

NAAQS & Regional Haze Implementation Updates

AAPCA Spring 2023
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Office of Air Quality Planning
& Standards



NAAQS Reviews Status (March 2023)

	Lead	Ozone	PM ¹	Secondary (Ecological) NO ₂ , SO ₂ , PM ²	Primary NO ₂	Primary SO ₂	CO
Last Review Completed (final rule signed)	Sept 2016	Dec 2020	Dec 2020	Mar 2012	April 2018	Feb 2019	Aug 2011
Recent or Upcoming Major Milestone(s)	<u>April 2022</u> CASAC Consultation on Integrated Review Plan, Vol 2 <u>March 2023</u> Draft ISA released	<u>March 2023</u> Version 2 of Draft PA released <u>Spring 2024</u> Proposed Decision (anticipated)	<u>January 2023</u> Proposed Rulemaking <u>Fall 2023</u> Final Rulemaking (anticipated)	<u>May 2023</u> Draft PA/REA Appendices ³ <u>Feb. 9, 2024</u> Proposed Rulemaking (consent decree) <u>Dec. 10, 2024</u> Final Rulemaking (consent decree)	<u>Dec 9, 2022</u> Call for Information on the Integrated Science Assessment	TBD ⁴	TBD 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
² Combined secondary (ecological effects only) review of NO₂, SO₂, and PM
³ PA – Policy Assessment; REA – Risk and Exposure Assessment
⁴ TBD = To be determined



Reconsideration of Ozone NAAQS

- On October 28, 2021, EPA announced that it would reconsider the 2020 decision that retained the existing ozone NAAQS set in 2015.
- In support of the reconsideration, the EPA released a draft Policy Assessment (PA) in April 2022. The CASAC paused their review of the draft PA, to engage in a fuller discussion of the scientific information at public meetings during Jun-Nov 2022. Based on these discussions, the CASAC determined “that the existing scientific evidence summarized in the 2020 ISA provides a scientifically sound foundation for the Agency's reconsideration of the 2020 Ozone NAAQS decision” and that it was not recommending that the 2020 ISA be reopened or revised.
- On March 15, 2023 (88 FR 15940) EPA announced the availability of draft (version 2) “Policy Assessment for the Reconsideration of the Ozone National Ambient Air Quality Standards.”
 - EPA staff present their conclusion that the current information does not call into question the adequacy of the protection provided by current standards, and thus supports consideration of retaining the existing standards without revision.
 - EPA is accepting public comment on the latest Policy Assessment through April 15, 2023.
- The CASAC plans to meet in several public meetings during March-May 2023 to discuss the 2nd draft PA, and will provide a final letter of advice to the Administrator.



Reconsideration of PM NAAQS

- EPA is reconsidering the December 2020 final decision to retain, without revision, the PM NAAQS.
- EPA has issued a rulemaking (88 FR 5558, January 27, 2023) which proposes to:
 - Revise the primary (health-based) annual $PM_{2.5}$ standard from its current level of $12.0 \mu\text{g}/\text{m}^3$ to within the range of 9.0 to $10.0 \mu\text{g}/\text{m}^3$.
 - Retain the secondary (welfare-based) annual $PM_{2.5}$ standard and primary and secondary 24-hour $PM_{2.5}$ standards ($35 \mu\text{g}/\text{m}^3$), and primary and secondary PM_{10} standards.
 - Revise certain other provisions related to the PM NAAQS, including revisions to the Air Quality Index (AQI) and monitoring requirements.
- The public comment period for this proposal closed on March 28, 2023. EPA anticipates a final rulemaking in Fall 2023.



Title VI of the Civil Rights Act and NAAQS Implementation Plans

- Clean Air Act section 110(a)(2)(E)(i) requires that each State Implementation Plan (SIP) provide “**necessary assurances**” that the state is **not prohibited by any provisions of federal law** from carrying out such implementation plan or a portion thereof. This provision can be interpreted as applying to every SIP revision submitted to EPA.
- Title VI of the Civil Rights Act of 1964 (Title VI) prohibits recipients of federal financial assistance from discriminating on the basis of race, color, or national origin.
- In Oct. 2022, EPA proposed an action on our review of the San Joaquin Valley (SV) 2012 PM_{2.5} Serious Area Plan. EPA addressed section 110(a)(2)(E)(i), largely in response to adverse comments. (87 FR 60494. Oct. 5, 2022).
 - EPA stated that national guidance concerning implementation of section 110(a)(2)(E)(i) as it pertains to Title VI would be “forthcoming.”



