positive actions by industry, government, public stakeholders

Commitment to update Advance annual plan serves as a driver for action and stakeholder input

# Recent Improvements

Streamlined reporting process

Advance Program Tool that shows emissions, design values and air quality changes

Advance Database that details programs and projects, metrics, EJ considerations, Climate consideration and pollutant reductions

Monthly webinars and collaboration with other Advance areas

Expanded community and stakeholder collaboration on clean air and related issues

Website Redesign

# Program Requirements

1

Identify your lead governmental organization(s).

2

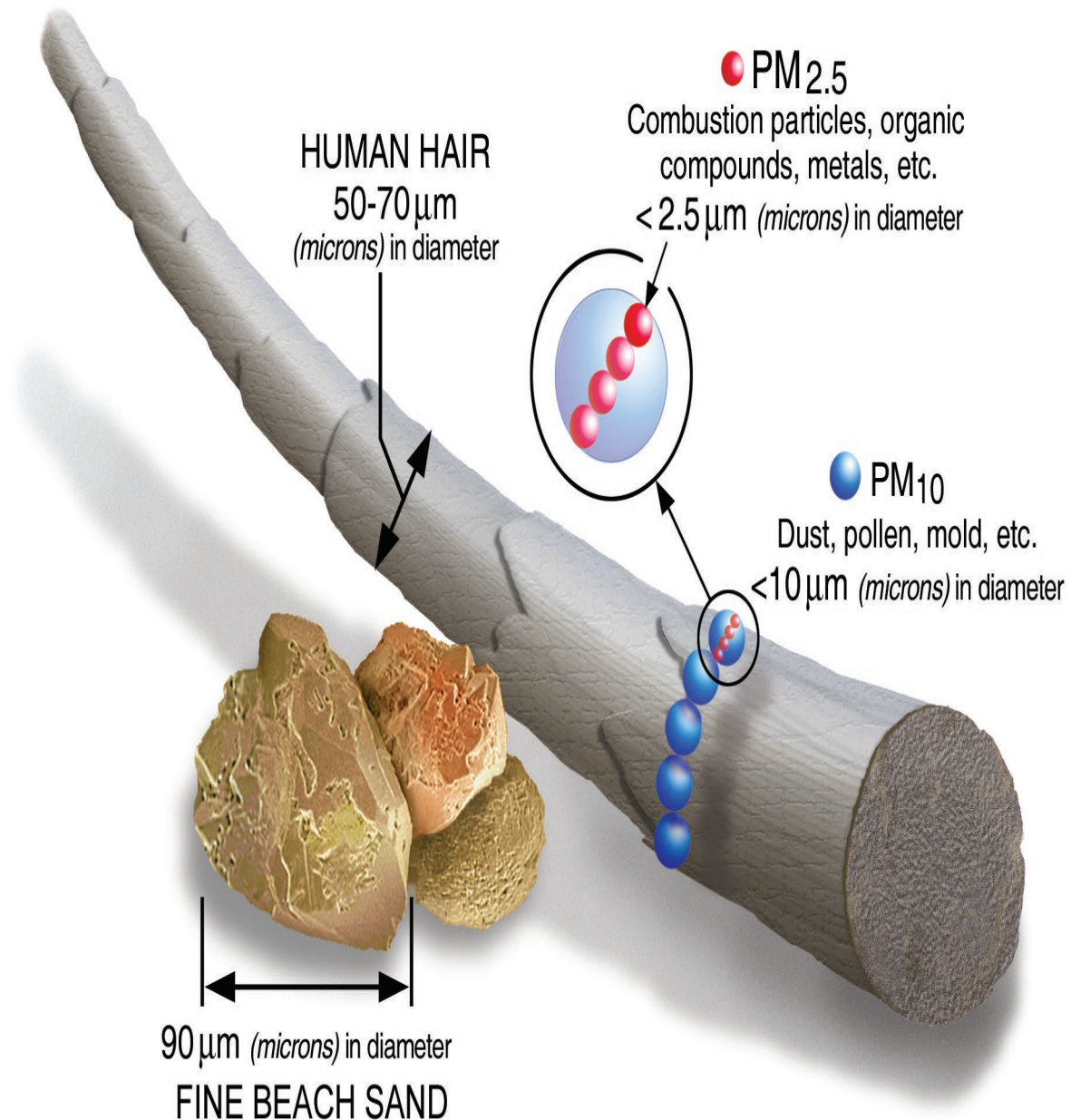
Conduct stakeholder meetings and identify priority emission reductions.

3

Within one year, submit the initial “Path Forward” plan for the area, in consultation with EPA.

4

Provide an annual Advance plan revision by March 1<sup>st</sup>.



- Very significant health effects caused by or likely caused by exposure to PM<sub>2.5</sub>, esp. compared to O<sub>3</sub>
- Disproportionate exposure by race/ethnicity and socioeconomic status

# Will PM Advance Protect Me From a Nonattainment Designation?

- Signing up for PM Advance will NOT guarantee that your area will avoid future designations.
- Taking robust, expeditious actions could help some areas clean up their air quality enough to affect designations.
- Areas that are eventually designated can also benefit from early actions taken to reduce PM.



## Questions to consider about evaluating PM for your area

- What can monitoring and modeling tell us about PM 2.5 in my area?
- How is PM affecting vulnerable communities in your area?
- What can your community do to better control the sources of PM?
- What actions can you take now to avoid a PM nonattainment designation?

2023 AQI for Fine Particle Pollution (Breakpoints are in micrograms per cubic meter)			
AQI Category and Index Value	Previous AQI Category Breakpoints	Updated AQI Category Breakpoints	What changed?
<b>Good</b> (0 – 50)	0.0 to 12.0	0.0 to 9.0	EPA updated the breakpoint between Good and Moderate to reflect the updated annual standard of 9 micrograms per cubic meter
<b>Moderate</b> (51 – 100)	12.1 to 35.4	9.1 to 35.4	
<b>Unhealthy for Sensitive Groups</b> (101 – 150)	35.5 to 55.4	35.5 to 55.4	No change, because EPA retained the 24-hour fine PM standard of 35 micrograms per cubic meter.
<b>Unhealthy</b> (151 – 200)	55.5 to 150.4	55.5 to 125.4	EPA updated the breakpoints at the upper end of the unhealthy, very unhealthy, and hazardous categories based on scientific evidence about particle pollution and health. The Agency also collapsed two sets of breakpoints for the Hazardous category into one.
<b>Very Unhealthy</b> (201 – 300)	150.5 to 250.4	125.5 to 225.4	
<b>Hazardous</b> (301+)	250.5 to 350.4 and 350.5 to 500	225.5+	

[\\*Final Updates to the Air Quality Index \(AQI\) for Particulate Matter](#)



Questions?

Mia South

[south.mia@epa.gov](mailto:south.mia@epa.gov)

919-541-5550

[www.epa.gov/advance](http://www.epa.gov/advance)