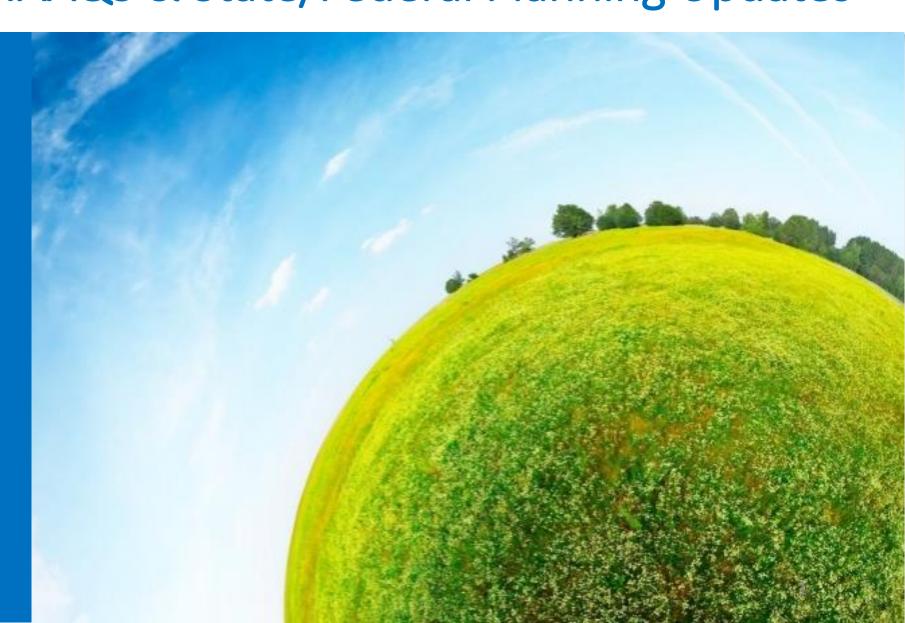


NAAQS & State/Federal Planning Updates

AAPCA Fall Meeting

August 29, 2024

Scott Mathias, Director
Air Quality Policy Division
Office of Air Quality Planning
& Standards





Status of NAAQS Reviews (August 2024)

	Lead	Ozone	PM^1	Secondary (Ecological) NO ₂ , SO ₂ , PM ²	Primary NO ₂	Primary SO ₂	СО
Last Review Completed (final rule signed)	Sep 2016	Dec 2020	Dec 2020/Feb 2024	Mar 2012	Apr 2018	Feb 2019	Aug 2011
Recent or Upcoming Major Milestone(s)	Feb 7, 2024 Final ISA ³ released Early 2025 Draft PA ³	May 2024 Science Policy Workshop Fall 2024 IRP ³ Volumes 1 and 2	March 6, 2024 Final Rule, effective May 6, 2024	April 3, 2024 Proposed Rulemaking Dec. 10, 2024 Final Rulemaking (consent decree)	Mar. 18, 2024 IRP ³ Volumes 1 and 2 Fall 2025 Draft ISA ³ and IRP ³ Volume 3	<u>TBD</u> ⁴	<u>TBD</u> ⁴

Additional information regarding current and previous NAAQS reviews is available at: http://www.epa.gov/ttn/naaqs/

¹ Combined primary and secondary (non-ecological effects) review of PM

²Combined secondary (ecological effects only) review of NO₂, SO₂ and PM

³ PA – Policy Assessment; REA – Risk and Exposure Assessment; IRP – Integrated Review Plan; ISA – Integrated Science Assessment

⁴TBD = To be determined



Secondary (Ecological) NO2, SO2, PM

- EPA proposed decisions in the combined review of the secondary standards for the ecological effects of sulfur oxides (SOx), nitrogen oxides (N oxides) and particulate matter (PM). [89 FR 26620, April 15, 2024]. Comment period closed June 14, 2024.
- The ecological effects addressed in this review include direct effects of N oxides and SOx, and PM loading on vegetation surfaces as well as ecological effects related to atmospheric deposition of S and N compounds in sensitive ecosystems.
- The decision proposes to revise the secondary sulfur dioxide (SO₂) standard to an annual average of 10-15 ppb, averaged over three years, and solicits comment on alternatives.
- The decision proposes to retain the secondary nitrogen dioxide (NO₂) and PM standards, without revision, and solicits comment on alternative approaches.
- Air quality analyses indicate that to meet the proposed revised secondary SO_2 standard no additional emissions reductions would be needed beyond any required to meet the current primary SO_2 standard. As such, no regulatory impact analysis was developed.
- Consent Decree for signature on final rulemaking December 10, 2024.



