

# Regional Haze Rule Revisions Early Engagement Webinar

April 2024

U.S. EPA

*Materials presented for informational purposes only*

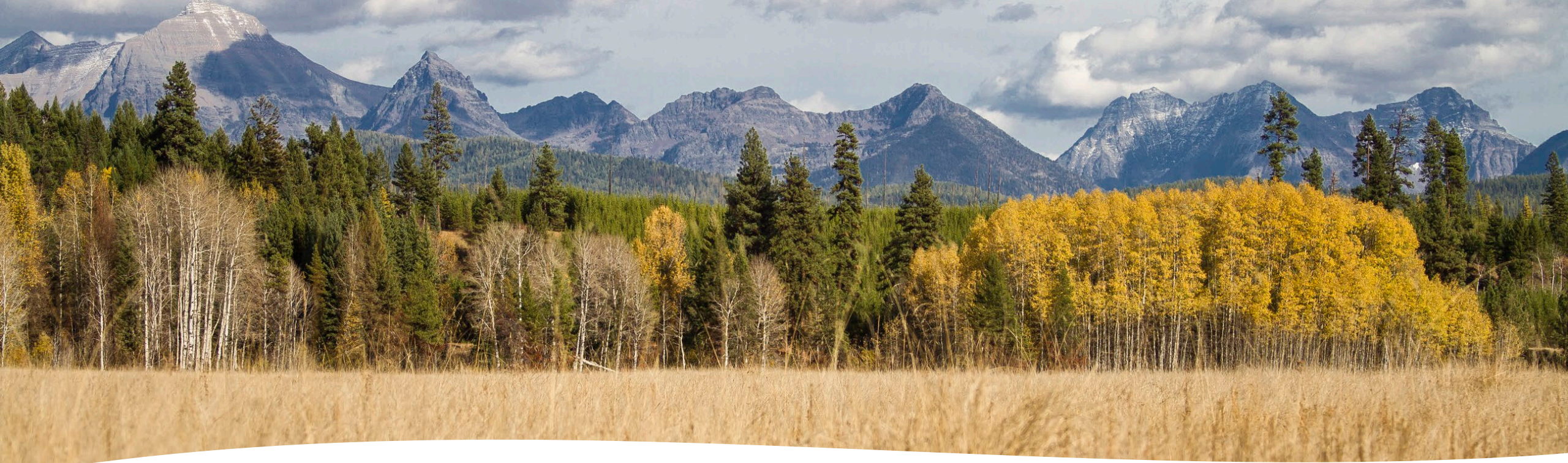
# Purpose of Early Engagement

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- Numerous stakeholders have asked to provide feedback on the Regional Haze Rule.
- We are now inviting feedback—including experiences, contexts, and perspectives—from individual interested parties on the Regional Haze Program before EPA undertakes rule revisions for the third planning period.
- Interested parties are welcome to submit written comments to a non-regulatory docket on topics raised in this presentation and other topics beyond those in this presentation.
- Individual participants are invited to submit comments by June 28, 2024, to the following docket at [regulations.gov](https://www.regulations.gov): EPA-HQ-OAR-2023-0262

*EPA is not seeking collective viewpoints across participants; this content is for informational purposes only.*

# What is Regional Haze?



# Clean Air Act Provisions

- The visibility program was added in the 1977 Clean Air Act Amendments: Congress declared as a national goal “the prevention of any future, and the remedying of any existing, impairment of visibility in mandatory class I Federal areas which impairment results from manmade air pollution”. (CAA 169A(a)(1))
- In addition to declaring this goal, Congress also instructed EPA to promulgate regulations to assure reasonable progress toward meeting the national goal. (CAA 169A(a)(4))
- In the 1990 Clean Air Act Amendments, Congress again required EPA to carry out its regulatory responsibilities under Section 169A, including criteria for measuring reasonable progress toward the national goal. (CAA 169B(e)(1))
- The statutory provisions and the EPA’s regulations combine to address visibility protection. The Regional Haze Program is one component of the overall visibility protection program along with Reasonably Attributable Visibility Impairment (RAVI ) and Prevention of Significant Deterioration (PSD).

