

Using Air Monitoring Data for Wilderness Stewardship

Examples of how air pollution effects data, collected from national forest lands, have resulted in emission reductions that help protect and restore wilderness air quality values.

- 1) A 1996 action by EPA required the Hayden Power Plant in Colorado to reduce annual sulfur dioxide emissions by 14,000 tons and nitrogen oxide emissions by 7,000 tons. This decision was based primarily on visibility issues, but EPA acknowledged that the reductions would reduce acid deposition impacts at the Wilderness. Environmental data that had been collected in and near the wilderness area made this assertion possible.

From the Press Release: "On May 22, 1996 U.S. Attorney General Janet Reno and U.S. Environmental Protection Agency Administrator Carol M. Browner announced a \$140 million pollution control settlement--the second largest ever under the Clean Air Act-- with the Colorado Public Service Co. (PSC) and its partners that will dramatically reduce air pollution and protect public health. Additionally, the settlement will improve the quality of lakes and streams, and increase visibility in northwestern Colorado's scenic and environmentally sensitive Mt. Zirkel Wilderness Area."

<http://yosemite.epa.gov/opa/admpress.nsf/0/581316e188c190158525646c004f1ec3?OpenDocument>

From the associated fact sheet: "Through modeling and actual measurements, EPA has confirmed that emissions from Hayden Station are transported to the Mt. Zirkel Wilderness area. This is especially true for sulfur dioxide and sulfates from the power plant. These pollutants are significant contributors to visibility impairment and acid deposition. In reducing these pollutants by some 14,000 tons per year, the risks to the wilderness area will be substantially reduced. With these reductions, we expect the frequency and magnitude of visibility impairment to decrease significantly and for acid deposition levels to decrease significantly over time."

<http://yosemite.epa.gov/opa/admpress.nsf/0/cfdc0dce006d10838525646c004f12f3?OpenDocument>

Background Information: "The U.S.D.A. Forest Service (USFS) officially certified impairment in the Mt. Zirkel Wilderness Area (MZWA) to then Colorado Governor Roy Romer and the Director of the Colorado Air Pollution Control Division (Division) on July 14, 1993. The USFS concluded in its letter that it was reasonable to believe visibility impairment existed in the MZWA and that local existing stationary sources, the Craig and Hayden power stations, contributed to the problem. **The letter also expressed concern with acid deposition and possible damage to aquatic ecosystems in the Wilderness but noted that there were no legal mechanisms at the state or federal levels to address existing non-visibility Air Quality Related Value (AQRV) impairment issues.** The certification letter contained a Technical Support Document with data and evidence upon which the certification was made."

Excerpted from Appendix F at the following website:

http://www.wrapair.org/forums/amc/projects/ra_bart_case/

Evaluations of the environmental effects of acid deposition on aquatic resources at Mt. Zirkel Wilderness:

SENSITIVITY OF AQUATIC ECOSYSTEMS OF THE MT. ZIRKEL WILDERNESS TO ATMOSPHERIC DEPOSITION: LITERATURE REVIEW
Deborah Ulinski Potter, M.S., USDA Forest Service ([Mt.Zirkel Wilderness-Sensitivity.rtf](#))

ARE AQUATIC RESOURCES OF MT. ZIRKEL WILDERNESS AREA IN COLORADO AFFECTED BY ACID DEPOSITION AND WHAT WILL EMISSION REDUCTIONS AT THE LOCAL POWER PLANTS DO? John Turk and Donald Campbell, USDI - USGS ([Mt.Zirkel Wilderness-Emissions.pdf](#))

2) Federal Land Manager's demonstrations that acid deposition is degrading water chemistry in headwater streams on national forest lands in Virginia has resulted in state air regulators now requiring new natural gas fired power plants to meet considerably lower emission rates. This will result in lower emissions to the atmosphere when these sources are constructed and operated.

3) "Recent analyses of a variety of air quality monitoring sources along with an understanding of the Columbia Basin winter meteorology come together to paint an interesting and very revealing picture. This information provides the foundation and many building blocks that define the Columbia Basin pollutant source region and the resulting effects on the Columbia River Gorge National Scenic Area, as well as the Basin itself." Excerpted from **NITROGEN INCREASES IN THE EASTERN PORTION OF THE COLUMBIA RIVER GORGE NATIONAL SCENIC AREA**, Bob Bachman, USDA Forest Service ([Columbia River Gorge NSA.doc](#))

The information contained in the paper above has received interest from the media and resulted in two front-page feature articles in the Portland newspaper, the Oregonian, over a period of 2 months in 2005. The media attention includes interviews on TV (private and as well as PBS), the Vancouver, WA paper, as well as the Associated Press. All of this attention will help increase awareness by the public of the air quality related problems existing in the Gorge. It is hoped that emission reductions will eventually be implemented.