

*States Innovate  
to Promote  
Environmental  
Results*

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Welcoming new, innovative ideas; collaborating to improve them; and then helping to put them to work in our member states remains a key NEWMOA strategy for producing environmental results. A promising example of this is NEWMOA's Common Measures Project that was initiated in fiscal year 2005 to help states develop and test the tools for operating innovative, compliance programs. NEWMOA's Mercury Program and the increasingly successful Interstate Mercury Education and Reduction Clearinghouse (IMERC)

provide examples that have already produced measurable results. I hope that as you review this report you will be as pleased as I am with the many examples of innovation and environmental results that NEWMOA member states are achieving with help from NEWMOA.



The Common Measures Project helps to develop the technical skills and tools that states need for successful Environmental Results Programs (ERPs). The ERP approach, developed several years ago by the Massachusetts Department of Environmental Protection, uses innovative strategies to improve the environmental performance of selected business groups, such as dry cleaners, printers, and dental practices. The strategies are developed with help from related business associations/trade groups. Guidance and compliance assistance information is provided to members of the group, and environmental performance is measured by inspection of a representative number of firms using rigorous performance measurement and data management techniques. At the end of the project, in about two years, comparable performance measurement data from multiple states is expected that should help to establish ERPs as an EPA-accepted and fundable program for improving and measuring environmental results. Our member states believe strongly that ERPs can lower the public and private costs of compliance by developing consistent measures of environmental performance and by sharing expertise in tailoring programs to particular sectors.

During fiscal year 2006, the environmental results of NEWMOA's Mercury Reduction Strategy have also grown impressively. Thirteen states have now joined IMERC to secure the cost savings and other benefits that membership in the Clearinghouse provides to states with laws to reduce mercury in products. IMERC helps its member states efficiently implement their laws by serving as a single point of contact for business and the public for information on mercury-added products as well as mercury education and legislation. A total of 472 companies have now provided Notification on more than 3,860 mercury-added products through IMERC in compliance with member-state laws. Member states are now collaborating to estimate the amount of mercury projected to be removed from products sold in the NEWMOA states as a result of state restrictions on the sale of certain mercury-added products. NEWMOA is also compiling the results of the various state and local collection efforts for mercury and mercury-containing devices in the NEWMOA states over the past several years. These results should be available next year.

The many accomplishments described in this report would not have been possible without the hard work and support of NEWMOA's Directors and staff. I want to thank the U.S. Environmental Protection Agency staff in Regions 1 and 2, and at Headquarters, for supporting our projects and generously sharing their expertise. I particularly wish to express gratitude to our state environmental commissioners and our congressional delegations for persuading the U.S. Congress to provide funding to NEWMOA for fiscal year 2005 that was partially carried over into 2006. This support honors the Association's work in these fiscally difficult times.

*David O'Toole, Assistant Director  
Division of Solid and Hazardous Materials  
New York State Department of Environmental  
Conservation  
2006 NEWMOA Chair*

