

Dear Stakeholder,

We hope you enjoy MANE-VU's first edition of our periodic newsletter! We intend to use this newsletter to inform and educate interested parties about what's going on in the MANE-VU region (the Mid-Atlantic and Northeast) regarding regional haze. The newsletter will include regional haze news from the US Environmental Protection Agency (EPA), news from around the country, MANE-VU project updates, and spotlights on Class I areas in the region.

For those of you who don't know, MANE-VU is a multi-jurisdictional organization dedicated to reducing regional haze in the MANE-VU region. Regional haze is a veil of air pollution that obscures the views of mountain ranges, city skylines, and other vistas. Specifically, MANE-VU works to protect Class I areas from the negative effects of regional haze. Class I areas include national parks, wilderness areas, monuments, and other areas of significance. MANE-VU's main goals include rectifying existing pollution problems in Class I areas, as well as preventing future deterioration in these areas. MANE-VU's Class I areas include: Acadia National Park (ME), Moosehorn Wilderness (ME), Roosevelt/Campobello International Park (ME), Brigantine Wilderness (NJ), Great Gulf Wilderness (NH), Presidential Range/Dry River Wilderness (NH), and Lye Brook Wilderness (VT).

MANE-VU's members include Connecticut, Delaware, the District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, the Penobscot Nation, the St. Regis Mohawk Tribe, the US Environmental Protection Agency (EPA), the US National Park Service (NPS), the US Fish and Wildlife Service (FWS), and the US Forest Service (USFS).

We hope you enjoy this newsletter and will continue to take an interest in MANE-VU's work. For further information visit our website at: www.manevu.org or contact Katie Sheen Abbott, ksheen@marama.org with comments on the newsletter.

Sincerely,

Christopher Recchia, Executive Director

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ABOUT REGIONAL HAZE

Regional haze is a form of air pollution that can obscure the views of mountain ranges, city skylines, and scenic vistas. It is caused when sunlight encounters tiny pollution particles in the air. Regional haze can cover an area of several hundred miles, reducing visibility over large geographic region. Haze-forming air pollutants come from a variety of natural and human-made sources. Natural sources include windblown dust, and soot from wildfires. Human generated sources include electric utility and industrial fuel burning, vehicles, fires, and various manufacturing operations.

Some pollutants that form haze have also been linked to serious health problems and environmental damage. Fine particle pollution in the air poses a human health risk, especially for children, older adults, and people with heart or respiratory problems. The fine particles can travel deep into the lungs and potentially enter the bloodstream. In addition, particles such as nitrates and sulfates contribute to acid rain, which makes lakes, rivers, and streams unsuitable for many fish and erodes paint, buildings, and historical monuments. Reducing regional haze and improving visibility will help protect public health and the environment. ■

MANE-VU'S WORK IN REGIONAL HAZE

MANE-VU is one of five regional planning organizations (RPOs) established across the country to address visibility from a regional perspective. MANE-VU is coordinating plans to reduce regional haze in the Northeast and Mid-Atlantic states. By 2008, MANE-VU members will develop plans to improve visibility in national parks and wilderness areas within their region.

MANE-VU projects include quantifying air pollution impacts on visibility, identifying and analyzing potential strategies to improve visibility, and building a regional consensus for action. ■

WHAT IS BEING DONE TO REDUCE REGIONAL HAZE?

