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August 10, 2016

U.S. Environmental Protection Agency
Attention: Docket ID No. EPA-HQ-OAR-2015-0531

via E-Mail

Subject: Proposed Rule for Protection of Visibility: Amendments to Requirements for State Plans – western air quality planning needs for regional haze and other air quality indicators

Introduction

The Western Regional Air Partnership (WRAP or Partnership) is pleased to submit these comments regarding the U.S. Environmental Protection Agency (EPA) proposed rule for Protection of Visibility: Amendments to Requirements for State Plans, 81 Fed. Reg. 26942 (May 4, 2016).

The WRAP is a regional air quality analysis and planning organization spanning a 15-state region of the western U.S.; a Partnership of public air quality management agencies with common interests and objectives. We conduct our work through the Western States Air Resources (WESTAR) Council. WRAP is a voluntary membership association conducting cooperative regional technical analyses for regional haze and other air planning indicators across the West for the same 15 WESTAR states, as well as tribes, local air agencies, federal land managers (FLMs), and the EPA. WRAP was formed in 1997 and now has 70 active member agencies. We highly value our shared partnership across all jurisdictions and respect our members' individual authorities, our successes and collaborations the WRAP enables, and look forward to continuing our active partnership with our federal agency members who have significant and diverse responsibilities for visibility improvement and protection in our WESTAR-WRAP region.

To appropriately and effectively comment on the effects of the proposed rulemaking, the opinions expressed in this letter are not those of the EPA or FLM employees that provide WRAP technical advice and participate in western regional analysis and planning efforts. Staff from EPA assigned to WRAP activities were not involved in any way in the preparation or review of this letter. On behalf of the state, tribal, and local air agency WRAP members, all of whom are co-regulators of air quality with EPA, we offer the following comments.

Importance of the Regional Haze planning effort in the West and our collective experience

The Regional Haze Rule (RHR) proposal is particularly significant to the WRAP membership due to the pioneering and massive collective effort to develop and implement the first round of RHR implementation plans between 1999 and 2009, with limited implementation support continuing through the present. The shared responsibility and commitment among the WRAP membership to improve visual

air quality comes from the 1991 through 1996 foundational work of the Grand Canyon Visibility Transport Commission (GCVTC). Pre-dating the initial RHR promulgation in 1999 as required in the 1990 Clean Air Act Amendments, the GCVTC advised EPA on regional haze planning regarding emissions reduction and management strategies. Much of the visibility protection framework in the existing RHR and the basis of western haze planning was formulated in the West by the GCVTC.

The WRAP is the outgrowth of the GCVTC, to further verify the causes of western haze to help states, tribes, local governments, and federal agencies to meet Clean Air Act obligations as codified in the Rule. The WRAP membership has vast knowledge, on-the-ground experience, and a detailed understanding of western air pollution issues affecting our Class I areas, where visibility impairment is less and the causes quite different than the eastern U.S. Of the 156 visibility-protected National Parks, Forests, Monuments, Seashores, Wildlife Refuges, and Wilderness Areas across the country, 118 are located within the WESTAR-WRAP region. Of the 566 federally recognized tribes, 446 are located in this same region and five of the six tribes with Class I area status are in the West. All WRAP member agencies share the vision and goals listed in the WRAP Charter and Strategic Plan. These goals support analysis, planning, and implementation of reductions in anthropogenic emissions to improve visibility within and across these national treasures and homelands.