## Fiscal Year 2006 NEWMOA-by-the-Numbers

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- \* 35 NEWMOA-sponsored training events (including web conferences and face-to-face workshops)
  - \* More than 1,575 participants in NEWMOA-sponsored training events (including web conferences and face-to-face workshops)
  - \* 1 major conference – National RCRA Corrective Action Conference – organized by NEWMOA and EPA with over 300 participants in attendance; and 1 major conference – Mercury Science and Policy Conference – co-sponsored by NEWMOA and organized by NEIWPC with approximately 100 participants
  - \* More than 165,000 visits to NEWMOA's website and more than 525,000 pages downloaded from NEWMOA's website by those visitors
  - \* Approximately 2,800 Northeast Assistance and P2 News newsletters distributed (2 issues)
  - \* 4 new sections developed and published on NEWMOA's website, including a common environmental performance measures area
  - \* 6 face-to-face meetings of NEWMOA Workgroups, involving more than 150 people focusing on measurement topics and projects, marina outreach, and Brownfields activities in the region
  - \* 4 NEWMOA publications on priority topics published online, including fluorescent lamps and recycling, IMERC Alert, and improving site investigation
  - \* More than 470 companies reporting on their mercury-added products to the states through IMERC
  - \* More than 3,860 products in the online Mercury-added Products Database (not including a single product that was reported by multiple companies)
  - \* 100 pounds of mercury removed from 20 schools (12 high schools & 8 K-8 schools) in Massachusetts
  - \* Representatives from 566 school districts in New York State received training conducted by NEWMOA and New York State Department of Environmental Conservation staff on mercury reduction opportunities for schools
  - \* 3,100 mercury-added lamp recycling brochures published and distributed to small businesses in the NEWMOA member states
  - \* 2,000 waste site investigation brochures published for distribution by the NEWMOA member states
  - \* 4 national workgroups, task forces, or national meetings that involved NEWMOA providing advice and assistance to U.S. EPA (focusing on National P2 Results, Beneficial Use Determinations, National Pollution Prevention Roundtable, and the Quick Silver Caucus)
  - \* 8 NEWMOA member states
  - \* 21 NEWMOA Directors who met four times for two days
  - \* 10 NEWMOA fiscal year 2006 staff
  - \* 13 IMERC member states
  - \* 21 NEWMOA Workgroups or Committees
  - \* 9 NEWMOA Networking Groups
  - \* 10 NEWMOA Listservs
- For a list of NEWMOA's fiscal year 2006 projects, visit:  
[www.newmoa.org/publications/projdesc2006.cfm](http://www.newmoa.org/publications/projdesc2006.cfm).

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For a number of years, the Massachusetts Department of Environmental Protection (MA DEP) has developed and implemented an innovative compliance strategies initiative called the Environmental Results Program (ERP) to improve the environmental performance of selected business groups, such as dry cleaners, printers, and dental clinics. Groups are selected for an ERP based on three factors: their potential for causing environmental harm; consistency in their operations, waste generation, and emissions; and when their large numbers make traditional inspection and enforcement approaches impractical. Impressed with the environmental results documented by MA DEP, environmental agencies in other states, have developed their own ERPs. At last count, 19 states, including all of the 8 NEWMOA member states, are now using ERP approaches or developing ERPs.

Generally, ERP strategies involve: developing compliance and best management practices guidance, checklists, and other information for the selected business group that explain environmental protection requirements and enlist their cooperation; securing help from related business associations/trade groups; soliciting commitment/certification from businesses in the sector stating that they are following prescribed practices and have implemented the appropriate equipment; and measuring the results through inspections of a statistically valid representative sampling of the firms using ERP performance measurement procedures.

Improved measurement is the key to using state inspection resources more efficiently and effectively, since changes in performance of the entire sector can

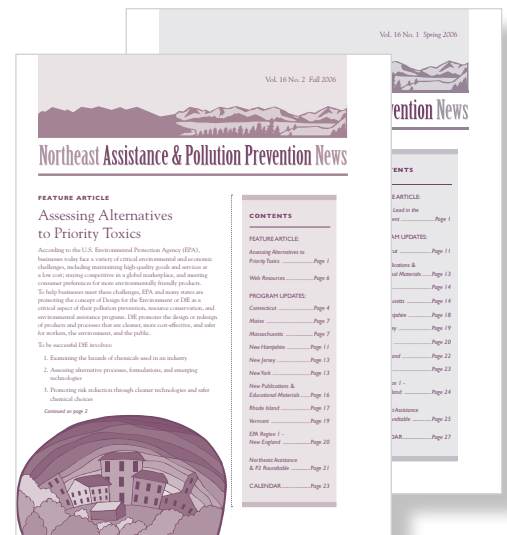
be reliably evaluated with a relatively small sampling of facilities. The new approaches to measuring environmental performance developed to support ERP entail careful selection of performance indicators and the use of statistically valid data gathering and analysis methods. Analysis of performance on key indicators can identify problem areas where further work or a different approach is needed, or confirm that the sector is performing well and may not need as much regulatory attention.

