
WRAP Overview

- Established in 1997 as successor to Grand Canyon Visibility Transport Commission.
 - Develop technical and policy tools needed by western states and tribes to comply with the U.S. EPA's regional haze regulations.
 - Address other common air quality issues raised by WRAP members.
 - Consensus-based process.
 - Receives ~ \$4 million / year from EPA.
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WRAP Overview

■ Members

- ❑ Governors of 13 states and 13 tribes
- ❑ Secretary of the Interior
- ❑ Secretary of Agriculture
- ❑ Administrator of the U.S. EPA

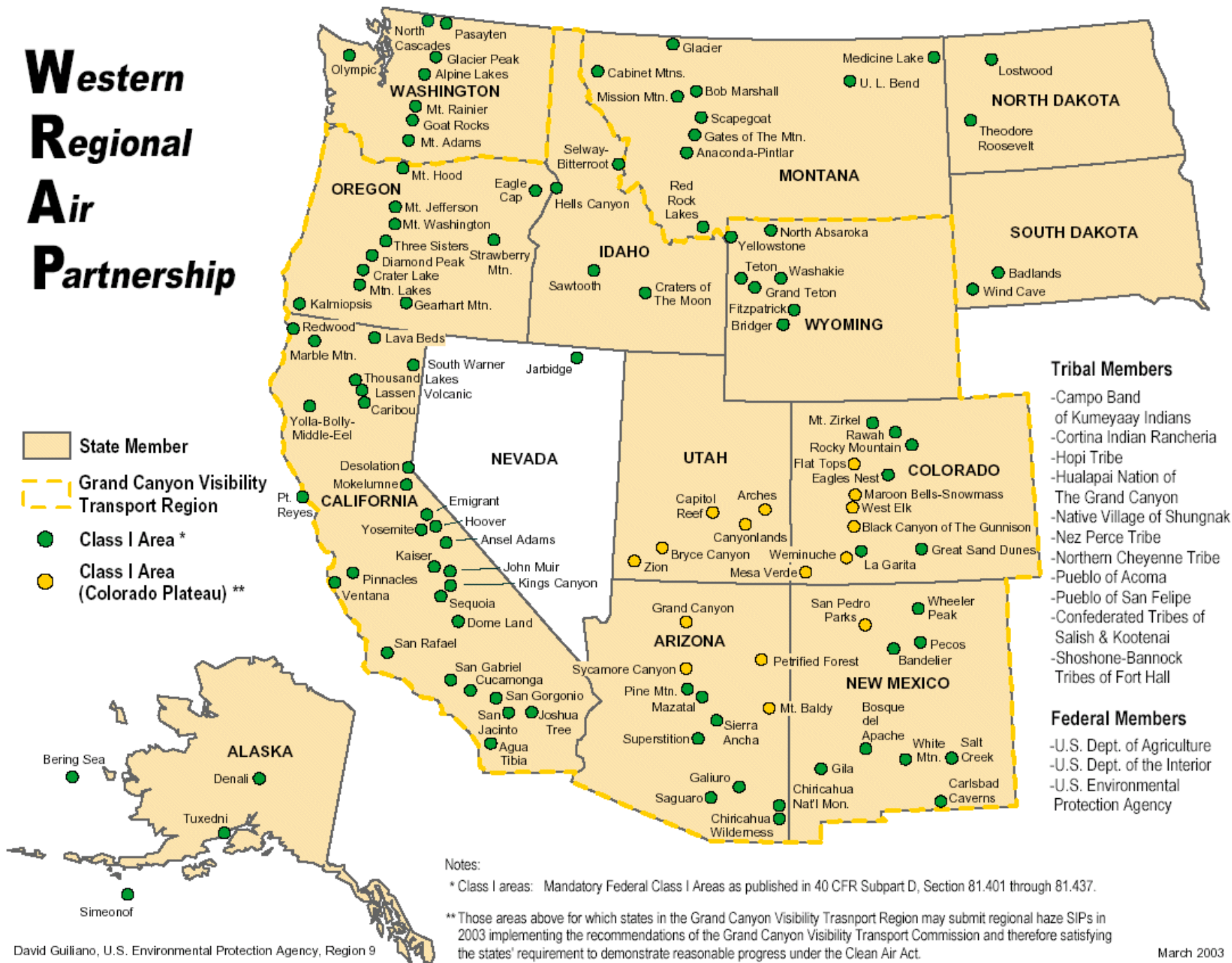
■ Other participants

- ❑ Environmental advocacy groups
 - ❑ Industry and small business representatives
 - ❑ Local governments
 - ❑ Academics
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WRAP Overview

- Five states submitted haze SIPs last year
 - AZ, NM, OR, UT, and WY