The requirements of the RHR's administrative framework define the co-regulator structure and provide assurance that progress continues toward the national visibility goal, for the EPA, federal land managers, our state, tribal, and local air agencies, and the public for whom Class I visibility protection is afforded by Congress in the Clean Air Act. However, the complex technical analyses and degree of inter-agency consultation necessary to meet the RHR requirements are beyond the capability of many individual WESTAR-WRAP states and tribes. WRAP is the regional venue through which resources can be leveraged and common needs can be addressed. The Partnership has had great success in delivering comprehensive, well-documented, regional analyses, providing an inclusive, thoughtful and more complete consultative process, and making key policy recommendations and planning deliverables available for the western region. In fact, the Partnership developed the first and only truly regional analysis of the nature and causes of air pollution across the West for use in the 13 contiguous western states and provided invaluable inventory and special study assistance to the otherwise isolated states of Alaska and Hawaii. Substantial and continued federal financial support for the WRAP, commensurate with the number of Class I areas and complexities of western sources, will be essential for the upcoming western haze analysis and planning effort. At a minimum, federal support should be comparable to the long-standing regional air planning effort supported by EPA in the eastern U.S, and, in proportion to the number of Class 1 areas in the western U.S.

Ongoing Long-Term Implementation Efforts and Assessing Progress

The laudable national visibility goal adopted in the Clean Air Act is to achieve visibility improvement by reducing emissions from anthropogenic sources. The national goal is neither to achieve the construct of "Natural Conditions" as promulgated in the RHR, nor using the concept of "Natural Conditions" to anchor the decadal planning process a useful target relative to current planning efforts. "Natural Conditions" are a construct of EPA guidance but are an unrealistic endpoint not present in the Clean Air Act language. Achieving the national visibility goal requires feasible and reasonable ways to: 1) set reasonable planning goals, 2) demonstrate progress in the plans, and 3) periodically repeat the analysis and assessment of progress steps. The 1996 Grand Canyon Commission recommendations (<http://www.wrapair.org/WRAP/reports/GCVTCFinal.PDF>) to EPA, and the subsequent first round of RHR plans from western states in the 2000s, offer a variety of emission reduction programs to achieve

reasonable progress in reducing visibility impairment for the first 10-year planning period. The RHR plans can only require further reasonable additional controls for anthropogenic emissions under the direct management of state, tribal, and local air agencies, not the federally-regulated sources or additional reductions in already-well-controlled sources. We appreciate that EPA is attempting in the proposed RHR and Guidance changes to address many different concerns, specifically to assess the success of the program for the emissions reductions that actually improve visibility. We know the importance of improving visibility from our record of 25 years of collaborative inter-agency work by WRAP members. We ask that EPA recognize that a single national solution will not effectively improve visibility and aid in the actual execution of regional haze planning, and use the opportunity to apply resources to be provided by EPA to utilize lessons learned by WRAP members about how to assess and track further efficient and cost-effective emissions controls that improve visibility.

We are concerned that the detailed and complete regional work of the WRAP in the initial round of haze planning may be set wholly aside given EPA's recently-released draft Guidance and Technical Support documentation (TSD). It is unfortunate that these lengthy and detailed documents would be released after the proposed RHR changes. It is unrealistic to ask for review of the RHR changes while changing the progress tracking metric and updating the planning guidance, simultaneously. The WRAP membership would need to make the practical assessment of using the revised metric and guidance in the practice of a complex regional planning process. Our concerns with the process only begin with the changes to the progress-tracking metric, where statistical transformations are applied to actual monitoring data to screen out days with real and significant visibility impairment experienced by Class I area visitors in the stated interest of tracking a long-term trend. The long-term trend is important, but the improved experience of the current Class I area users is the intent and purpose of the national visibility goal.

The Regional Haze State Implementation Plans now to be due in 2021 for a 2028 milestone are fast approaching for the West, and we will need to quickly understand and analyze the re-defined "Most Impaired Days metric" in order to develop state-by-state long-term strategies at our many Class I areas and evaluate those on a regional basis. Those steps are required for reasonable progress planning using long-term strategies each state would select. The proposed revisions to the progress-tracking metric were first published on July 8, 2016 and those do not only modify the basis of the planning process going forward, but retrospectively recalculate visibility impairment back to January 2000. This leaves us needing to understand a metric radically different than was used during the entire history of the Interagency Monitoring of PROtected Visual Environments (IMPROVE) program since 1988 and first RHR planning period, while we are also asked to evaluate the meaning of proposed planning guidance and RHR changes. In the first planning period, careful analysis of the tracking metric and the necessary preparatory air quality modeling steps were undertaken based on separate EPA guidance, before the planning guidance was published and the long-term strategies' planning process could begin. In addition, updated EPA guidance that has not yet been provided that will describe technical requirements to project future visibility based on multiple regional modeling runs, with those results needed to complete the Long-Term Strategy and Reasonable Progress steps for WRAP members.