Ozone NAAQS Implementation Updates

2022 ozone air quality (preliminary)

- 18 of 34 nonattainment areas are meeting the 2008 ozone NAAQS.
- 11 of 49 nonattainment areas are meeting the 2015 ozone NAAQS.
- Monitors located in 14 areas currently designated attainment in 8 states are violating the 2008 and 2015 ozone NAAQS
 - Mostly western US states (6 of 8 states)
 - 6 of 14 are adjacent to current nonattainment areas
 - Most of these monitors have a longer-term violation trend but a few are new.

Redesignations to attainment

- 2008: Chicago (IL, IN and WI portions)
- 2015: Atlanta, GA; Cincinnati (OH portion); Door County-Revised, WI; Louisville (IN portion); Manitowoc County, WI



Ozone NAAQS Implementation Updates (cont.)

Summary of determinations of attainment by the 2021 attainment dates that EPA finalized in 2022-23.

- 2008: 6 Serious nonattainment areas did not attain, 5 reclassified to Severe; 3 areas attained
 - Severe area attainment deadline is July 20, 2027.
- 2015: 27 Marginal nonattainment areas did not attain, 24 reclassified to Moderate; 12 areas attained
 - Moderate area attainment deadline is August 3, 2024.
- Voluntary reclassifications: 3 for 2008, 4 for 2015, all in California



Ozone NAAQS Implementation Updates (cont.)

2008 NAAQS SIP Status Update

- No overdue SIP submittals for previously reclassified Serious areas.
- SIP revisions for reclassified Severe areas in progress (due May 7, 2024)

2015 NAAQS SIP Status Update

- For all initial SIP revisions due through August 3, 2022:
 - 27 areas with 91 SIP elements in total overdue (as of 3/29/23).
 - Includes nonattainment NSR SIPs/certifications for 19 areas covering 26 NNSR elements.
- SIP revisions for reclassified Moderate areas are in progress (due January 1, 2023).