Implementation Timeline Annual PM_{2.5} NAAQS

- Effective date of final revised NAAQS rule stationary source permitting
 - Revised standard applies with respect to pre-construction Prevention of Significant Deterioration permitting upon the May 6, 2024, effective date of the revised standard.
- Within 2 years after the promulgation, by February 7, 2026, of a revised NAAQS Based on available information, including most recent monitoring data, EPA must "designate" areas as meeting (attainment) or not meeting (nonattainment) the revised NAAQS considering input from states and tribes.
 - All PM_{2.5} nonattainment areas are initially classified as "Moderate." (CAA §188)
- Within 3 years after the promulgation, by February 7, 2027, of a revised NAAQS All states and territories are required to submit SIP revisions to show they have the basic air quality management program components in place to implement the final NAAQS and address interstate transport. (CAA §110)
- Within 18 months after the effective date of nonattainment designation SIPs for attaining the PM_{2.5} NAAQS are due, likely in 2027. (CAA §189)
- End of the 6th calendar year after the effective date of designations "Moderate" area attainment date, likely in 2032. (CAA §188)



Implementing Annual PM_{2.5} Standard

- Guidance on Infrastructure State Implementation Plan (SIP) Elements under Clean Air Act Sections 110(a)(1) and 110(a)(2) (September 13, 2013) EPA-issued multi-pollutant guidance document for states submitting "infrastructure SIPs".
 - Revised infrastructure SIP due February 7, 2027.
 - Interstate transport see latest 2023 design values and EPA's 2032 projection of future violating areas in the 2024 PM_{2.5} NAAQS RIA; EPA intends to provide more information on addressing interstate transport in coming months.
- <u>Fine Particulate Matter National Ambient Air Quality Standards: State Implementation Plan (SIP) Requirements</u> Final EPA SIP Requirements Rule that established planning requirements for states with areas that do not meet the PM_{2.5} NAAQS. (81 FR 58010, August 24, 2016; 40 CFR Subpart Z, §51.1000).
- Fine Particulate Matter (PM_{2.5}) Precursor Demonstration Guidance (May 30, 2019) Recommendations for optional demonstrations designed to show that for a specific PM_{2.5} nonattainment area, emissions of a particular precursor from sources in the area do not or would not contribute significantly to PM_{2.5} levels that exceed the standard, as allowed by the PM_{2.5} SIP Requirements Rule.



PM_{2.5} Designations Memorandum

- Initial Area Designations for the 2024 Revised Primary Annual Fine Particle
 National Ambient Air Quality Standard memo issued February 7, 2024, with the
 promulgation of the revised NAAQS.
- Outlines the designations process, schedule, categories, and roles for EPA and air agencies, pursuant to CAA §107(d). CAA defines nonattainment area as both the location where a monitor indicates there is a violation and all nearby areas that contribute to the monitored violation.
- Explains the five-factor analysis approach the EPA intends to use when evaluating S/T designations recommendations and determining nonattainment area boundaries.
 - EPA is making data sets and other information available on its website.
- Policy for Establishing Separate Air Quality Designations for Areas of Indian Country (December 20, 2011).
 - <u>Developing Designation Recommendations for Areas of Indian Country</u> (April 2018).



Anticipated PM_{2.5} Designations Schedule

Designations Action	Anticipated Date
EPA promulgates revised primary annual PM _{2.5} NAAQS	Completed February 7, 2024
States certify 2023 PM _{2.5} data; EPA calculates design values	Completed May-August, 2024
States/Tribes submit designations recommendations to EPA	No later than February 7, 2025
States certify 2024 PM _{2.5} data; EPA calculates design values	May 2025
EPA notifies States/Tribes concerning any intended modifications to their recommendations (120-day letters); 30-day public comment period begins	Mid-October 2025 (≥120 days prior to final designations)
End of 30-day public comment period	Mid-November 2025
States/Tribes submit additional information, if any, to respond to EPA's intended modification of recommended designations	Mid-December 2025
EPA final designations decisions (without extension)	February 6, 2026



Exceptional Events Demonstration Schedule

(40 CFR 50.14, Table 2)

Exceptional Events Action	Applicable Data Years*	Deadline
Initial Notifications for Designations Recommendations	2021, 2022, 2023	No later than January 1, 2025
Exceptional Events Demonstration Submittal	2021, 2022, 2023	No later than February 7, 2025
Initial Notification and Exceptional Events Demonstration Submittal	2024	September 30, 2025
EPA Promulgates Final Area Designations	2022, 2023, 2024	February 6, 2026

^{*}States and Tribes are not required to submit exceptional events demonstrations for data years not relied on for final area designations (e.g., 2021), but should address any 2021 data they believe was influenced by an exceptional event in their area designations recommendations to the EPA due February 2025.



