



NAAQS Implementation: Policy and Technical Updates

OFFICE OF AIR QUALITY PLANNING AND STANDARDS
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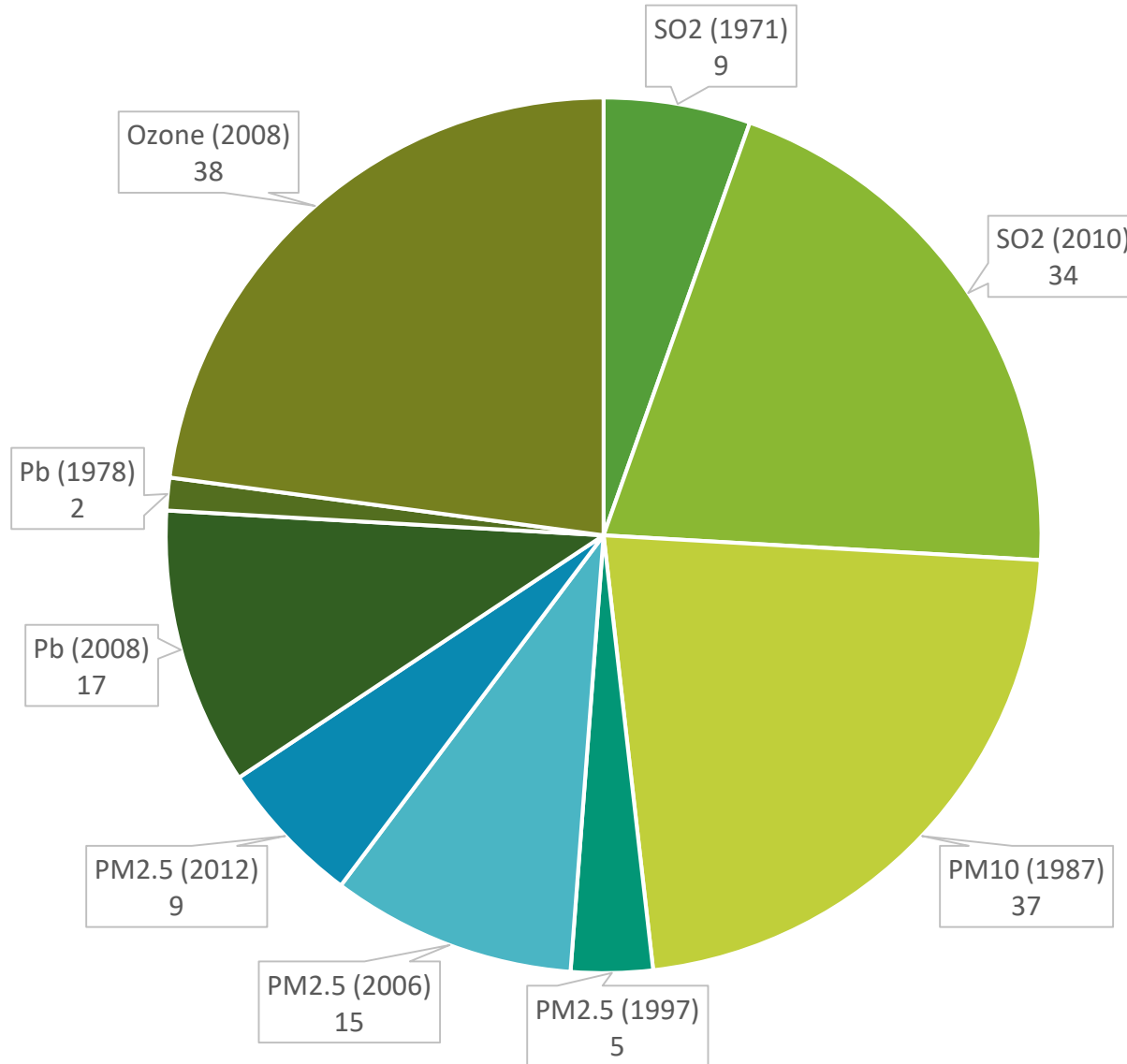
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OVERVIEW

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



EPA Priority Goal: Reduce Number of Nonattainment Areas

- Work with states to prioritize redesignation 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.

Approving state requests to redesignate nonattainment areas depends on states meeting 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.

EPA's Clean Air Priority Goal FY2018-2022: Reduce Number of Nonattainment Areas

FISCAL YEAR	GOAL (from 166 areas)*	ACTUAL (thru FY18 Q2)
FY2018	155	163
FY2019	146	
FY2020	144	
FY2021	140	
FY2022	101	

* The baseline of 166 is the number of areas designated nonattainment for non-revoked standards as of 10/1/2017 (start of 1st quarter of FY 2018).



2008 Ozone NAAQS: Implementation

- 2008 Ozone NAAQS Key implementation dates for nonattainment areas:
 - Emissions inventories, emissions statement rules and RACT SIPs were due July 2014
 - Attainment plans and demonstrations were due July 2015 (Moderate) or July 2016 (Serious and above)
 - Marginal area attainment date July 20, 2015 (attainment determined by 2012-2014 air quality data)
 - Moderate area attainment date July 20, 2018 (2015-2017 air quality data)
- EPA to make determinations of whether Moderate nonattainment areas attained the 2008 standard by the July 20, 2018, attainment date
 - Final action must be completed by January 20, 2019



2008 Ozone NAAQS: Findings of Failure to Submit

- On January 13, 2017, in response to a complaint filed by environmental petitioners, the EPA found that 15 states and the District of Columbia failed to submit certain SIP revisions required under the 2008 ozone NAAQS (82 FR 9158; February 3, 2017; effective March 6, 2017)
 - EPA also entered into a Consent Decree with the petitioners on January 19, 2017, which sets deadlines for EPA to complete final actions on SIP submittals by various dates ranging from June 2017 to July 2018
- On November 29, 2017, also in response to a complaint filed by environmental petitioners, the EPA found that 3 states failed to submit various SIP submittals required for 2008 ozone NAAQS nonattainment areas reclassified to Moderate in 2016 (82 FR 58118; December 11, 2017; effective January 10, 2018)
 - These findings of failure to submit served as formal notice to air agencies and established deadlines by which they either must submit complete SIP revisions or become subject to mandatory sanctions



2008 Ozone NAAQS Implementation: Litigation

- **2008 Ozone NAAQS State Implementation Plan (SIP) Requirements Rule (80 FR 12264; March 6, 2015)**
 - Provides rules and guidance on nearly all aspects of the attainment planning requirements
 - Revoked the 1997 NAAQS effective April 6, 2015, and established anti-backsliding requirements
- ***South Coast Air Quality Management District v. EPA (2018)***
 - South Coast AQMD and env. petitioners (Sierra Club *et al.*) challenged various elements of the 2008 Ozone NAAQS SIP Requirements Rule (SRR)
 - The D.C Circuit issued its decision on February 16, 2018, upholding about half of the challenged elements and reversing several flexibilities in the SRR
 - On April 23, 2018, EPA filed a petition seeking rehearing on portions of the decision



2008 Ozone NAAQS Implementation: Litigation (cont.)

- ***South Coast Air Quality Management District v. EPA (2018): Key Decisions Include:***
 - ***UPHELD:***
 - RFP requirements including default 2011 baseline, one-time fulfillment of 15% VOC reduction, in-area restriction
 - RACT area-wide emissions averaging
 - EPA's authority to revoke a prior NAAQS with adequate anti-backsliding requirements
 - ***REVERSED:***
 - Anti-backsliding approaches for bump-ups, "redesignation substitutes," and transportation conformity
 - RFP alternative baseline years
 - 1997 NAAQS maintenance area flexibilities (maintenance plans, transportation conformity)
- EPA is assessing implications for implementation of the 2008 and 2015 NAAQS



2015 Ozone NAAQS: Implementation-Related Rulemakings

- **Proposed Rule: Implementation of the 2015 NAAQS for Ozone: Nonattainment Area Classifications and SIP Requirements** published for public comment November 17, 2016 (81 FR 81276)
- **Final: 2015 Ozone NAAQS Classifications Rule** published March 9, 2018 (83 FR 10376)
 - Final nonattainment area classification thresholds based on “percent-above-the-standard” (PATS) methodology
 - Final maximum attainment dates associated with each nonattainment area classification
- **Final: 2015 Ozone NAAQS State Implementation Plan (SIP) Requirements Rule**
 - Target Summer 2018
 - EPA will consider *South Coast v. EPA* (2018) decision in its final approach



2015 Ozone NAAQS: Round 2 Designations

- **On November 6, 2017, the EPA issued final designations of attainment/unclassifiable for about 85% of the counties in the United States**
 - This included 2,646 counties, two separate areas of Indian Country areas and five territories
 - It also included a designation of unclassifiable for three counties in the state of Washington due to insufficient monitoring data to calculate a 3-year ozone design value
 - These final designations took effect on January 16, 2018, 60 days after the notice was published in the Federal Register

2015 Ozone NAAQS: Round 2 Designations

- **On April 30, 2018** the EPA finalized air quality designations for all areas of the country except the eight counties in the San Antonio, Texas metropolitan area. In this action the EPA:
 - Designated 51 areas as Nonattainment, including 2 separate areas of Indian country
 - Designated 1 area as Unclassifiable; and
 - Designated all other areas, including both state and tribal areas, as Attainment/Unclassifiable (with the exception of San Antonio, TX as noted above).
 - Announced the classification for Nonattainment areas, which occurs by operation of law at the time of designation and is based on the severity of each area's ozone air quality problems.
 - Reclassified five areas in California to a higher classification (voluntary action).
- The effective date of these designations is 60 days following publication in the FR
- The EPA will finalize designations for the eight counties in the San Antonio, Texas metropolitan area by July 17, 2018



Progress on Ozone NAAQS Attainment

(as of March 2018)

	1997 NAAQS (2004 Designations)	2008 NAAQS (2012 Designations)
Initial Nonattainment Areas	115	46
Areas Redesignated to Attainment	80 (prior to revocation)	8
Current Nonattainment Areas	35	38
Clean Data Determinations	26	18*
Redesignation Substitutes	2	n/a
Reclassifications to Higher Classification	0**	13

*Includes 15 Marginal area determinations of attainment by the attainment date and 3 Moderate area clean data determinations.