- In order to reduce regional haze, it is necessary to reduce emissions of fine particles and their gaseous precursors (e.g. sulfur dioxide, nitrogen oxides, and volatile organics compounds). Fine particles are very efficient at scattering light and reducing visibility.
- In July 1999, the U.S. EPA issued new regulations to address poor visibility in federally protected parks and wilderness areas (i.e., Class I areas). These regulations set a target date of 2064 for achieving natural visibility conditions.
- By 2008, states are required to assess key contributors to regional haze formation, develop plans to reduce emissions of haze-forming pollutants and submit these plans to EPA. MANE-VU was created to help coordinate this process.
- The U.S. EPA, U.S. Fish and Wildlife Service, U.S. Forest Service and the National Park Service work together to collect air quality data and strive to reduce haze and improve visibility in national parks and wilderness areas (Class I areas). ■



ACADIA NATIONAL PARK, ME

HOW IS THE AIR OUT THERE? “2002 YEAR IN REVIEW”

A special emphasis was placed on coordinating air quality and visibility monitoring activities during the 2002 base year to ensure that a robust dataset would be available for model validation. This focus resulted in the *2002 Year in Review* report, which provides an overview of monitoring sites and platforms that were active during the year and presents initial findings based on an analysis of the monitoring results.

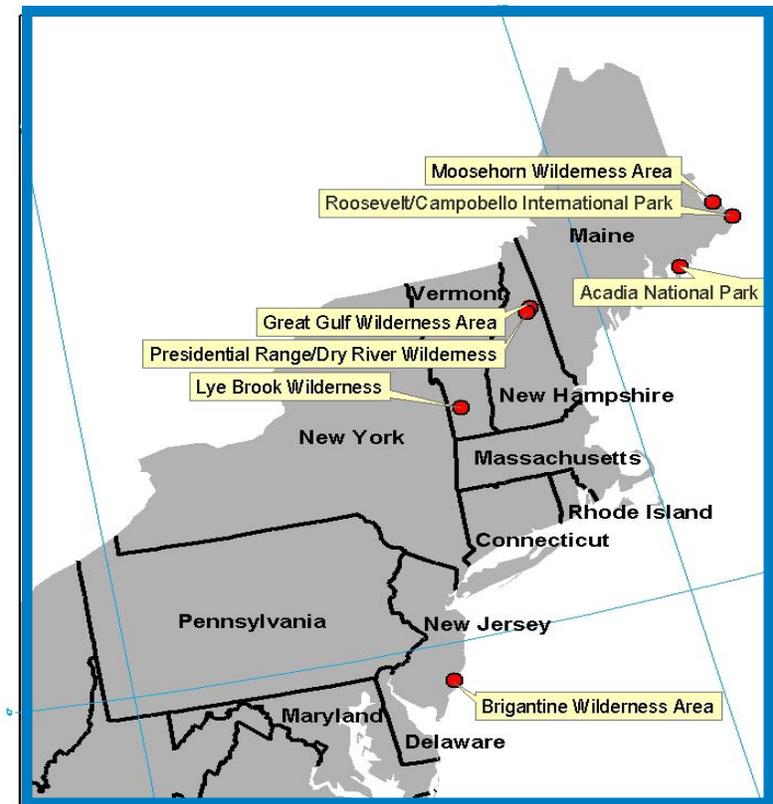
The report concludes a number of points based on the analysis of the available data.

- First, approximately half of the fine particulate matter in the Northeast and Mid-Atlantic U.S. consists of sulfates, with the balance consisting of a mix of organic material, nitrates, elemental carbon, soil, and other trace components. Fine particle concentrations tend to peak during summer months and winter months with relatively few high episodes occurring during the spring or fall.
- During the summer, sulfates are highest in concentration over the southern and western portions of the MANE-VU region, closer to source regions associated with high sulfur dioxide (SO₂) emissions. Limited

atmospheric mixing, changes in thermodynamic stability of secondary organic aerosol and particulate nitrate, as well as potential increases of local emission sources all contribute to particle pollution episodes during the winter months. This extreme behavior, although usually less severe than in summertime, tends to be more localized in urban areas where the greatest potential for human exposure exists.

