



MARAMA
2002 Annual Report

Mid-Atlantic Regional
Air Management
Association



*Improving Coordinated Air
Quality Planning*

Since 1992



**2002
Outstanding Service Award Recipient
Ray Malenfant**

The MARAMA Directors recognized Ray Malenfant of the Delaware DNREC for Outstanding Service to MARAMA. The Directors expressed appreciation to Ray for his extraordinary contributions to improving visibility in National Parks and Wilderness Areas. Ray organized and chaired the Mid-Atlantic and Northeast Visibility Union's Emissions Inventory Work Group and the National Emissions Inventory Discussion Group.

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Executive Director's Message

October 2001—September 2002 was a time of restricted resources for many state and local agencies, but collaboration through MARAMA enabled our members to pool funds and talent to ensure that employees received technical training, conducted needed studies, and learned from each other. It's even more important in these lean times that we work together.

MARAMA's members represent a diverse region, stretching from the Atlantic beaches to the Ohio River Valley. Our diversity presents challenges in developing policy agreements and provides opportunities to learn from each other and stretch the boundaries of consensus. Sharing technical information helps build trust and understanding. Our strength is in our members' commitment to work together and our staff's commitment to excellent service.

Interstate cooperation is essential to resolving many air pollution problems. At night, transport both brings polluted air into MARAMA and moves it around within the region. Upper air currents bring ozone and other pollutants from the west into and across the region. Meanwhile, swift jets of air move northeast along the Piedmont, pushing pollution between metropolitan centers up the I-95 corridor. Later, the rising sun warms the air, mixing surface and upper air flows, combining local emissions with pollution transported from points west and southwest. No state can solve its ozone or fine particle pollution problems through local controls alone.

The need for interstate collaboration transcends traditional regional boundaries. In 2002 MARAMA worked with Northeast States for Coordinated Air Use Management (NESCAUM) and the Ozone Transport Commission (OTC) to study regional haze problems and build collaboration through the Mid-Atlantic/Northeast Visibility Union (MANE-VU). MARAMA's emissions inventory work for MANE-VU will help members assess controls needed to improve visibility in national parks and wilderness areas and to protect public health in cities.

MARAMA also worked to build relationships with midwestern states by collaborating on source apportionment studies with the Midwest Regional Planning Organization. These studies help build a common understanding of interstate transport of air pollution.

Finally, I want to emphasize the significant part of MARAMA's work done by its members—reviewing draft contractor reports, preparing project descriptions, organizing and speaking at meetings and workshops. Small and large contributions by members help make MARAMA an effective force for regional coordination and air quality improvement. This year the MARAMA Directors recognized Ray Malenfant's work on regional emissions inventories as an outstanding example of regional service. Without the guidance and support of our members, MARAMA would not be the productive and effective association that it has become.

Thanks to you all!

Susan S.G. Wierman

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Executive Director

MARAMA Fiscal Year 2002 Accomplishments

MARAMA projects developed new information and tools useful both regionally and nationally:

Preliminary open burning survey. This MANE-VU project evaluated a draft survey instrument, identified potential survey respondents, showed how survey results will be used to calculate emissions, and recommended how to develop an improved emissions inventory for open burning for the MANE-VU region. E.H. Pechan and Associates was MARAMA's contractor.

Analysis of air quality data at one urban and fifteen rural monitoring sites. MARAMA's contractor for this source apportionment project was Battelle Columbus. The project confirmed the importance of secondary (transported) sulfates and organics. MANE-VU and the Midwest RPO provided funding. MARAMA also hired Dr. John Watson to conduct an independent peer review of the Battelle study. State and local monitoring site operators and stakeholders reviewed preliminary source identifications and provided comments to MARAMA. The final report is posted on MARAMA's web site.

Ammonia Inventory. MARAMA and NESCAUM completed their contract with Carnegie Mellon University for ammonia inventory development. The final report, entitled Development of an Improved Ammonia Emissions Inventory for the US, is available on the



MARAMA web site or in hard copy. While inventories always must be updated, the lasting impact of this project is a system for organizing data and calculating emissions.

Mapping. Dr. Serpil Kayin of MARAMA's staff developed skills in computer mapping to enhance



MARAMA's analysis of emissions and air quality data. MARAMA hired Towson University's Center for Geographic Information Systems to provide customized on-site custom ArcView Training, and MARAMA hired a student intern to process emissions data files for use in ArcView.

Workshop Manual update. Joy Motheral of Systani, Inc. helped Alice Lutrey of MARAMA begin updating the MARAMA Workshop Manual. The Manual documents standard operating procedures for MARAMA workshops, meetings, and other training courses. It is a useful guide, and computer templates from the Manual provide an ongoing resource.

