

Committee on Resources

Subcommittee on Forests & Forest Health

Witness Testimony

Testimony on
Oversight hearing on
Regional Haze
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Before the
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Subcommittee on Forests and Forest Health
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Mr. Chairman and members of the Committee.

My name is Dr. Robert Pearson. I am an air quality scientist and Project Manager at the Denver office of Radian International, an environmental consulting firm. I am also an adjunct professor of air pollution in the graduate school of the University of Colorado at Denver.

I am appearing before you today to discuss the air quality impacts of the practice of using prescribed burns to reduce vegetation in our nation's forests. I also appeared before the full Committee in a similar hearing last September 30. I appreciate the opportunity to again appear before you Madam Chair and members of the Subcommittee to further discuss this important subject.

First a short bit of history. I have practiced as a scientist in the area of air pollution for my entire career, lasting some 25 years. In 1992, Governor Romer of Colorado appointed me to be a representative of Colorado on the Public Advisory Committee of the Grand Canyon Visibility Transport Commission. Congress established the Commission in Section 169B of the 1990 amendments to the Clean Air Act. The Commission, made up of the governors of eight states and representatives of several Indian tribes, was charged to recommend to EPA ways of reducing man caused visibility impairment in and near the Grand Canyon. The Public Advisory Committee was given the responsibility of reviewing the man caused impact to visibility in the Grand Canyon and other Class 1 national parks and wilderness areas in the West and making recommendations to the Commission on methods for preventing and remedying such impact.

We spent four years and more than eight million dollars reviewing the science that had been collected on this subject including new visibility data gathered for the Commission. We then formulated policy recommendations for the Commission to consider. Throughout the conduct of this scientific study, every interest group was represented including environmental groups, the EPA and the federal land management agencies of the Forest Service, the Bureau of Land Management and the National Park Service.

On June 10, 1996, the Commission published its findings in a report titled "Recommendations for Improving Western Vistas". This report discusses in detail the scientific study that was done and the recommended control strategies for all of the categories of sources of air pollution located throughout the West. I am here today to relate some of the information we learned as we struggled to craft a workable

regional haze improvement plan for the West.

The EPA has recently proposed a set of regulations to allegedly protect and improve regional visibility in the US. Unfortunately, even though the proposed regional haze rules acknowledge the work of the Commission, the rules almost totally ignore the recommendations of the Commission. We on the Commission worked very hard to craft a workable plan for improving visibility in the West. However, this regional haze proposal of EPA is ignoring our work and attempts by the Western Governors Association (WGA) to get EPA to follow the Commission's approach have led to even more confusion. If the new regulations are adopted, our efforts in improving visibility in the West will be overwhelmed by land management plans of the Forest Service, Bureau of Land Management and the National Park Service, which I will detail in a moment.

The Commission's proposed strategy for improving visibility in the West took a regional consensus approach to achieving this goal. The consensus addressed all sources of air pollution emissions in the West including motor vehicles and fugitive dust. It recognizes the current trends in western air quality that will result in improved regional visibility over time. Instead of adopting the Commission proposal, EPA has chosen to go back to their usual command and control approach to place an ever-increasing burden on a single group, stationary sources. The Commission's work has shown that this group of sources has a relatively small and declining role in the cause of regional haze, particularly on the worst days that EPA has chosen to target. Requiring additional controls on them will yield relatively little benefit over emission reduction trends that are currently under way.

EPA also is apparently not aware of the legislative history of the language in the Clean Air Act for protecting regional visibility. Congress in debating the 1990 amendments to the Clean Air Act had before it two bills. Section 707 of the House Bill and Section 709 of the Senate Bill had provisions similar to the currently proposed EPA regional haze rules. Those sections contained requirements for Best Available Control Technology analysis of major stationary sources, final visibility rules in a year, regional haze plans, criteria for reasonable progress and a methodology for measuring visibility. These sections were deleted during Senate floor debate and the current Section 169B was inserted in its place and adopted by Congress in the final bill.

Section 169B requires that studies of regional visibility are conducted and regional visibility transport regions be established to formulate measures for improving visibility in the region. It was under this provision that the Grand Canyon Visibility Transport Commission was established to perform these analyses. Section 169B also requires the Administrator of the EPA to take into account the recommendations of the Commission in forming its regulations for improving visibility in the region. EPA has chosen to follow the provisions of the sections that were deleted by the Senate and House and not the sections that were adopted in the final bill.