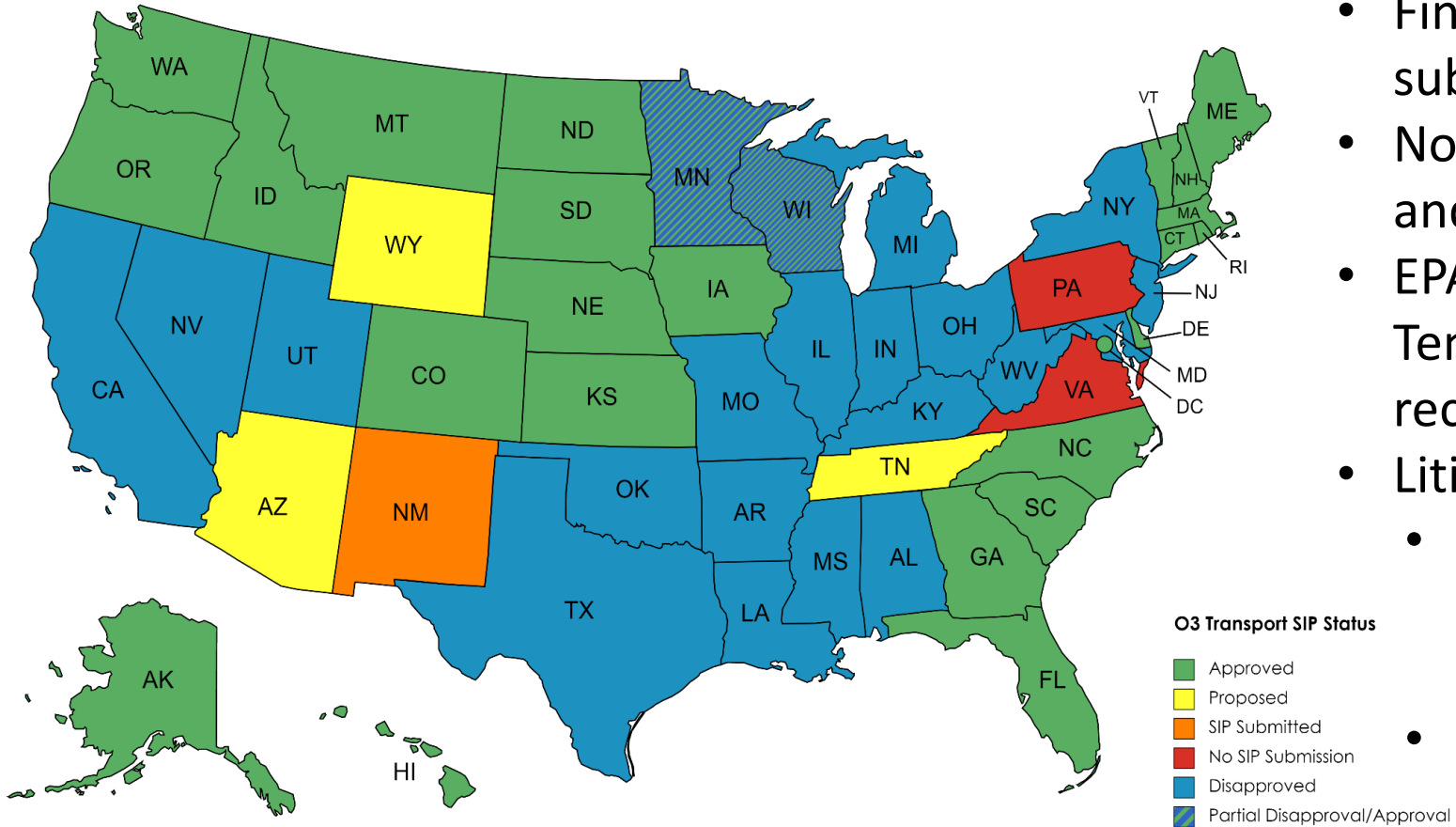
Ozone NAAQS Implementation Updates (cont.)

Proposed update to ozone measurement method

- EPA proposed to update a standard parameter called the “absorption cross-section value” used to measure atmospheric ozone.
- International scientific community has agreed to adopt and implement the new cross-section value because it represents a more accurate value with less uncertainty. Worldwide implementation target of January 1, 2024.
- This update could result in increases in measured ozone concentrations, but EPA “believes it is unlikely that the proposed cross section change will have a measurable, predictable influence on any given ozone design value or monitoring data set.”
- Comment period closed March 27, 2023 (88 FR 11835, Feb. 15, 2023).



2015 Ozone Transport SIP Status (as of 3/31/23)



- Final action taken on 45 of 49 submitted ozone transport SIPs.
- No submissions from Pennsylvania and Virginia.
- EPA proposal actions on Arizona, Tennessee and Wyoming; currently reconsidering.
- Litigation:
 - Deadline settlement to take final action on AZ, TN and WY by December 15, 2023.
 - Deadline settlement to take final action on NM by June 1, 2024.
 - Multiple challenges and stay motions.