 - First haze SIPs in nation
 - Regional SO₂ cap-and-trade program
 - Other programs related to smoke management, renewable energy, and energy efficiency
 - All states have to submit haze SIPs by end of 2007
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Western Regional Air Partnership



- State Member
- Grand Canyon Visibility Transport Region
- Class I Area *
- Class I Area (Colorado Plateau) **

Tribal Members

- Campo Band of Kumeyaay Indians
- Cortina Indian Rancheria
- Hopi Tribe
- Hualapai Nation of The Grand Canyon
- Native Village of Shungnak
- Nez Perce Tribe
- Northern Cheyenne Tribe
- Pueblo of Acoma
- Pueblo of San Felipe
- Confederated Tribes of Salish & Kootenai
- Shoshone-Bannock Tribes of Fort Hall

Federal Members

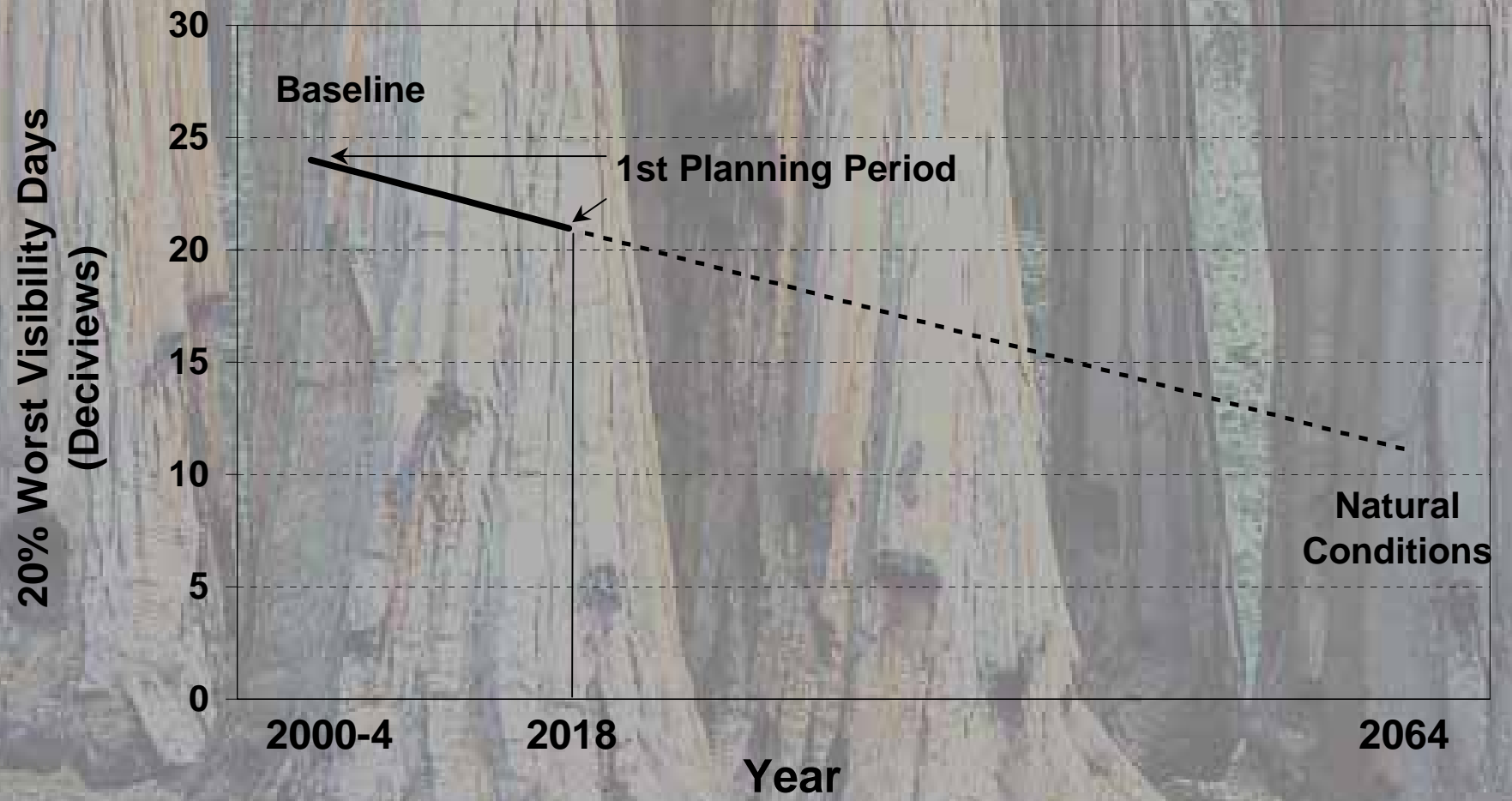
- U.S. Dept. of Agriculture
- U.S. Dept. of the Interior
- U.S. Environmental Protection Agency