# Regional Haze Rule Definitions (40 CFR 51.301)

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- **Regional haze**—Visibility impairment that is caused by the emission of air pollutants from numerous anthropogenic sources located over a wide geographic area. Such sources include, but are not limited to, major and minor stationary sources, mobile sources, and area sources.
- **Anthropogenic visibility impairment**—any humanly perceptible difference due to air pollution from anthropogenic sources between actual visibility and natural visibility on one or more days. Because natural visibility can only be estimated or inferred, visibility impairment also is estimated or inferred rather than directly measured.
- **Mandatory Class I Federal Areas where visibility is an important value**- The set of 156 Class I areas where the National Park Service, U.S. Fish & Wildlife, and U.S. Forest Service (FLMs) have determined that visibility is an important value. See [Part 81- Subpart D](#)
- **Deciview**—Unit of measurement on the deciview index scale for quantifying in a standard manner human perceptions of visibility.
- **Clearest days**—The twenty percent of monitored days in a calendar year with the lowest values of the deciview index..
- **Most impaired days**—The twenty percent of monitored days in a calendar year with the highest amounts of anthropogenic visibility impairment.
- **Natural conditions**—Naturally occurring phenomena that reduce visibility as measured in terms of light extinction, visual range, contrast, or coloration, and may refer to the conditions on a single day or a set of days. These phenomena include, but are not limited to, humidity, fire events, dust storms, volcanic activity, and biogenic emissions from soils and trees.

# Class I Area Overview

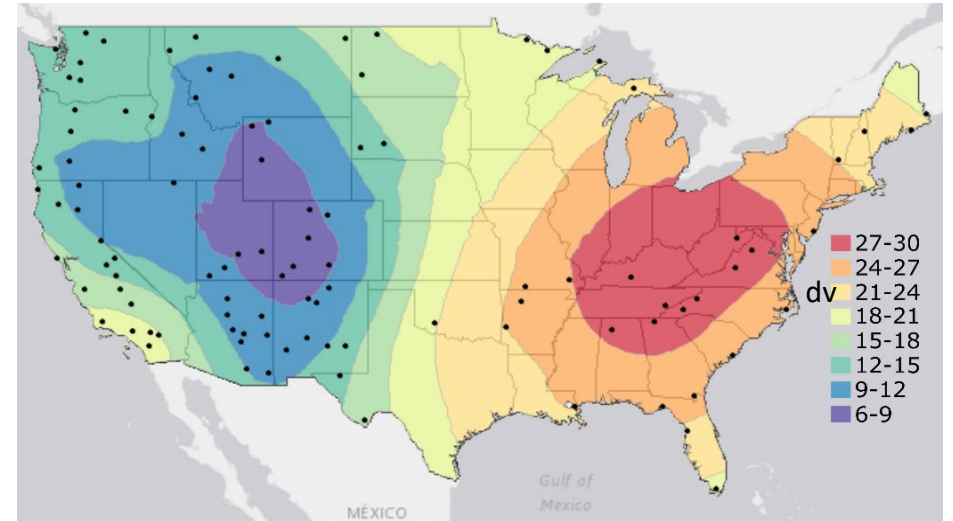
- 156 Class I Areas (where visibility is an important value) are included in the Regional Haze Program.
- States develop and implement air quality protection plans, to reduce the pollution that causes visibility impairment in these areas.
- The National Park Service, U.S. Fish and Wildlife Service, the U.S. Forest Service, and other interested parties also play a role through the consultation process.
- 110 IMPROVE monitors are located at or represent all 156 Class I areas that collect the ambient data used in SIP development.



