

**Four Corners Air Quality Task Force
Monitoring Work Group Conference Call Notes
April 17, 2006, 2:00 PM (MDT)**

Participants: Mary Lou Asbury, LWV; Rita Trujillo, NMED-AQB; Gordon Pierce, CDPHE; Mark Jones, NMED-AQB; Wano Urbonas, San Juan Basin Health Department; Theodore Mueller, retired; Eric Janes, Retired Federal Employee, USDI; Mark Sather, EPA 6; Michael Lazaro, Argonne; Terry Hertel, Work Group Coordinator, NMED-AQB.

Preliminary Comments

A couple of suggestions were made. One concerned the addition of another layer of the Argonne map; this layer would show pollution source locations relative to monitor locations. The second suggestion was to include the National Park Service “Four Corners Power Plant Plume” animation on the Task Force website.

Review of Website Documents

Rita reviewed the four technical background documents including:

1. Background Information Document on Modeling

The overview of the current air quality in the Four Corners area was summarized, addressing pollutant and visibility trends, and the various jurisdictions covering the region.

There was discussion of the overview’s reference to ozone levels in the region being close to exceeding health-based standards; and of the Early Action Compact that was initiated in 2002, which addressed the issue.

A follow-up question was asked as to whether or not region ozone levels were lower as a result of the Early Action Compact or for other reasons. The consensus was that other factors, such as meteorological conditions also have played a part.

Input was made regarding various communities being interested in setting up ozone monitoring if funding could be found.

The summary of the modeling document continued, with a description of the various modeling studies that were in place, including:

San Juan Early Action Compact: 2002 Base Year Emissions Inventory

San Juan Early Action Compact: 2007 Future Year Emissions Inventory

2004 Regional Modeling Center Final Report Released (08/24/05)

An improved Ammonia Inventory for the WRAP Domain (04/08/05)

There was discussion pertaining to the map of the study area; where it could be found and the need for the addition of a scale of dimension. The study area in relation to the larger impact area was also discussed. This then lead to comments that the Four Corners power plant plume extended even beyond the impact area.

??? The *2000 Periodic Visibility Report*, in response to the Regional Haze Plan, was also mentioned, and how it discussed sources of haze; what the sources were and where they were. Class I areas such as San Pedro Parks were described as study areas ???

In response to the mention of the ammonia inventory, it was suggested that someone from an agricultural extension office join the task force for their expertise in the topic.

2. Background Information Document on Emission Inventories

This document also has an overview of the current air quality in the Four Corners area, addressing pollutant and visibility trends, and the various jurisdictions covering the region. A comment was made that EPA jurisdiction should also be included in this section of all of the background documents.

Existing emissions inventories were reviewed, and the link to the National Emissions Inventory database was noted.

Mention was made of the special ozone inventory for the Early Action Compact (and link to it) as well as the ongoing study for ozone precursors from non-permitted point and area sources.

A summary (in table form) of Oil and Gas VOC emissions in three New Mexico counties in the San Juan Basin was also reviewed. The tables breakdown emissions by constituent and by source, and show quantities on a “Tons-per-day” basis.

The Colorado Department of Public Health and Environment emissions inventories were mentioned, and the link to that website was noted as well as a link to a Prevention of Significant Deterioration program for nitrogen dioxide.

A link to the various Utah Department of Environmental Quality emissions inventories was mentioned. Other links mentioned were:

San Juan Basin Health Department: Durango/La Plata County emissions inventory

Western Region Air Partnership: Point and Area Source Inventory

Point Source and Oil & Gas Area Source Inventory for Tribes

The WRAP Oil/Gas Work Group Emissions Inventory was noted and the fact that this inventory added over 115 thousand tons of NO_x to the existing WRAP inventory.

It was suggested that an emissions layer be added to the Argonne map. It was also noted that people with a “dial up” connection to the internet **should not** attempt to download the Argonne map; there is too much data to download.

3. Background Information Document on Air Quality Effects

Review of this document summarized what is affected by air quality and what can affect air quality.

The first section addressed visibility, and how particulate matter and certain gases create hazy conditions. A link to the National Park Service website was noted. This site contains an “Introduction to Visibility”. Current clarity conditions near Ship Rock, the Regional Haze Rule goal of “natural” visibility by 2064, EPA’s national visibility website, and an IMPROVE website containing visibility photos in Class I areas are discussed in this section.

The next section addresses human health and the two major factors affecting human health; ground-level ozone and particle pollution. The creation of ground-level ozone, ozone’s affects on respiratory illnesses, and New Mexico demographic statistics are presented. The various forms of particle pollution, its similar affects on respiratory illnesses, and the EPA’s Air Quality Index link were also noted.

A comment was made regarding the recent increase of EPA “public information spots” on TV and radio stations in southwest Colorado.

The following section summarized mercury; its industrial and natural sources, its accumulation and persistence in the environment, and how consumption of fish containing mercury affects human health. The section noted four fish consumption advisory links and the existence of one mercury monitor in the region, which is at Mesa Verde National Park.

A question was posed as to whether or not mercury in a particular fish could be speciated and traced back to a specific source.

A suggestion was made that a reference to cross-media connection be put in this section.

Information regarding a link to a USGS website related to sedimentation layer data and possible mercury correlation was noted.

Section four addresses ecosystem health. Sulfur and nitrogen deposition (wet and dry) and fate are summarized, as well as acidification of lakes and streams. Links to information regarding both wet deposition and dry deposition were noted. The section also addresses ozone damage to vegetation and lists two links pertaining to ozone damage and risk assessment.

Two questions were asked. The first question; was there documentation of cloud seeding in New Mexico causing any adverse health effects. Consensus was that there was none. The second question; were there state regulations on open burning. New Mexico does regulate open burning; vegetation burning only, no burning in open containers.

4. Background Information Document on Monitoring

This document also has an overview of the current air quality in the Four Corners area, addressing pollutant and visibility trends, and the various jurisdictions covering the region.

The pollutant monitoring section lists a link to the Argonne map and summarizes monitoring programs that have been conducted by various jurisdictions for various pollutants.

The following links are also listed:

New Mexico Air Quality Bureau's real-time access to data from its monitoring sites
Results of a 2003 passive ozone sampling project

The Colorado Department of Public Health and Environment annual report on air quality

Information on monitoring at Mesa Verde National Park

The following section addresses meteorological monitoring; wind speed and direction, temperature, and solar radiation. Many agencies conduct this type of monitoring, and the data is used for air quality modeling and interpretation of various events.

A suggestion was made that links to various meteorological data websites, such as NOAA, be listed.

The third section addresses visibility monitoring, and summarizes the monitoring done at the IMPROVE sites in the Class I areas in the region. Data and photographs from these sites can be found on IMPROVE website.

The fourth section summarizes mercury and other deposition monitoring. A wet deposition monitor is operated at Mesa Verde National Park. The section notes that fish advisories for mercury have been issued for many of the watersheds in the Four Corners region.

It was noted that the Colorado Game Fish & Parks had done a study of mercury in streams.

Next Meeting

The next meeting will be on May 9th in Farmington. An agenda will be forthcoming.

Call adjourned at 3:15 PM (MDT)