**Obligation to reclassify may be affected by South Coast II decision.



2010 SO₂ NAAQS Area Designations

- EPA revised **Primary NAAQS for Sulfur Dioxide (SO₂) standard** on June 3, 2010 to 75 ppb/1-hour (75 FR 35520)
- EPA is completing area designations in four separate Rounds:
 - **Round 1** – July 25, 2013: EPA designated 29 areas as nonattainment (effective September 12, 2013)
 - SIP submittal date: April 4, 2015
 - Attainment date: October 4, 2018
 - FFS issued: April 18, 2016
 - Number of areas issued FFS: 16 areas in 11 states
 - Mandatory sanctions (can be avoided by submitting a complete SIP)
 - First sanction: 2:1 Emissions Offset for NNSR: October 18, 2017
 - Second sanction: Highway funds: April 18, 2018
 - FIP obligation: April 18, 2018 (24 months after effective date of FFS)
 - Currently, EPA remains subject to FIP obligations for 13 of the 16 FFS areas

2010 SO₂ NAAQS Area Designations (con't)

- **Round 2** – July and December 2016: EPA finalized designations for 65 areas including 7 nonattainment areas, 41 unclassifiable/attainment areas, and 17 unclassifiable areas
 - Number of nonattainment areas designated on **July 12, 2016: 4**
 - Effective date of designations: **September 12, 2016**
 - SIP submittal date: **March 12, 2018**
 - Attainment date: **September 12, 2021**
 - Number of nonattainment areas designated on **December 13, 2016: 3**
 - Effective date of designations: **January 12, 2017**
 - SIP submittal date **July 12, 2018**
 - Attainment date: **January 12, 2022**



2010 SO₂ NAAQS Area Designations (con't)

- **Round 3** – December 21, 2017: EPA designated all remaining areas of the country except Round 4 areas
 - Included 6 nonattainment areas, 23 unclassifiable areas, and the remainder of the country in all states, territories, and tribes designated attainment/unclassifiable (except Round 4 areas)
 - The effective date of the designations is April 9, 2018
 - SIP submittal date: October 9, 2019
 - Attainment date: April 9, 2023
 - April 5, 2018, EPA issued a supplemental notice to account for new information regarding 2017 air quality, as applicable which was published (40 CFR 81)

- **Round 4** – by December 30, 2020: EPA will designate approximately 50 remaining areas by the consent decree deadline
 - Monitoring is underway in states that timely sited monitors consistent with the SO₂ Data Requirements Rule

Progress on 2010 SO₂ NAAQS Attainment

(as of March 2018)

	Round 1	Round 2	Round 3
Initial Nonattainment Areas	29	7	6
Areas Redesignated to Attainment	2	0	0
Current Nonattainment Areas	27	7	6
Clean Data Determinations	1	0	0



PM_{2.5} NAAQS Implementation Guidance

- PM_{2.5} NAAQS SIP Requirements Rule finalized on August 24, 2016 (81 FR 58010)
 - Provides framework for planning requirements for all current and future PM_{2.5} NAAQS
 - One district filed suit claiming that EPA erred by requiring that emissions reductions for RFP come from sources within the nonattainment area
 - This challenge was dismissed following the court's decision in favor of the EPA for the similar issue in the 2008 Ozone Implementation Rule litigation
- EPA issued draft PM_{2.5} Precursor Demonstration Guidance in November 2016
 - Recommends technical approaches for precursor demonstrations to assess whether a particular precursor contributes significantly to exceedances of the NAAQS in a given area
 - EPA is considering comments and intends to finalize guidance in 2018
 - States have been submitting and EPA has taken or is considering action on precursor demonstrations that states have developed using the draft guidance



2006 PM_{2.5} NAAQS Implementation

- Nonattainment area status:
 - Determinations of attainment by the attainment date for 7 areas (final action in May 2017)
 - Reclassification to Serious for 3 areas (final action in May 2017)
 - Moderate area attainment date extensions to December 31, 2017 for the Logan, UT-ID nonattainment area (final action in August 2017)
- Serious area attainment date is December 31, 2019
 - Extension of up to five years is possible if the area demonstrates attainment by 2019 is impracticable, adopts Most Stringent Measures and meets other requirements
- EPA will continue to work with states developing Serious area plans to address air quality challenges



2012 PM_{2.5} NAAQS Implementation

- EPA revised the PM_{2.5} NAAQS primary annual PM_{2.5} standard to 12µg/m³ on December 14, 2012 (78 FR 3086)
 - Nine Moderate nonattainment areas were designated in April 2015
 - Moderate area attainment plan due date - October 2016
 - Moderate area attainment date - December 31, 2021
- On December 20, 2017, the Center for Biological Diversity, Center for Environmental Health and the Clean Air Council filed a complaint for EPA's alleged failure to make a finding of failure to submit attainment plan revisions for certain nonattainment areas for the 2012 PM_{2.5} NAAQS
 - On April 6, 2018, issued findings that three states failed to submit required attainment plan revisions for five nonattainment areas



Progress on PM_{2.5} NAAQS Attainment

(as of March 2018)

	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	34	17	0
Current Nonattainment Areas	5	15	9
Clean Data Determinations	4	9	2
Proposed Redesignations	0	0	0



2016 Exceptional Events Rule Implementation

- Since finalizing the 2016 rule, EPA has concurred on ozone demonstrations for CT, MA, MD, NJ, PA, RI, TX, Ute Tribe (Utah), and Washoe County (Nevada)
- We remain focused on continuous improvement by engaging with stakeholders, addressing concerns, and streamlining the process
- We are hopeful that many of the things we are already doing or working to implement under the revised rule are addressing existing concerns such as ensuring timely review processes, right-sizing demonstrations, fostering national consistency, and providing additional resources like updated FAQs and technical guidance documents



Exceptional Events: Additional Resources and Engagement to Improve the Process

- EPA resources now available online – Search “EPA Exceptional Events”
 - Wildfire-Ozone Guidance
 - 2007-to-2016 Rule Crosswalk
 - Best Practices for Multi-State Exceptional Events Demonstrations
 - Mitigation Plan Checklist
 - Example Demonstrations
- Additional implementation documents planned for this year
 - Updated FAQs
 - Updated High Winds
 - Stratospheric Ozone Intrusion
 - Prescribed Fire-Ozone
 - Alternate Paths for Data Exclusion
- Stakeholder engagement – National call on Alternate Paths and webinar on Mitigation Plans
- EPA developing national electronic tracking system for exceptional events (similar to SPeCS for SIPs)



Continued Emphasis on Early and Frequent Communication

- The 2016 Exceptional Events Rule eliminated event flagging and demonstration submission deadlines with the exception of initial area designations
 - Informational or ‘I’ flags are encouraged for initially flagging suspected events
 - Request exclusion or ‘R’ flags should be used when a demonstration will be submitted
- The new **Initial Notification Process** starts a conversation between EPA and air agencies to establish mutual expectations for “right-sizing” effort, assessing the purpose for data exclusion, and identifying what is needed for an approvable demonstration
- EPA intends to conduct initial review of demonstrations within 120 days of submission, complete review within 12 months, and defer demonstrations that do not have regulatory significance within 60 days



Ozone Transport

- To address interstate transport, **Congress established the “good neighbor” provision [Section 110(a)(2)(D)(i)(I)]**, which requires upwind states to implement emission reductions if the upwind state contributes significantly to nonattainment or interferes with maintenance of the NAAQS in downwind areas
- The CAA envisions a SIP-led process; EPA is focused on a SIP first approach
- States have asked EPA for information and guidance to enable states to develop approvable and timely transport SIPs to address regional (multi-state) air quality problems
- Congress established additional CAA provisions that can be used to address interstate transport of air pollutants that are contributing to nonattainment or interfering with maintenance of NAAQS, *e.g.*:
 - Establishing provisions for creating (and as appropriate, for expanding) transport regions, specifically establishing the ozone transport region (Section 176A)
 - Providing for states to petition EPA to address sources that emit or would emit in violation of the good neighbor provision (Section 126 petitions)



2008 Ozone NAAQS: Good Neighbor Transport SIPs

- **The CSAPR Update was finalized on September 7, 2016, to address summertime interstate transport of ozone pollution for the 2008 NAAQS in the eastern U.S. by updating the CSAPR ozone season program.**
 - The first implementation period was from May 1 – September 30, 2017
- **Outstanding good neighbor obligations for the 2008 ozone NAAQS**
 - CSAPR Update was issued as a partial remedy for 21 eastern states (full remedy for TN).
 - AL, AR, IL, IN, IA, KS, KY, LA, MD, MI, MS, MO, NJ, NY, OH, OK, PA, TX, VA, WV, and WI
 - CSAPR Update Rule did not address 2008 transport obligations for western states
 - There are 24 states for which EPA has not yet fully-approved a SIP and continues to have a FIP obligation.
 - Kentucky – EPA is under a court-ordered deadline of June 30, 2018, for a full FIP. On May 10, 2018 KY submitted a demonstration for EPA's approval. At KY's request, in a parallel process, Region 4 proposed to approve KY's SIP. The comment period on EPA's proposed approval ended on May 18. Final approval of the KY SIP will moot EPA's FIP obligation.
 - For other states, EPA has statutory FIP deadlines ranging from August 2017 to March 2019



2008 Ozone NAAQS: Good Neighbor Transport SIPs (con't)

- To help states develop, supplement or resubmit their good neighbor SIPs for the 2008 standards, EPA signed the **“Supplemental Transport Memo”** on October 27, 2017. The modeling conveyed in this memo indicated that there are no monitoring sites, outside of California, that were projected to have nonattainment or maintenance problems with respect to the 2008 ozone NAAQS of 75 ppb in 2023
- EPA is currently developing a federal notice-and-comment rulemaking to evaluate and make a determination regarding outstanding good neighbor obligations for the 2008 ozone NAAQS, considering new information such as the October 2017 modeling. The Agency intends to issue a proposal by June 29, 2018 and a final action by December 6, 2018. EPA will also continue working with states outside the CSAPR Update to fully approve transport SIPs for the 2008 NAAQS.



2015 Ozone NAAQS: Good Neighbor Transport SIPs

- Good Neighbor SIPs for the 2015 ozone NAAQS are due in October 2018
- On March 27, 2018, EPA released a memorandum providing projected air quality modeling results for ozone in 2023, including projected ozone concentrations at potential nonattainment and maintenance sites for the 2015 ozone NAAQS and projected upwind state contribution data.
 - Attachment A of the memorandum identifies a preliminary list of potential flexibilities for developing a good neighbor SIP for the 2015 ozone NAAQS.
 - On April 12 and April 19, EPA hosted national stakeholder conference calls to discuss the 2023 modeling and contribution data and to gather feedback on the preliminary list of potential flexibilities for developing a good neighbor SIP.
 - The memorandum and the spreadsheet containing the updated contribution metrics, are also available on EPA's website at: <https://www.epa.gov/airmarkets/interstate-air-pollution-transport>.
- EPA is encouraging consistency and collaboration among states linked to a common receptor and among upwind and downwind states in developing and applying a regionally consistent analytic approach.



Clean Air Act Section 126(b)

Petitioning State	Response Deadlines	Named EGU Sources	Ozone NAAQS Cited
CT ¹	1/25/17 (4/6/18)	Brunner Island, PA	2008
DE (4 petitions)	3/5/17 4/7/17 7/9/17 8/3/17	1. Brunner Island, PA 2. Harrison, WV 3. Homer City, PA 4. Conemaugh, PA	2008 and 2015
MD ²	7/15/17	36 EGUs at 19 facilities in IN, KY, OH, PA and WV	Emphasized 2008, mentioned 2015
NY	5/13/18 ³	All EGU and non-EGU sources projected to emit at least 400 tpy of NOx in 9 upwind states (IL, IN, KY, MD, MI, OH, PA, VA, WV)	2008 and 2015