Exceptional Events Resources Update

- EPA released new tools in Spring 2024 to assist air agencies that may be developing exceptional events demonstrations for the PM_{2.5} initial area designations:
 - <u>Data Visualization and Comparison Tools</u>
 - PM_{2.5} Wildland Fire Exceptional Events Tiering Document
 - Wildland Prescribed Fire Demonstration Document
- EPA strongly encourages air agencies to engage with their Regional offices early on to develop the appropriate scope and timelines for their demonstrations.



EPA eLearning Modules on Area Designations and Exceptional Events

- Air Quality Planning curriculum intended for learners who implement the National Ambient Air Quality Standards via State / Tribal Implementation Plans
- AirKnowledge eLearning Modules at https://airknowledge.gov
 - What are Area Designations?
 - Exceptional Events Demonstrations
 - PLAN201-SI: <u>Applying Technical Factors for Area Designations</u>
 - Area Designations Process and Timeline
 - Area Designations Factor Analysis



Other NAAQS/SIP Updates



Start-Up, Shutdown and Malfunction (SSM) Provisions in SIPs

- On March 1, 2024, the D.C. Circuit Court of Appeals issued a decision in Environ. Comm.
 Fl. Elec. Power v. EPA, No. 15-1239 which regarded EPA's June 12, 2015, final action
 relating to SSM provisions SIPs (2015 SSM SIP Action, 80 FR 33840).
- The Court granted the petitions in part, vacating the SIP calls as to those based on automatic exemptions, director's discretion provisions, and affirmative defenses that are functionally exemptions; and denied the petitions in part as to the SIP calls based on the enforcement discretion provisions and affirmative defenses against specific relief.
- EPA continues to implement its longstanding interpretation that, pursuant to CAA section 302(k), emission limitations must be continuous and apply at all times, consistent with the decision in *Environ. Comm. Fl. Elec. Power v. EPA*.
- As a result of the D.C. Circuit's vacatur, EPA expects, by the end of the year to partially withdraw Findings of Failure to Submit (FFS) issued to states that did not submit a SIP call response, stopping sanctions and FIP clocks for those states.
- Also working to provide states with clarification and direction regarding the continued implementation of our SSM policy and paths forward for relevant SIP submittals.



Contingency Measures Policy

- EPA released a new draft Contingency Measure guidance for comment in 2023.
 - Until such time as EPA completes the final guidance, air agencies developing CM submittals
 for ozone and PM plans should consider the draft guidance and consult with their Regional
 Office for clarifying questions.
- Where appropriate, the EPA has begun proposing approval of CM SIPs using approaches in the draft guidance, including infeasibility justifications, and expects to continue this practice.
- Where necessary, EPA has also been disapproving CM submissions that rely on already-implemented measures per the 2021 D.C. Circuit decision in *Sierra Club*.
 - One such disapproval [Texas ozone areas; 88 FR 67957, October 3, 2023] is being challenged by Texas in the 5th Circuit.
 - In that case, EPA requested a voluntary remand of the disapproval to evaluate its actions in light of *Loper Bright* and previous 5th Circuit precedent in *LEAN v. EPA (2004)*.
 - The implications of this remand/vacatur would be limited to the 5th Circuit (LA, MS, TX).



Ozone Implementation Updates

Preliminary 2024 Ozone Watch air quality (preliminary thru 8/13/24)

- 21 of 34 nonattainment areas are meeting the 2008 ozone NAAQS.
- 12 of 46 nonattainment areas are meeting the 2015 ozone NAAQS.

2008 NAAQS SIP Status

 No overdue SIP submittals (due May 7, 2024) for previously reclassified Serious areas.