The NEWMOA states' environmental program managers recognize that for the ERP concept to gain broader acceptance

by the public and policy leaders, and meet U.S. EPA's

air, water, and waste program requirements for funding state programs, a number of things must occur. First, state professionals must develop

new expertise in the science of performance measurement. That includes the selection of appropriate performance indicators and the use of statistically valid approaches for gathering, interpreting,



*Impressed with the environmental results documented by MA DEP, environmental agencies in other states, have developed their own ERPs.*

and reporting results. Next, states must begin to use common indicators to facilitate valid comparisons of performance results among states using the same or different approaches. This, in turn, will allow states to adopt the most effective and efficient strategies to achieve better compliance and environmental improvement. Finally, EPA must develop clearer guidance for states on how to secure federal approval and program support for state ERPs.

NEWMOA's member states and others outside the Northeast region collaborated to secure an U.S. EPA State Innovations Grant for implementing ERP performance measurement efforts across the participating states. During fiscal year 2006, participating states assigned lead staff to receive training in using environmental performance indicators, group statistical measurement methods, and data quality requirements for compiling and reporting results. The states have agreed to select one or more businesses/other groups (such as small quantity hazardous waste generators) in common for ERPs to begin next year. They will collaborate in selecting common performance indicators. Finally, they will gather and report environmental performance data in future years.

At the end of the project in about two years, EPA and the states expect to have the first round of quality-assured environmental performance data from multiple states that will support valid comparison of environmental results using the ERP approach. The data will be gathered and analyzed under the framework of a rigorous quality assurance plan to ensure the validity of reported results. Just as importantly, professional staff from each of the participating state agencies will have completed training and gained practical experience in performance measurement using appropriate statistical methods and quality assurance procedures. There are many other applications for this valuable discipline in state environmental agencies. Finally, EPA and the states will have provided the building blocks for establishing ERP as a mainstream approach for improving environmental performance and measuring environmental results.

To view information on NEWMOA's Common Measures Project visit:

**[www.newmoa.org/hazardouswaste/measures/](http://www.newmoa.org/hazardouswaste/measures/)**

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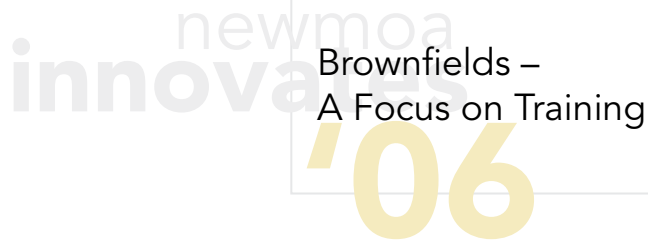
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## Brownfields – A Focus on Training

In fiscal year 2006, the state Brownfields Programs identified training as their highest priority for working together through NEWMOA. The Association organized major workshops on two topics of high interest to waste site cleanup programs: vapor intrusion and in-situ chemical oxidation technology for remediation.

### Vapor Intrusion

Vapor intrusion occurs when chemicals in the ground volatilize and migrate through the soil up into buildings, causing an indoor air contamination problem. Awareness of vapor intrusion is relatively new and, therefore, investigation and remediation techniques are evolving. States need to understand new developments for effectively addressing this pervasive problem. In April 2006, NEWMOA organized a workshop that brought experts from across the country to the Region. The workshop focused on data interpretation, how to collect good indoor air samples, determining contributions from other sources within the building, and remediation techniques and complications. The workshop was attended by over 150 state and EPA staff. Under-scoring the importance of addressing this problem and the value of training, state officials requested that NEWMOA organize another vapor intrusion workshop in 2007.

*Awareness of vapor intrusion is relatively new and, therefore, investigation and remediation techniques are evolving.*

### In-situ Chemical Oxidation

In-situ chemical oxidation is a method used to remediate groundwater by injecting powerful oxidants into the ground to react with the contamination. Designing and implementing a system is complex and includes: choosing the correct oxidant for the contamination at the site; designing an appropriate injection method to ensure good contact with all the contamination; safety concerns with the storage and delivery of the oxidants; and oversight and follow-up testing to evaluate success. This is an emerging technology that remediation experts are now proposing to state authorities to address waste site contamination. State waste site cleanup staff requested training on this technology so that they can more effectively respond to these proposals.