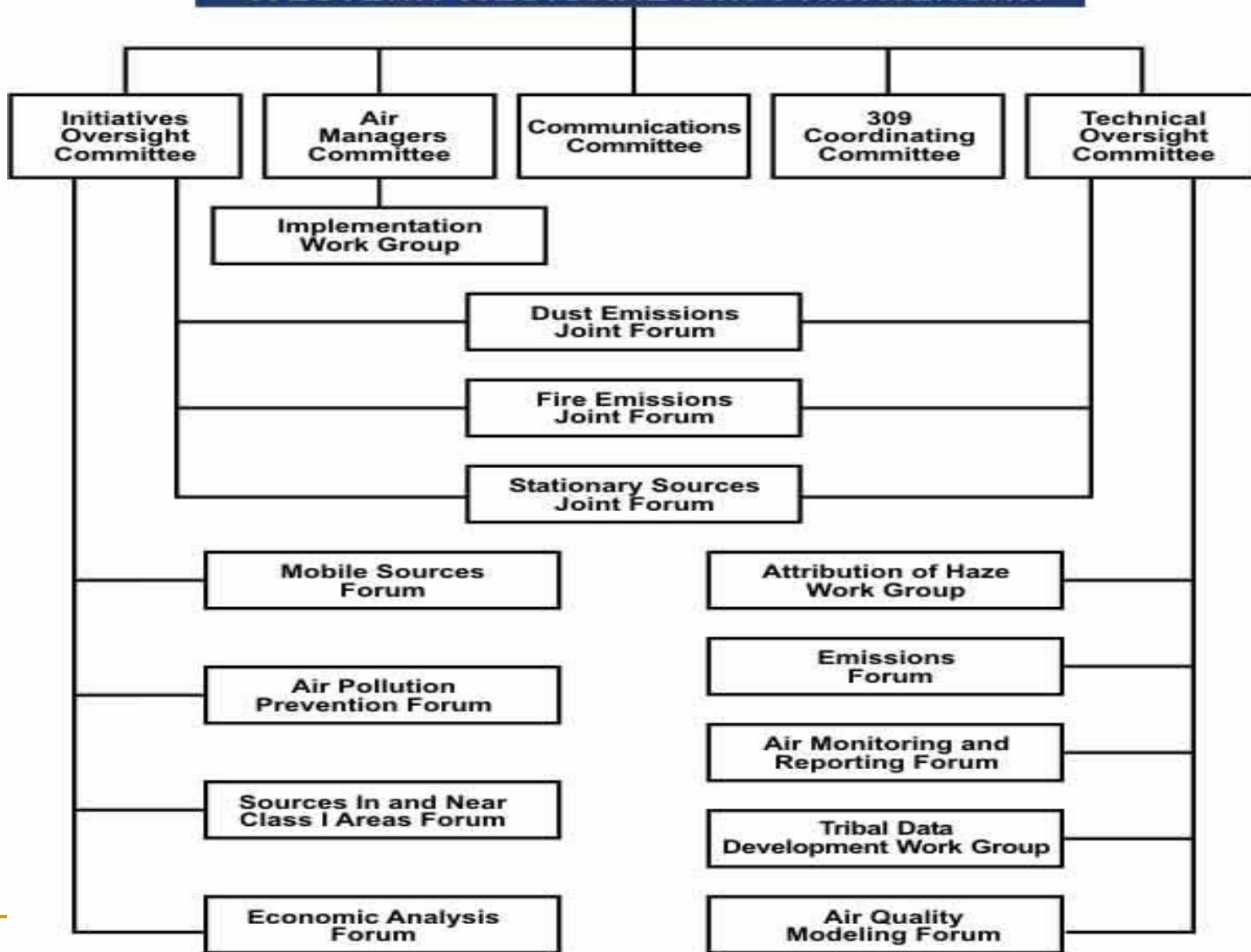
Notes:

