



NAAQS Implementation Updates

AAPCA Fall Meeting
Raleigh, North Carolina
August 27, 2019

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

Overview

- NAAQS Review Update
- Perspective on NAAQS Progress
- EPA Strategic Plan Priority Goals
 - Nonattainment Areas
 - SIP Process Improvements
- NAAQS Implementation Updates
 - Ozone
 - Sulfur Dioxide (SO₂)
 - Fine Particulate Matter (PM_{2.5})
 - Lead (Pb)
- Exceptional Events



NAAQS Review Status

(August 2019)

	PM ¹	Ozone	Secondary (Ecological) NO ₂ , SO ₂ , PM ²	CO	Lead	Primary NO ₂	Primary SO ₂
Last Review Completed (final rule signed)	December 2012	October 2015	March 2012	August 2011	September 2016	April 2018	February 2019
Recent or Upcoming Major Milestone(s)	<u>Summer/Fall 2019</u> Draft PA <u>Early 2020</u> Proposal <u>Late 2020</u> Final	<u>Fall 2019</u> Draft ISA and Draft PA ³ <u>Early 2020</u> Proposal <u>Late 2020</u> Final	<u>Timing of next steps is TBD</u> Final ISA; draft REA/PA	TBD ⁴	TBD	TBD	TBD

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

⁴ TBD = To be determined

Progress since 1990: Counties Violating 1 or More NAAQS

Stds/AQ Data No.

1990/1990 240

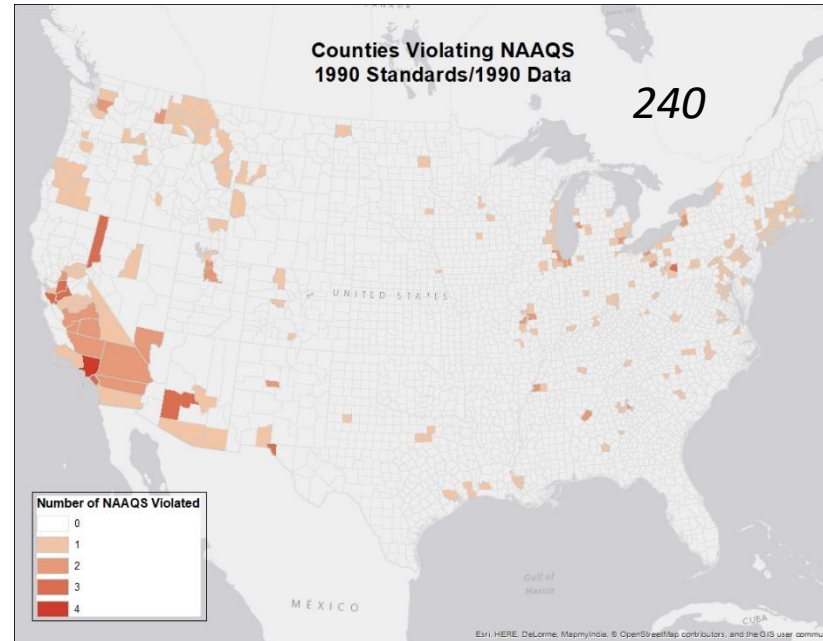
1990/2018 52

2018/1990 491*

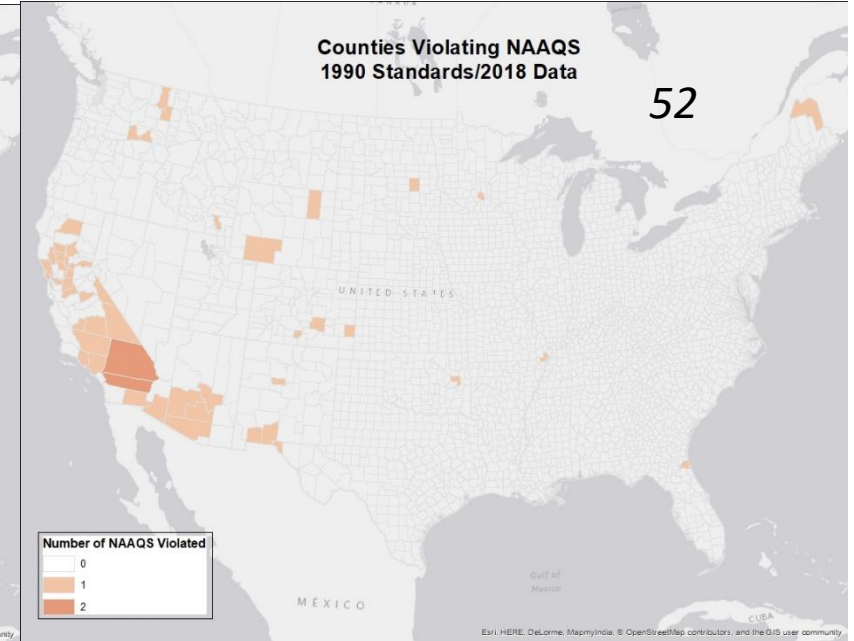
2018/2018 176* (203)

* Does not count counties violating only the PM_{2.5} standards which did not exist in 1990. National air quality monitoring for PM_{2.5} began in 1999.