2015 NAAQS SIP Status

- For all initial SIP revisions due by August 3, 2022:
 - 17 areas with approx. 60 SIP elements in total overdue (as of August 13, 2024).
 - Includes nonattainment NSR SIPs/certifications for 13 areas covering 19 NNSR elements.
- SIP revisions for reclassified Moderate areas were due January 1, 2023.
 - EPA issued Findings of Failure to Submit effective November 17, 2023, for 11 states (AZ, CA, CT, DE, IL, IN, MI, NJ, NV, TX, WI; 88 FR 71757)
 - The findings trigger deadlines for offset and highway funding sanctions starting in May 2025 and, if needed, for EPA to promulgate a FIP (November 2025).



Ozone Implementation Updates

2015 NAAQS Moderate Area Determinations of Attainment by the Attainment Date ("DAADs")

- Moderate area attainment date was August 3, 2024; statutory deadline for EPA to issue final DAADs is February 3, 2025.
- EPA regional offices will issue DAADs for their respective areas, including areas influenced by wildfire exceptional events.
- EPA headquarters will issue a separate Reclassification Requirements Rule in support of current and future DAADs to address SIP revision deadlines and "leftover" SIP requirements from prior classification
- EPA is currently exploring way to support states as they prepare their Serious area RACT submissions:
 - Looking into updating CTGs
 - Develop additional information states can use to conduct "due diligence" reviews for RACT



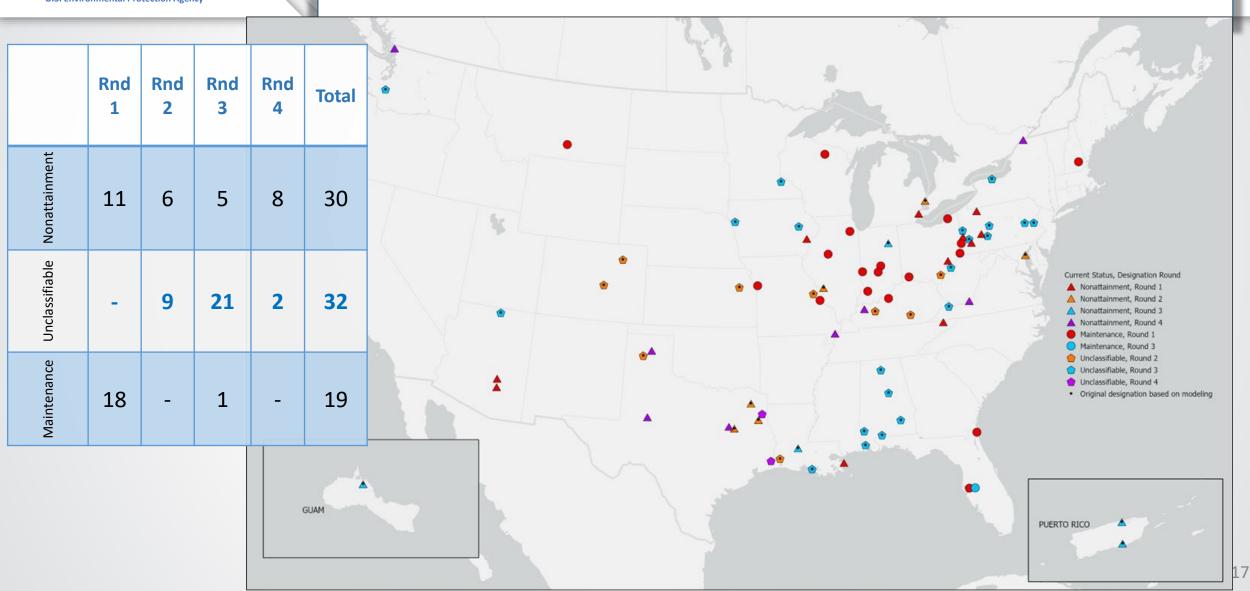
Ozone Good Neighbor Plan Updates

- On February 16, 2024, EPA proposed to expand the Rule to five additional states, Arizona, Iowa, Kansas, New Mexico, and Tennessee. Comment period closed on May 16, 2024.
- On March 28, 2024, EPA responded to certain arguments in petitions to EPA to reconsider the Good Neighbor Plan.
- On June 27, 2024, the United States Supreme Court issued an opinion granting emergency applications brought by four sets of parties for a stay of the Good Neighbor Plan pending completion of judicial review.
 - The Supreme Court's basis for granting the stay applications was its finding that the EPA had failed to adequately respond in the Good Neighbor Plan final rule to a comment concerning severability.
- On August 5, 2024, the EPA issued a policy memo that discusses its current plans for compliance with the Court's order, and next steps the Agency intends to undertake to ensure that states' obligations to address interstate ozone pollution under prior transport rules continue to be met.
 - The EPA requested partial remand of the Good Neighbor Plan to enable the Agency to take a supplemental final action addressing the record deficiency identified by the Supreme Court.