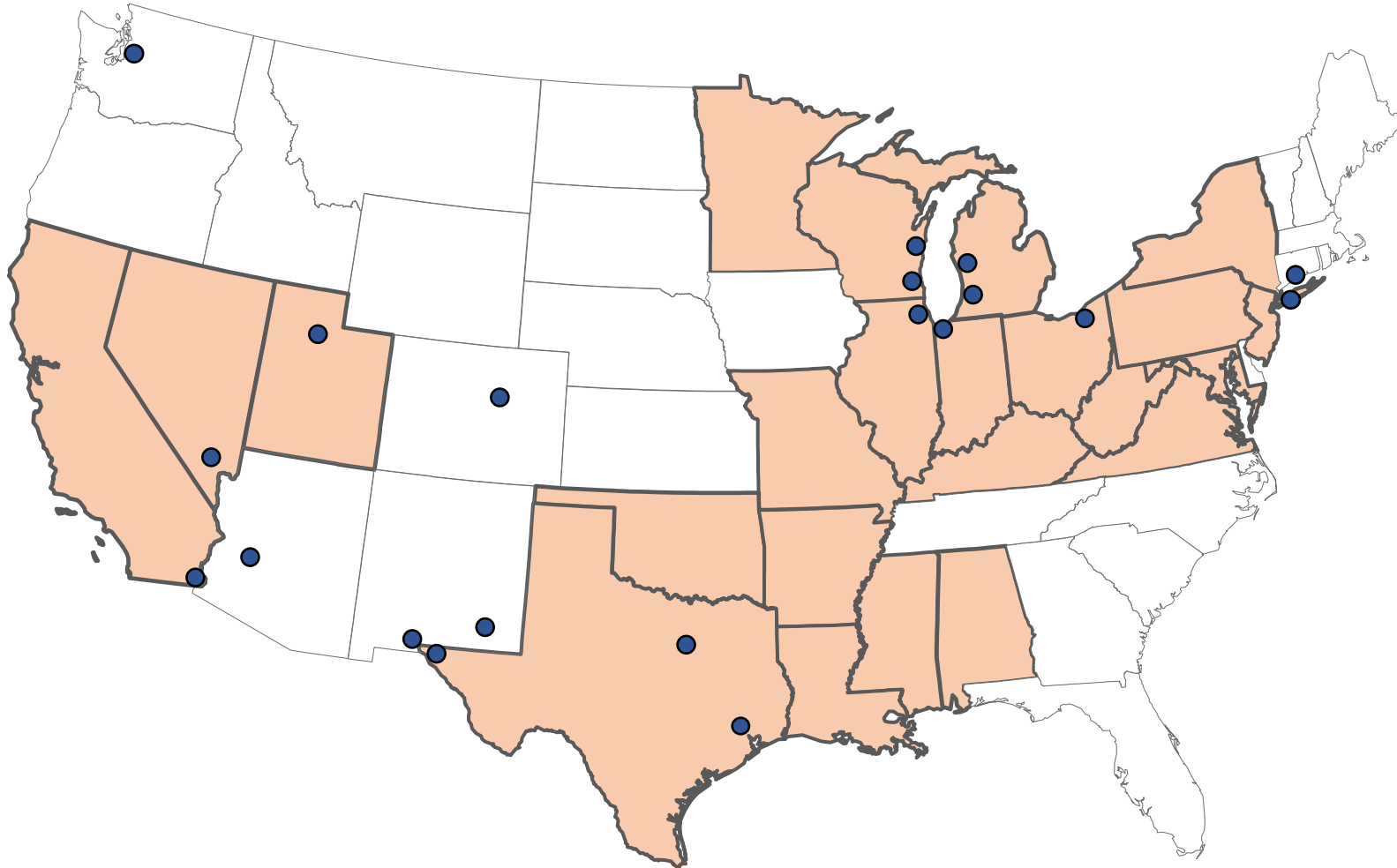


Good Neighbor Federal Plan Overview

- March 15, 2023 final rule ensures states meet obligations under the Clean Air Act’s “Good Neighbor” provision for the 2015 ozone National Ambient Air Quality Standards (NAAQS).
 - Establishes Federal Implementation Plan (FIP) requirements for 23 states to eliminate their significant contribution to nonattainment, or interference with maintenance, of the NAAQS in downwind states.
 - Applies to states where EPA made a Finding of Failure to Submit or disapproved a Good Neighbor SIP.
- Determines required reductions in ozone precursor NOx emissions.
 - 22 states with requirements for Electric Generating Units (EGUs) starting in 2023 ozone season.
 - 20 states with requirements for certain industrial source categories (non-EGUs) by 2026 ozone season.
- EPA estimates the federal plan will reduce ozone-forming NOx emissions from the 23 upwind states by approximately 70,000 tons in the 2026 ozone season (May 1 – September 30).



GNP: Covered Geography



Step 1: EPA identified nonattainment and/or maintenance problems in 2023 in the following areas:

Yuma, AZ; Phoenix, AZ, Denver, CO; Coastal CT; Chicago, IL; Hobbs, NM; Las Cruces, NM; Cleveland, OH; Dallas/Ft Worth TX; El Paso, TX; Houston/Brazoria/Galveston, TX; Las Vegas, NV; Salt Lake City, UT; and along the shoreline of Lake Michigan.

