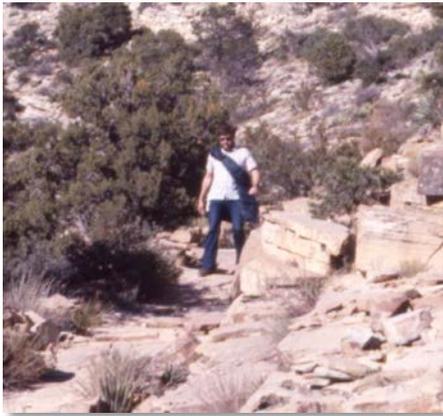


# Old and New

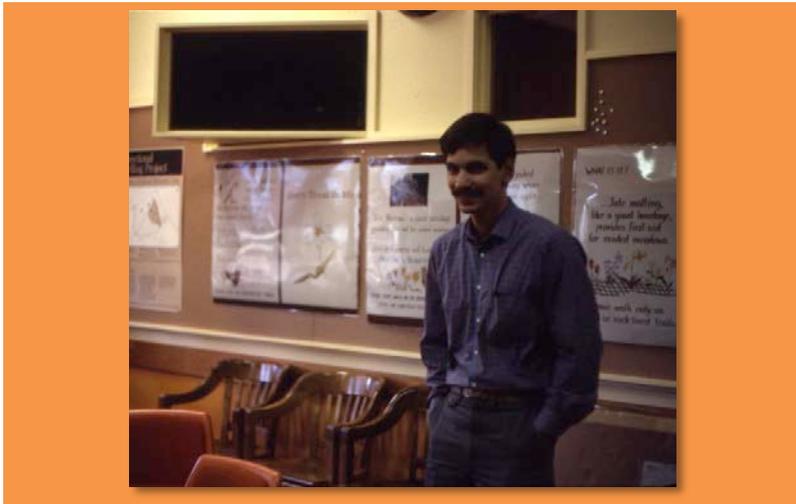
Visibility Protection 2.0

# In the beginning.....

- 1985 - The alternative to a “ranger with a clipboard”
- A hike:



# An Albright Meeting Room



- NPS Monitors (old EPA)
- Less than 20 sites to start
- Pins on a Map
- A bit of \$ to expand to 35

## IMPROVE Steering Committee Meeting Summary September 11-13, 1985

The second IMPROVE Steering Group meeting was held September 11 through 13, 1985, at the Albright Training Center, Grand Canyon, Arizona. The primary objective of the meeting was to select tentative sites for long-term monitoring. The following is a summary of the site selection process used, results, and a discussion of the review process.

### Site Selection Process

The basis for the site selection process was that all of the 156 visibility-protected federal Class I areas would be evaluated in terms of four site selection criteria. The criteria are anticipated visibility change, scenic sensitivity and value, existing visibility problems, and the number of other visibility-protected areas that could be represented. Weights were not assigned to these criteria.

Representatives of the land management agencies researched each of their visibility-protected areas prior to the steering group meeting. Summary data were used to aid in discussions of the salient characteristics of each area. The areas were organized geographically (see attached list), though they were discussed individually.

The visibility-protected areas were segregated into four divisions based upon the majority vote of the five IMPROVE participant organizations. These divisions are, in fact, divisions of a priority-ordered list of the sites from the highest priority site to receive monitoring, to the lowest site which would receive monitoring if resources permitted. Though it is not possible to accurately determine the number of monitoring sites which are consistent with the IMPROVE program budget, it is generally thought that a minimum of 20 and a maximum of about 35 sites is affordable. With this in mind, the first division contained the 20 highest priority areas, those where monitoring is reasonably assured. No ordering within this division was attempted.

The second division contains ordered sites from number 21 to 36. Ordering in the second division was considered critical since the lower numbered areas are more likely to receive monitoring than the higher numbered areas. The third division contains the next 37 priority-ordered sites from 37 to 73. Though monitoring of third division sites is desirable, it is improbable due to resource limitations. The final 83 visibility-protected areas, (fourth division) are lowest in priority for monitoring. Neither the third nor fourth division areas were ordered within their division because the unlikely prospect of monitoring for more than 36 areas made the process academic.