SO₂ Nonattainment Areas by Status and Designations Round

as of August 2024





SO₂ NAAQS Implementation Update

Round 1 Nonattainment Areas

- Revised attainment plans due in 2023 for Miami, AZ; Sullivan Co, TN; and St. Bernard Parish, LA. Revised attainment plan due in 2024 for Indiana, PA (proposed approval published 6/7/2024).
- Finding of Failure to Submit 7/31/2024 included St Bernard Parish, LA and Miami, AZ.
- EPA proposed redesignation to nonattainment for portions of Westmoreland & Cambria counties, PA adjacent to the existing Indiana, PA area (89 FR 9815, February 12, 2024).

Round 2 Nonattainment Areas

• All areas have either Clean Data Determination and/or approved attainment plan except Rusk/Panola Cos., TX. EPA subject to December 13, 2024, CD deadline for FIP/complete SIP for Rusk/Panola Cos., TX.

Round 3 Nonattainment Areas

 Sanctions and FIP deadline December 3, 2022, for all 5 areas (Evangeline Parish, LA; Piti-Cabras, GU; Huntington Co. IN; Guayama-Salinas and San Juan, PR.

Round 4 Nonattainment Areas

- Attainment plan submittals due October 30, 2022, for St. Lawrence Co., NY; Giles Co., VA; Henderson & Webster Counties, KY.
- Finding of Failure to Submit 7/31/2024 included St. Lawrence Co., NY and Giles Co., VA

SO₂ Interstate Transport SIPs

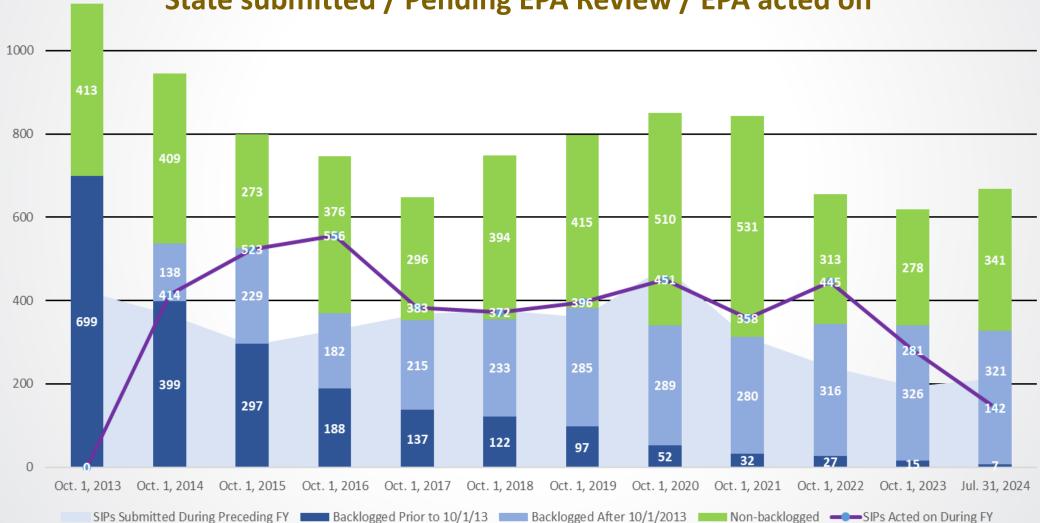
OCEF challenged EPA for inaction on several submitted SIP, including SO2 transport SIPs for TX and LA.
 Consent decree deadline of September 30, 2025, for final SIP actions.



SIP Processing Update through July 31, 2024



State submitted / Pending EPA Review / EPA acted on





Regional Haze Program Update



Status of RH SIP Reviews

- EPA continues to review and act on 2nd Planning Period Regional Haze SIPs.
- EPA issued Findings of Failure to Submit effective September 29, 2022, for 15 states (87 FR 52856); 11 of those remain outstanding.
- Failure to Act litigation on 2nd planning period SIPs for 32 states identified in a 2023 lawsuit; action deadlines range from July 2024 to Dec 2026.
- 2nd Planning Period Progress Reports are due on January 31, 2025. EPA recently issued a <u>compliance assistance</u> <u>memorandum</u> addressing report requirements.