- In general, sites tend to track together across very broad geographic scales, suggesting a regional influence on ambient fine particle concentrations. The most significant differences are observed between coastal and inland sites and those in the far southern portions of the MANE-VU domain relative to the Northeast portions.
- Interested parties can find the draft text of the full report under the “Publications - Reports and Technical Materials” area of the MANE-VU website, at manevu.org/Document.asp?fview=Reports#. ■

CLASS I AREAS IN THE MANE-VU REGION



...PROJECT UPDATES CONTINUED



PRESIDENTIAL WILDERNESS, NH

COLLABORATING REGIONALLY: INTER-RPO EMISSIONS INVENTORY WAREHOUSE SYSTEM

The five regional planning organizations (RPOs) that deal with regional haze are sponsoring a project to develop a web-based data management system that will input, store, and output quality assured emissions inventory data. This system will help facilitate sharing inventories across the country. It will also be vital for keeping track of different versions of each RPO's inventory. The system will be online by Fall 2005. ■

WHO EMITS AND HOW MUCH? EMISSION INVENTORY EFFORTS

MANE-VU has developed a regional 2002 emissions inventory for use in photochemical modeling for Ozone, Fine Particulate Matter (PM_{2.5}), and Regional Haze State Implementation Plans (SIPs). The inventory compiles state, regional, and federal emissions data for 2002. It includes emissions from point, area, nonroad, and onroad sources. The data has been extensively quality assured and reviewed by stakeholders. The MANE-VU inventory was finalized in January 2005.

In addition, MANE-VU is planning to develop future year inventories for use in Ozone, PM_{2.5}, and Regional Haze SIPs. MANE-VU will hire a contractor to run the Integrated Planning Model (IPM), which projects energy usage and emissions from energy generating units (EGU). MANE-VU will also be projecting emissions from area, onroad, and nonroad sources. Future year inventories will be developed for 2009, 2013, and 2018.

An EGU forecasting meeting was held on February 15th, 2005 to kick off our future year inventory planning efforts. Stakeholders were invited to participate in the meeting, which focused on fact finding for IPM modeling runs. ■

WHERE DOES THE POLLUTION END UP? MANE-VU'S CONTRIBUTION ASSESSMENT

Regional Haze SIPs due in January 2008 must contain a contribution assessment and a pollution apportionment as part of the long-term emissions management strategy for each Class I Federal area. In order to adequately determine the degree to which geographic regions or areas contribute to visibility impairment in the MANE-VU class I areas, the MANE-VU Technical Support Committee (TSC) has adopted a weight of evidence approach relying on several independent methods of attribution (in other words, RPOs are using several methods of analysis to determine where the pollution ends up).

MANE-VU is currently developing a report entitled *Tools and Techniques for Identifying Contributions to Regional Haze in the Northeast and Mid-Atlantic United States* which is anticipated to be **available for review in draft form by late March 2005**. The report will present and describe a suite of analytical tools and techniques that are available for understanding the causes and contributions to visibility impairment in MANE-VU's Class I areas and how they are likely to be applied in MANE-VU SIP work. ■



REGIONAL HAZE NEWS

PM_{2.5} DESIGNATIONS ARE RELATED TO REGIONAL HAZE BECAUSE REGIONAL HAZE SIPS ARE EXPECTED TO BE PREPARED IN COORDINATION WITH PM_{2.5} SIPS, SINCE MANY OF THE SAME SOURCES CONTRIBUTE TO PM_{2.5} NONATTAINMENT AND REGIONAL HAZE.

EPA RELEASES FINE PARTICLE (PM_{2.5}) DESIGNATIONS

- The designation of PM_{2.5} nonattainment areas by EPA sets the deadline for submitting regional haze plans as well as nonattainment area plans to EPA. Both plans are due approximately three years after the effective date of the PM_{2.5} nonattainment designations, which is anticipated to be April 2005.
- EPA issued National Ambient Air Quality Standards for Fine Particles (PM_{2.5}) in July 1997. The standards include an annual standard set at 15 micrograms per cubic meter and a 24-hour standard of 65 micrograms per cubic meter.
- The Clean Air Act requires state, local, and tribal governments to take steps to control particle pollution in nonattainment areas. Those steps may include stricter controls on various facilities and additional planning requirements for transportation sources.
- For further information and for a map and list of those areas designated as nonattainment, visit: www.epa.gov/pmdesignations. ■