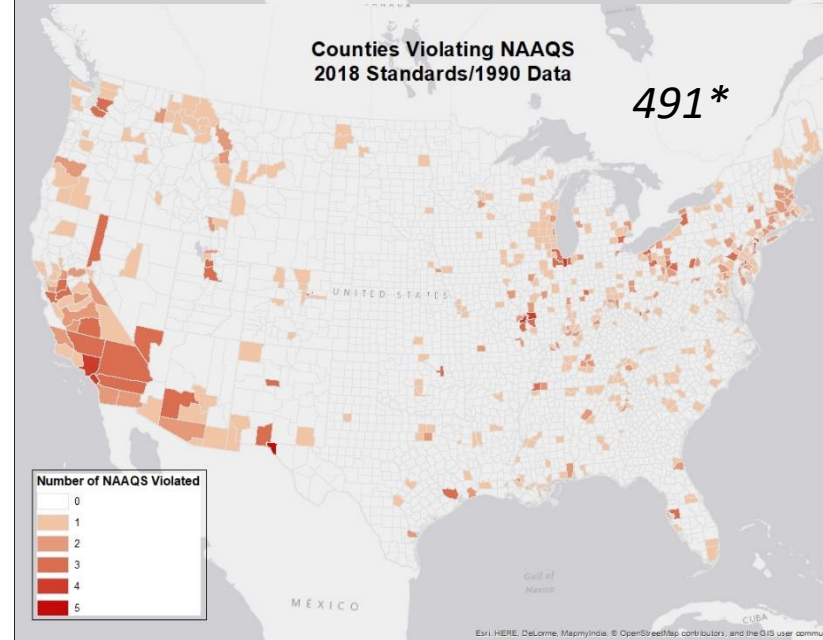
1990 Status



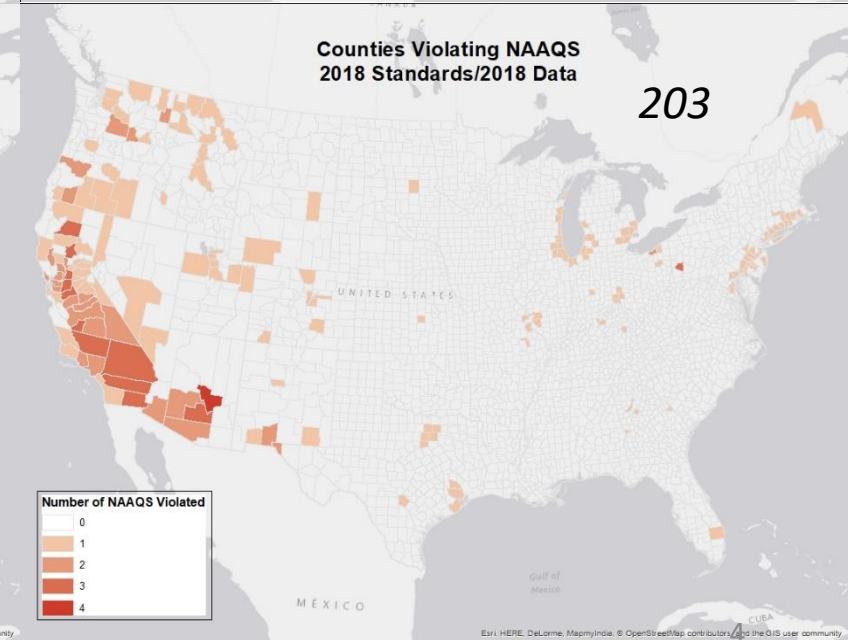
2018 Status



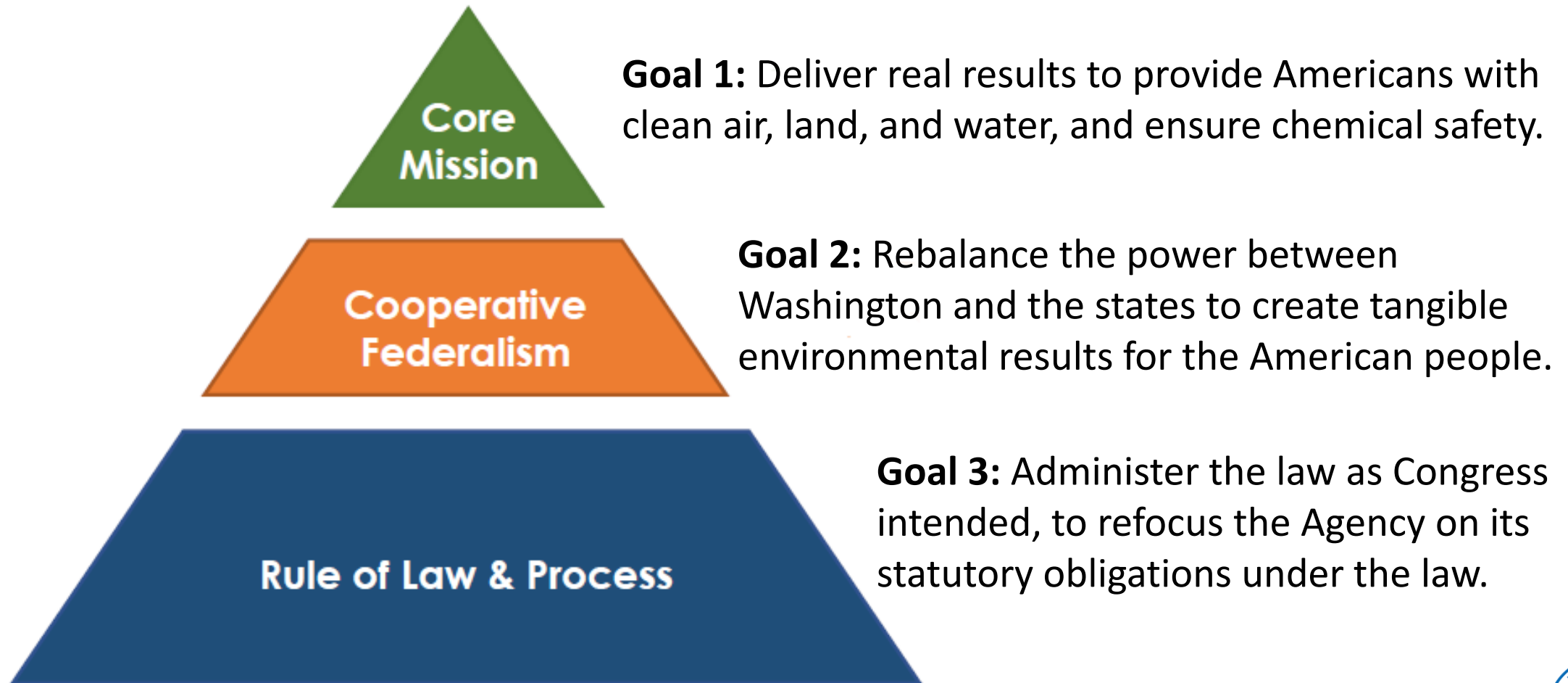