The proposed change to the progress-tracking metric was handled by EPA differently from the outside peer review from the Clean Air Scientific Advisory Committee (CASAC) or science groups such as the National Academy of Science where air pollution indicators are routinely evaluated. The informal and incomplete review process used by EPA to assess metrics for quantifying visibility impacts and their causes at western Class I areas did not systematically or thoroughly utilize the collective understanding of WRAP members. In addition, we feel that EPA's review was not very transparent and the TSD which describes the basis of the metric was released after the fact. It is also clear that "Natural Conditions

estimates” are major factors in RHR planning, and in fact control the long-term strategy evaluations required and the reasonable progress goal setting process considered in planning. “Natural Conditions” have no physical definition in terms of observable measurement values but control the rate of reasonable progress. Because of the timing of the release of the Guidance and TSD, we have not had sufficient time to review the process EPA has proposed for estimating “Natural Conditions”. The comment period should be extended to allow detailed review of these complex documents.

These “Natural Conditions” require a physical definition, adequate and published separation from international contributions and definition of sources on federal lands such as fire and dust, and need to represent a range of spatial variation by Class I area, as well as in time over the RHR decadal planning cycles. Variation in natural haze is considerable in both time and space in terms of mass concentration and source mix contributions for RHR planning timeframes. EPA’s own work on climate and observable changes in human activities and natural systems show that natural haze conditions are changing, and will continue to vary and change. Even if “Natural Conditions estimates” can be improved and defined in physical terms, the Uniform Rate of Progress slope will never be “correct” for planning purposes; it is not constant from 2000 to 2064, or to any other distant future year.

Measuring Real Progress in Reducing Visibility Impairment

The existing WRAP technical analyses and projected future visibility improvements are integral to the successes of the first planning period. A relative increase in average visual range is already being seen, with the most progress at locations nearest large population centers with the ability to control anthropogenic emissions (see Figure 1). The annual average of all monitored days shows the visitor to Class 1 areas typically experiences improved visibility since a decade ago. This is occurring despite the increasingly frequent and more severe impacts from natural sources of regional haze such as wildfire and dust, which impair visibility even when emissions controls have reduced the anthropogenic impacts. It makes sense to account appropriately for these changes as we plan from present conditions to improving future conditions. We are concerned that a metric has been selected without discussion of alternative tracking metrics. Given the millions of visitors to Class I areas in the West, the importance of outdoor recreation for human health and local economies, and the quality of life benefits of our natural environments, we suggest that tracking the average visibility improvement is much closer to the typical visitor experience. Alternatively, the most direct way to assess the trend in anthropogenic emissions over time is to have RHR plans that focus on the downward trend in those anthropogenic emissions rather than a projected visibility condition much of which is uncontrollable.

In planning toward the current RHR construct of achieving “Natural Conditions”, which imply no human impacts decades in the future, we face considerable uncertainty regarding the quantities and trends of natural sources of haze in the West. Natural haze, together with internationally-transported emissions, results in impacts that are often significant. These impacts complicate planning efforts to further control state-managed sources affecting western Class 1 areas. As recently as 2013, WRAP completed a comprehensive analysis and provided Reasonable Progress reports (<http://www.wrapair2.org/RHRPR.aspx>) for all 15 states and 118 Class I areas in the region. WRAP supported the annual Regional SO₂ Emissions and Milestone Report (<http://www.wrapair2.org/reghaze.aspx>) cycle for the states and local air agency participating in that successful state-developed program, recommended by the Grand Canyon Commission. With timely availability of sufficient funds to the WRAP, the necessary analyses can be completed as the basis for plans to further reduce controllable anthropogenic emissions for reaching the 2028 milestone. The proposed RHR focus on continued assessment of controllable anthropogenic sources causing visibility

