

## Visibility

Visibility, a term used by scientists to refer to “The ability to see color and texture across a landscape,” is affected by air pollution. Therefore, clear air not only allows us to see far, but also contributes to healthful air for people and nature.

In 1990, the US Congress updated the Clean Air Act, setting national visibility goals and mandating that federal land managers help meet those goals. The Air Program has been working intensively on it. Visibility experts such as Scott focus most of their efforts in Class I Areas, namely designated Wilderness Areas, Parks and Wildlife Refuges.



**Figure 1-Forest Service air quality specialist installing a smoke monitor under very cold temperature**

Scott has worked under harsh temperatures to maintain the monitoring equipment for the IMPROVE network used to gauge progress in visibility. A few years ago, “Three days before Christmas, I volunteered to install new sampling equipment, and it was negative 25 Fahrenheit outside.” Network wide, other site operators also deal with inclement weather. “Every Tuesday, 55 Forest Service operators travel to remote sites to retrieve exposed filters and replace them with clean ones,” says Scott. Everyone works hard because they know that “Wilderness visitors are seeking clean air, and the agency has made visibility a priority.”

However, visibility benefits are not limited to Wilderness Areas, Parks and Refuges but to all the places and people in between.

For many years, Scott, Bret Anderson, and Trent Wickman have been working on reducing regional haze. The term “Regional haze” denotes pollution spread over a wide area that affects visibility. Eliminating regional haze is complicated by the fact that pollution emitted in one location can travel great distances. Pollution from the Midwestern states routinely spreads out to the Eastern states, affecting not only visibility but many people’s health. “For several years, we have been collaborating with the Midwest states, and working with the US Environmental Protection Agency (EPA) to reduce their pollution.” Partly as a result of decreased pollution from Midwest states, the air in Eastern class I areas is much cleaner today than it was 20 years ago.



**Figure 2-Difference in visibility from 2000-2004 to 2005-2009**

Scott mentioned that although “This is going to be a long process, we have to continue working hard to reduce pollution in the country, and all of us can contribute to it.” Reducing electricity use at home by improving energy-efficiency can save money and help the environment; joining an environmental or civic group that is working to clean the air can help make a difference at the community or national level. These are just some of the ways that everyone can participate.

EPA’s Regional Haze Rule goal is to eliminate human caused pollution in class I areas by the year 2064. “We still have a long way to go, but we have to continue working hard to provide reasonable and practical solutions. We have to work slowly and focus on steady progress to achieve this goal.”



**Figure 3-Scott monitoring smoke**