Counties Violating NAAQS 2018 Standards/1990 Data



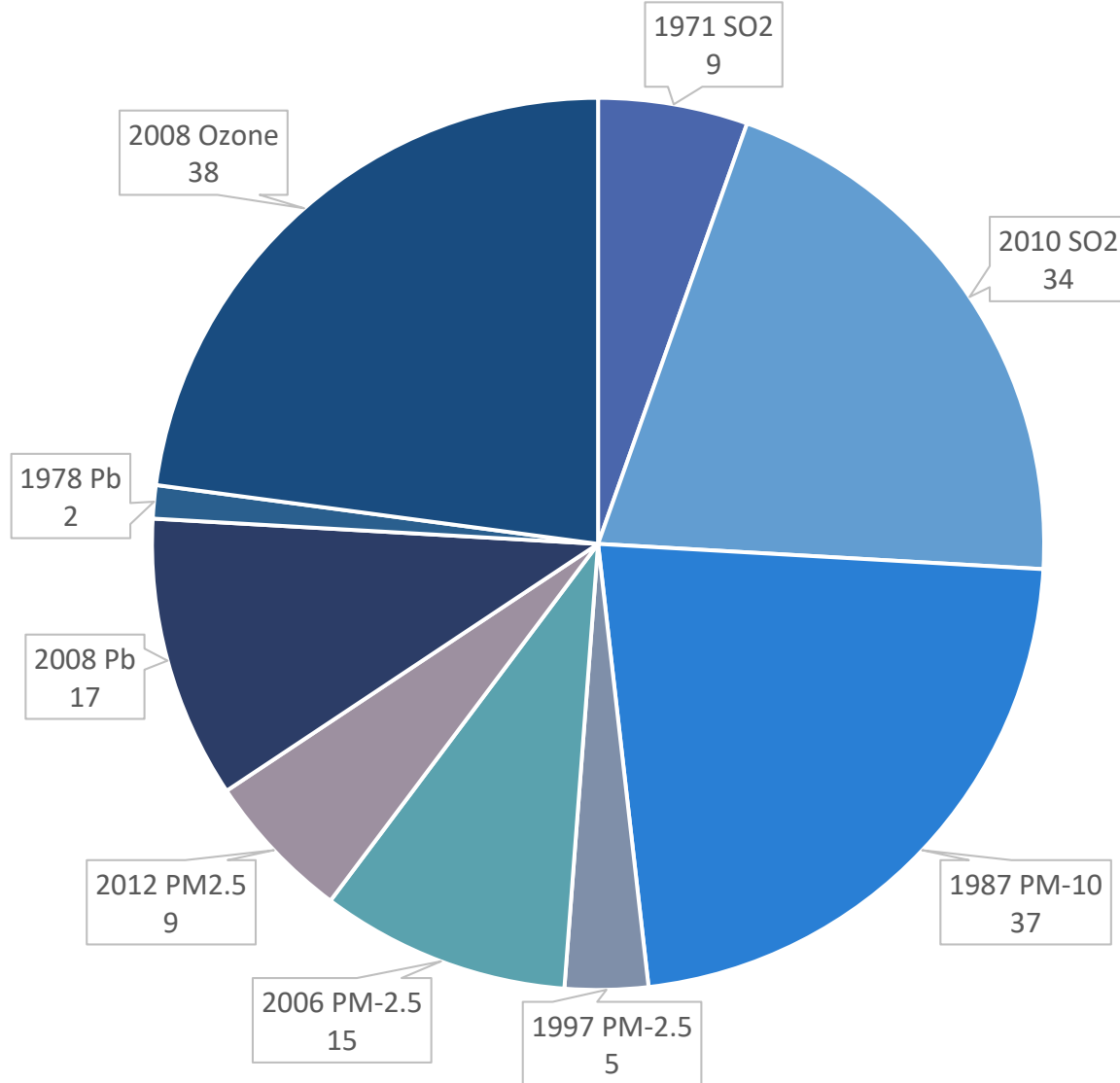
Counties Violating NAAQS 2018 Standards/2018 Data