Step 2: EPA identified 23 upwind states that are linked above 1% of the NAAQS or 0.70 ppb to downwind air quality problems in 2023:

Alabama; Arkansas; California; Illinois; Indiana; Kentucky; Louisiana; Maryland; Michigan; Minnesota; Mississippi; Missouri; Nevada; New Jersey; New York; Ohio; Oklahoma; Pennsylvania; Texas; Utah; Virginia; West Virginia; and Wisconsin.

* Not shown on the map are monitoring sites on the Pechanga and Morongo Tribal Lands in California which are considered as “downwind” receptors for California.

**Note that EPA did not calculate contributions at the receptor in Seattle because the model predictions at this receptor did not meet EPA’s criterion for calculating representative average contribution metric values.



Sources Covered by GNP Obligations



Power Plants + Other Industries:

- Reciprocating internal combustion engines in *Pipeline Transportation of Natural Gas*
- Kilns in *Cement and Concrete Product Manufacturing*
- Boilers and reheat furnaces in *Iron and Steel Mills and Ferroalloy Manufacturing*
- Furnaces in *Glass and Glass Products Manufacturing*
- Boilers in *Metal Ore Mining; Basic Chemical Manufacturing; Petroleum and Coal Products Manufacturing; and Pulp, Paper, and Paperboard Mills*
- Combustors and incinerators in *Solid Waste Combustors or Incinerators*

Phase I of NO_x reductions for power plants takes effect as soon as possible in 2023. Phase 2 for power plants and covered industrial sources takes effect in 2026.



Contingency Measures Policy

- EPA recently released a new draft Contingency Measure guidance for comment.
 - The guidance addresses both ozone and PM plans.
 - The comment period closes on April 24, 2023.
 - Available at: <https://www.epa.gov/air-quality-implementation-plans/draft-contingency-measures-guidance>
- The draft guidance reviews current policy and also asks for comment on three policy changes intended to address air agency challenges in identifying sufficient contingency measures in certain areas following court decisions that invalidated key aspects of the previous policy.