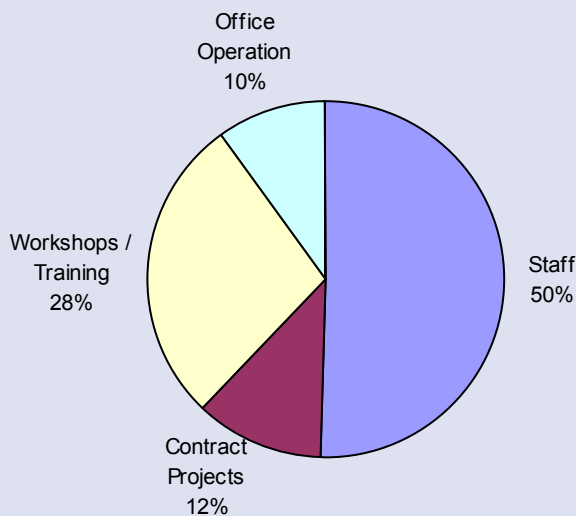
Wood burning inventory. MARAMA hired E.H. Pechan and Associates, Inc. to develop a residential wood burning emissions inventory for MANE-VU. Pechan prepared for a 2003 survey to gather data on residential wood combustion activity. This overall project will include completing a survey, compiling the results, and preparing a regional emissions inventory for MANE-VU using the survey results.

MARAMA encouraged cooperation and coordination among its members:

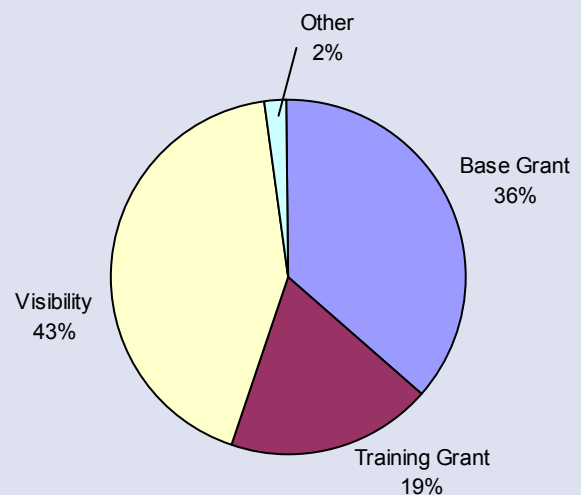
- ◆ MARAMA organized participants from Maryland, Pennsylvania, Virginia, and Rutgers Universities to design a VOC Sampling Course. Course development will continue into 2003.
- ◆ MARAMA and the Chesapeake Bay Program distributed copies of a new report on the Third Shared Resources Conference entitled “The Significance of Ammonia to Coastal and Estuarine Areas.” This report will provide an excellent guide to future work on ammonia, an important contributor to PM_{2.5}, regional haze, and water quality nutrient issues.
- ◆ MARAMA issued weekly ozone reports during the summer.
- ◆ MARAMA’s directory of key staff at member agencies and EPA kept members in touch.
- ◆ The MARAMA Air Directors met quarterly, and MARAMA held numerous working group conference calls on regional issues.



Financial Support to MARAMA



MARAMA Expenditures



MARAMA Revenues

Total annual expenses were \$711,693 in fiscal year 2002, down from \$803,186 in 2001. Visibility agreements funded 43% of the total, up from 33% in 2001. MARAMA added staff, increasing in-house work and reducing contractual expenditures. We conducted more workshops and training courses than in 2001, with lower total costs due to less course development work. MARAMA appreciates the support of its members, EPA Region II and III, and MANE-VU/OTC.

October 2001-September 2002 Events

MARAMA meetings and workshops facilitated member coordination and learning from each other:

- ◆ Annual Air Monitoring Workshop (October 2001)
- ◆ Upper Air Profiler Meeting (October 2001)
- ◆ Regional Air Quality Modeling and Analysis Meeting (January 2002)
- ◆ MANE-VU Emissions Inventory Workgroup Meeting (February 2002)
- ◆ Roundtable on Compliance Certification and Testing: Permit and Enforcement Dialog (March 2002)
- ◆ MANE-VU SIP & Modeling Workshop (April 2002)
- ◆ Source Apportionment Project Review Meeting (May 2002)
- ◆ 3rd Annual Training Committee Meeting (June 2002)
- ◆ Modeling Committee Meeting (with AERMOD training) (June 2002)
- ◆ VOC Sampling: Method 24-24A Course Planning Meeting (July 2002)
- ◆ PM Forecasting Project Kickoff Meeting (August 2002)
- ◆ MANE-VU Technical Work Group Meeting (September 2002)

MARAMA arranged a series of courses for permits and compliance staff members:

- ◆ CARB Observing Source Testing (October 2001)
- ◆ CARB Gasoline Facilities Phase I & II (October 2001)
- ◆ CARB Stationary Gas Turbines (October 2001)
- ◆ CARB VOC Control Devices (October 2001)
- ◆ CARB Hot Mix Asphalt (January 2002)
- ◆ CARB Dry Cleaning (January 2002)
- ◆ CARB Landfill Gases (January 2002)
- ◆ CARB Graphic Arts (January 2002)
- ◆ NO_y Monitoring Course (January 2002)
- ◆ CARB 100 Series: National Air Compliance Uniform Air Quality Training Program (February 2002)
- ◆ CARB PSD/NSR Case Development Workshop (February 2002)
- ◆ Rutgers Advanced NO_x Emissions Control and Technologies (Level IV) (March 2002)
- ◆ Rutgers Area Source MACT Training (Level IV) (April 2002)
- ◆ Rutgers Inspection of Gas Control Devices and Selected Industries (June 2002)
- ◆ CARB Principles of Environmental Compliance and Enforcement (September 2002)

“Excellent meeting. Great speakers, facility, discussions.”