In September 2006, NEWMOA sponsored a day-long workshop, In-situ Chemical Oxidation to provide regulators with basic information on this technology. The workshop was held in two different locations: Portsmouth, New Hampshire and Worcester, Massachusetts. NEWMOA staff worked with the Connecticut Licensed Environmental Professional and the Massachusetts Licensed Site Professional programs to obtain approval to offer continuing education credits for consultants that participated in the sessions. In total, the workshops were attended by over 200 state and EPA staff, consultants, and others.

NEWMOA also held annual fall and spring meetings of the EPA Region 1-New England Brownfields Team and the Brownfields Program Managers in the member states in November 2005 and May 2006, respectively. The purposes of these semi-annual meetings are to increase communication and to share technical and policy information. The states and EPA have found the learning and interaction of these meetings invaluable, and fall and spring meetings are planned again for 2007.

## *Improving the Quality of Site Investigations*

In fiscal year 2006, NEWMOA concluded a multi-year project focusing on improving the quality of site investigations with the publication of *Improving Site Investigation: A Guide for Property Owners, Buyers and Sellers, Attorneys, Bankers, Insurance Representatives, and Their Environmental Consultants*. State waste site cleanup officials often find that consultants submit site investigation reports that do not adequately document the nature and extent of contamination at the site because not enough sampling and analysis has been performed, and/or the report is poorly written and organized. The NEWMOA brochure was designed to address at least part of this problem. The material provides follow-up information to the state-specific



*Site Investigation Matters* brochures that NEWMOA published in 2005.

The new brochure emphasizes the need for comprehensive planning at the beginning of a site cleanup project, including outlining the background research necessary and explaining the development of what is known as a Conceptual Site Model (CSM). The brochure also focuses on the need to collect sufficient data to refine the CSM and adequately characterize the site, and supports the use of innovative sampling and analysis methods to collect effective data within a short time frame. Lastly, the brochure highlights the importance of writing a clear report with adequate supporting materials, and ensuring that the report meets the requirements of the particular state in which the site is located.

All of the brochures developed under NEWMOA's "Improving the Quality of Site Investigation Projects" are available at:

[www.newmoa.org/cleanup/improving.cfm](http://www.newmoa.org/cleanup/improving.cfm).



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# Improving Avian Flu Preparedness

Public health experts around the world recognize that the H5N1 avian flu strain is a potentially serious health and economic threat that requires coordinated preparation and response from federal, state, and local agencies. Environmental and public health authorities are expected to play an important role in preparing for and responding to this threat, although federal and state agriculture and wildlife agencies would lead the response.

At the March 2006 NEWMOA Directors' meeting, U.S. EPA's Region 1-New England Administrator Robert Varney made a compelling presentation concerning an expected outbreak of H5N1 avian influenza among wild and domestic birds in the U.S. in the foreseeable future. The NEWMOA Directors agreed with Administrator Varney that the NEWMOA member-state environmental agencies should co-sponsor a workshop with EPA to provide a forum for federal and state agriculture and wildlife officials to inform environmental agency officials about their priorities, resources, plans, and assistance needs for responding to an outbreak of avian flu in wild and domestic flocks. EPA provided NEWMOA with support to organize and manage the Workshop, helped NEWMOA recruit speakers from appropriate federal agencies, and hosted the event with NEWMOA at the EPA Region 1-New England Laboratory in Chelmsford, MA in April 2006.

Ira Leighton, EPA Region 1-New England Deputy Regional Administrator opened the Workshop by welcoming the approximately 50 state and federal participants and framing the purpose and objectives for the event. The Workshop featured technical presentations by officials representing the U.S. Department of Agriculture (USDA); U.S. Department of the Interior, U.S. Geological Survey (USGS); Virginia Department of Environmental Quality (VA DEQ); and the Maine Department of Agriculture (ME DA). The topics covered included the authorities, roles, and responsibilities of the federal and state agencies during an outbreak of the H5N1 avian influenza in domestic and/or wild birds, and what types of responses could be expected.

Presenters covered such issues as personal protection, communications, pathogen characteristics, containment measures, and management and disposal of carcasses in detail. Gary Flory, Manager, Agriculture and Water Quality Assessments, VA DEQ described Virginia's response to a serious, recent outbreak of a less virulent strain (compared to H51N) of avian flu, with an emphasis on composting and other waste management issues and preferred management practices. Dr. Bill Seekins, Agricultural Resources Management Coordinator for ME DA, provided a detailed summary of requirements for successful composting operations, along with several example cases.

