4 Corners Air Quality Task Force
Monitoring Group
February 7, 2007 – Meeting Notes

Participants:

Judy Schuenemeyer, Cortez LWV; Sylvia Oliva, Mesa Verde National Park; Brenda Sakizzie, Environmental Scientist, Southern Ute Indian Tribe Air Quality; Kandy Le Moine, Volunteer Coordinator, Farmington Museum; Joni Vanderbilt, Hydrologist, Region 4, USDA-Forest Service-Monticello; Theodore Mueller, Ret. Professor Adams State University – Aztec; Gordon Pierce, Air Pollution Control Division, Colorado Dept. of Public Health and Environment; George San Miguel, Natural Resource Manager, Mesa Verde National Park; Win Wright, Southwest Hydro-Logic; Terry Hertel, New Mexico Environment Department, Air Quality Bureau

Terry Hertel – Group Coordinator
Sylvia Oliva – Note Taker

Gap Analysis:

Wind Rose / Pollution Rose Presentation

Gordon Pierce presented the wind roses and pollution roses that he had produced.

These expanded wind roses included the addition of the Shamrock site and the Durango Mountain Resort site. The first five slides were presented as overlays onto a "political boundary" map. The second five slides were presented as overlays onto a topographical map.

Slides 1 and 6 showed the locations of the meteorological sites, denoting which ones had 2-meter towers and which ones had 10-meter towers.

The wind roses presented in slides 2 through 4 and in slides 7 through 10 were:

2005 Annual Averages
2005 Daytime Values
2005 Nighttime Values
2005 Summer Afternoon Values

The wind rose map of the 2005 Summer Afternoon Values showed a predominance of winds from the west – southwest.

The topographic presentations showed that the wind roses of Cortez, Shamrock, and Durango Mountain Resort sites were definitely influenced by local topography. It could also be seen how the San Juan River valley influenced wind direction.

It was suggested that the legend for each slide be larger.

Gordon questioned the reliability of the Ignacio wind data, and Brenda said that the ultrasonic sensor had been producing spurious data.

It was noted that these wind roses are based on "surface wind" data, and that pollutant transport would more likely be affected by winds aloft.

It was suggested that a second set of wind roses be generated having a "calm threshold" of 4.0 m/s as opposed to 0.0 m/s in order to better see the higher winds that are more storm related.

Gordon presented ozone pollution roses also.

The first three slides were presented as overlays onto a "political boundary" map. The second three slides were presented as overlays onto a topographical map.

Slides 1 and 4 showed the locations of the ozone monitoring sites.

The ozone roses presented in slides 2 through 3 and in slides 5 through 6 were:

2005 Annual Averages
2005 Summer Afternoon Values

The ozone rose maps of the 2005 Summer Afternoon Values also showed a predominance of influence from the west – southwest.

A third set of pollution roses that Gordon presented was a NO2 2005 annual average. Gordon was going to produce more, showing NO2 roses for different times of the day.

Comments on the roses included:

* NOx coming into play as an ozone precursor
* Suggestions that ozone monitoring be farther east "up valley"; Pagosa Springs or Chimney Rock
* Monitoring to the west for "background" values; Hovenweep National Monument or Monument Valley
* Use of passive ozone samplers to get data for determining continuous sites; along Hwy 191 and at RAWS sites

Matrix

The group discussed further modifications to the revised matrix spreadsheet. Suggestions included:

Addition of a column for site elevation
Use of page numbers and headers
Including the ammonia sampling sites in the criteria sites page

Eliminating reference to “HAPS”, eliminating colored lettering and backgrounds
Better explanation of references to parameter sampling frequencies and averaging periods

“Other” Monitoring

The group also discussed other issues regarding monitoring recommendations which included:

Recommendations based on anecdotal health problems
Reactions to poor visibility in the Four Corners area
Interest in developing a vegetation-related VOC baseline and a NMOC baseline
Comments from the Navajo Chapter Houses

Funding

Options for funding of new monitoring sites were briefly discussed.

Gordon mentioned the EPA's 2007 Community-Scale Air Toxics Ambient Monitoring Grant as a possibility.

Judy mentioned a Colorado Grants Guide as a source for ideas.

Terry suggested encouraging area state legislation creating a “clean air research fund” such as that done in British Columbia.

Conference Calls:

A call was scheduled for February 13 at 2:00 PM MST and a second call was scheduled for February 26 at 2:00 PM MST.