Some areas in divisions II, III, and IV were identified as alternative monitoring locations for specific areas in higher priority divisions. The purpose of designating alternatives was to provide a substitute for an otherwise higher priority area in case that area is impractical for a monitoring location. Alternate areas were chosen because they share many of the same site selection characteristics of the higher priority area for which they are alternates.

# 1985 - 1998

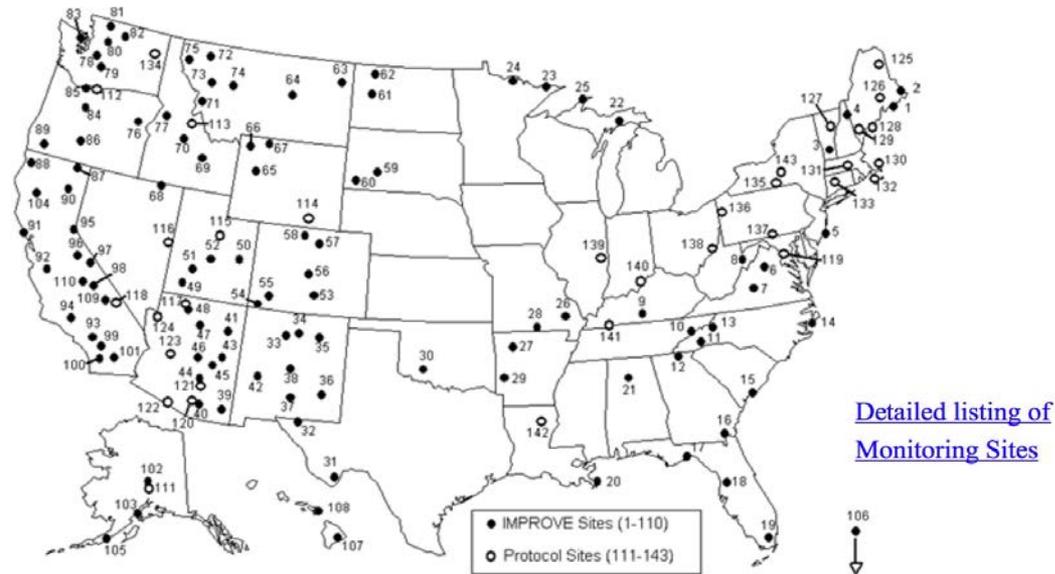
- Routine Monitoring: Simple Implementation support of “reasonably attributable” rules
- BIG support for Special Studies  
NGS, Project MOHAVE, Zirkel, etc.
- Ongoing development of equipment and refinement of techniques
- Building solid science for linking measurements to impacts
- Grand Canyon Visibility Transport Commission

# 1999-2009

- REGIONAL HAZE

- Linked with Fine Particle and Ozone NAAQS
- Regional Planning Organizations
  - Natural Conditions
  - Regional AQ Modeling Development
- Special Western Program (Section 309)
- First new coal-fired steam-electric units built in almost 20 years (Colorado, NM, AZ, etc.)

# Expansion



- 1999 Regional Haze Rule
- Only National Speciated FP Network
- Expansion in 2001

# 2009 – Now

- The “Great Recession”
  - A giant “pause” in energy madness
  - Continued geo-political unrest in world oil markets
  - Technological developments in extraction
  - Renewable costs drop
  - A shift in Federal Administrations
- “Completion” of First round of RHR SIPs / BART

# What's Next?

- INTERGRATION

- Economic

- Continued Lower NG prices (Methane capture)
    - Wind costs dropping with taller, larger units
    - Solar almost competitive

- Regulatory

- Clean Power Plan
    - Ozone NAAQS
    - Hg
    - Next round of “reasonable progress”

# Key Issues for RHR

- Natural Conditions
- Support for next SIP modeling platform
- Ongoing rigorous standards for metric tracking (worst and best days)
- Gaps?

# AZ, for example

- NGS Agreement implementation
  - DOI commitments
- Four Corners
- Cholla
- Other plants
- Ozone
  - Most counties affected by non-attainment
  - Interactions with demonstrations for ozone “exceptional events” (e.g. larger wildland fire)