Following the technical presentations, Stephen Hammond, Director of Solid and Hazardous Materials for the New York State Department of Environmental Conservation (NYS DEC) moderated a "Joint Panel on State and Federal Priorities, Roles, Plans, and Communications." The panelists included Dr. William Smith, USDA; Dr. Bryan Richards, USGS; Dr. Dave Chico, New York State Department of Agriculture (NYS DA); Dr. Bill Seekins, ME DA; Sally Rowland, NYS DEC; John Fischer, MA DEP; and Alissa Scharf, Massachusetts Department of Public Health (MA DPH). Each of the panelists briefly described their agency's authority, role, plans, and available resources for avian flu response. Their presentations were followed by a lively discussion of questions from the state and federal participants and the other panelists.

Finally, Elissa Tonkin, EPA Region 1-New England, facilitated an open discussion and brainstorming session to engage state and federal participants in producing a prioritized list of actions that state solid waste, emergency response, and other programs should take to prepare for responding to an avian flu outbreak.

The prioritized actions list, workshop presentations, and links to a list of technical resources concerning H51N avian influenza are available at:

**[www.newmoa.org/solidwaste/cwm/](http://www.newmoa.org/solidwaste/cwm/)**



## Mercury Reduction Achievements

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**T**hroughout fiscal year 2006, NEWMOA built on its previous efforts to promote and implement mercury education and reduction. Specifically, NEWMOA continued to manage the Interstate Mercury Education and Reduction Clearinghouse (IMERC) and assist states by coordinating their efforts to implement mercury reduction legislation and promote lamp recycling. NEWMOA also assisted two states with eliminating mercury and certain mercury-added products from schools and co-sponsored a regional Mercury Science and Policy conference that was organized by the New England Interstate Water Pollution Control Commission (NEIWPCC). These initiatives are described below.

*Seven IMERC member states... require some form of product notification for some or all mercury-added products...*

The Interstate Mercury Education and Reduction Clearinghouse grew again in fiscal 2006 with the addition of North Carolina as a member state. The total number of state members is 13, including all of the NEWMOA member states and California, Illinois, Minnesota, North Carolina, and Washington State. In addition, Massachusetts passed a comprehensive mercury reduction law in fiscal year 2006 that includes a number of provisions to beef up Massachusetts' program to reduce or eliminate mercury through source reduction and waste prevention. The Massachusetts Mercury Management Act sets phased-in recycling targets of 90 percent for vehicle switches containing

mercury and 70 percent for mercury-containing lamps, including fluorescent lamps. Manufacturers are now setting up plans for these products to be collected and recycled. In May 2008 and 2009, specific mercury-containing products – such as thermostats, medical and measuring instruments, switches, and relays – will be removed entirely from the state's marketplace, whenever viable non-mercury options exist. The new law also adds Massachusetts to the growing number of states that require manufacturers, who sell or distribute a product that contains "intentionally-added" mercury, to notify the Massachusetts Department of Environmental Protection (MA DEP). MA DEP has joined the other IMERC member states in their efforts to implement these requirements.

This year IMERC's efforts focused principally on assisting states with the implementation of their product Notification and Phase-out requirements. By the end of fiscal year 2006, seven IMERC member states – Connecticut, Maine, Massachusetts, New York, North Carolina, Rhode Island, and Vermont – required some form of product Notification for some or all mercury-added products sold in those states. In addition, in fiscal year 2006, Louisiana passed mercury reduction legislation that included product Notification and phase-out, and IMERC staff began communicating with Louisiana state officials about their program.

At the end of fiscal year 2006, approximately 470 companies had provided Product Notification at least once and, in most cases, multiple times, on approximately 3,680 products. The information from these Notifications is available through IMERC's online Mercury-added Product Database ([www.newmoa.org/prevention/mercury/imerc](http://www.newmoa.org/prevention/mercury/imerc)). IMERC assisted the

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## Mercury Reduction Achievements (continued)

member states with collecting and sharing Notification Forms and populating the database in fiscal year 2006.