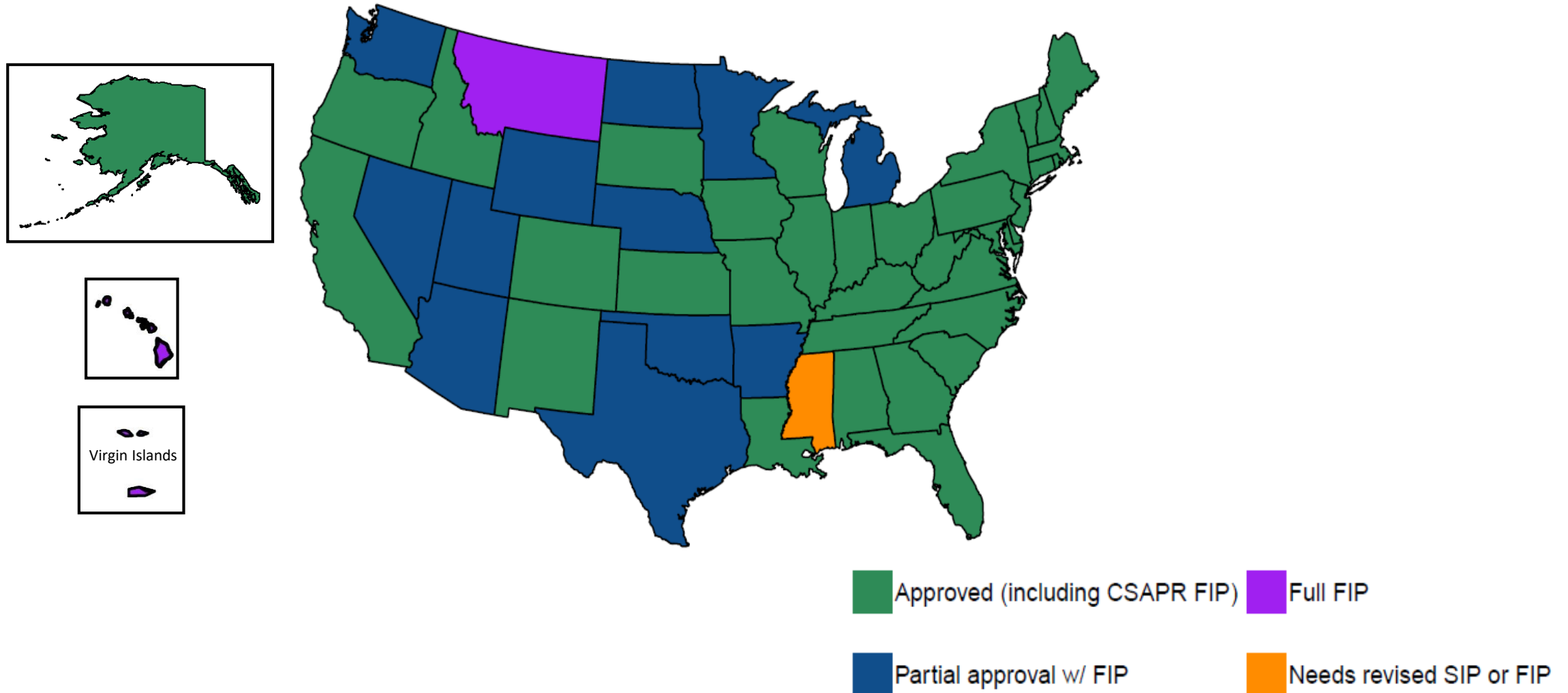
¹On February 7, 2018, in response to a May 16, 2017, CT-filed, mandatory duty suit, the U.S. District Court in Connecticut ordered the EPA to sign a final action on the CT petition within 60 days, or by April 8, 2018. The EPA proposed to deny this petition on February 22, 2018 and finalized a denial action on April 6, 2018 (83 FR 16064, published April 13, 2018)

²On September 27, 2017, MD and several environmental groups filed suit for EPA's failure to respond to MD's 126 petition.

³Petition received March 14, 2018. On May 11, 2018, EPA extended the deadline to act on the NY petition by 6-months.



Regional Haze: Status of Actions from First Implementation Period



CSAPR-better-than-BART

Recent Court Opinion:

- The D.C. Circuit recently (March 20, 2018) issued an opinion upholding EPA's 2012 CSAPR-better-than-BART rulemaking. This opinion also upheld EPA's disapprovals of several SIPs that relied on CAIR
 - The litigation in this case was in abeyance for several years while litigation on CSAPR played out
 - CSAPR-better-than-BART is currently used in regional haze plans for nineteen states

CSAPR-better-than-BART reaffirmation:

- In September 2017, EPA reaffirmed that CSAPR remains better-than-BART after some changes to the CSAPR trading programs
- EPA received petitions for review and reconsideration on the reaffirmation rulemaking; no updates on next steps or schedule



Regional Haze: Second Implementation Period

- EPA is already working with states and groups of states on the second planning period
- Key principles for implementation of the second planning period include:
 - Ensuring that states have the information they need to develop approvable regional haze plans
 - Ensuring that states have discretion and flexibility to select sources for reasonable progress analysis
 - Ensuring that we are on a path that enables compliance with the Clean Air Act, improved visibility in Class I areas, and state discretion regarding whether and how to control sources of visibility-impairing pollutants



Regional Haze Rule and Guidance Updates

- **Rule revisions were finalized on January 10, 2017 (82 FR 3078):**
 - Petitions for review were filed in the D.C. Circuit as well as petitions for reconsideration
 - On January 17, 2018, EPA announced its decision to revisit aspects of the 2017 rule revisions:
 - “EPA intends to commence a notice-and-comment rulemaking in which we will address portions of the rule, including but not limited to the Reasonably Attributable Visibility Impairment (RAVI) provisions, the provisions regarding Federal Land Manager (FLM) consultation, and any other elements of the rule we may identify for additional consideration. Furthermore, EPA plans to finalize one or more EPA guidance documents for regional haze State Implementation Plan (SIP) revisions due in 2021. Such guidance may also address some or all of the issues raised in the petitions for reconsideration.”
 - EPA asked the D.C. Circuit to place the litigation into abeyance “pending administrative proceedings that may result in changes or clarifications to the challenged rule and thereby potentially narrow the scope of this litigation;” motion granted January 30, 2018
- **On July 8, 2016 (81 FR 44608), EPA released draft guidance**
 - Next steps on guidance are expected to be developed as EPA initiates regulatory review of the 2017 rule revisions



SSM SIP Call Under Policy Review

- Final SSM SIP Action of 2015 concerned SIP provisions for treatment of excess emissions occurring during periods of startup, shutdown and malfunction (SSM)
 - Restated EPA's SSM Policy as it applied to SIPs with one change regarding affirmative defense (AD) provisions
 - Included SSM SIP Call that applied to 36 states (45 jurisdictions)
- Judicial review of the SSM Action is pending before the D.C. Circuit, but case is currently being held in abeyance to allow for review by the new administration



NSR Improvements and Other Recent Actions

- Actual-to-Projected-Actual Applicability Test Guidance Memorandum
- Project Emissions Accounting Memo
- Project Emissions Accounting Rulemaking
- Source Aggregation Guidance
- Project Aggregation Reconsideration
- Ambient Air Guidance
- Rulemaking on Treatment of Biomass for Permitting
- PM_{2.5} and Ozone SILs Guidance
- Routine Maintenance, Repair and Replacement (RMRR)
- Once-In-Always-In

NSR Updates: Actual-to-Projected-Actual Applicability Test Guidance Memorandum

- **Memorandum: “New Source Review Preconstruction Permitting Requirements: Enforceability and Use of the Actual-to-Projected-Actual Applicability Test in Determining Major Modification Applicability”** signed by Administrator Pruitt on December 7, 2017
 - Available at https://www.epa.gov/sites/production/files/2017-12/documents/policy_memo.12.7.17.pdf
 - Where a source projects an insignificant emissions increase, the level of actual emissions after the project governs applicability
 - Projections may reflect the intent to actively manage post-project operations in order to prevent a significant emissions increase from occurring
 - EPA will not second guess NSR applicability analyses that comply with the procedural requirements of the regulations



Project Emissions Accounting (Project Netting) Guidance Memorandum

- **Memorandum: “Project Emissions Accounting Under the New Source Review Preconstruction Permitting Program”** was published on March 30, 2018 (83 FR 13745)
 - Available at www.gpo.gov/fdsys/pkg/FR-2018-03-30/pdf/2018-06430.pdf
 - Communicates EPA’s interpretation that the current NSR regulations provide that emissions decreases as well as increases are to be considered at Step 1 of the NSR applicability process, i.e., determining whether a project will result in a significant emissions increase
 - Interpretation is grounded in the principle that the plain language of the CAA indicates that Congress intended to apply NSR to changes that increase actual emissions and the language in the corresponding NSR regulations is consistent with that intent
- Prior EPA guidance had indicated that the relevant provisions of the NSR regulations preclude the consideration of emissions decreases at Step 1
 - For the reasons discussed in the memo, EPA will no longer apply such interpretation



Project Emissions Accounting (PEA) Proposed Rule

- EPA published on March 30, 2018, the **Issuance of Guidance Memorandum, “PEA Under the New Source Review Preconstruction Permitting Program”**
- As discussed in the memo, this clarification will apply to all project categories (including existing units only, new units only, and new and existing units)
 - Memo can be found at www.gpo.gov/fdsys/pkg/FR-2018-03-30/pdf/2018-06430.pdf
- A proposal will codify the considerations and interpretations reflected in the memorandum
 - Current schedule: Fall 2018



Source Aggregation

- EPA defines “*stationary source*” in the permitting programs as all of the pollutant-emitting activities that are:
 - located on one or more contiguous or adjacent properties *and*
 - are under common control of one person (or persons under common control), *and*
 - belong to the same major industrial grouping (2 digit SIC code)
[40 CFR 70.2 and 52.21(b)(1) and (5)]
- EPA recently revised its interpretation of “common control” in an April 2018 letter to Pennsylvania DEP (the Meadowbrook Letter).
 - The Meadowbrook Letter explains EPA’s view that control means the power or authority of one entity to dictate decisions of the other that could affect the applicability of, or compliance with, relevant air pollution regulatory requirements.
- EPA’s interpretation of “adjacent” has evolved through source-specific determinations
 - 2016 Rulemaking clarified “adjacent” for oil and gas operations
 - Adjacent operations are limited to those within ¼ mile with shared equipment
 - EPA intends to address “adjacent” for other industries in upcoming actions



Project Aggregation Reconsideration

- 2009 Rule for Project Aggregation
 - Established “substantially related” criterion for aggregating projects, and a 3-year rebuttable presumption against aggregating
 - Did not amend the CFR text (definition of “project”), considered an interpretive rule
 - Calling it a “new interpretation” of the rule text, it only applies prospectively
- Reconsideration and Stay of the 2009 Rule
 - NRDC petitioned for reconsideration and sued EPA on the 2009 Rule
 - EPA granted reconsideration and stayed the effectiveness of the 2009 Rule pending completion of the reconsideration or litigation
 - In 2010, EPA proposed reconsideration with a preference to revoke 2009 Rule
- Current Action – Final Reconsideration Rule
 - Current schedule: Summer 2018



Ambient Air Guidance

- EPA defines “*ambient air*” as “that portion of the atmosphere, external to buildings, to which the general public has access” (40 CFR 50.1(e))
 - EPA’s longstanding policy for implementing ambient air for PSD purposes was stated in a 1980 Costle letter, “*the atmosphere over land that is owned or controlled by the source and to which public access is precluded by a fence or other physical barriers*”
 - Subsequent guidance provided over the years by EPA to recommend how to apply 1980 policy statement for specific situations
- We are evaluating several key terms associated with the definition including: “general public”, “access” and “building” to determine where additional flexibility may be appropriate
- EPA is anticipating issuing guidance in Spring 2018



Treatment of Biogenic CO₂ Emissions in Permitting

- On April 23, 2018, the EPA Administrator issued a policy statement on the treatment of forest biomass for energy production at stationary sources
- Statement addresses congressional directives and stakeholder concerns specific to the use of forest biomass for energy. It specifically:
 - Provides clear recognition of the benefits of using forest biomass for energy production at stationary sources.
 - Signals the Agency's intent to treat forest biomass biogenic CO₂ emissions from energy production at stationary sources as carbon neutral in future regulatory actions and in various programmatic contexts, which include permitting.
- The statement was not a scientific determination nor did it revise or amend any scientific determinations that the EPA has previously made.
- Policy found at: https://www.epa.gov/sites/production/files/2018-04/documents/biomass_policy_statement_2018_04_23.pdf



PM_{2.5} and Ozone SILs Guidance

- **Guidance on Significant Impact Levels (SILs) for Ozone and Fine Particles in the Prevention of Significant Deterioration Permitting Program** signed on April 17, 2018, by Peter Tsirigotis
- Includes both a revised PM_{2.5} SIL and new ozone SIL for permittees to use in streamlining the air dispersion modeling permitting process
- The guidance is comprised of a policy memorandum, a technical document and legal support document
 - All three will be referenced and included in any permit record where the recommended SILs are used by a permitting authority
 - The guidance is not a final agency action and is not binding for industry, permitting authorities, or the public