impairment is a step in the right direction, while realizing that the sulfate and nitrate species targeted in the revised progress tracking metric come from many sources, both anthropogenic and natural. The challenge will be the actual analysis and planning to further identify the use of state controls on existing anthropogenic sources contributing to impairment and to demonstrate in the plans that visibility will perceptibly improve as a result of those controls.

Changing Visibility Impairment Causes & Need for Multi-Pollutant Regional Analysis and Planning

As reflected in the WRAP Charter and recognizing that EPA is not directly responsible under the RHR for regional haze planning, we support the assertion that planning to improve visibility should more fully incorporate the multi-pollutant elements of pollution control analyses across the U.S. (see Figure 2). Western counties and many Indian reservations are large in size and the number of counties with current monitored design values in excess of the Ozone and PM_{2.5} National Ambient Air Quality Standards (NAAQS) suggest that WRAP members will need to address multi-pollutant planning strategies. Strategies for reducing Regional Haze, meeting and maintaining Ozone, PM, SO₂, and NO₂ NAAQS, and programs to reduce greenhouse gases, all point to similar sources, and the planning should be integrated – as the WRAP Charter identifies. The high percentages of federally-managed surface lands in all western states, and particularly energy mineral resources within the WESTAR-WRAP region, also reinforce the importance of the Partnership in terms of regional air quality analysis and planning. We support EPA’s proposal to extend the due date for the plans, if for no other reason than to recognize the sheer amount of work to be done. It has long been recognized in the WRAP analysis and planning process that the better we integrate planning, the more efficient our regional work to help our members with their regulatory processes is. In this exercise, it is extremely important to be able to account for federal control measures. This planning includes identification of the kinds of additional federal control programs to be promulgated to effectively and uniformly address regional haze.

Planning Guidance & Progress-Tracking Metric Review - Concurrent with Proposed Rulemaking

WRAP members favor many of the changes proposed in this rulemaking to varying degrees, depending on their individual agency’s perspective and air quality management situation, but the Partnership cannot make further detailed comments on the proposed RHR revisions. The delay in releasing the Guidance and the TSD is regrettable because EPA has had a lengthy informal consultation with a subset of WRAP member agencies and representatives from other regions since 2014. In addition to RHR amendments, implementation guidance was initially promised for review in Fall 2015. As agencies, we are responsible under the RHR for the details of source attribution, control technology and long-term emissions reduction strategy evaluations, visibility goal-setting, and ultimately the further control of anthropogenic emissions. The progress-tracking metric changes need to be first well-understood before WRAP members can evaluate the Guidance and ultimately the RHR changes. We feel the timing could have been optimized differently and we should have been more thoroughly consulted as part of this process. We note on page 173 in the Guidance that EPA in a footnote states: *We expect that regional planning organizations will have modeling information that identifies sources affecting visibility in individual class I areas.*¹

The RHR rulemaking proposal falls short on explaining how a regional analysis and planning process would work in the West, especially given the lack of resources identified to date by EPA for WRAP members to use to complete that process. This situation will further hinder the already

¹ from: https://www.epa.gov/sites/production/files/2016-07/documents/draft_regional_haze_guidance_july_2016.pdf

complicated process of regional haze planning. Adequate funding of the WRAP is necessary to alleviate conflicts, streamline planning, improve consultation and level the field for state, tribal, and local agencies. Regional modeling is a required activity for consistency of modeling inputs (and therefore outputs) including chemistry, international, fire and dust impacts, boundary/initial conditions, et cetera, and is especially needed to identify “contributing” states in terms of selecting Long-Term Strategies and Reasonable Progress Goals. If regional modeling is conducted then resolution of possible conflicts of who is contributing (and how much) would be simplified or nonexistent.