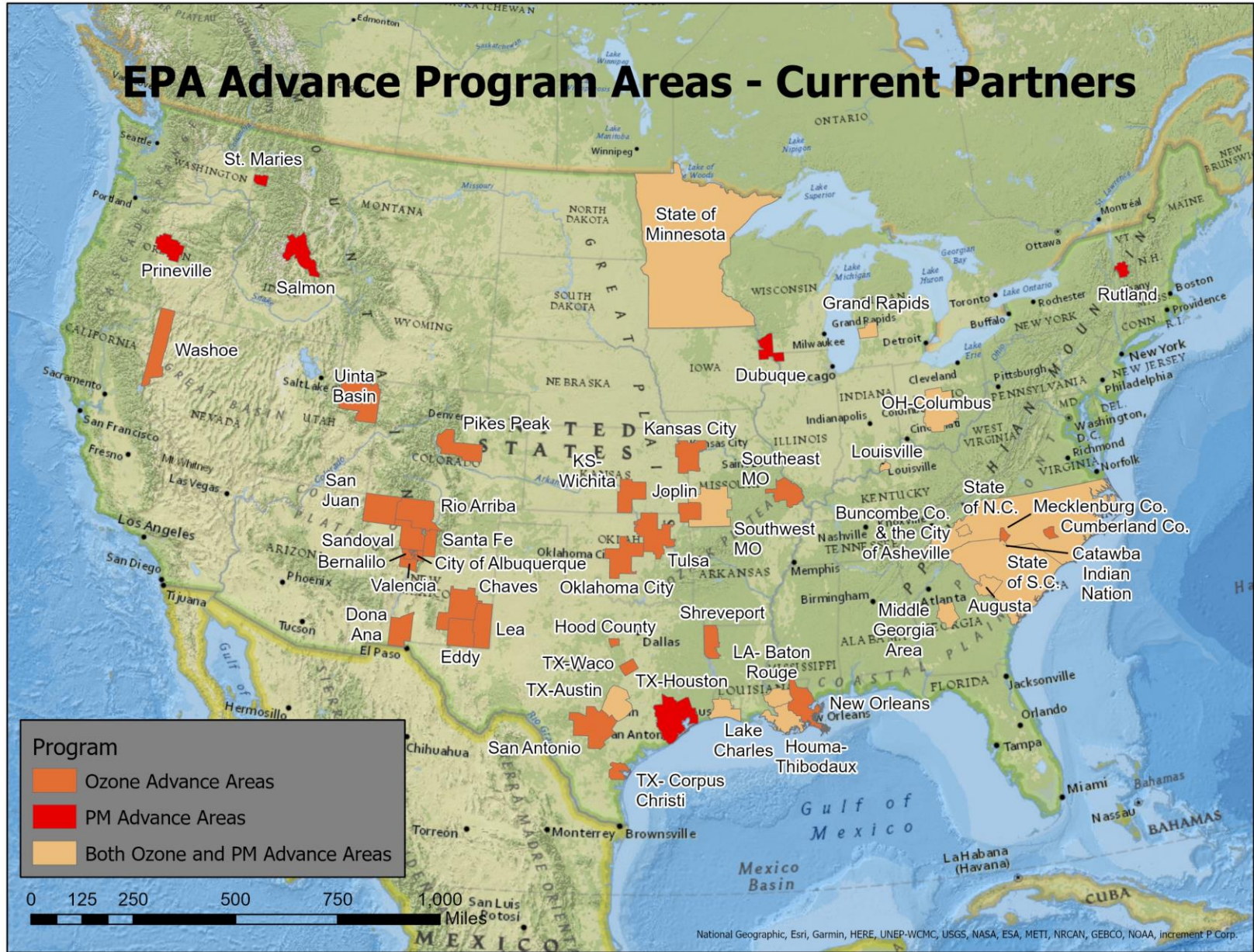
ADVANCE

A collaborative program for states, tribes, cities, regional planning commissions, and councils of government to achieve ongoing emission reductions in attainment or maintenance areas for ozone and/or PM_{2.5} NAAQS.

51 partner areas covering more than 54 million population.

Platform to support air quality and climate goals and address concerns of EJ communities.

For more information contact Mia South (south.mia@epa.gov)