Congress, in Section 169B, required the Commission to study several concepts in regional visibility including visibility transport regions and clean air corridors. The Commission studied these and included discussions of them in its report. The Commission also reported in detail and made recommendations on several potential sources of western visibility impairment including area sources, fugitive dust, prescribed fire, mobile sources and emissions crossing the border from Mexico. Congress required that the EPA Administrator take into account these recommendations from the Commission report in formulating its proposed rule. The EPA proposed rules don't contain any mention of any of these concepts and recommendations required by Congress. EPA has instead chosen to ignore Congress and the Commission report and to focus on stationary source control, giving more authority to the federal land managers, and

requiring the states to perform many costly functions such as setting up visibility monitoring stations.

It is apparent to me as an air quality scientist that EPA has chosen to take a narrow perspective of improving regional visibility. This is in stark contrast to the Commission that has taken a much broader, and in my view, a much more workable scientific approach to improving regional visibility in the West by looking at all sources of visibility impairment rather than a select few. EPA should be told by Congress to rescind its regional haze regulation proposal and to prepare a new regional haze rule which is in accord with the intent of Congress as expressed in Section 169B and which fully incorporates the process of the Grand Canyon Visibility Transport Commission.

The federal land managers also have several responsibilities for the protection of regional haze that I would like to bring to the attention of the Subcommittee. One provision of current law as well as the proposed regional haze rule allows the federal land manager of a Class 1 area to identify a source or some group of sources some distance away which could be impacting visibility in the Class 1 area. The state in which the source is located would then be required to evaluate the allegedly offending source(s) for the retrofit of air pollution control technology equipment to reduce the effect on the Class 1 area. In effect, this gives the federal land manager land use control over lands outside of the wilderness area despite the fact that wilderness legislation passed by Congress specifically prohibits the establishment of buffer zones around wilderness areas.

While this scenario may sound far-fetched, it has been going on for some time in Northwestern Colorado. The Forest Service, manager of the Mount Zirkel Wilderness Area accused the Hayden Power Plant of polluting the wilderness area some 30 miles away. The State of Colorado Department of Public Health and Environment along with the Forest Service and the Colorado utilities conducted a \$3 million scientific study to determine the sources of visibility impact in the wilderness area. The recently released results of the study showed that the Hayden power plant was only a minor contributor to visibility impairment in the wilderness. Despite this evidence, the source owners have committed to spending over \$120 million to reduce the emissions from the plant.

At the same time the federal land managers can trigger clean up activities on other sources, they plan on increasing their own air pollution activities through increasing prescribed burns. Interior Secretary Babbitt testified to the full Committee in its hearing last fall his intention to increase the use of prescribed fire by 400% as a land management tool in order to reduce the level of fuels built up in our forests. Secretary of Agriculture Glickman also testified before the Committee that the Forest Service would dramatically increase its use of prescribed fire. While the elimination of fuels in our forests is needed, the use of fire as the tool of choice will cause regional haze to increase.

Forest fires, either intentionally set or accidental, release quantities of fine particles made of carbon and other elements in the smoke. These fine particles cause several impacts on air quality. First the concentration of fine particles in forest fire smoke may cause the PM_{2.5} National Ambient Air Quality Standard recently adopted by EPA for the protection of human health to be violated near the fire. In addition, the fine soot particles in the smoke will affect regional visibility by both scattering and absorbing light.

At times smoke containing fine particles travels hundreds of miles and across several states increasing regional haze all along the way. I can vividly remember seeing the effects in Denver of several California wildfires, the 1988 Yellowstone fires and just this spring the smoke from the fires in Southern Mexico. These effects were much reduced visibility and a smoke smell in the air. While I do not have air quality measurement data from these periods, I am sure the concentration of fine particles was elevated for several

days each time even at the considerable distance that the smoke traveled to get to Denver.