Routine Maintenance, Repair and Replacement

- EPA believes there is uncertainty regarding the interpretation of the Routine Maintenance, Repair and Replacement (RMRR) provisions in the New Source Review program
- EPA is evaluating the need to clarify the interpretation and appropriate application of the RMRR provision under the NSR regulations
- EPA anticipates clarification in Spring 2018



Once In Always In

- **2018 EPA Withdraws Once In Always In**

- On January 25, 2018, EPA issued guidance memorandum, “Reclassification of Major Sources as Area Sources Under Section 112 of the Clean Air Act”
- Memo addresses when a major source subject to a maximum achievable control technology (MACT) standard, under section 112 of the Clean Air Act (CAA), may be reclassified as an area source and no longer subject to MACT requirements
- Discusses EPA’s plain language reading of the statutory terms “major source” and “area source”
- Withdraws 1995 Seitz memo “Once In Always In” policy, which required major sources to limit potential to emit to below the major source threshold by the first compliance date to be treated as an area source
- Responds to comments received in response to E.O. 13777 and 13783 on the need to revise 1995 OIAI policy
- EPA intends to issue a FR Notice to take comment on regulatory text to implement EPA’s plain language reading of statute as discussed in January 2018 guidance memorandum

- **Litigation**

- On March 26, 2018, coalition of environmental groups filed a petition for review in the D.C. Circuit Court

- **For More Information**

- <https://www.epa.gov/stationary-sources-air-pollution/reclassification-major-sources-area-sources-under-section-112-clean>
- Contact: Debra Dalcher, Policy and Strategies Group, 919-627-4883 or Dalcher.debra@epa.gov



Title V Permitting

- Rulemakings in progress
 - Petitions Process Rulemaking
- Process Improvements
 - Increased use of electronic systems
 - Central Data Exchange (CDX) for receipt of petitions
 - Beta test of permit submission system in Region 9
- Lean Kaizen Event held on March 26, 2018
 - See subsequent slide for more information



Title V Petitions

- Title V Petitions continue to be a substantial work load
- Petitions Received FY 2018 (to date) – 8
- Petitions Resolved FY 2018 (to date) – 25
 - 15 Orders
 - 10 Resolved by other means (petitioners agreed to withdraw, previous responses identified)
- Pacificorp Hunter – EPA will not look back at decisions made in NSR permitting process in the context of title V
 - Provided that there was an opportunity for public comment and judicial review
 - Decision being challenged in 10th Circuit (Utah) and D.C. Circuit



Title V Permitting – Fee Guidance

- In response to a 2014 Office of Inspector General (OIG) report recommending enhanced oversight of state and local title V program fee practices, EPA issued two guidance documents on March 27, 2018
 - ***Program and Fee Evaluation Strategy and Guidance for 40 CFR Part 70 (Title V Evaluation Guidance)*** and
 - ***Updated Guidance on EPA Review of Fee Schedules for Operating Permit Programs under Title V (Updated Fee Schedule Guidance)***
- These documents satisfy EPA commitments to the OIG by providing guidance for EPA regions on conducting state and local title V program and fee evaluations
- The guidance is discretionary for EPA regions and sets no specific requirements for state programs



SIP Processing Improvements

- High priority continues to be reducing the SIP backlog and improving SIP processing times
- Trends in SIP processing:
 - Total pending SIPs reduced by 20% (between October 2013 and March 2018)
 - Historic backlogged SIPs reduced by 80% (between October 2013 and March 2018)
- SIP management improvement efforts ongoing
 - SIP management plans continue to provide opportunities for EPA regional offices and states to engage on setting SIP action priorities
 - EPA emphasizing early engagement with air agencies
 - Continued commitment to providing timely guidance on SIP development issues
 - EPA maintaining emphasis on internal SIP processing improvements
 - Using lean practices to inform opportunities for continuous improvement
 - Significant investment in IT improvements will also contribute in this area



SIP Processing Improvements: State Plan Electronic Collaboration System (SPeCS)

- EPA worked extensively with state air agency representatives, and partnered with E-Enterprise for the Environment and ECOS on this project over the past 18 months
 - The E-Enterprise Integrated Project Team (IPT), with 12 air agency representatives, provided useful feedback on the Plan Collection Interface (PCI) module
 - Fourteen states participated in beta testing before system was launched in January 2018
 - Training webinars and materials: <https://www.epa.gov/air-quality-implementation-plans/submit-sips-online>
- Benefits
 - Reduce paper/mailling/printing/storage costs
 - Save staff time and resources
 - Integrate multiple legacy tracking systems into one
 - Increase transparency
 - Achieve more efficient SIP processing



SIP Processing Improvements: State Plan Electronic Collaboration System (SPeCS)

- Plans for 2018 and beyond (with sufficient funding) include:
 - Enhance State Plan Collection Interface based on ongoing user feedback
 - Develop Public Dashboard
 - Develop an Exceptional Events demonstration module
 - Develop Title V module for EPA review of state issued permits
 - Develop NSR Permit Tracking System and Technology Database
 - Coordinate SPeCS with SIP Lean efforts



State Plan Electronic Collaboration System (SPeCS)

Plan Collection Interface

- *For use by Air Agency staff*
- Upload SIPs and other submissions electronically to EPA
- Enables air agency to identify specific requirements addressed in plan
- State landing page to provide list/status of all past and pending submissions
- **Rollout: January 2018**

EPA Plan Review Clearinghouse

- *For use by EPA*
- Facilitates concurrent review by multiple EPA offices
- Tracks SIP submissions and compliance with SIP requirements by state/area
- Electronic storage and online searching of documents
- **Roll out: February 2018**

Public Dashboard

- *For use by the public and states*
- Links to FR notices and final approved plans
- National and state SIP status information
- **Rollout: later in 2018**



EPA is Implementing a Lean Management System (LMS)

EPA Desires:

- Continuous improvement through problem solving at the level closest to the work
- Continuous improvement based on respect for the people doing the work
- Accountability to the process without blaming people
- Sustainment of gains from its improvement efforts
- Development and adherence to standard processes

LEAN MANAGEMENT SYSTEM



Lean Priority Areas

- Applying lean principles to specific focus areas to:
 - Develop visual management systems
 - Identify and eliminate waste consistent with lean principles
 - Develop a more efficient and effective process
- Key areas identified include SIP processing, NSR, and Title V
- Timely action on SIPs is a priority for EPA, as reflected in EPA's recently released Strategic Plan for FY2018 – 2022 and the Agency's Reform Plan
- The Reform Plan highlights priority areas where EPA plans to apply lean tools in order to make further progress, with a new emphasis at EPA on the use of visual management tools
- SIP lean event held in February 2018 focused on both EPA process and state process – and included participants from states and a local area
 - Goal of SIP lean event was to develop process and tools that would enable EPA to eliminate the backlog and process SIPs within CAA timelines, by 2022

SIP Lean Overview and Next Steps

- Identified an ideal process that includes an emphasis on cooperative federalism and working closely with states at the outset so that states are able to submit approvable SIPs
- Described key decisions throughout the process, including the details of who should make those decisions, when, and other aspects of those decisions
- Outlined opportunities for standard work to ensure consistency across regional offices and with EPA HQ
- Considered options for addressing current pending SIPs while also implementing the new process
- Implementation details are still being developed
 - We are eager to stand this new system up as quickly as we can, and will keep you posted on our progress

NSR and Title V Lean/Kaizen Efforts and Next Steps

- As part of the Agency streamlining efforts, we are taking a look at the permitting process and timelines for EPA-issued permits under both Title V and NSR
- We are applying Lean/Kaizen concepts to the permitting process with the goal of identifying actions we could take to expedite the process and make permitting more efficient
 - These events are focused on EPA-issued permits
- During the week of March 26, 2018, EPA HQ and Regions conducted a week-long Kaizen event focused on the Title V program
- A week-long Kaizen event for the NSR program was held the week of April 9, 2018



Questions and Comments



APPENDIX

NAAQS Reviews: Status Update

(April 2018)

	Ozone	Lead	Primary NO ₂	Primary SO ₂	Secondary (Ecological) NO ₂ , SO ₂ , PM ¹	PM ²	CO
Last Review Completed (final rule signed)	Oct. 2015	Sept 2016	April 2018	Jun 2010	Mar 2012	Dec 2012	Aug 2011
Recent or Upcoming Major Milestone(s) ₃	TBD ⁴	TBD ⁴	TBD ⁴	<u>May 25, 2018</u> Proposal <u>Jan 28, 2019</u> Final	<u>Late 2018</u> 2 nd Draft ISA REA Planning Document	<u>Late 2018</u> 1 st draft ISA	TBD ⁴

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

¹ Combined secondary (ecological effects only) review of NO₂, SO₂, and PM

² Combined primary and secondary (non-ecological effects) review of PM

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

⁴ TBD = to be determined



Anticipated NAAQS Implementation Milestones

(April 2018)

Pollutant	Final NAAQS Date	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 (Mod) Dec 2019 (Ser)
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 (Mod)	Dec 2021 (Mod) Dec 2025 (Ser)
NO ₂ (2010) (primary)	Jan 2010	Feb 2012	Jan 2013	N/A	N/A
SO ₂ (2010) (primary)	June 2010	Oct 2013, Sept 2016 (+2 rounds)	June 2013	Apr 2015, Mar 2018 (Oct 2019, 2022)	Oct 2018, Sept 2021 (2023, 2026)
Ozone (2008)	Mar 2008	July 2012	Mar 2011	Mid 2015-2016	Mid 2015-2032
Ozone (2015)	Oct 2015	Mid July	Oct 2018	Mid 2021-2022	Mid 2021-2038



Executive Action Updates – April 12, 2018 Action

- **Presidential Memorandum** directs the Administrator to take certain actions in the following areas. For many of these areas, the memorandum discusses developing a performance plan and performance goals.
 - Timely processing of SIPs
 - Cooperative engagement with states on regional haze SIPs
 - Timely processing of preconstruction permit applications
 - Timely action on exceptional events demonstrations and 179B petitions
- Consideration of international emissions in relevant program areas
- Consideration of data used for designations
- Consideration of modeling in permitting processes
- Consideration of offset policies
- Consideration of NAAQS review process
- Timely issuance of implementation regulations and guidance
- Considerations of existing or forthcoming support for CAA implementation



May 9, 2018 Memorandum on NAAQS Reviews

- On May 9, 2018, the Administrator signed a memorandum titled, “Back-to-Basics Process for Reviewing National Ambient Air Quality Standards.”
- Memorandum sets forth five principles for EPA to observe in future NAAQS Reviews
 - Meet statutory deadlines
 - Address all CAA provisions for NAAQS reviews
 - Streamline and standardize the process for development and review of key policy-relevant information
 - Differentiate science and policy judgments in the NAAQS review process
 - Issue timely implementation regulations and guidance (at time of NAAQS finalization)



Technical Updates

**Richard “Chet” Wayland, Director
Air Quality Assessment Division**



Addressing “Background” in NAAQS Review and Implementation

- 2015 Ozone NAAQS Review
 - Integrated Science Assessment and Policy Assessment included review of latest literature on background and international transport
 - Policy Assessment referenced EPA modeling that quantified “US Background” and international transport (anthropogenic plus methane)
- NAAQS Implementation
 - Exceptional Events Rule allows for exclusion of episodic events (CAA §319)
 - natural events (e.g., fires or stratospheric intrusions)
 - anthropogenic activity that is unlikely to recur (e.g., facility explosion)
 - CAA § 179B:
 - Allows EPA to approve an attainment plan for a nonattainment area, if international transport of pollution is a significant impediment to meeting the standard on time, i.e., would have attained “but for” international emissions.