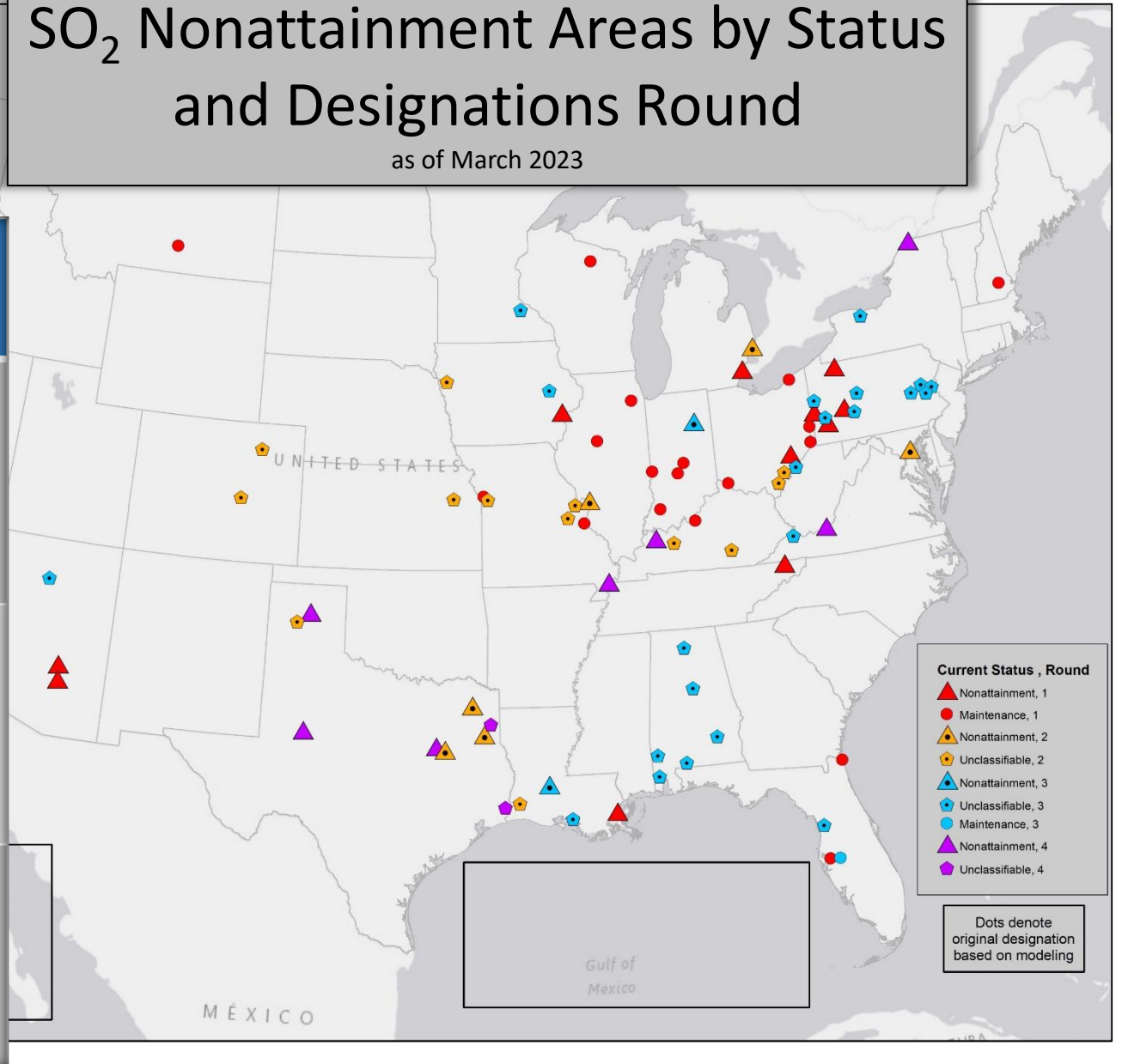




SO₂ Nonattainment Areas by Status and Designations Round

as of March 2023

	Rnd 1	Rnd 2	Rnd 3	Rnd 4	Total
Nonattainment	11	6	5	8	30
Unclassifiable	-	13	24	2	39
Maintenance	18	-	1	-	19





SO₂ NAAQS Implementation Update

- Round 1 Nonattainment Areas
 - Detroit, MI FIP (87 FR 61514, October 12, 2022).
 - Revised attainment plans due in 2023 for Hayden & Miami, AZ; Sullivan Co, TN; and St. Bernard Parish, LA.
 - Region 3 considering redesignation to nonattainment for an area of Westmoreland & Cambria counties, PA adjacent to the existing Indiana, PA area.
- Round 2 Nonattainment Areas
 - All areas have either Clean Data Determination and/or approved attainment plan except Rusk/Panola Cos., TX.
- Round 3 Nonattainment Areas
 - Sanctions and FIP deadline December 2, 2022 for Evangeline Parish, LA; Piti-Cabras, GU; and Huntington Co. IN.
- Round 4 Nonattainment Areas
 - Attainment plan submittals due October 30, 2022 for St. Lawrence Co., NY; Giles Co., VA; Henderson & Webster Counties, KY; and New Madrid Co., MO.
- SO₂ Interstate Transport SIPs



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

- EPA is continuing to implement the SSM Policy outlined in the 2015 SSM SIP Call action (80 FR 33840, June 12, 2015).
- Automatic and discretionary exemptions from SIP emissions limits and affirmative defense provisions are inconsistent with the CAA.
- EPA proposed to reinstate findings of substantial inadequacy of SSM provisions (SIP calls) that were withdrawn in 2020 for the states of Texas, North Carolina and Iowa (88 FR 11842, February 24, 2023).
 - In addition, EPA proposed to issue new findings of substantial inadequacy and SIP calls to: Connecticut; Maine; North Carolina; Wisconsin, Louisiana; Shelby County, TN; Buncombe County, NC; and Mecklenburg County, NC.
 - If the SIP calls are finalized, the final action will set deadlines by which the affected air agencies will have to submit revised SIPs; EPA is proposing a deadline of 18 months after the final findings are published.
 - Public comment deadline on proposal is April 25, 2023.
- Findings of Failure to Submit for 12 overdue SIP Call responses, effective February 11, 2022 (87 FR 1680, January 12, 2022). Sanctions could apply beginning August 2023 if complete SIP revisions are not submitted.