EPA Strategic Plan Foundation



Nonattainment Areas for Non-revoked NAAQS as of October 1, 2017 (166)

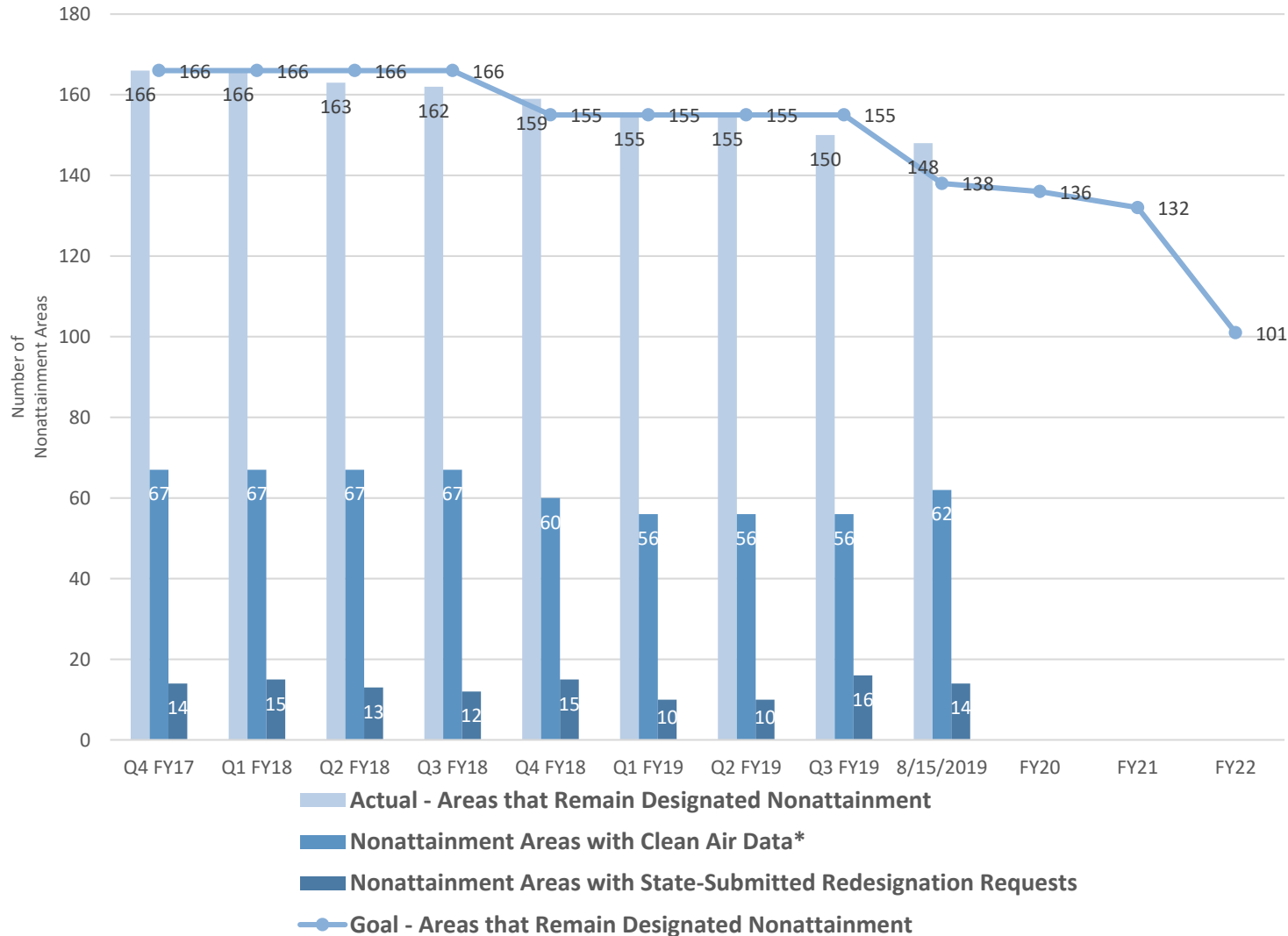


EPA Priority Goal: Reduce Number of Nonattainment Areas

- Work with states to prioritize redesignation request submissions.
- Ensure states have necessary rules, guidance, and tools.
- Improve the efficiency and effectiveness of the SIP/TIP process, including EPA’s review process, to maximize timely processing of requested SIP/TIP actions.
- Take federal oversight actions, where necessary.
- For EPA to approve a state’s requests to redesignate a nonattainment area, the request must meet the minimum Clean Air Act requirements, which include:
 - A demonstration that the area has air quality that is attaining the NAAQS;
 - Establishing that pollution reductions are due to implementing permanent and enforceable measures;
 - A 10-year maintenance plan that includes contingency measures to be triggered in the event of a re-violation of the NAAQS; and,
 - Satisfying any other applicable and outstanding attainment planning and emissions control requirements.

Agency Priority Goal: *By September 30, 2022, EPA, in close collaboration with states, will reduce the number of nonattainment areas to 101 from a baseline of 166.*