2 nd PP Regional Haze SIP Status *				
EPA Final Actions	17 (6 Final/ 11 Proposed)			
Submitted SIPs Awaiting EPA Action	24			
SIPs Outstanding	11			

*As of August 2024



Regional Haze Rule Revisions

- EPA opened a non-regulatory docket where interested parties were able to submit comments on the future of the Regional Haze program in advance of Third Planning Period rule revisions (EPA-HQ-OAR-2023-0262).
- In addition to opening the docket, EPA held informational webinars on the Regional Haze program and future rule revisions on April 9 and 10, 2024. The webinar materials are in the non-regulatory docket.
- EPA received comments from 17 States, 5 RPOs, 4 Industry Groups, 2 FLMs, and 1 coalition of eNGOs.
- Commenters focused on a diverse set of issues, including:
 - Extending the July 31, 2028, SIP due date.
 - More overall clarity on source selection and cost thresholds.
 - Determining requirements for areas that may have reached natural conditions.
 - Balancing Regional Haze planning obligations with other CAA planning requirements
- The EPA intends to propose a separate rule extending the 3rd Planning Period SIP deadline beyond 2028.



State Plans Addressing Emissions Guidelines

Clean Air Act section 111(d) rules



§111(d) State Plans – General Requirements

- "Adoption and Submittal of State Plans for Designated Facilities: Implementing Regulations Under Clean Air Act Section 111(d)"
 - 40 CFR part 60, subpart Ba "General Provisions"
 - Published November 17, 2023 (80 FR 80480)
- Amendments include:
 - revisions to the timing requirements for state plans (18-month default);
 - allowing for electronic submission of state plans (available thru SPeCS);
 - the addition of flexibility mechanisms such as trading and averaging; and
 - new requirements for meaningful engagement with the public.
- Also revises and clarifies Remaining Useful Life and Other Factors (RULOF)
 considerations for states in applying a standard of performance.
 - RULOF is intended as a limited, less-stringent variance from the EPA's determinations to address unusual circumstances at particular facilities.



§111(d) State Plans – Emissions Guideline Sectors

- Oil and Natural Gas Emissions Guidelines
 - "Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review," published March 8, 2024 (89 FR 16820).
 - Emissions Guideline State Plans (EGSPs) due March 9, 2026.
 - Federal Plan development work (tribal lands).
 - Small Entity Compliance Guide (for NSPS).
 - Compliance assistance documents to include: Summary of Requirements for §111(d) State Plans, FAQ.
 - EPA cross-agency workgroup coordination, incl. equivalency issues and Federal plans for tribal areas.
- Fossil Fuel-Fired Electric Generating Units (EGUs)
 - "New Source Performance Standards for Greenhouse Gas Emissions From New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units; Emission Guidelines for Greenhouse Gas Emissions From Existing Fossil Fuel-Fired Electric Generating Units; and Repeal of the Affordable Clean Energy Rule," published May 9, 2024 (89 FR 39798).
 - See State Plans Fact Sheet and General Overview Presentation.
 - Emissions Guideline State Plans (EGSPs) due May 11, 2026; source compliance deadlines 1/1/2030 or 1/1/2032 depending on subcategory.
 - Additional compliance assistance documents under development.
 - Does not cover existing natural gas combustion turbines. EPA has inititated a separate supplemental action development, details are available at Nonregulatory Public Docket: Reducing Greenhouse Gas.

State Planning Milestones (August 2024)