Inflation Reduction Act (IRA): Key EPA Programs

- EPA received \$41.5 billion in appropriations to support 24 new and existing programs. This makes EPA the second largest steward of discretionary funding after USDA. In addition, Superfund will receive a projected \$11.7 billion in tax revenue.
- Six new programs account for 98% of this total funding:
 - **Greenhouse Gas Reduction Fund (\$27 billion)** – Provide capital to greenhouse gas mitigation projects not currently able to access private capital, particularly in low-income and disadvantaged communities. (AO)
 - **Climate Pollution Reduction Grants (\$5 billion)** – Provide grants at the state, local, and Tribal level to develop plans to reduce greenhouse gas emissions and implement those plans. At least one grant will go to an eligible entity in every state. (OAR)
 - **Environmental and Climate Justice Block Grants (\$3 billion)** – Fund community-based nonprofit organizations to support a wide range of climate and environmental justice activities. (OEJECR)
 - **Reduce Air Pollution at Ports (\$3 billion)** – Award rebates and grants for ports to purchase and install zero-emission technology and develop climate action plans. \$750 million for nonattainment areas. (OAR)
 - **Methane Emissions Reduction Program (\$1.55 billion)** – Fund grants and technical assistance to accelerate emissions reduction from petroleum and natural gas systems. Also establish a methane waste emissions charge starting at \$900 per ton in 2024 and increasing to \$1,500 per ton by 2026. (OAR)
 - **Clean Heavy-Duty Vehicles (\$1 billion)** – Provide grants, rebates, and contract support to replace heavy duty vehicles with zero emission alternatives. \$400 million is specifically for nonattainment areas. (OAR)



Climate Pollutant Reduction Grants

One planning grant, three deliverables over 4 years



Priority Climate Action Plan (PCAP)

- Due **March 1, 2024**
- Near-term, implementation-ready, **priority greenhouse gas (GHG) reduction measures**
- **Prerequisite** for implementation grant



Comprehensive Climate Action Plan (CCAP)

- Due in **2025** (later for tribes and territories)
- **All sectors** / significant GHG sources and sinks
- **Near- and long-term** GHG emission reduction goals and **strategies**



Status Report

- Due in **2027** (N/A for tribes or territories)
- **Updated** analyses and plans
- **Progress and next steps** for key metrics

<https://www.epa.gov/inflation-reduction-act/climate-pollution-reduction-grants>



Regional Haze Program Update

- EPA is reviewing submitted SIPs.
- Latest action was proposed approval of New Jersey (87 FR 51016, 8/19/22).
- EPA issued Findings of Failure to Submit effective September 29, 2022, for 15 states. (87 FR 52856).
- EPA previously committed to reconsidering certain aspects of the 2017 Regional Haze Rule revisions, including FLM consultation and RAVI provisions.
 - Other rule changes for the 3rd planning period and beyond may also be considered.
 - We look forward to communicating with states and other stakeholders on this topic in the future.

Regional Haze SIP Status as of March 2023	
EPA Final Actions Published	1
Submitted SIPs Awaiting EPA Action	38
SIPs Outstanding	14

Questions and Comments





Current PM National Ambient Air Quality Standards

<u>Particle Pollution</u> (PM)	PM _{2.5}	primary	1 year	12.0 µg/m ³	annual mean, averaged over 3 years
		secondary	1 year	15.0 µg/m ³	annual mean, averaged over 3 years
		primary and secondary	24 hours	35 µg/m ³	98th percentile, averaged over 3 years
	PM ₁₀	primary and secondary	24 hours	150 µg/m ³	Not to be exceeded more than once per year on average over 3 years

Last revisions:

- 2006 Annual PM₁₀ revoked
- 2006 Primary and Secondary 24-hour PM_{2.5} revised from 50 to 35 µg/m³
- 2012 Primary Annual PM_{2.5} revised from 15 to 12 µg/m³



EPA eLearning Modules on Area Designations

- 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>
- [PLAN201-SI: Applying Technical Factors for Area Designations](#)
 - [What are Area Designations?](#)
 - [Area Designations Process and Timeline](#)
 - [Area Designations Factor Analysis](#)