Purpose and Overview

- Background impacts *ozone, PM, and regional haze* in the US
 - Stakeholders have varying definitions
 - Definition of “background” depends on the policy context
- Background contributions are not directly measurable so we use photochemical model to provide estimates
 - Summer season average “US Background” ozone in most places: 20-40 ppb
 - Few places, i.e., near borders or high elevation areas: 60-65 ppb episodically
 - International transport in most places, most of the time: 1-10 ppb with near border areas up to 20 ppb of ozone
- EPA has been and continues to be actively engaged with scientific community to update estimates and guidance

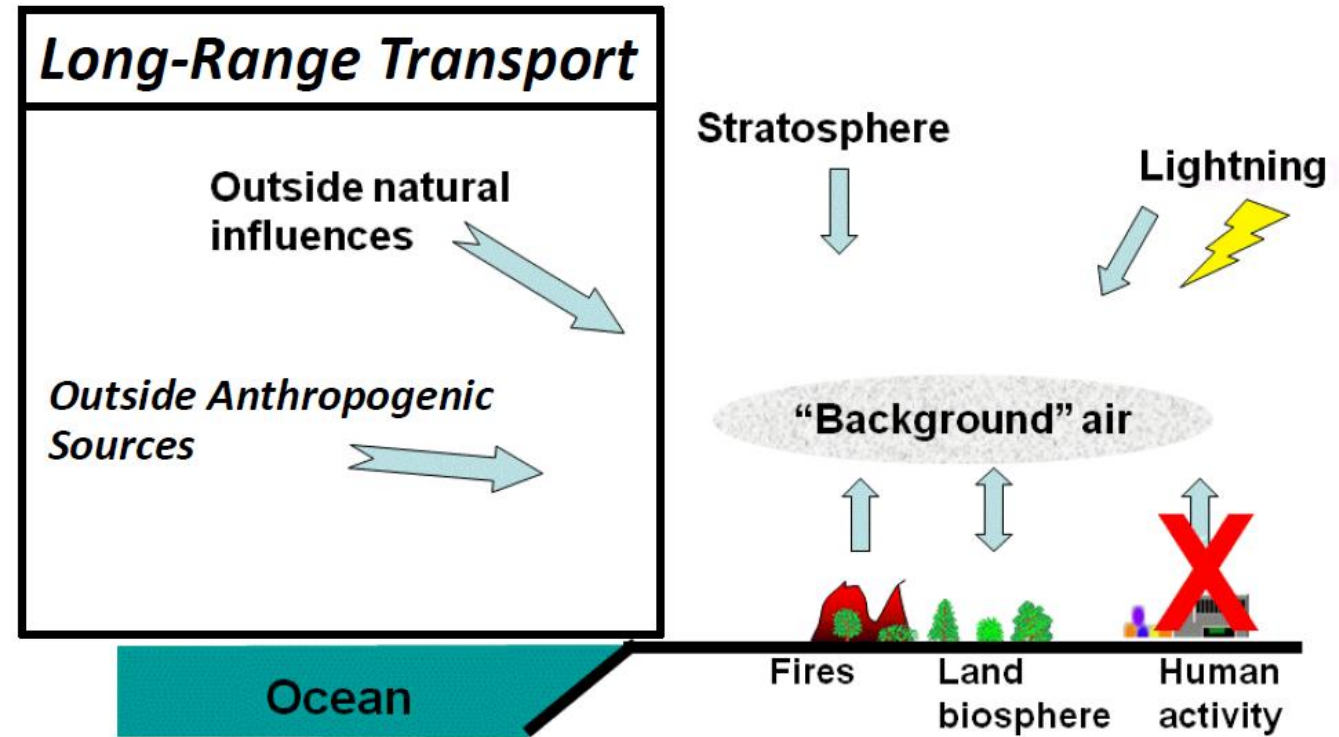


Past EPA activities related to background and international transport

- Over the past decade, there has been considerable effort within EPA and the larger community to better understand the role of background ozone in the context of effective NAAQS implementation.
- Starting in 2011, EPA and the States have conducted biennial workshops related to air quality in the western U.S., where on-going analyses related to background ozone have been shared and discussed.
- In February 2016, EPA held a two-day workshop in Phoenix focusing on the technical and policy issues associated with background ozone.
 - The starting point for this discussion was an EPA white paper intended to establish a common foundation for additional conversations on the subject
 - After the workshop, EPA opened a non-regulatory docket to allow States or other stakeholders to submit any comments or additional analyses related to background ozone and international transport.

“International Transport” is One Part of Background: Ozone Example

- Long range transport has natural and anthropogenic sources “outside” of the area of focus
- For the US, “International Transport” is reflected by outside anthropogenic sources
 - Most places, most of the time: 1-10 ppb
 - Near Mexican border or during transport events: up to 20 ppb episodically
- Natural: 15-30 ppb seasonal average
- We use photochemical models to estimate since even the most remote monitors include US anthropogenic contributions



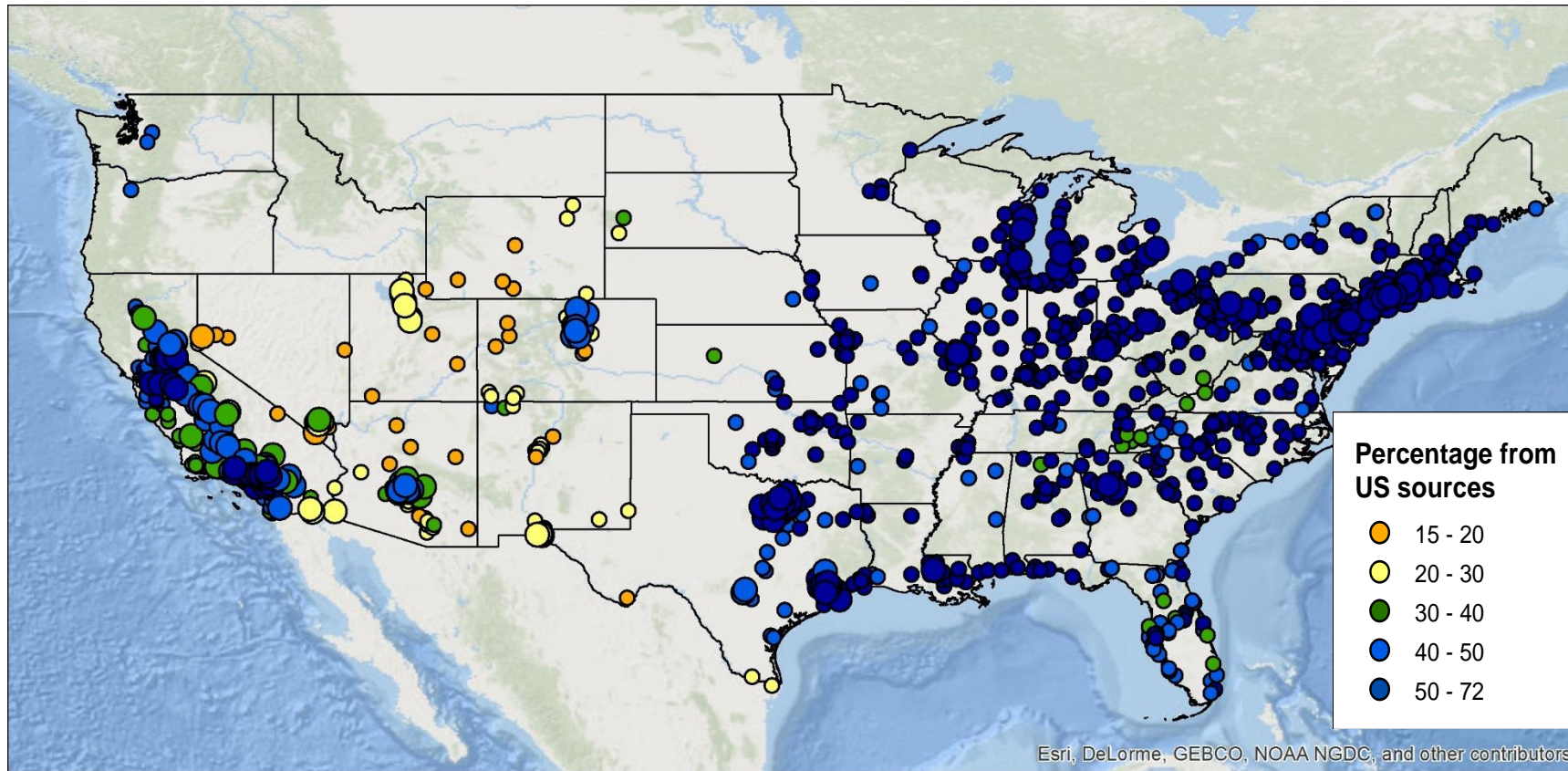
Schematic of background O₃ sources adapted from the most recent Integrated Science Assessment for the Ozone NAAQS Review

Models Estimate International Transport

- Regional Photochemical Modeling
 - State of the science models: EPA's CMAQ, Ramboll's CAMx, and NCAR's WRF-Chem.
 - Fine spatial resolution (12 km to 1 km), using best estimates of local emissions and meteorology.
 - Today's "1 atmosphere" models provide 20 years of science updates to their predecessors, and are used by EPA and states for ozone, PM_{2.5} and regional haze.
- Global Photochemical Modeling
 - EPA's Hemispheric-CMAQ, Harvard's GEOS-Chem, Princeton's AM3, Wisconsin's RAQMS.
 - Coarse spatial resolution (1 to 5 degrees), science focuses on global sources that may be less important within a regional model, and simplify science that may be important in a regional model.
- Quantifying international transport contributions to US air quality
 - Global modeling results provide regional models with long range transport contributions at boundaries and we use source apportionment (i.e., emissions tagging) to be able to track international emissions and their contributions to O₃, PM_{2.5} and regional haze.
- Analyses can be designed for specific programmatic/policy questions



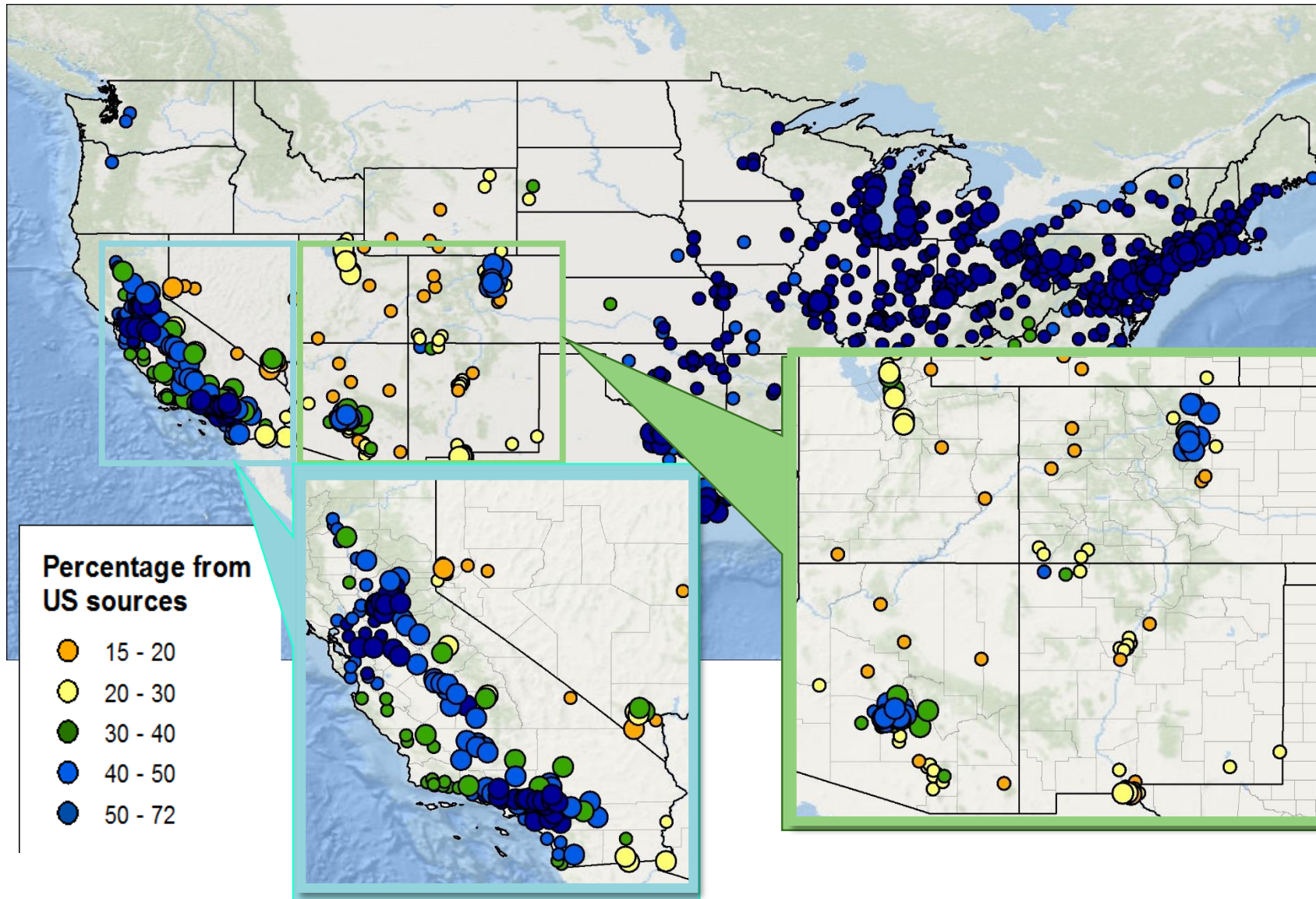
Contributions of US Anthropogenic Sources at Ozone Monitors: 2017*



