

National Park Service Comments
Colorado Draft Regional Haze State Implementation Plan
December 6, 2010

National Park Service commented on November 16, 2010, and December 2, 2010, on Colorado Department of Public Health and the Environment (DPHE)'s BART determinations. Our current comments address DPHE's reasonable progress analyses and long term strategy.

The Regional Haze Rule requires states to establish goals that provide for reasonable progress toward achieving natural visibility conditions and to consider four factors in evaluating emissions reduction measures for contributing sources. The state must also define a long-term strategy to address visibility impairment for each mandatory Class I areas within the state.

Colorado's reasonable progress analysis is thorough both in methods used to identify sources subject to reasonable progress and analyses supporting substantive emissions reductions from major sources.

We agree with DPHE's decision to focus the reasonable progress analysis on emissions of sulfur dioxide (SO₂), nitrogen oxides (NO_x), and particulate matter (PM).

We commend Colorado for requiring NO_x controls for reciprocating internal combustion engines (RICE) over 500 horsepower throughout the state as part of reasonable progress. NO_x emissions increases from the oil and gas sector are projected to partially offset emissions decreases from the mobile sector. The RICE control requirements are an appropriate step to reduce emissions from the oil and gas sector and are a good precedence for other western states. Please clarify if these reductions were included in the WRAP 2018 PRPb modeling.

We agree with DPHE's approach to use a ratio of emissions (Q) of SO₂ + NO_x + PM divided by distance (d) of the source to the nearest Class I area (Q/d) equal to 20 for sources with emissions greater than 100 tons/year to identify sources to be considered in the reasonable progress analysis. This ratio is a somewhat less conservative metric than that used by the southeastern states (Q/d for SO₂ + NO_x = 10), but it is still effective in identifying the most important sources to consider for further controls.

We commend DPHE for including in the reasonable progress analyses sources that are not BART eligible but are located at the same facility as BART-eligible sources.

We agree with DPHE's approach to use the same selection criteria for NO_x emissions controls for reasonable progress that are used for BART. This has made DPHE's decision process more transparent. We support including visibility impacts in the reasonable progress analysis because it is helpful to compare the relative benefits of controls of BART and non-BART sources at the same facility and across facilities. We would like to understand the cumulative visibility impacts from these sources at multiple Class I areas, not just the Class I area with maximum impact.

In evaluating NO_x controls, we recommend that DPHE consider the possible implications of future regulatory requirements so that control decisions are robust and provide the greatest cumulative air quality benefit.

We provided comments on December 2 on the Craig Power Plant Unit 3 reasonable progress analysis along with comments on Craig Units 1 and 2 BART analyses. We will provide comments on the reasonable progress analyses for other sources as we complete them.

We agree with the methods used by DPHE to establish reasonable progress goals. We encourage DPHE to clarify the emissions reductions by 2018 that were included in the WRAP 2018 PRPb modeling that is the basis for the reasonable progress goals and to compare those emission assumptions to the final emissions reductions under BART, reasonable progress, and the BART Alternative.

The Long-Term Strategy section includes all the necessary elements required by the Regional Haze Rule. Colorado DPHE has consulted effectively with the Federal Land Managers during the SIP review. DPHE could better document the outcome of consultations with other WRAP states concerning inter-state contributions.

We noted in our November 16 comments that the monitoring, emissions inventory, and modeling data produced by the Western Regional Air Partnership were summarized in technical support documents for each Class I area in Colorado. To better summarize the priorities for emissions controls, we recommend that DPHE expand the discussions of some of the key points in Chapters 4, 5, and 7:

- Figures 4-1 and 4-2 illustrate the average pollutant contributions to visibility impairment on the 20% worst and 20% best visibility days. In Section 4.3 please discuss which pollutants are most important on the 20% worst days and how those contributions vary seasonally (citing monthly or daily time series from Technical Support Documents).
- Figure 4-3 summarizes the deciview values for natural visibility conditions. It would be helpful to illustrate the pollutant contributions to natural visibility conditions at each Class I area using a similar format to Figures 4-1 and 4-2.
- Please clarify: Table 5-2 indicates a 10,000 ton increase in NO_x emissions from the oil and gas sector by 2018, while the text (page 33) indicates a 4,000 ton increase
- In Section 7.1, Overview CMAQ Modeling, it would be helpful to add a brief discussion of model performance to clarify confidence in the modeled responses to emissions changes. References to the model performance figures in the Technical Support Document would also be appropriate.
- Figure 7-2 summarizes the major source categories and source areas contributing to the Class I areas. The graphic is printed too small to be legible and the text does not describe the major conclusions. Please separate the sulfate and nitrate results into two graphics that are large enough to easily read and summarize the major conclusions.
- Figure 7-3 illustrates Colorado's contribution to sulfate and nitrate at the Class I areas. It would be helpful to add and discuss the results of two additional graphics, one that summarizes % contributions from neighboring states to Class I areas in Colorado and one summarizing Colorado's contribution to Class I areas in neighboring states (Table 9-1 addresses only two of the neighboring Class I areas).