* Class I areas: Mandatory Federal Class I Areas as published in 40 CFR Subpart D, Section 81.401 through 81.437.

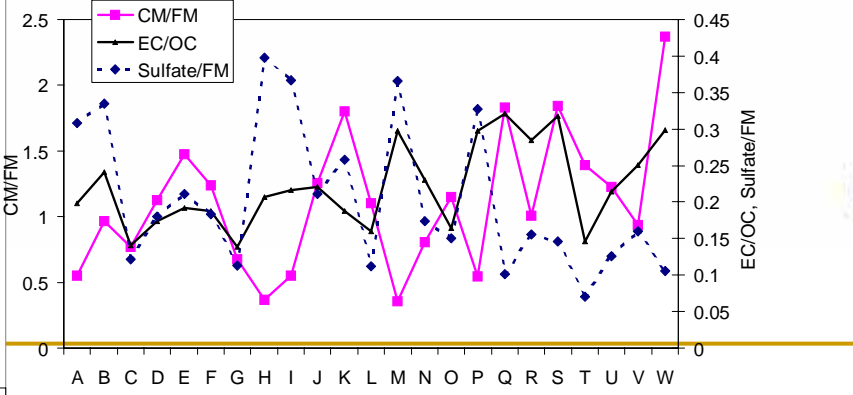
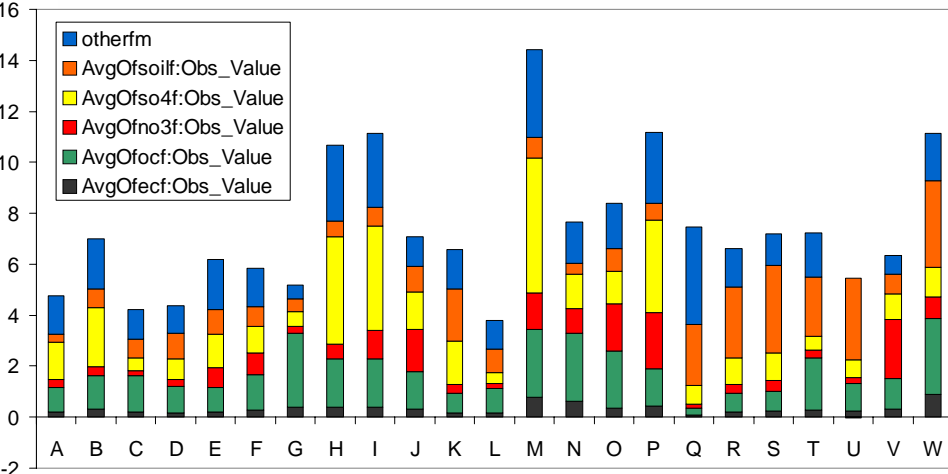
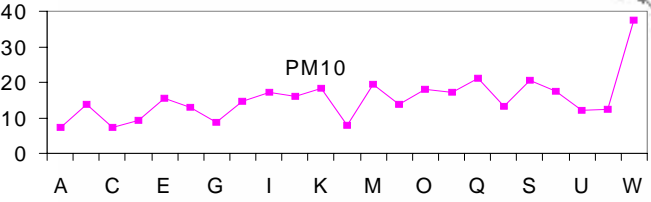
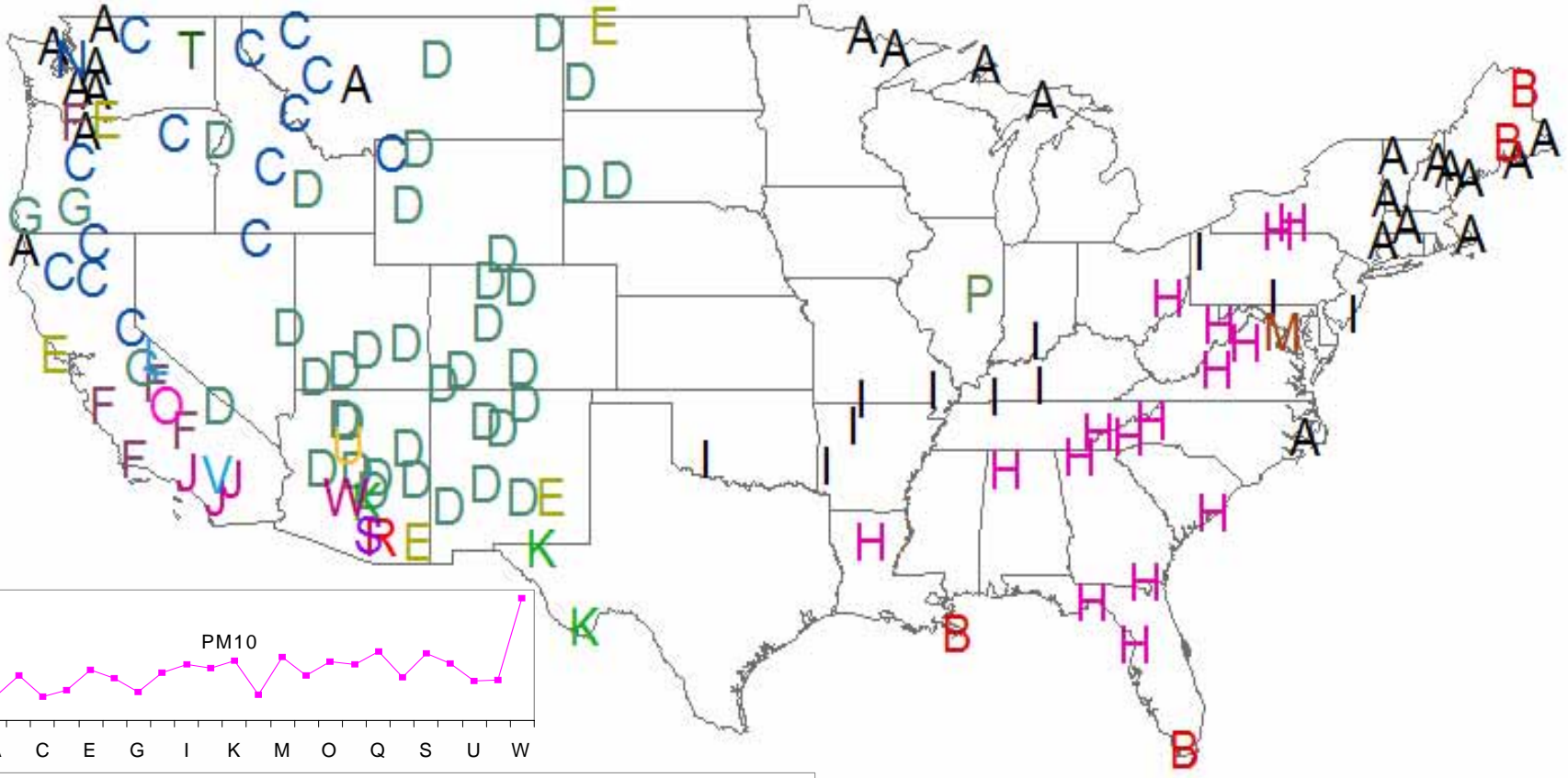
** Those areas above for which states in the Grand Canyon Visibility Transport Region may submit regional haze SIPs in 2003 implementing the recommendations of the Grand Canyon Visibility Transport Commission and therefore satisfying the states' requirement to demonstrate reasonable progress under the Clean Air Act.