Matthew Seybold, MD,
on Regional Air Quality
Modeling and
Data Analysis Meeting,
January 2002



MARAMA sponsored a specialty course and helped fund attendance at meetings to learn about haze:

- ◆ AWMA Regional Haze & Global Radiation Balance Aerosol Measurements & Models Conference (October 2001)
- ◆ Midwest RPO Meeting on Ammonia and Fires (March 2002)
- ◆ “Aerosols in the Atmosphere” course by NC State (May 2002)

MARAMA sponsored the development and presentation of a new course:

- ◆ PM_{2.5} Emissions Inventory Training (January 2002). MARAMA worked with E.H. Pechan and Associates, Inc. and EPA to prepare and present PM_{2.5} Emissions Inventory Training. State, local, and tribal emissions inventory staff learned to use recommended methods for some key source categories and how to improve the inventory. EPA explained how to add state and local data into the National Emissions Inventory.

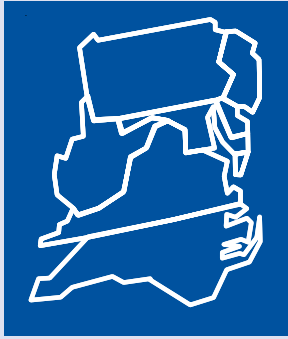
MARAMA provided support for attendance at national or regional conferences/courses:

- ◆ SMOKE Training (October 2001)
- ◆ EPA CMAQ Training (December 2001)
- ◆ EPA Region III Mobile 6 Training (February 2002)
- ◆ STAPPA/ALAPCO Permitting Workshop (February 2002)
- ◆ IMPROVE Steering Committee Meeting (March 2002)
- ◆ US EPA-STAPPA/ALAPCO Air Toxic Implementation Workshop (April 2002)
- ◆ EPA Region III SIP Training for State/Local Agency Personnel (April 2002)
- ◆ DOE Conference on PM_{2.5} and the Electric Power Industry (April 2002)
- ◆ EPA Emissions Inventory Conference-Partnering for the Future (April 2002)
- ◆ AWMA Annual Conference and Exhibition (June 2002)
- ◆ EPA & FHWA MOBILE6 Training Course (July 2002)
- ◆ EPA Regional/State/Local Modelers Workshop (August 2002)
- ◆ NCVECS 18th Annual Mobile Sources/Clean Air Conference (September 2002)
- ◆ EPA Region III Aluminum MACT Training Course (September 2002)

“It has been a pleasure and a privilege to have been associated with MARAMA over the last 10 plus years.”

**Bruce Doddridge,
University of Maryland,
on MANE-VU**





What is MARAMA?

The Mid-Atlantic Regional Air Management Association is a voluntary, non-profit association of ten state and local air pollution control agencies. MARAMA's mission is to strengthen the skills and capabilities of member agencies and to help them work together to prevent and reduce air pollution impacts in the Mid-Atlantic Region.

MARAMA provides cost-effective approaches to regional collaboration by pooling resources to develop and analyze data, share ideas, and train staff to implement common requirements.

Members

The following State and Local governments are MARAMA members: Delaware, the District of Columbia, Maryland, New Jersey, North Carolina, Pennsylvania, Virginia, West Virginia, Philadelphia, and Allegheny County, Pennsylvania. Members of MARAMA's Board of Directors are listed below.

Mission

MARAMA's mission is to strengthen the skills and capabilities of member agencies and help them work together to prevent and reduce air pollution impacts in the Mid-Atlantic region.

2002 Executive Board

Morris Fine, **Philadelphia, Chair**
John M. Daniel, Jr., **Virginia, Vice Chair**
Roger Westman, **Allegheny County, Treasurer**
Ali Mirzakhilili, **Delaware**
Donald E. Wambsgans III, **District of Columbia**
Ann Marie DeBiase, **Maryland**
John Elston, **New Jersey**
Alan Klimek, **North Carolina**
Joyce Epps, **Pennsylvania**
Stephanie Timmermeyer, **West Virginia**

2002 MARAMA Staff

Susan S.G. Wierman, **Executive Director**
Serpil Kayin, Ph.D., **Senior Environmental Scientist**
Tara Marie Kully, **Air Quality Specialist**
Suzanne Baumann, **Air Quality Specialist**
Alice Lutrey, **Training Coordinator**
David Rauzino, **Data Analyst**
Kathryn Seifer, **Administrative Assistant**
Nina Sovik, **Assistant Meeting Manager**
Brandon Rochelle/Richard Tran, **Webmaster**

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