- Map of estimated manmade US contribution to ozone design values based on CAMx source apportionment modeling.
- Domestic manmade emissions are the largest contributor to ozone design values at most locations in the Eastern US and parts of California.
- Border areas and Intermountain West have more long range contributions (natural and anthropogenic).

*2017 reflects model projections performed for the Cross-State Air Pollution Rule Update (2016).

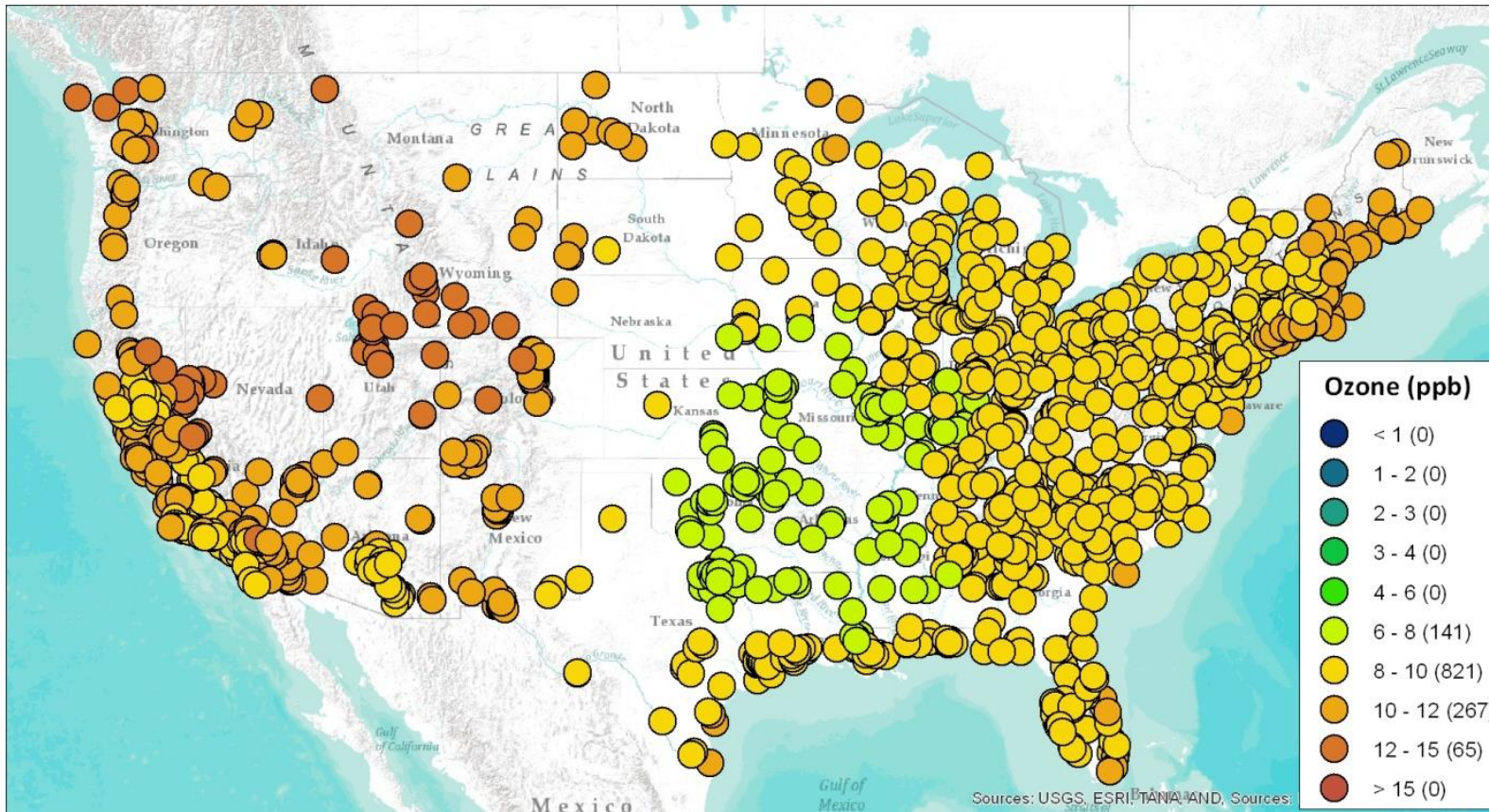
Focus on Western Ozone Contributions in High Elevation & Border Areas



Note: Larger circles: 2015 DVs > 70 ppb

- Urban areas: have large impact from US manmade emissions. Similar to Eastern US sites
- California non-urban: higher elevation sites, and near-border sites can be more affected by background.
- Intermountain western US: Sites can be strongly influenced by background near urban sites as well. Some rural, high-elevation areas can be near the NAAQS w/ low US anthropogenic contributions.

Long Range Transport of Anthropogenic Ozone at US Monitors: 2007



- Contribution estimates reflect upper bound estimate (except border areas)
 - Seasonal mean results, so not directly applicable to design values
 - Includes methane, which is from US and international sources
 - Includes offshore shipping emissions, which is a mix of international and domestic
- Contribution estimates range 6-15 ppb
 - Methane estimated about 5 ppb
 - Non-methane about 1-10ppb
- Presently available work is either seasonal mean, includes methane, or both

EPA is Actively Engaged in Scientific and Technical Analyses

- EPA modelers are actively engaged in scientific community efforts
 - Hemispheric Transport of Air Pollution (HTAP2, Keating)
 - Background Ozone Scientific Assessment (BOSA, Henderson)
 - NASA Health and AQ Applied Science Team (H-AQAST, Henderson)
 - State/local/stakeholder analyses
- EPA has in-house efforts to quantify international anthropogenic (excluding methane) for regulatory/policy efforts
 - Collaborating with ORD to compare Hemispheric-CMAQ and to Harvard's GEOS-Chem simulations for 2016
 - After evaluation is complete, additional runs will be performed to quantify international contributions
 - Exploring global inventory projection methodologies such as Pacific Northwest National Laboratory's Community Emissions Data System (CEDS)

EPA Planned and Ongoing Technical Efforts

- Research and Assessments
 - Collaborating with ORD to evaluate and apply the EPA's Hemispheric-CMAQ system for regulatory and policy purposes
 - EPA's 2016 modeling platform with characterization of international transport contributions for O₃, PM_{2.5} and regional haze in projected future year(s)
- Implementation Supports
 - Exceptional Events: Technical guidance
 - Ozone/Wildfire Guidance (*public*, working on addendum for prescribed fires)
 - Interim High Winds Guidance (*public*)
 - Stratospheric Intrusion Guidance (*under development*)
 - 179B technical guidance to inform states on providing approvable demonstration (*under development*)



Regional Haze: Rule and Guidance Update

- **Rule revisions were finalized on January 10, 2017 (82 FR 3078):**
 - Petitions for review were filed in the D.C. Circuit as well as petitions for reconsideration
 - On January 17, 2018, EPA announced its decision to revisit aspects of the 2017 rule revisions:
 - “EPA intends to commence a notice-and-comment rulemaking in which we will address portions of the rule, including but not limited to the Reasonably Attributable Visibility Impairment (RAVI) provisions, the provisions regarding Federal Land Manager (FLM) consultation, and any other elements of the rule we may identify for additional consideration. Furthermore, EPA plans to finalize one or more EPA guidance documents for regional haze State Implementation Plan (SIP) revisions due in 2021. Such guidance may also address some or all of the issues raised in the petitions for reconsideration.”
 - EPA asked the D.C. Circuit to place the litigation into abeyance “pending administrative proceedings that may result in changes or clarifications to the challenged rule and thereby potentially narrow the scope of this litigation;” motion granted January 30, 2018
- **On July 8, 2016 (81 FR 44608), EPA released draft guidance**
 - Next steps on guidance are expected to be developed as EPA initiates regulatory review of the 2017 rule revisions



Regional Haze: How can Data inform EPA Policy?

Technical foundation

- What progress have we made to date?
 - Ambient data from 2000-2016
- What do we know about Class I Areas and Progress for the second planning period?
 - EPA's Preliminary 2028 Regional Haze modeling



What progress have we made to date?