For example, under the proposed rulemaking, states can adjust “Natural Conditions” to account for impacts from international sources and prescribed fires needed for forest health. Without regionally coordinated technical analysis to support these adjustments, agencies will make the adjustments independently, potentially resulting in conflicting estimates of visibility for planning purposes. In a May 4, 2016 EPA webinar on the proposed RHR changes, EPA suggested on slide 6 that impacts on visibility from anthropogenic sources outside the U.S. cannot be estimated with sufficient accuracy at this time (similar statements have been made in other venues by EPA staff). However, EPA uses a 1 percent contribution threshold for significant contributions to ozone nonattainment or maintenance areas, based on similar modeling methodologies. These two concepts appear to be in conflict. Modeling by WRAP and others suggest secondarily formed PM and ozone from international sources both have considerable but quantifiable impacts to the West. The WRAP membership would appreciate an explanation by EPA as to why similar modeling exercises produce results accurate enough to meet the 1 percent threshold, but can’t resolve international contributions to regional haze in the West.

Without sufficient time to review the Guidance and the TSD, we cannot evaluate the potential benefits of the rule revisions for what we know from experience to be a complex and detailed regional planning process. In addition to the Guidance and the TSD, we recommend that if EPA includes the Reasonably Attributable Visibility Impairment (RAVI) in the RHR as proposed, a complete guidance document for RAVI must be prepared in a timely manner. Any success for RHR planning in the West must include a robust regional process for WRAP members, in order to fully analyze and develop appropriate strategies for the regional part of Regional Haze. Resources for that regional analysis and planning effort are critical.

Summary of Comments

- 1) The Partnership has sustained and substantial regional experience and expertise in crafting programs to address visibility improvement, and to protect and maintain the associated economic and quality of life values in the West. EPA would best ensure another round of successful planning by continuing to actively engage with the Partnership and provide funding to develop western visibility improvement strategies for the 2028 milestone.
- 2) Western states will achieve considerable efficiency through continuing the long-term implementation efforts and experience in assessing progress by the Partnership. Commensurate benefit would accrue to the EPA in the continuing effort to protect visibility and assure progress toward the national visibility goal by utilizing the WRAP experience and expertise. In addressing comments of our western air agencies and actively sustaining a regional planning process for those in the West, EPA should fully support the WRAP regional planning activities for mutual benefit in achieving national goals.

- 3) The causes of visibility impairment are changing because of the increasing impacts on western Class I areas from uncontrollable and international air pollution sources at a time when western air agencies and EPA are reducing “controllable” anthropogenic emissions. As a result, there is an emerging need for integrated multi-pollutant regional analysis and planning for urban and rural western areas. It would benefit EPA and western air agencies to plan by investing now in western regional analysis and planning, together with co-regulators and sister federal agencies, by funding the WRAP for regional haze planning.

Thank you for the opportunity to comment on behalf of the state, tribal, and local air agency members of the WRAP. For any questions, please contact Tom Moore; WRAP Air Quality Program Manager, at 970-491-8837, or by E-Mail at: tmoore@westar.org.

Sincerely,



Gordon E. Pierce
WRAP State Co-Chair



Randy Ashley
WRAP Tribal Co-Chair

CC: WRAP Board members
Western Governors' Association
National Tribal Air Association
National Association of Clean Air Agencies
Association of Air Pollution Control Agencies

Figure 1. Average Visual Range Improvement. Five-year Average of Annual Averages for ALL IMPROVE SAMPLING DAYS show relative improvement in Visual Range at individual sites. Averages based on ~120 days of data collected annually. Averaging all sampled days minimizes skewing by natural extreme episodic events (wildfires & dust storms) affecting the top quintile (20% Worst Days.)