Reduce Number of Nonattainment Areas

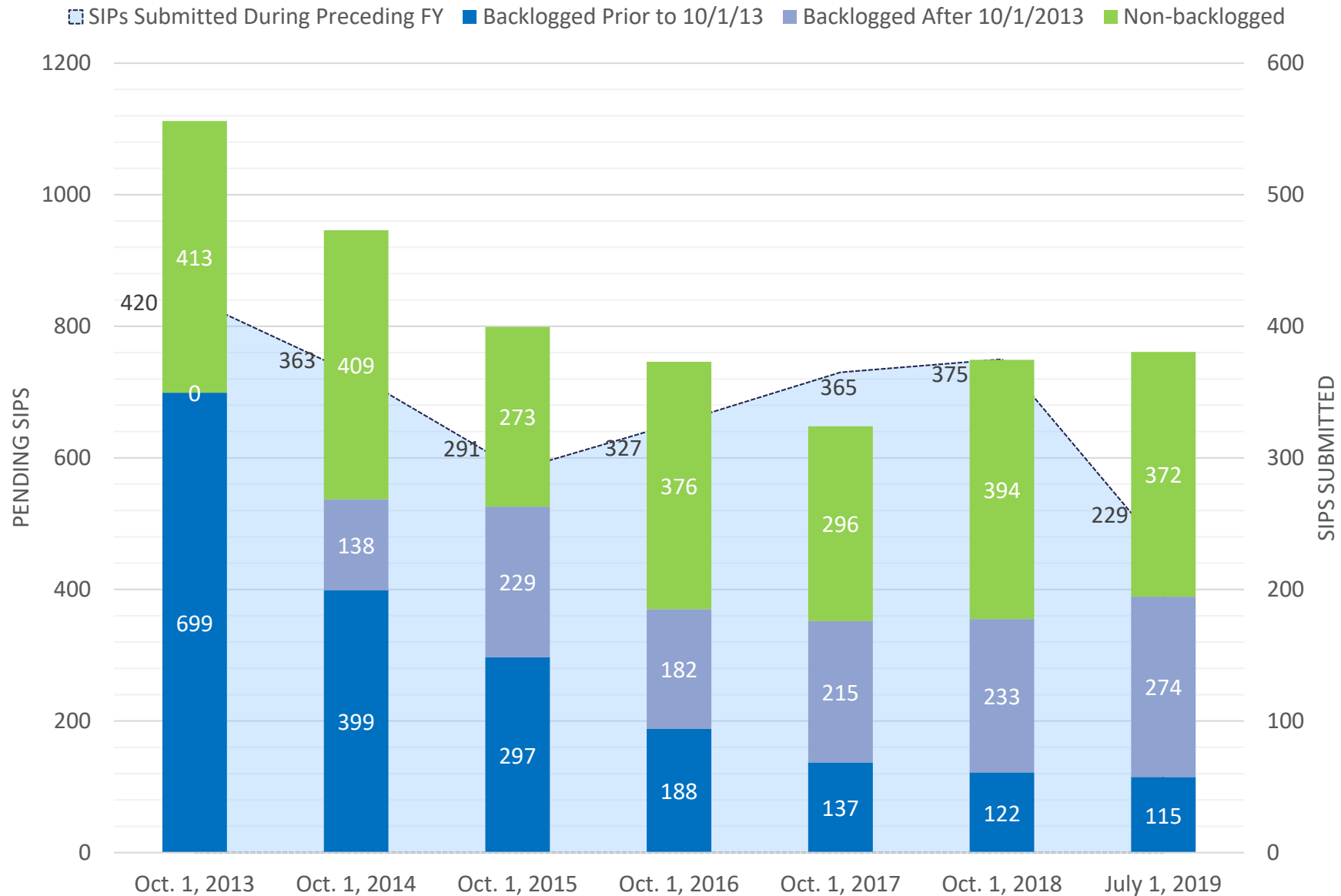


*Clean air data is a key step to redesignation to attainment, which can occur once an area's air quality attains the federal standard.



Improving State Implementation Plan Reviews

SIPs Pending EPA Review – 2013 to July 1, 2019

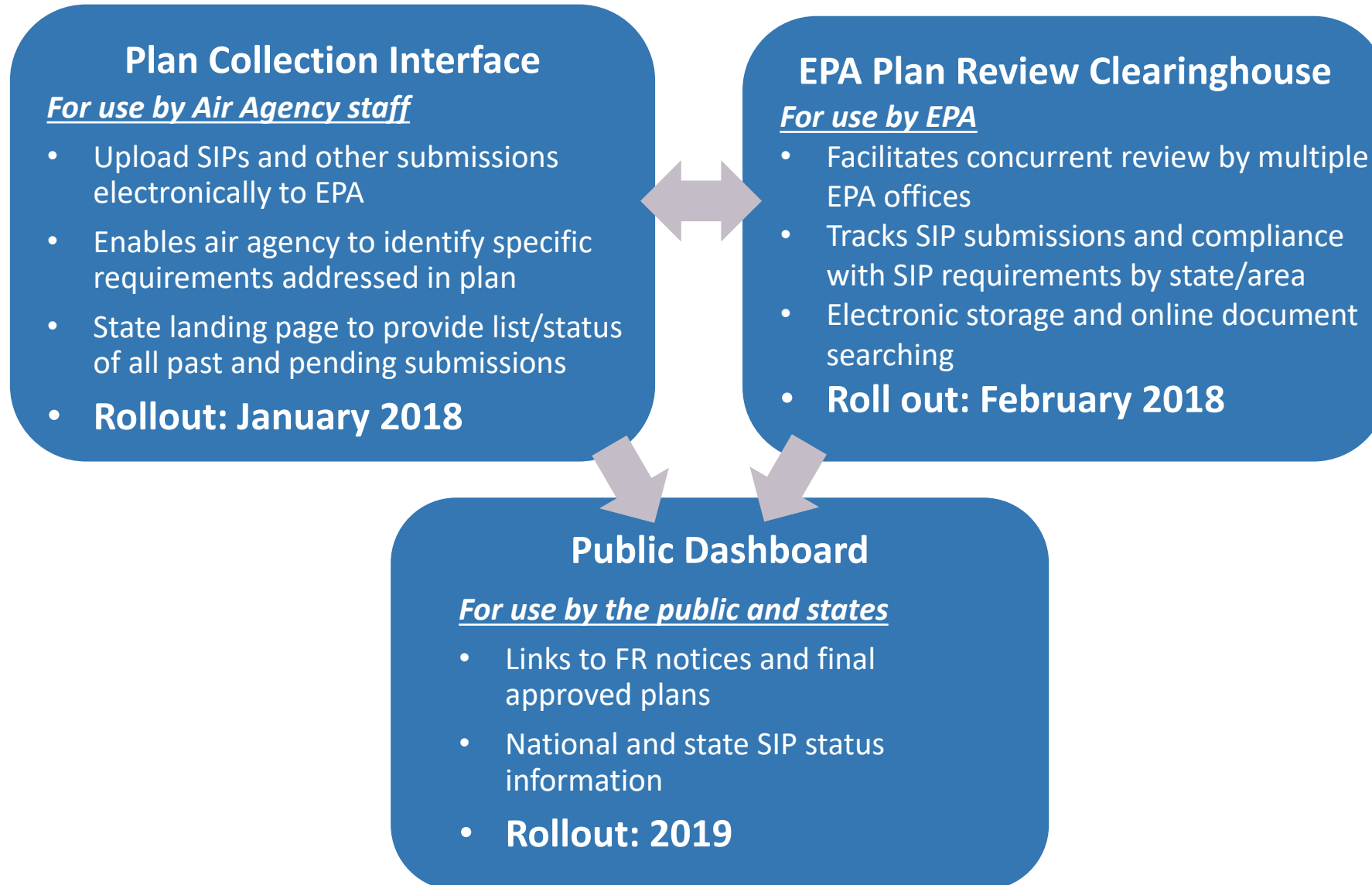


SIP Process Improvements

- Early engagement during SIP development
- Ozone Quick Start Guide
- Upcoming activities:
 - Consider key backlog reduction techniques for the most difficult SIPs including withdrawal and disapproval
 - SIP Lean Guide
 - Update external-facing “SIP streamlining” website
 - Develop internal New Process Standard Operating Procedure
 - Further develop State Plan Electronic Collaboration System (SPeCS)



State Plan Electronic Collaboration System (SPeCS) for SIPs



SPeCS for SIPs (cont.)