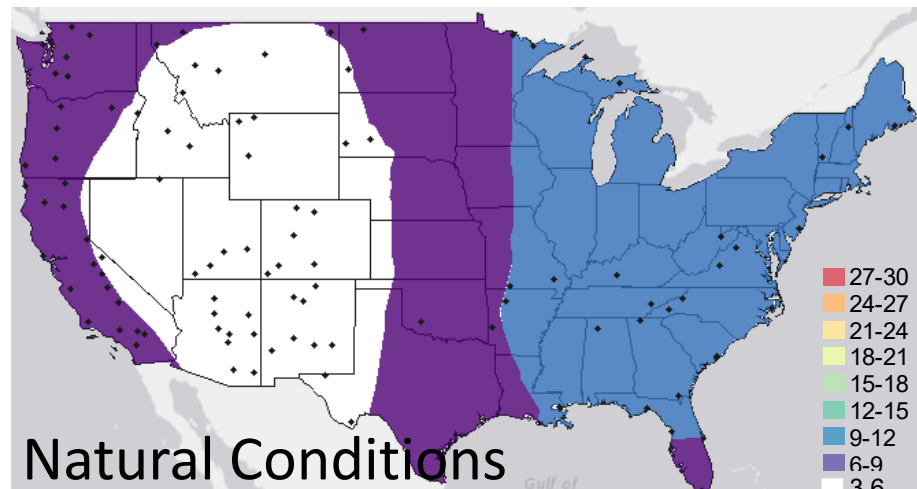
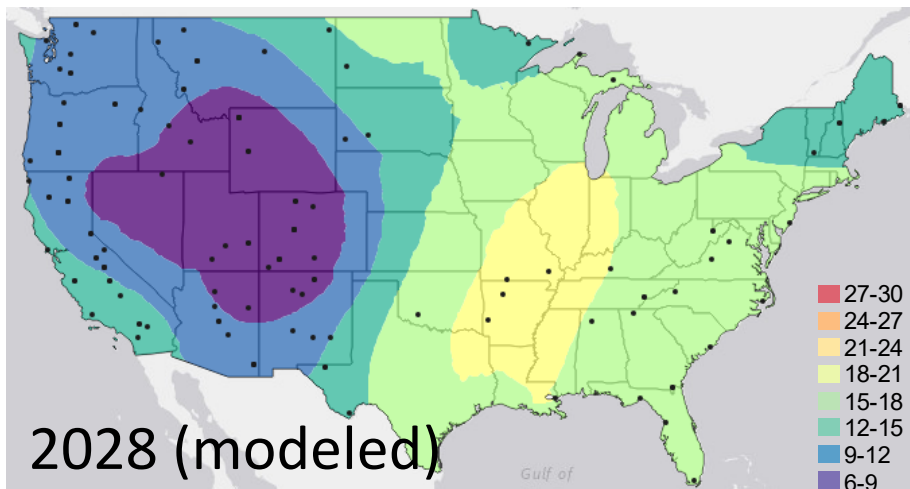
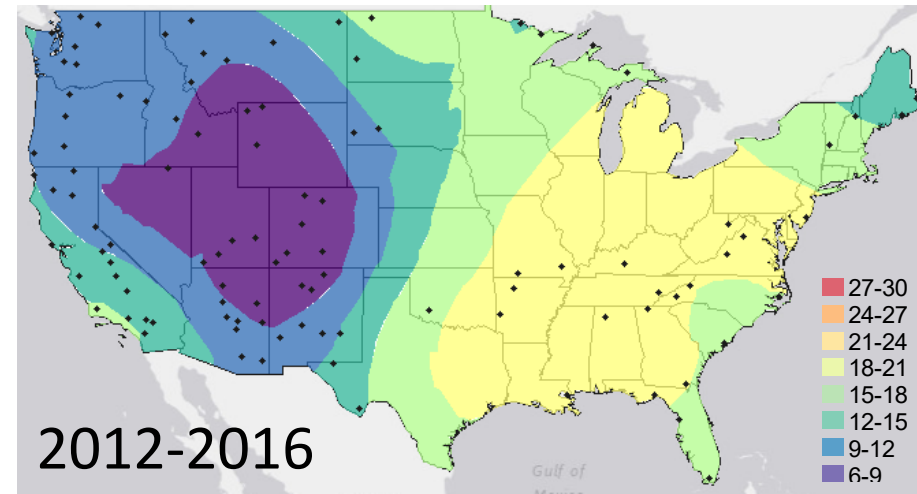
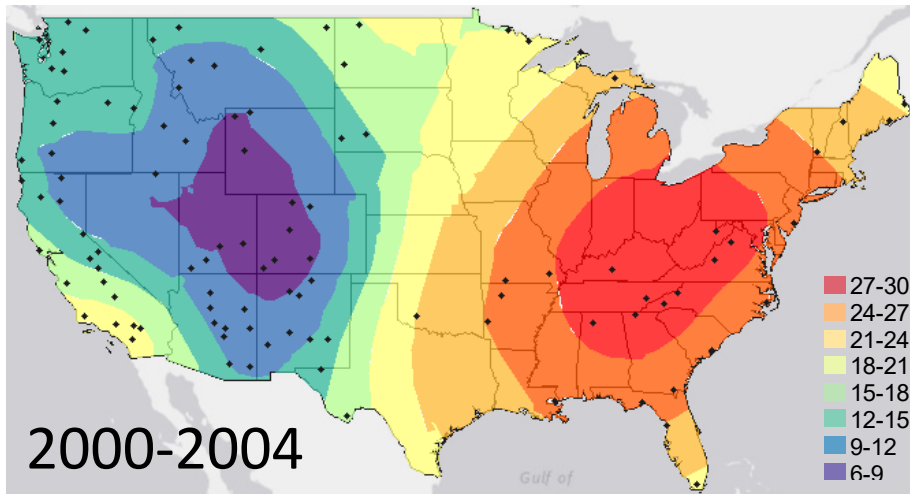
Ambient Data Trends: 2000-2016

Ambient Data Used For Regional Haze Analysis

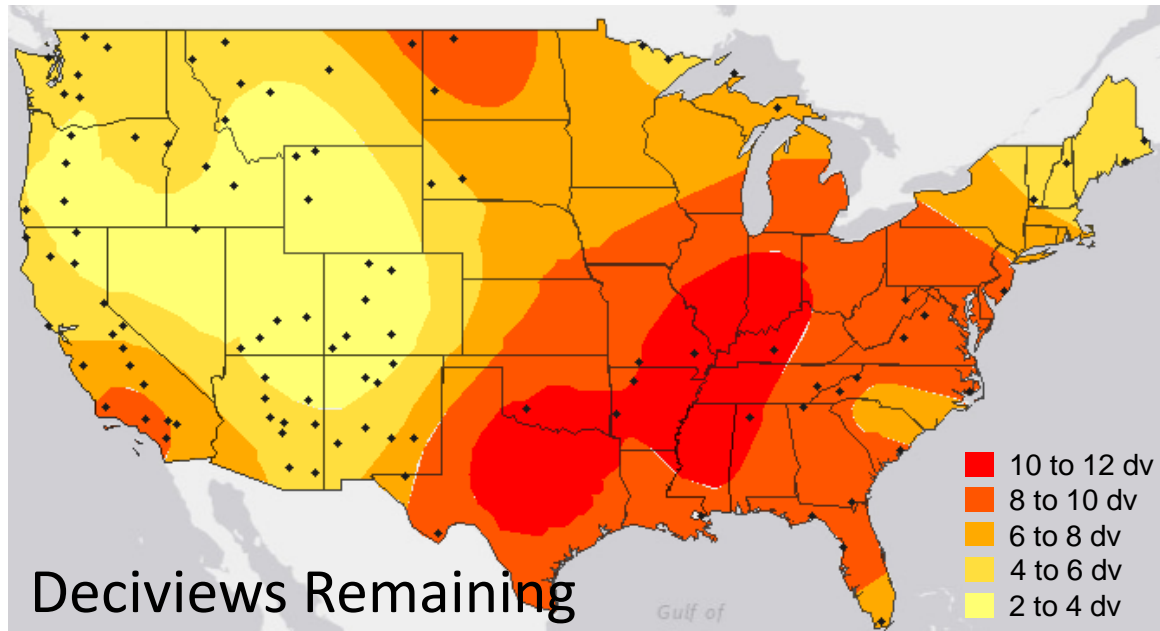
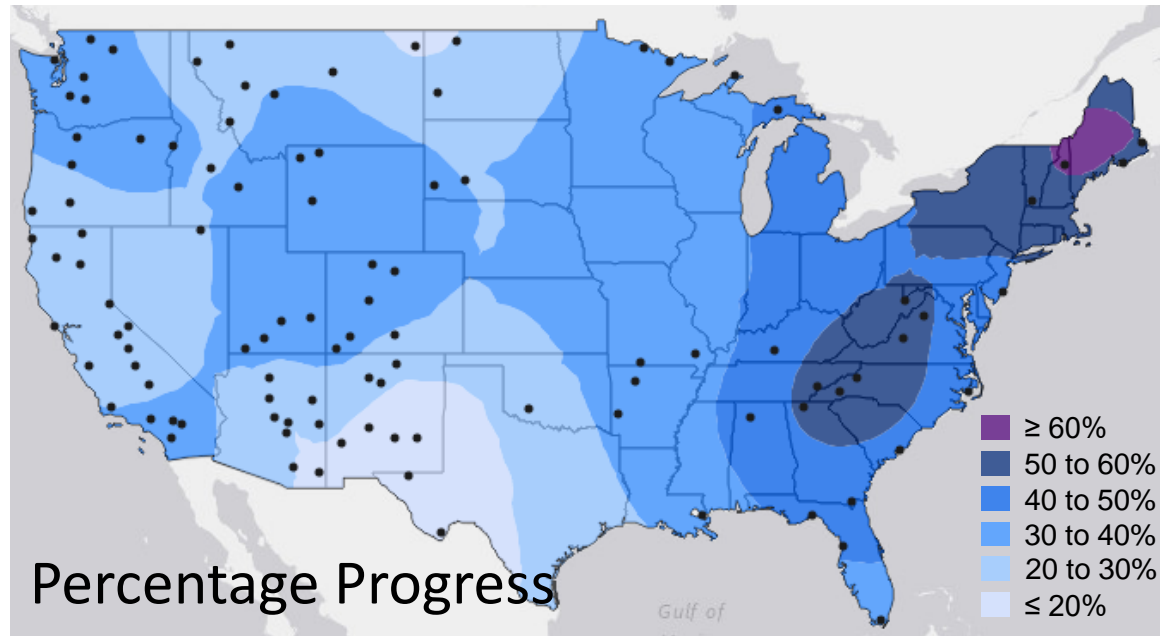
- IMPROVE monitor data at Class I areas used to measure visibility impairment
 - 156 Class I areas
 - 110 IMPROVE sites
- Measurement periods (current rule)
 - Baseline period: 2000-2004
 - Current period: 2012-2016
 - 2nd planning period end point: 2028
 - “Natural conditions” end point: 2064
- 20% “most anthropogenically impaired” days for each year
 - 2017 RH rule changed the analysis requirement from the “20% haziest” to “20% most impaired” days.
 - This had a large impact on the type of days selected in many western areas
 - The new metric puts the focus on days with high anthropogenic impairment rather than high fire and dust days



National Visibility Summary- 20% Most Impaired Days (deciviews)

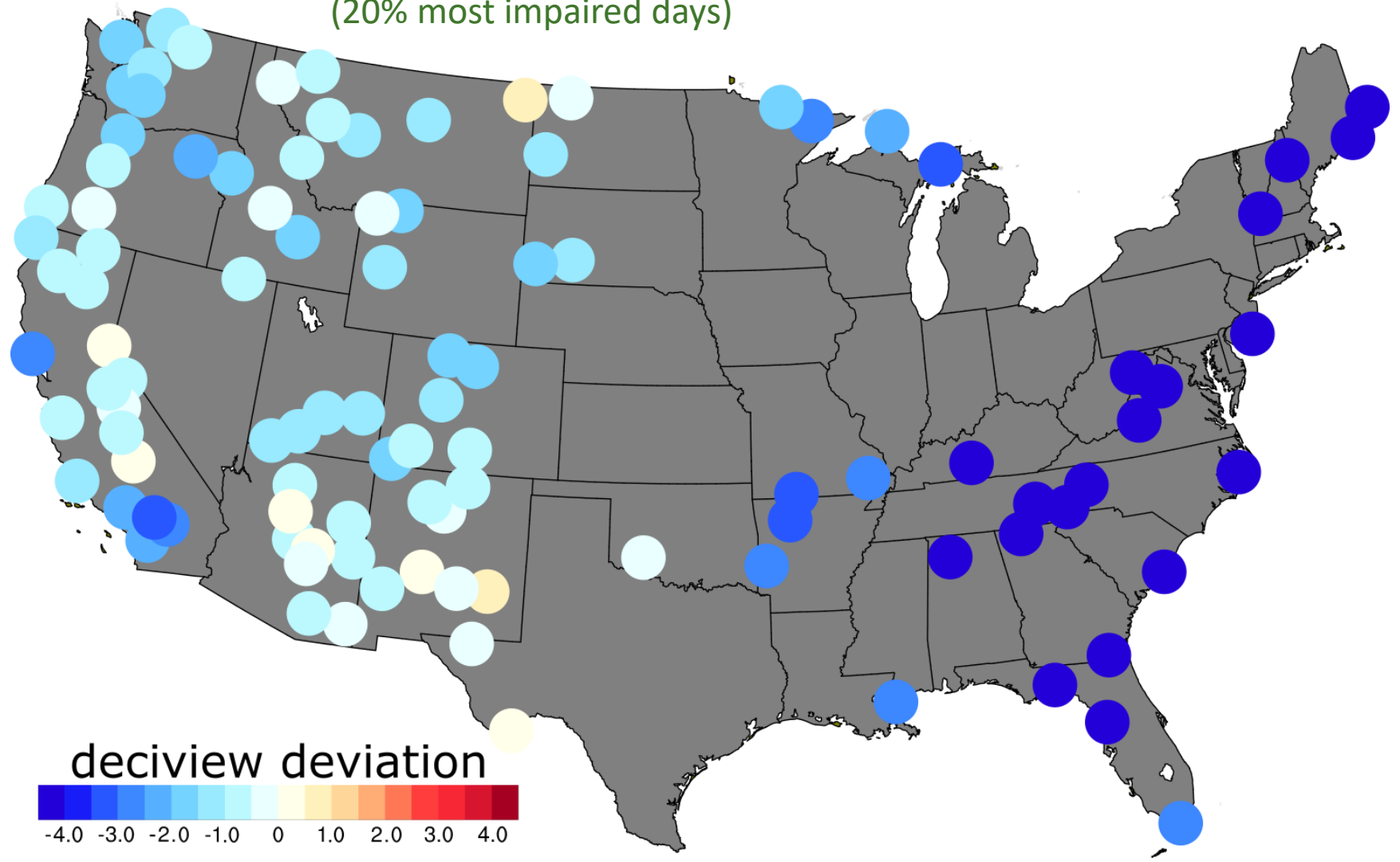


Progress Towards Natural Conditions in 2012-2016



Glidepath Status Through 2016

EPA Draft Recommended Metric:
2016 Deviation from Unadjusted Glidepath
(20% most impaired days)



What do we know about Class I areas and progress for second planning period?