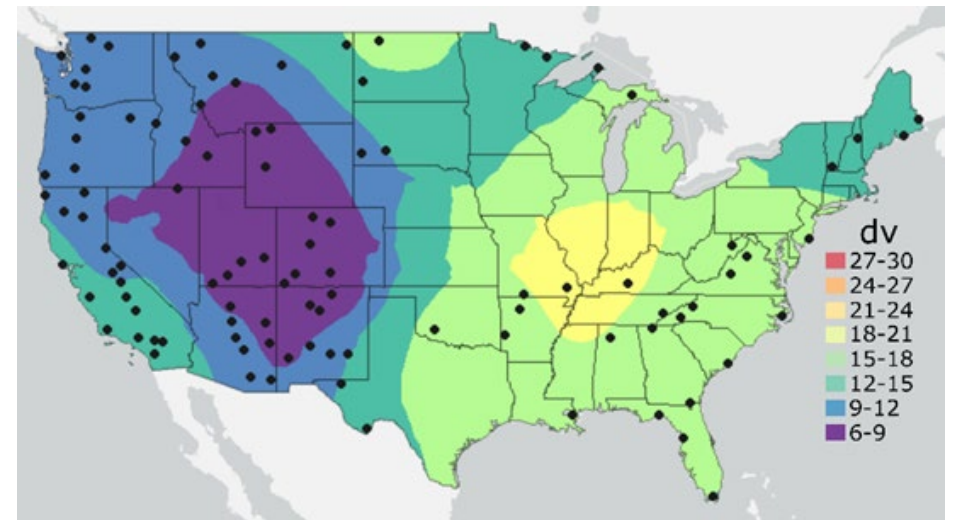
# Visibility is Improving

- Between 2000 and 2020, State and Federal emissions control programs, including the 1st implementation period of the Regional Haze Program, have reduced total SO<sub>2</sub> emissions by 14.5 million tons per year (-89%) and total NO<sub>x</sub> by 14.3 million tons per year (-64%).
- EPA estimates that visibility has improved significantly with the average visual range increased by 15–25 miles in Class I areas.
- Images show 5-year average visibility (deciviews) on 20% most impaired days.

2000-2004



2016-2020



# Clean Air Act Requirements

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- CAA section 169A(b)(2) requires SIP submissions from all states that contain a Class I area or contribute to impairment in a Class I area. These submissions must “contain such emissions limits, schedules of compliance and other measures as may be necessary to make reasonable progress toward meeting the national goal”, including—
  - (A) Best Available Retrofit Technology (BART)
  - (B) A long-term strategy for making reasonable progress toward meeting the national goal
- As applied in the Regional Haze Rule:
  - BART is a one-time requirement that was to be addressed in the first planning period SIP submittals.
  - The 1999 Rule established a requirement to update the long-term strategy every 10 years (through periodic SIP revisions).



# Regional Haze Rule Overview: 1<sup>st</sup> Planning Period

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- The 1999 Rule established the requirements for the first planning period and provides for multiple ~10-year “planning periods” that require air agencies to submit SIP revisions to meet specific requirements associated with each planning period.
- The first planning period (2000-2018) SIPs were due in 2007 and were required to contain:
  - BART analyses and associated emissions limits
  - Goals providing for reasonable progress towards natural visibility conditions in Class I areas both within and outside the State.
- The 1999 Rule also included a regulatory metric known as the Uniform Rate of Progress (URP).
  - The URP is a straight line beginning in 2000-2004 and ending at natural conditions in 2064 for each Class I area.
  - This URP is a tracking metric that triggers additional rule requirements if a Class I area is above the glidepath.
  - The line, or “glidepath,” displays the amount of visibility improvement an area would need to achieve in any particular year, to reach natural conditions by 2064. However, being below the URP is not a safe harbor and 2064 does not represent the end date of the program.

# Regional Haze Rule Overview: 2<sup>nd</sup> Planning Period

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- EPA finalized updates to the Regional Haze Rule in 2017 which governs the second planning period.
- The second planning period (2019-2028) SIPs were due in July 2021 (extended from the original 2018 due date) and required the long-term strategy to include the enforceable emissions limitations, compliance schedules, and other measures that are necessary to make “reasonable progress.”
  - States are required to determine emissions control measures “as may be necessary to make reasonable progress,” considering the four statutory factors (CAA Section 169A(b)(2) and 169A(g)(1)):
    - Cost of compliance
    - Time necessary for compliance
    - Energy and non-air environmental impacts
    - Remaining useful life of the source.
- Once sources are appropriately selected, these factors and other considerations are used to determine what measures are necessary to make reasonable progress.
- The SIP must include a description of the criteria used to determine which sources or groups of sources the State evaluated, and how the four factors were considered in selecting the measures for inclusion in the long-term strategy.
- As with the 2<sup>nd</sup> planning period, EPA anticipates that it may be appropriate to extend the 3<sup>rd</sup> planning period SIP due date.