- Since January 2018, states have submitted a total of 414 submissions – 357 official submissions and 57 draft submissions
- Plans for 2019 and Beyond
 - Complete Public Dashboard
 - Develop the Regional Haze Module
 - Develop an Exceptional Events Demonstration Module
 - Integrate SIP Lean Efforts into SPeCS
 - Continuously improve the State Plan Collection Interface and EPA Clearinghouse based on on-going user feedback

Pollutant-Specific Implementation Updates

Ozone, SO₂, PM_{2.5}, Pb

2015 Ozone NAAQS Implementation Update

- 52 areas initially designated nonattainment:
 - 51 areas (excluding San Antonio) effective August 3, 2018 (83 FR 25776; 6/04/18)
 - San Antonio, Texas area effective September 24, 2018 (83 FR 35136; 7/25/18)

Classification	Number of Areas	Attainment Deadline (years)	Attainment Date
Marginal	39	3	August 3, 2021* (2018-2020 DV)
Moderate	5	6	August 3, 2024
Serious	2	9	August 3, 2027
Severe-15	2	15	August 3, 2033
Extreme	2	20	August 3, 2038
Rural Transport (Marginal)	2	N/A	---
TOTAL	52		
* Sep 24, 2021 for San Antonio, TX area			

- Columbus, OH area redesignated to attainment (84 FR 43508; 8/21/19)
- Initial SIP submittals (emissions inv./statements) due August 3, 2020



2015 Ozone NAAQS Implementation Update (cont.)

- Infrastructure SIP update
 - SIPs were due October 1, 2018
 - EPA has received 34 full submittals and 9 partial submittals
- Litigation on 2015 Ozone NAAQS SIP Requirements Rule
 - Final rule published December 6, 2018 (83 FR 62998)
 - Petitioners' brief filed July 22, 2019:
 - NNSR interprecursor trading
 - RFP requirements: milestone compliance demonstrations
 - RFP requirements: alternative baseline year
 - Early implemented contingency measures
 - EPA's reply brief due November 1, 2019; oral arguments timing TBD



2015 Ozone NAAQS Interstate Transport

- EPA is actively reviewing submitted 2015 ozone NAAQS transport SIPs
 - received 38 of 56 states/jurisdictions
 - finalized approval action on 2 state SIPs
 - proposed approval on an additional 4 SIPs
- Notice of Intent (NOI) to file mandatory duty deadline suit to make Findings of Failure to Submit outstanding interstate transport SIPs that were due October 1, 2018



2008 Ozone NAAQS Implementation Update

- Moderate area update
 - Moderate area Determinations of Attainment by the Attainment Date (DAAD) published August 23, 2019 (84 FR 44238), effective September 23, 2019
 - DAAD rule establishes new SIP submittal and RACT implementation deadlines for newly-reclassified Serious areas
 - 1-year attainment date extension for Sheboygan County, WI to July 2019
 - Separate related actions for Denver, CO; Phoenix, AZ; Imperial County, CA; and Kern County, CA
- 2008 Ozone NAAQS Interstate Transport
 - CSAPR Update and Closeout: Litigation is pending in the D.C. Circuit; oral arguments scheduled for September 20, 2018



1997 Ozone NAAQS Implementation Update

- The February 2018 *South Coast II* ruling upheld EPA's general authority to revoke a prior NAAQS with adequate antibacksliding protections ("controls") but reversed several key antibacksliding approaches for the revoked 1997 ozone NAAQS, including:
 - duty to reclassify areas upon failure to timely attain; and
 - "redesignation substitute" mechanisms to terminate antibacksliding controls
 - 2nd 10-year maintenance plans
- The ruling held that to remove antibacksliding requirements, areas that were designated nonattainment for the 1997 NAAQS at time of revocation needed to meet all redesignation requirements under CAA section 107(d)(3). Recent related proposed approvals include:
 - Houston-Galveston-Brazoria, TX area (84 FR 22093; 5/16/19)
 - Dallas-Fort Worth, TX area (84 FR 29471; 6/24/19)
- EPA provided "Resource Document" to assist states with preparing second 175A maintenance plans, including "limited maintenance plans." <https://www.epa.gov/ground-level-ozone-pollution/1997-ozone-national-ambient-air-quality-standards-naaqs-nonattainment>