TIMELINE FOR IMPLEMENTING PM_{2.5} STANDARDS

February 2004	State designation recommendations to EPA
June 28-29, 2004	EPA letters to States responding to recommendations
April 2005	EPA finalizes designations
Early 2005	EPA proposes implementation rule
Early 2006	EPA finalizes implementation rule
By April 2008	STATE IMPLEMENTATION PLANS DUE

CALIFORNIA AIR RESOURCES BOARD (CARB) COMPILES A LIST OF CONTROL MEASURES THAT REDUCE PARTICULATE MATTER

“The proposed control measures are based on rules, regulations, and programs existing in California as of January 1, 2004 to reduce emissions from new, modified, and existing stationary, area-wide, and mobile sources.”

FOR THE COMPLETE LIST AND FURTHER INFORMATION:
www.arb.ca.gov/pm/pmmeasures/board_approved_list.pdf

MANE-VU is committed to public participation. Stakeholders and other interested parties are encouraged to participate, here's how:

PAST AND PRESENT OPPORTUNITIES FOR STAKEHOLDERS TO COMMENT

SIP Template Comment Period: October 8-November 8, 2004

MANE-VU will continue to accept comments on the SIP Template. The Template is posted at: manevu.org/meetings.asp#.

Please send comments on the SIP template to: ksheen@marama.org.

MANE-VU's Contribution Assessment: March, 2005

Check MANE-VU's website for exact deadlines for commenting on this report.

FOR FUTURE
OPPORTUNITIES TO
COMMENT ON
REPORTS

VISIT OUR WEBSITE
WWW.MANEVU.ORG

DOES YOUR ORGANIZATION WANT TO WORK WITH MANE-VU ON REGIONAL HAZE PROJECTS?

If your organization is interested in becoming more involved in the work of MANE-VU and projects to curtail regional haze, contact us for further information:

Sara Hayes
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CLASS I SPOTLIGHT: BRIGANTINE



BRIGANTINE WILDERNESS AREA, NJ

Spotting Wildlife in a Class I Area

**Brigantine Wilderness Area
E.B. Forsythe National Wildlife Refuge**

Submitted by: Cindy Heffley, Visitor Services Manager – E.B. Forsythe NWR

MARCH: Watch for Short-eared Owls at dawn and dusk as they fly low over the salt marshes, looking for small rodents. Listen for the male Spring Peeper’s mating call in fresh water marshes. They are the earliest frogs to be heard in spring as warming weather coaxes them out of hibernation. Look for male Red-winged

blackbirds along marsh edges, as they sing and “shake, rattle and roll.” Listen for the raucous “laughing” cries of Laughing gulls as they return each spring to their breeding grounds in New Jersey’s coastal marshes. The distinctive black heads of breeding adults make them easy to identify.

APRIL - MAY 30: Beach-nesting birds, including piping plovers, arrive on refuge beaches. Wading birds and shorebirds begin to arrive; glossy ibis numbers peak in late April. Canada geese hatch (goslings usually feeding on refuge dikes by May 20).

MAY: Greatest diversity and peak numbers of warblers in refuge uplands, coinciding with the seasonally increasing insect populations which are a major part of their diet. Horseshoe crabs spawn on refuge bay shores and beaches. Migrating ruddy turnstones arrive to forage on the crab eggs. Turtles may be seen laying eggs in the soft dirt along refuge roadways, or sunbathing on roads and wetland edges. Drive carefully!

Listen for the raucous “laughing” cries of Laughing gulls as they return each spring to their breeding grounds in New Jersey’s coastal marshes.

Excerpted from: forsythe.fws.gov/wildlifeactivity.htm. ■

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Mid-Atlantic/Northeast Visibility Union

MANE-VU