EPA's 2028 RH Modeling

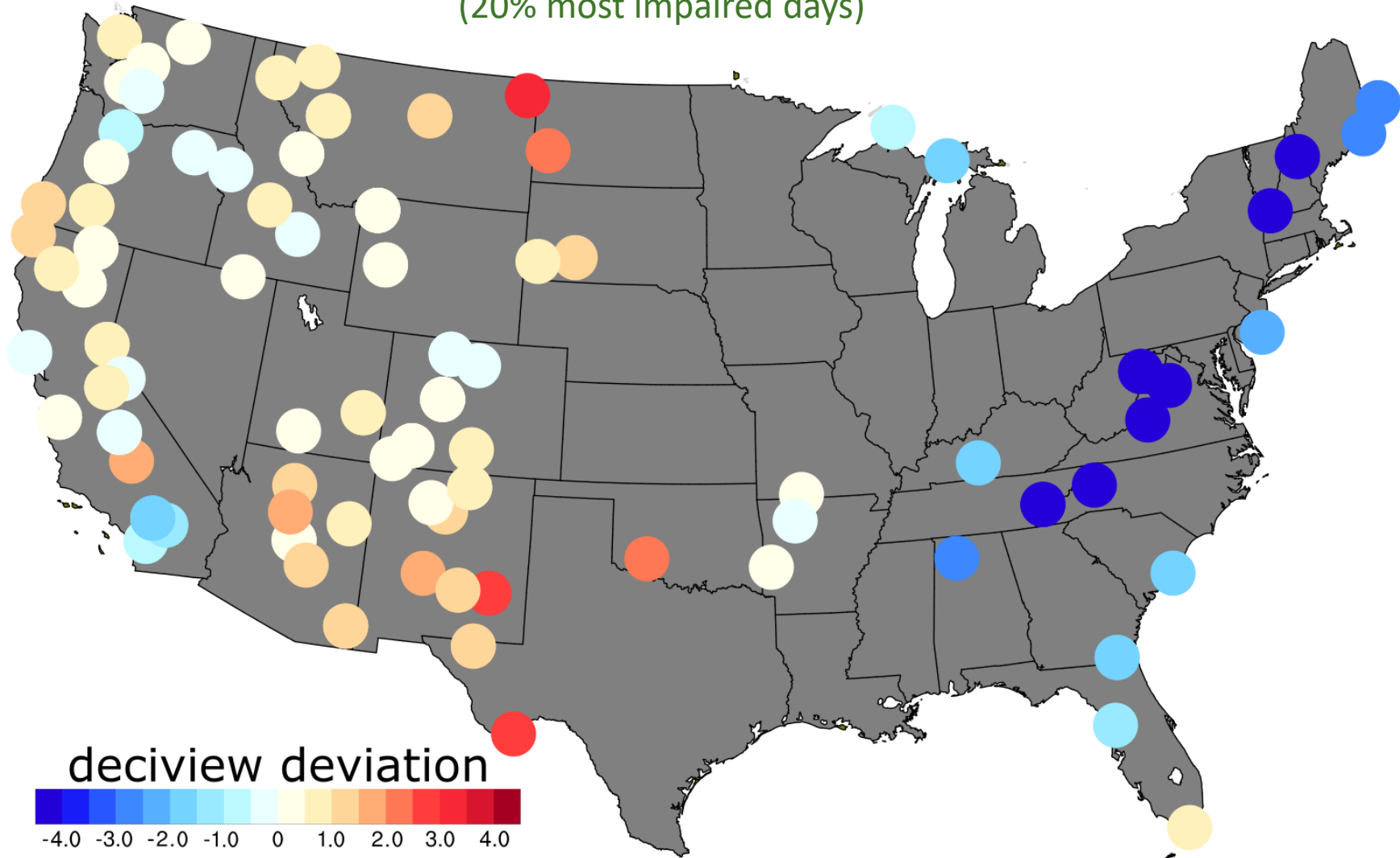
2028 Modeling Summary

- Eastern Class I areas
 - Started with worse visibility and continue large amounts of progress towards natural conditions.
 - Most areas projected to be below the 2028 glidepath, with large percentages of the projected impairment from US anthropogenic sources.
- Western Class I areas
 - Started with better visibility and are generally closer to natural conditions, but have not made as much progress as the East
 - Many areas projected to be above the 2028 glidepath, with relatively small percentages of the model projected impairment from US anthropogenic sources.
- The analysis uses the EPA draft recommended natural conditions to calculate the glidepath (i.e., the “unadjusted glidepath”).
 - 2017 RHR allows states to adjust the endpoint of the glidepath upwards to account for international impacts.
 - EPA model estimates of international transport could be used to adjust the endpoint and glidepath (discussed later)



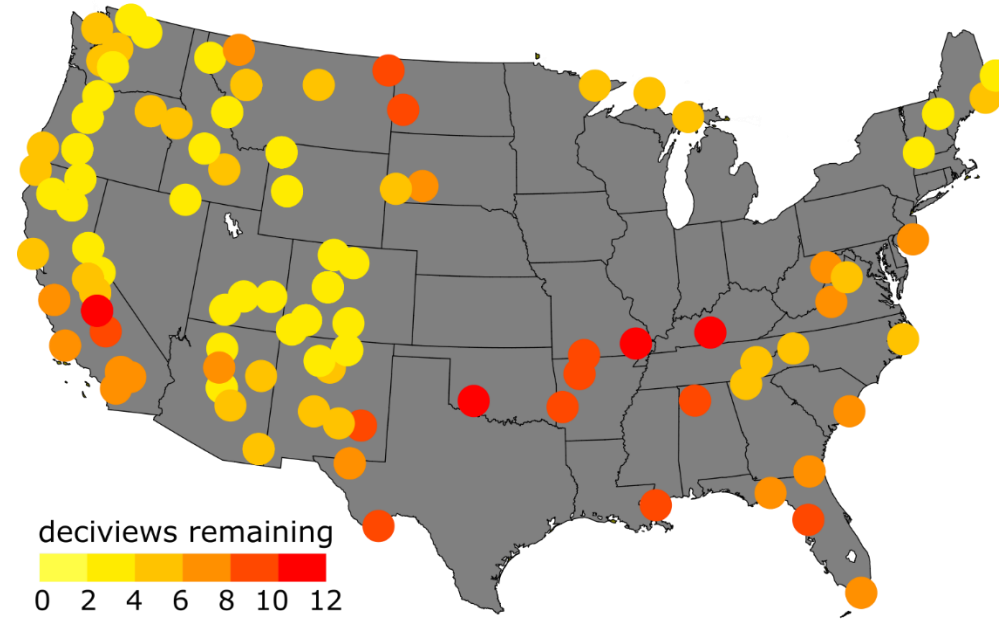
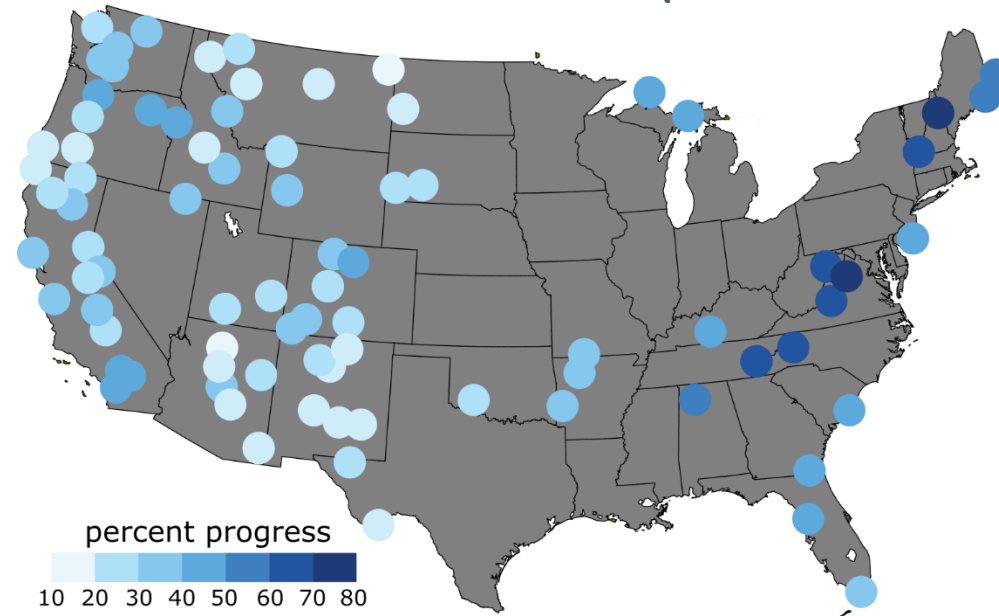
Projected Glidepath Status in 2028- Deviation from the Unadjusted Glidepath

EPA Draft Recommended Metric
(20% most impaired days)



Projected Progress Towards Natural Conditions in 2028

EPA Draft Recommended Metric (20% most impaired days)



Policy Considerations from Preliminary 2028 RH Modeling

- Modeled visibility improvements show continued progress, more so in the east than in the west, with emissions reductions resulting from a combination of factors including economic drivers and control programs implemented for other CAA programs.
- Many eastern Class I areas are projected to be below the unadjusted glidepath in 2028, while most central and western areas are projected above.
 - Many of the western areas above the glidepath are affected relatively little by US anthropogenic emissions. However, model reliability is generally lower in these western areas.
 - The 2017 RHR revisions allow states to adjust the endpoint of the glidepath upward to reflect international impacts.
 - Adjustments for international impacts and/or refinements of natural conditions estimates might help these areas be below the glidepath, at least for the second planning period. However, this modeling may not be suitable for generating these estimates.
- The preliminary 2028 modeling results indicate that the mix of US anthropogenic sources responsible for visibility impairment varies by region and often by Class I area.
 - EGUs continue to represent the largest fraction of US anthropogenic impairment in many Class I areas (especially in the East).
 - Other important sector contributors are non-EGU point sources, non-point (area), oil and gas, on-road mobile, and residential wood combustion.



Regional Haze: Second Implementation Period

- EPA is already working with states and groups of states on the second planning period
- Key principles for implementation of the second planning period include:
 - Ensuring that states have the information they need to develop approvable regional haze plans
 - Ensuring that states have discretion and flexibility to select sources for reasonable progress analysis
 - Ensuring that we are on a path that enables compliance with the Clean Air Act, improved visibility in Class I areas, and state discretion regarding whether and how to control sources of visibility-impairing pollutants



Questions and Comments