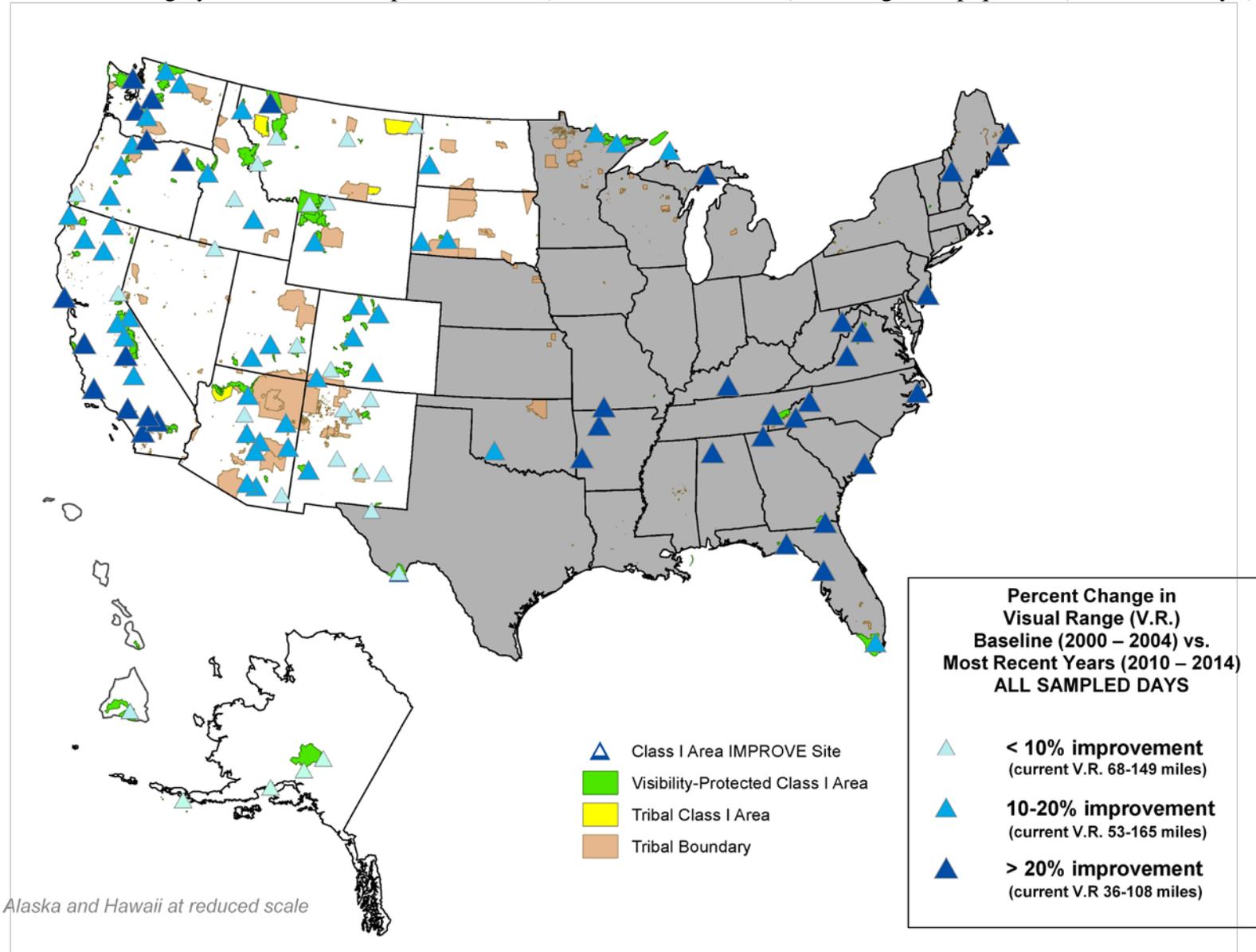


Figure 2. 2013-15 Ozone and PM_{2.5} preliminary design values in excess of current NAAQS