Rate of Progress Sequoia National Park

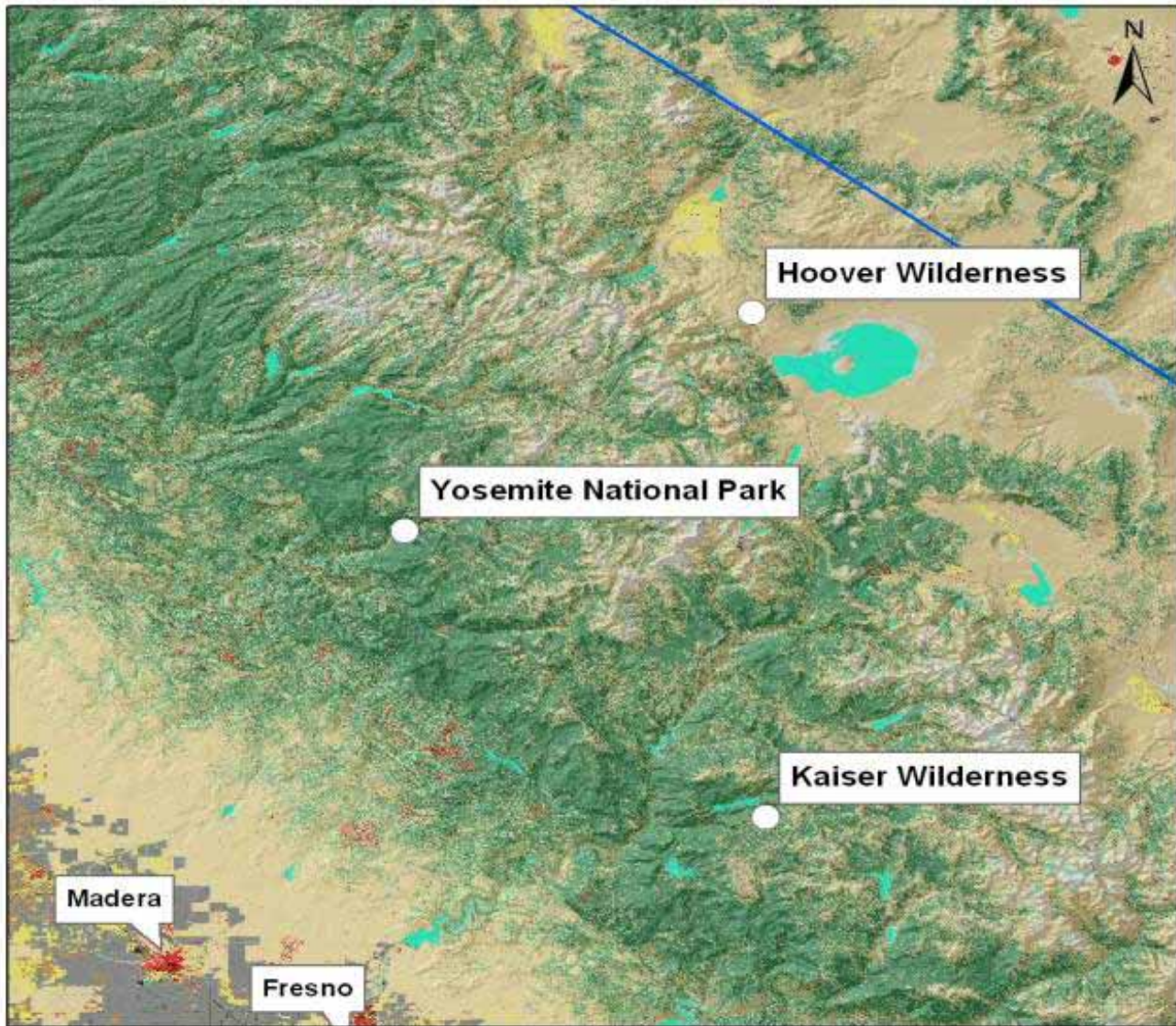




Preliminary Cluster Analysis Results at IMPROVE Monitoring Sites



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Legend

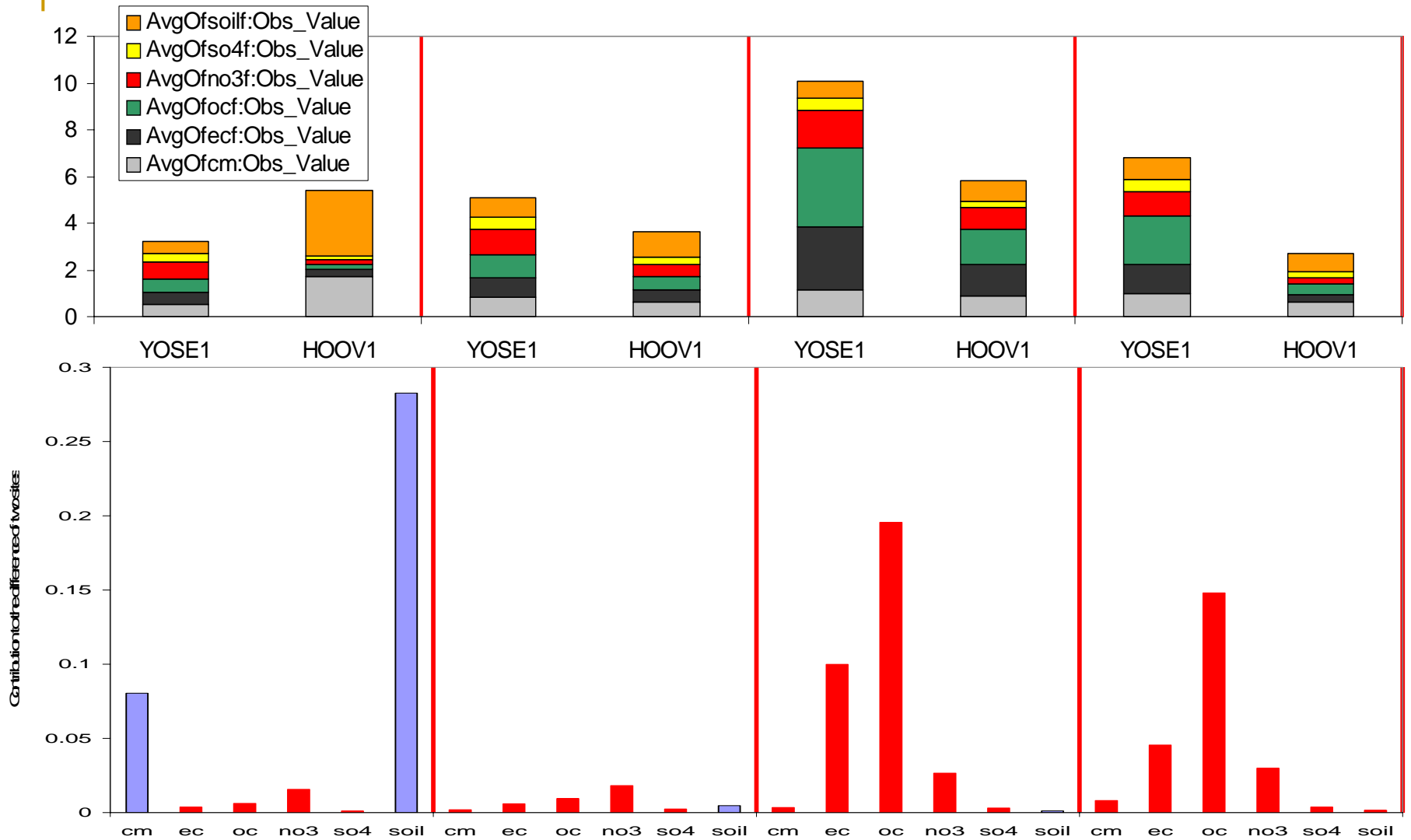
○ IMPROVE sites

Landcover

VALUE

- water
- low intensity residential
- high intensity residential
- industrial
- bare ground
- mined areas
- transitional
- deciduous forest
- evergreen forest
- mixed forest
- shrubland
- grasslands
- pasture, hay
- row crops
- small grains
- fallow
- urban, recreational grass
- woody wetlands

Difference of Aerosol Chemical Speciation Between YOSE and HOOV for Quarter 1-4



Schedule for Developing and Completing Regional Haze SIPs/TIPs in the WRAP Region (09/18/03).

Major Activities	2003				2004				2005				2006				2007			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1. Emissions Inventory Management and Improvement A. Complete fugitive dust and ammonia inventory, update source profiles B. Complete new data management system C. Compile and review 2002 emissions inventory, project to 2018	A				BC				C											