During the Commission study of western regional visibility, we also saw photographs taken at Hopi Point at the Grand Canyon when a small wild fire on the South Rim of the Canyon was brought under control and extinguished. Even such a small fire, which lasted only a few hours, filled the Canyon with smoke. The point is that even a small fire in or near a Class 1 area can cause dramatic effects on visibility and the concentration of fine particles in the air similar to the effects seen at long distances from large fires.

The Commission analyzed the effects of the announced increase in the use of fire as a forest management tool and concluded that the effects on western regional visibility could easily wipe out the gains made by all other source categories combined. These other source categories, which are currently reducing emissions, include power plants, copper smelters, cars, trucks and area sources of fugitive dust.

Note that the Commission combined all fires, both man caused and wild fires, into the "natural category" for our analysis. Such natural causes contribute almost half of the visibility impairment in the West. To some extent considering smoke from intentional man caused fires as "natural" biases the report. This also, in effect, excludes the smoke from prescribed burns from being considered against your goal in the Clean Air Act of remedying man caused sources of visibility impairment. The point is that all of our hard won incremental improvements in regional visibility across the West could be overwhelmed by the increased use of fire as a land management tool by the federal land management agencies even though their contribution is considered "natural".

The story gets even better since EPA Administrator Browner testified in last fall's hearing before the full Committee that EPA will ignore air quality measurements on those days when fires, either intentional prescribed burns or unintentional wild fires, are taking place. This is to allow regions to meet the recently adopted EPA fine particle ambient standards. This takes us to an absurd outcome of EPA insisting that fine particle pollution in many areas of the West be reduced to protect human health and visibility on all but the worst days when fires are taking place. Those bad days, when health and visibility impacts are at their peak, will be exempt from recording of the measurements through this flexible interpretation by EPA of their monitoring requirements.

While I am extremely concerned that prescribed burns will hamper and even possibly prevent our attainment of the goal Congress set of remedying man made causes of visibility impairment in the West, I recognize that forest fires can and will continue to occur. Federal land managers must take action to reduce the level of fuel available in the nations forests for wild fires to consume. I am not convinced, however, that prescribed burns are the only tools at their disposal for this purpose. Other techniques such as logging and mechanical removal can and should be selectively used to reduce the amount of fuel available for fires.

Both Secretary Babbitt and Secretary Glickman testified last fall that mechanical thinning of vegetation in our forests would be part of the treatment that will be applied to the forests. This testimony runs counter to the recent trend by the Forest Service of reducing logging on the nation's forests. Secretary Glickman went on to say that nearly half of the 40 million acres of federal land needing vegetation reduction would have to be done mechanically because the level of fuel in the forest is too high to perform a prescribed burn without major damage to the forest.

When prescribed fire is indeed the only available option, the land managers should only use it when conditions are right for burning with little smoke being produced which will affect visibility in and near Class 1 areas. Only then can we have some hope of achieving cleaner air in our Class 1 areas. The increase

in regional haze due to prescribed burns will make it more difficult for the improved visibility goals to be achieved.

The proposed EPA regional haze rules could trigger even more stringent controls on stationary sources to make up for the increased visibility impact of the prescribed burns of the federal land managers so that the visibility improvement goals set by Congress are met. Under the proposed regional haze rules, the federal land managers are allowed set fires at will to reduce forest fuel. At the same time the land managers have the power to force other sources to reduce their emissions that may affect Class 1 areas to meet the congressional goal. This "do as I say not as I do" philosophy of the federal land managers suggests a double standard that needs to be addressed by Congress. You need to assure that the clean air goals you set are being met with an equal burden being carried by all. This is the approach chosen by the Grand Canyon Visibility Transport Commission that EPA is ignoring.

We must all work together to see that the goal of improved visibility is achieved that you as members of Congress have set. Fires on federal lands were identified by the Grand Canyon study as the largest single episodic source of regional haze. I am extremely concerned that federal land managers have chosen to point the finger at others while ignoring the obligation they themselves have to protect the air quality in areas they have been charged to protect. Until land management agencies recognize this responsibility and factor it into their day-to-day land management practices, will we see the benefits of improved air quality in our Class 1 areas. Also, the regional haze rules recently proposed by EPA need to be rescinded because they lack scientific basis, exclude major sources, exclude the Grand Canyon process, return to a command and control regime previously rejected by Congress, and have no adequate cost/benefit or unfunded mandate analysis.

Thank you.

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