# Second Planning Period: What we've heard

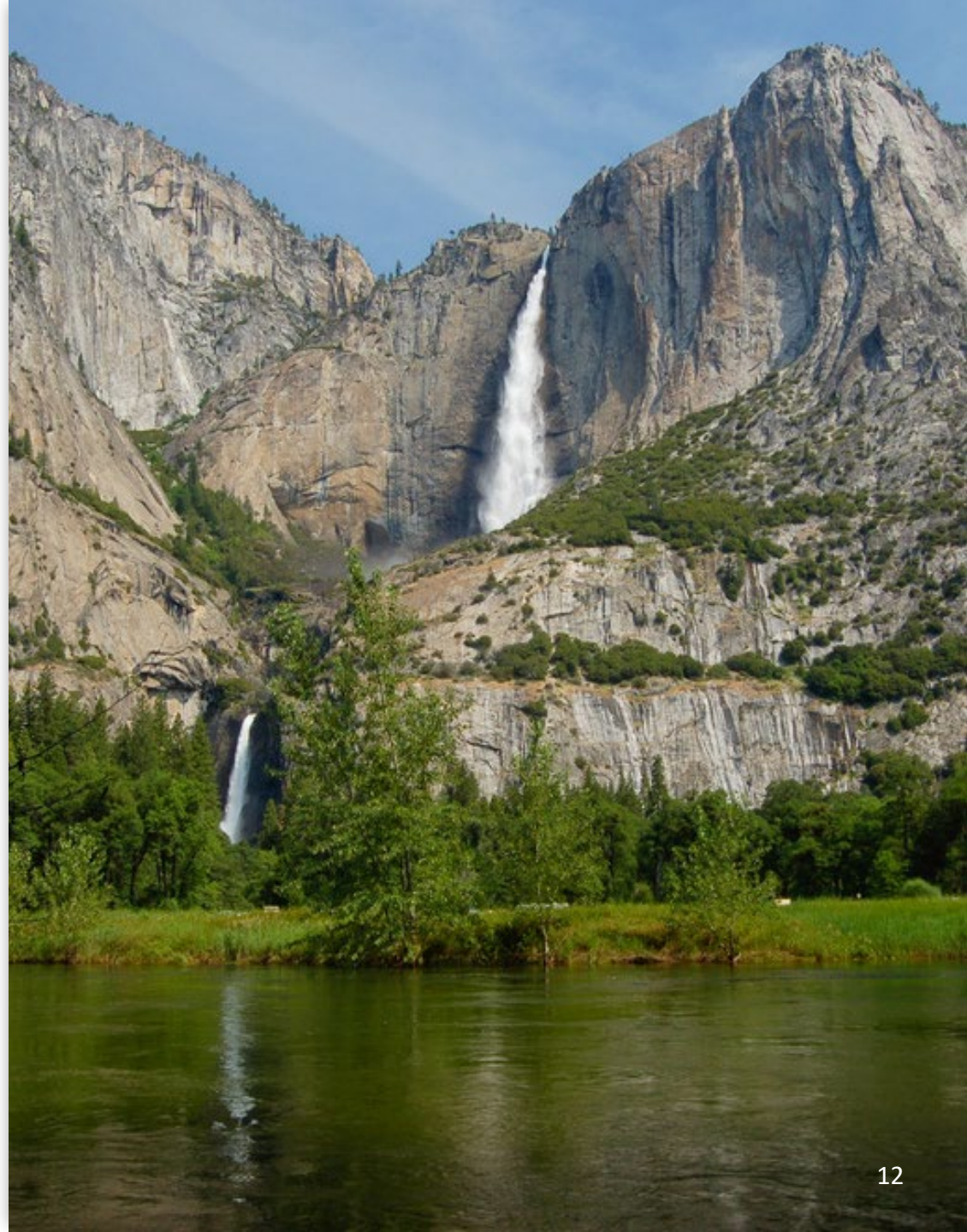
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- Throughout the implementation of the second planning period, we have received feedback from many groups via letters to EPA and/or through state comment periods on SIPs covering a wide range of topics and viewpoints.
- Examples include:
  - Purpose and use of the Uniform Rate of Progress in SIPs.
  - Determining what is necessary to make reasonable progress.
  - Criteria for source selection and application of the four factors.
  - Relationship of Regional Haze Program to NAAQS implementation programs.

# EPA's Rule Revision Principles

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- Ensure visibility improvement in Class I areas consistent with the Clean Air Act.
- Improve clarity regarding components of an approvable SIP.
- Develop rule revisions beginning with the 3rd planning period that provide a framework for the foreseeable future (i.e., do not need comprehensive rule revisions every planning period).
- Minimize administrative/process burden, to the extent feasible.



# Early Engagement Topics

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The following slides include specific topic areas on which EPA is soliciting feedback in advance of rule revisions or other direction for future planning periods.

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The topics are not intended to imply EPA policy preferences or reflect a complete legal analysis of the viability of potential rule updates implementing these ideas.

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The topics are intended to be informational to generate comments and other ideas from interested parties.

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Interested parties may submit written comments to the non-regulatory docket on topics beyond those identified in this presentation.