2. Air Quality Modeling A. Implement source apportionment capabilities (using 1996 data) B. Complete modeling inputs (emissions and meteorology) C. Complete base case modeling, evaluation, source apportionment (2002 + 2018) D. Finalize design of control strategy runs and other state/tribal-requested runs E. Complete control strategy modeling					A				B				C				D E			
3. Apportionment (Source Contribution and Emission Reduction Obligation) A. Reconcile and synthesize modeling results, monitoring results, and other data B. Initial estimate of which Class I areas each SIP and TIP will address C. Determine emission reduction obligations by state and tribe D. Resolve transboundary issues, if necessary					A B				A				C D							
4. Visibility Monitoring, Analysis, and Reporting A. Estimate future site-specific uniform rate of progress for each Class I area B. Estimate historical progress; Analyze and report all relevant data on the Web C. Draft/complete causes of haze report -- comprehensive assessment	AB				AB C				AB				C							
5. Address BART Requirements A. Identify BART-eligible sources B. Identify which BART-eligible sources should be subject to BART C. Approximate emission reductions that would be attributable to BART	A				B				C											
6. Develop Control Strategies A. Identify methodology for researching and finalizing control strategies B. Complete identification and exploration phase (including demo projects) C. Refine likely control strategies (including emission reductions and cost/benefit) D. WRAP review/endorse regional strategies, adjust progress goals if necessary	A				B				C				D							
7. State/Tribal Adoption of Plans A. Complete regional technical support document B. Submit SIPs and TIPs to EPA													A				B			

Dust Emissions Joint Forum

- Develop technical and policy tools for use in state and tribal implementation plans
 - Major 2004 projects include:
 - Definition of dust (natural and anthropogenic)
 - Fugitive dust handbook (emissions and controls)
 - Analysis of ambient data
 - Windblown dust inventory
 - Analysis of dust size distribution
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Dust Emissions Joint Forum

- 2005 projects under consideration:
 - Update handbook
 - Enhanced ambient data analysis
 - Dust control measures workshop
 - Sample plan or demonstration SIP???
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Dust Emissions Joint Forum

- Some questions
 - What role will dust control strategies play in the regional haze plans?
 - What can we learn from dust control strategies in nonattainment areas? How might they be transferred to Class I areas? Do they need to be modified?
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