2010 SO₂ NAAQS Implementation Update

- **Approved attainment plans:** Currently, 15 of the SIPs for the initial 29 round 1 nonattainment areas have been approved. Continuing to review additional submitted plans and HQ is working with Regions and states on potential approvability issues.
- **Mandatory duty deadline lawsuit** on EPA's failure to make findings of failure to submit (FFS) SO₂ attainment plan SIPs.
 - Suit filed in the U.S. District Court for the Northern District of California on June 14, 2018, and December 17, 2018
 - Covers Round 1 and Round 2 nonattainment areas
- **Interstate transport:** EPA continues to make good progress approving submitting SO₂ interstate transport SIPs and continues to work with states to submit approvable SIPs addressing the good neighbor provision.
- **Round 4 designations:** EPA must designate all remaining portions of the U.S. by Dec. 31, 2020. Targeting release of Round 4 Process Guidance Memo by the end of Summer 2019.



Progress on PM_{2.5} NAAQS Attainment

(as of August 2019)

	1997 PM _{2.5} (2005 Designations)	2006 PM _{2.5} (2009 Designations)	2012 PM _{2.5} (2015 Designations)
Initial Nonattainment Areas	39	32	9
Areas Redesignated to Attainment	35	18	1
Current Nonattainment Areas	4	14	8
Clean Data Determinations	3	10	3
Attainment Deadlines	Serious 11/2021	Serious 12/2019	Moderate 12/2021 Serious 12/2025



PM_{2.5} NAAQS Implementation: 2019 Actions

DATE	STATE	AREA	NAAQS	ACTION
5/28/2019	IL	St. Louis	1997	Final Redesignation
4/10/2019	UT	Provo	2006	Final Clean Data Determination
4/25/2019	AZ	West Central Pinal	2006	Proposed Clean Data Determ.
6/5/2019	UT	Salt Lake City	2006	Proposed Clean Data Determ.
4/12/2019	OH	Cleveland	2012	Final Redesignation
7/16/2019	PA	Lebanon County	2012	Proposed Redesignation
7/16/2019	PA	Delaware County	2012	Proposed Redesignation

- PM_{2.5} Precursor Demonstration Guidance issued in May 2019



Lead (Pb) NAAQS Implementation Update

- Of the 22 areas designated nonattainment for the 2008 Pb NAAQS, 11 have been redesignated to attainment
- All areas have fulfilled attainment planning requirements
- Current focus:
 - Remaining redesignations
 - Monitor removal issues



Exceptional Events Update

- EPA has concurred on 25 state demonstrations that were submitted since EPA revised the Exceptional Events Rule in September 2016
- We continue developing new guidance documents to help right-size demonstrations and facilitate the exceptional events process – Thank you for feedback on drafts!
 - **Stratospheric Ozone Intrusion Guidance – Released November 2018**
 - **Updated High Wind Dust Event Guidance – Released April 4, 2019**
 - **Clarification Memo on Data Modification – Released April 4, 2019**
 - **Prescribed Fire Guidance – Released August 9, 2019**
- EPA’s exceptional events webpage provides key resources, including example demonstrations for Ozone and PM, and will continue to be updated as new materials become available

<https://www.epa.gov/air-quality-analysis/treatment-air-quality-data-influenced-exceptional-events>



NAAQS Implementation Milestones (August 2019)

Pollutant	Final NAAQS Signature	Nonattainment Designations Effective	Infrastructure SIP Due	Attainment Plans Due	Attainment Date
PM _{2.5} (2006)	Oct 2006	Dec 2009	Oct 2009	Dec 2014	Dec 2015 (Moderate) Dec 2019 (Serious)
Pb (2008)	Oct 2008	Dec 2010-2011	Oct 2011	June 2012-2013	Dec 2015-2019
PM _{2.5} (2012)	Dec 2012	Apr 2015	Dec 2015	Oct 2016 (Moderate)	Dec 2021 (Moderate) Dec 2025 (Serious)
NO ₂ (2010) (primary)	Jan 2010	Feb 2012	Jan 2013	N/A	N/A
SO ₂ (2010) (primary)	June 2010	Oct 2013, Sept 2016, Apr 2018 (early 2021)	June 2013	Apr 2015, Mar 2018, Oct 2019 (mid 2022)	Oct 2018, Sept 2021, Apr 2023 (early 2026)
Ozone (2008)	Mar 2008	July 2012	Mar 2011	July 2015-2016*	July 2021-2032
Ozone (2015)	Oct 2015	Aug 3, 2018 (Sep 24, 2018 for San Antonio, TX)	Oct 2018	Aug 2021-2022	Aug 2021-2038

* January 2017 for areas reclassified from Marginal to Moderate. August 2020 for areas reclassified from Moderate to Serious.

** for areas classified from Serious to Extreme



Questions and Comments