Pollutant (Standard)	Final NAAQS/EG Signature	Nonattainment Designations Effective	Infrastructure SIP Due	Attainment/EG Plans Due	Attainment Date/EG Compliance Date
Ozone (2015)	Oct 2015	Aug 3, 2018 *	Oct 2018	Aug 2021-2022, Jan 2023, <mark>Jan 2026</mark> **	Aug 2021, <mark>2024</mark> , 2027, 2033, 2038 *
Ozone (2008)	Mar 2008	July 2012	Mar 2011	July 2015/2016 Jan 2017, Aug 2020, <mark>May</mark> <mark>2024</mark> ***	July 2015, 2018, 2021, 2027, 2032
SO ₂ (<u>proposed</u> annual secondary)	December 2024 (CD deadline)	TBD	December 2027 if NAAQS is revised	TBD	TBD
SO ₂ (2010 1-hr primary)	June 2010	¹ Oct 2013, ² Sept 2016, ³ Apr 2018, ⁴ Apr 2021	June 2013	¹ Apr 2015, ² Mar 2018, ³ Oct 2019, ⁴ Oct 2022	¹ Oct 2018, ² Sept 2021, ³ Apr 2023, ⁴ Apr 2026
PM _{2.5} (2024 annual)	February 2024	Spring 2026	February 2027	Fall 2027	Spring 2032 (Moderate)
PM _{2.5} (2012 annual)	Dec 2012	Apr 2015	Dec 2015	Oct 2016 (Moderate)	Dec 2021 (Moderate) Dec 2025 (Serious)
PM _{2.5} (2006 24-hr)	Oct 2006	Dec 2009	Oct 2009	July 2011	Dec 2015 (Moderate) Dec 2019 (Serious)
OOOOc Oil & Gas Emiss. Guideline	March 2024	n/a	n/a	March 2026	March 2029
UUUUa EGU Emiss. Guideline	April 2024	n/a	n/a	<mark>April 2026</mark>	April 2029

^{*} September 24, 2018 for San Antonio, TX. Attainment dates are also September 24 of listed years.

^{**} January 2023 for areas reclassified from Marginal to Moderate. Tentatively January 2026 for areas reclassified from Moderate to Serious.

^{***}January 2017 for areas reclassified from Marginal to Moderate. August 2020 for areas reclassified from Moderate to Serious. May 2024 for areas reclassified from Serious to Severe.







- A collaborative multi-pollutant program for states, tribes, and local governments to avoid nonattainment and achieve ongoing emission reductions in areas designated as attainment or maintenance for ozone and/or $PM_{2.5}$ NAAQS.
- Currently **51 partner areas** covering more than 50 million population. Partners include states, tribal nations, cities, counties, councils of government, regional planning commissions.
- Currently promoting proactively reducing PM_{2.5} emissions.

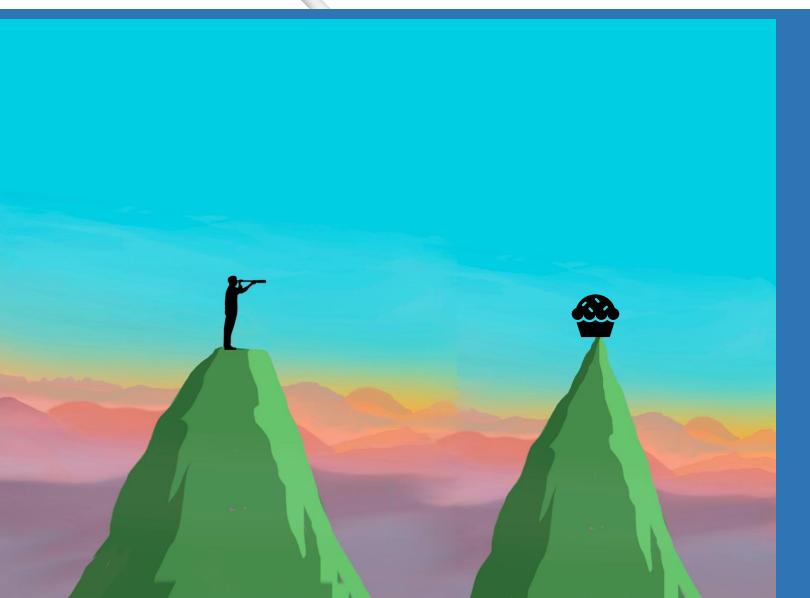
<u>Goals</u>

- Leverage programs and planning to address air quality, climate, and environmental justice objectives;
- Help meet the environmental, health, economic development, and quality of life goals in the participating area.

Benefits of partnership

- Avoid the costs of nonattainment designation for ozone or PM_{2.5} while collaborating with local stakeholders
- Implement ozone and PM_{2.5} programs that also support climate goals and address concerns of EJ communities
- Obtain technical assistance from multiple EPA offices and other agencies like DOE and DOT
- Attend monthly meetings with partners sharing best practices and EPA training on programs and tools
- Receive monthly newsletter on grants and training opportunities





Questions and Comments

