

IMPROVE Steering Committee Meeting Summary **July 8-9, 1986**

An IMPROVE Steering Committee meeting was held July 8 & 9, 1986, at the National Park Service air quality office in Denver, Colorado. The primary objectives of the meeting were to review progress on the deployment of the long-term monitoring program and to develop an approach for conducting visibility impairment attribution studies. Miscellaneous administrative matters were also discussed.

Long-Term Monitoring Program

The NPS has amended contracts that they have with the University of California, Davis (UCD) and Air Resource Specialists (ARS) to accommodate the additional efforts required to establish and begin operations of the long-term network. UCD is responsible for the development, testing, deployment, and maintenance of the IMPROVE particle samplers. Development is in progress and testing will be conducted this fall and winter; deployment is anticipated in the spring of 1987. A progress report from UCD, including the preliminary design of sampler, was distributed to the meeting participants. UCD is also responsible for all sample analysis except carbon and ion analysis (mass, absorption, and elements). ARS is responsible for the development and deployment of the visibility monitoring systems. Cameras will be deployed at all sites in the fall. Transmissometers, two of which are presently being intercompared at Grand Canyon, will be deployed at four long-term network sites in early Spring 1987. Proposals are being evaluated next week (July 14-18) for the ion and carbon analysis contracts. Contracts should be established by the end of summer for these sample analysis techniques.

The steering committee discussed the question of involvement in a study planned for next winter. The object of the study is to investigate the nature and possible causes of impairment in the Lake Powell area (including the visibility protected Canyonlands National Park). The committee agreed to participate by allowing the short-term use of some of the IMPROVE monitoring equipment prior to its deployment in the long-term network. This is not anticipated to delay deployment or incur additional cost for the IMPROVE Program. The steering committee also agreed that results of the winter study would be reviewed to assess whether they are pertinent to the establishment of attribution to a source of visibility impairment in a protected area.

A question was raised concerning the availability of IMPROVE funds to assist land managers in the cost of routine field operations where logistics require extraordinary efforts. The consensus was that such situations should be avoided to the greatest degree possible in the siting of the instrumentation. That even selecting an alternate protected area would be preferable to an impractical site. An alternative solution was to try to identify other sources of funds to augment site operation costs (state funds have been identified to assist at one of the IMPROVE sites). The steering committee will be kept abreast of the progress in resolving the issue for the site which precipitated this discussion.

Steering committee members reported inquiries by states concerning possible participation in the IMPROVE Program, specifically the long-term monitoring network. Two general approaches for non-federal government participation were discussed and approved by the steering group. Interested groups could provide funds or other resources to aid in the operation of specific sites in the long-term network. Alternately, the IMPROVE steering committee will make available sufficient information so that IMPROVE "look-alike" sites can be established and operated.

Data from any such monitoring conducted for visibility protected areas would be incorporated into the IMPROVE database.

A question was raised concerning who would receive the IMPROVE monitoring equipment after EPA withdraws from the program (EPA committed for three years). As was agreed in the first IMPROVE steering committee meeting (though apparently not recorded), the FLMs will receive the equipment at sites they operate in order to promote their continued use at those locations.

The FS requested that the prioritized site list for the long-term monitoring network be adjusted by placing Great Gulf Wilderness (presently listed in Division IV) in Division II, rank 22, which is presently occupied by Presidential Range-Dry River Wilderness (the latter site to be moved to Division IV). The steering group agreed to the requested change.

Attribution Studies Development

Certification of impairment in a protected area by an FLM is required in order to trigger an attribution study. Prior to their discussion of methodology for attribution studies, the steering committee considered what EPA would prefer as a basis for certification. EPA would like to know:

- 1) when impairment was observed (dates and times)
- 2) the extent and location of the impairment (viewpoints, direction, landmarks obscured)
- 3) the nature of the impairment (intensity or density, frequency, color, duration)
- 4) distribution or form (elevated or ground-based plume or layer, regional)
- 5) suspected sources and rationale for suspicion

Though inclusion of this information as part of a certification may not be required, it would expedite decisions by EPA concerning implementation of attribution studies.

A “strawman” approach to attributing visibility impairment was discussed by the steering committee. The committee agreed that a phased approach as described in the strawman was appropriate, though they suggested several relatively minor changes. A new plan will be documented by Janet Metsa and Christine Shaver, and circulated to the steering group prior to the next meeting. Marc Pitchford agreed to prepare a detailed list of the information which should be obtained as a basis for determining the nature and likelihood of success of studies to attribute impairment to sources.

Based upon the preliminary information now available, EPA believes that studies at Moosehorn, and Voyageurs protected areas would be of greatest value. At the Canyonlands and Grand Canyon, they suggest waiting for the planned winter study mentioned above. They were not optimistic about successfully attributing impairment at Cape Romain and Brigantine. Too little is known about the other locations where impairment within the protected area is certified (Petrified Forest and Saguaro).

Miscellaneous Items

The Memorandum of Understanding that legitimizes the IMPROVE Program and steering committee is still "hung up" in EPA. Janet Metsa committed to getting it moving once again.

The EDF suit settlement agreement has been renegotiated. The court must approve the agreement before it is final.

The steering committee discussed the report, commissioned at the last meeting, on information and techniques required to implement the visibility protection program. The need and audience for this report was reviewed. It was decided that instead of one report, two (or more) would be prepared. Janet Metsa offered to produce one report that would describe the overall process; how it works, who's responsible for decisions, etc. David Joseph, with contractor help, will work on a more detailed report describing modeling techniques, data, etc.

Marc Pitchford and David Joseph agreed to work on an annual progress report suitable for public distribution and covering the period from August 1985 to July 1986.

Action Items

Janet Metsa	Sheppard the MOU through EPA by 8/1/86. Prepare a document that describes the process to be used in the visibility protection program by 9/1/86.
Janet Metsa and Christine Shaver	Draft a document describing the approach to be used for attributing visibility impairment to a source by 8/1/86.
William Malm	Have ARS prepare a progress report along the lines of the UCD report, for circulation to the steering committee by 8/1/86.
Marc Pitchford	Prepare a detailed list of data needs for attribution study planning by 9/1/86.
Marc Pitchford and David Joseph	Prepare an annual progress report by 10/1/86.
David Joseph	Continue work on information and techniques requirement report.

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IMPROVE Steering Committee Meeting Agenda

Dates: July 8 & 9, 1986

Location: National Park Service Air Quality office in Denver, CO

July 8

1:00 pm Administrative matters progress report Janet Metsa
- Memorandum of understanding
- EDF suit compliance
- Progress on report commissioned and outlined last meeting
- Steering committee communications with non-participants

2:00 pm Long-term network progress report William Malm
- Dispersal of funds
- Appropriateness of selected sites
- Selection and development of instrumentation
- Deployment schedule
- Short- and long-term budget requirements/expectations
- Methods to expand participation in long-term network

July 9

8:30 am Long-term network progress report (continued)

10:30 am Attribution studies development Marc Pitchford
- Minimum certification requirements
- Sources of funding
- Study options and priorities
- Planning process
- Implementation schedule

4:00 pm Adjourn

**IMPROVE Steering Committee Meeting Participants
July 8 & 9, 1986**

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