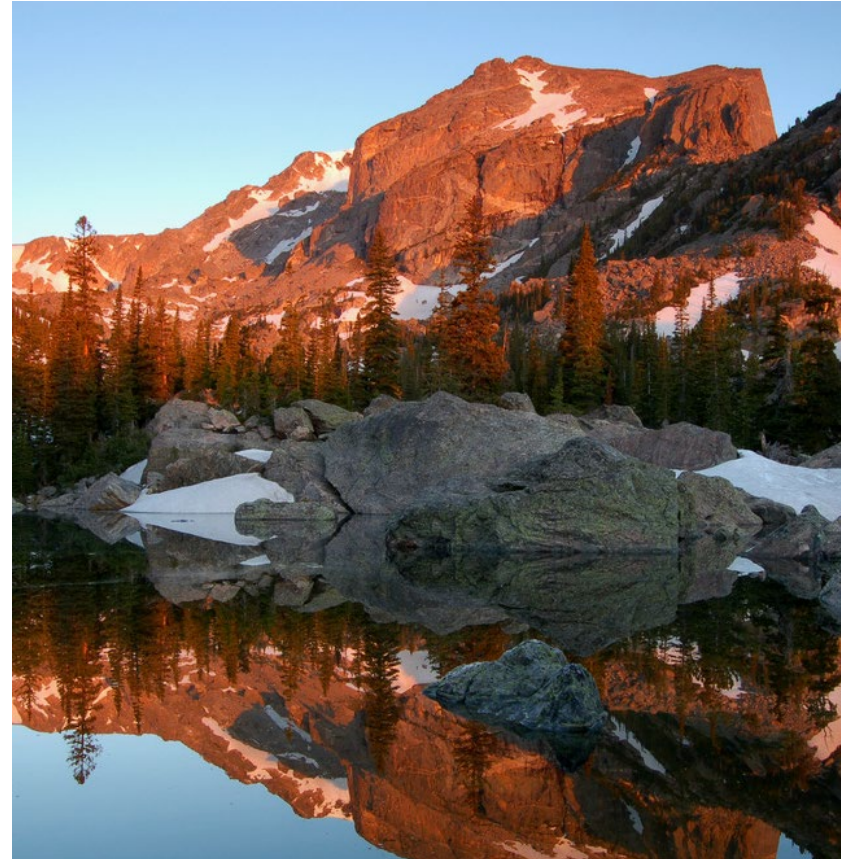
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EPA is not seeking collective viewpoints across participants or groups of interested parties.

# Topic 1: Reasonable Progress

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- Over the first 20+ years of the Regional Haze Program, significant measured visibility improvement has come from regional haze measures, including BART, and from other Clean Air Act and State programs.
- Given these observed visibility improvements, how should the Regional Haze Program balance ongoing emissions reductions programs with the implementation of additional controls for the purpose of addressing visibility in Class I areas?
- Considering the CAA requirements, what type(s) of benchmarks (e.g., URP or other tracking metrics) could be used to determine if “reasonable progress” has been made in a Class I area?



# Topic 2: Four Factor Analysis

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- The current rule requires states to apply the four-factors to determine reasonable progress but does not expressly specify criteria for minimum source selection or cost thresholds.
- What are some examples of criteria that EPA could implement to help states identify sources to select for four-factor analysis?
- What types of rule revisions would help States identify cost-effective controls?
  - If EPA were to identify a minimum cost-threshold, how could it be developed and applied?

# Topic 3: Long-Term Strategy

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- The SIP must contain a long-term strategy that generally consists of the set of measures that “are necessary for reasonable progress.”
- How should States and EPA determine *which* measures are necessary for reasonable progress and therefore must be included in the SIP?





# Topic 4: Future SIP Obligations

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- Should all states be required to submit a SIP revision for each planning period (every 10-15 years)?
- Considering the CAA requirements, what criteria could EPA establish to determine that in some cases, no further revisions to the existing Long-term Strategy (LTS) are necessary (for a particular planning period)?
- For example:
  - When should Class I areas be considered to have achieved the national goal?
    - What should be required for contributing states to ensure these areas do not backslide?
  - Should EPA establish a statewide “de minimis” visibility contribution threshold value?
    - How could a statewide contribution threshold value be developed?
    - What SIP requirements should exist for states that contribute less than a “de minimis” contribution to all Class I areas?

# Comments to the Docket

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- It is not EPA's intent to limit feedback to the questions and topics highlighted in the presentation.
- These topics are meant to touch on some of the most common issues from prior planning periods but do not cover all the aspects of the program that would benefit from public feedback.
- Your input will be critical in helping EPA describe the Regional Haze Program for the third planning period and beyond, and we thank you in advance for your contribution to this effort.
- Participants are invited to submit comments by June 28, 2024, to the following docket at regulations.gov: [EPA-HQ-OAR-2023-0262](https://www.regulations.gov/docket/EPA-HQ-OAR-2023-0262)