IMERC was also very active in coordinating the implementation of member states' mercury-added product phase-out requirements. IMERC member states, including California, Connecticut, Illinois, Maine, Massachusetts, Minnesota, New York, Rhode Island, Vermont, and Washington mandate restrictions on the sale of certain mercury-added products unless the state approves an exemption application from the manufacturer. IMERC's efforts included managing the submission of applications for exemption to product phase-out requirements and facilitating interstate review of those applications. IMERC facilitated direct outreach to companies that make products that are

affected by these state product phase-out requirements through letters to individual companies and publication of IMERC Alert.

IMERC staff continued to address hundreds of questions from companies regulated by state mercury education and reduction laws through emails and phone calls. Throughout the fiscal year, IMERC updated the information available on the IMERC WebPages to help companies and others understand the complex array of state mercury product requirements. IMERC played a critical role in educating companies and the public about the state requirements and how to comply with them.

For more information about IMERC, visit:  
[www.newmoa.org/prevention/mercury/imerc.cfm](http://www.newmoa.org/prevention/mercury/imerc.cfm).

### *Achievements in Mercury Reduction in Schools & Communities*

The Massachusetts Department of Environmental Protection (MA DEP) funded NEWMOA for a sixth year to conduct mercury removal from public schools. NEWMOA worked with 20 schools (12 high schools and 8 middle or K-8 schools) to identify, collect, and recycle elemental mercury and mercury-containing products, collecting an average of 5.3 pounds of mercury per school. The total amount collected in fiscal year 2006 was 100 pounds. NEWMOA has now helped to remove 1,077 pounds of mercury from Massachusetts schools, beginning in fiscal year 2001.

In a related effort, under contract with the New York State Department of Environmental Conservation (NYS DEC), NEWMOA co-delivered five half-day

workshops to education officials in New York State on safe mercury removal from schools. The workshops were held in partnership with the NYS Board of Cooperative Education Services (BOCES) regional offices in Syracuse, Albany, Rochester, Long Island, and New York City. More than 100 facility managers, teachers, administrators, and health and safety coordinators attended the workshops; however, the mercury removal message spread beyond these participants to the 566 school districts represented by the health and safety coordinators attending the workshops.

For more information, visit:  
[www.newmoa.org/prevention/mercury/schools](http://www.newmoa.org/prevention/mercury/schools).

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1,077 lbs.

## Promoting Fluorescent Lamp Recycling

NEWMOA's Lamp Recycling Workgroup of member-state agency staff conducted outreach to tanning salon owners in fiscal year 2006. The Workgroup targeted these businesses because they use a large number of fluorescent lamps and change them out frequently. A single tanning bed uses between 45 and 90 lamps, and each lamp contains an average of 17 milligrams of mercury, according to the National Electrical Manufacturers Association (NEMA). A salon may have from a few to over 10 beds. Lamps are changed two or more times a year to maximize their ultraviolet light tanning potential.

The Lamp Recycling Workgroup developed an outreach flyer and mailed it to over 3,100 tanning salons in New Hampshire, New York, New Jersey, Massachusetts, Rhode Island, and Connecticut. The Maine Department of Health mailed several hundred flyers to tanning salon operators in Maine.

NEWMOA also produced and published online a briefing paper on the use of mercury in lighting based on its summary of the data in the IMERC online Mercury-Added Products Database. The briefing paper provides a summary of the types of mercury-added lamps and their uses. NEWMOA receives frequent positive feedback and/or requests for more information on this topic as a result of the paper.

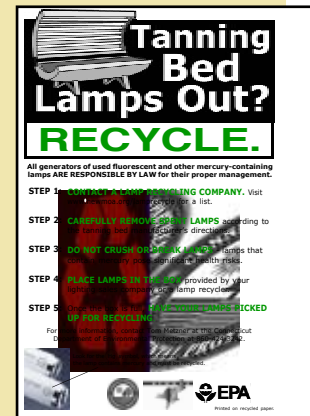
In fiscal year 2006, the Lamp Recycling Workgroup also began exploring potential opportunities for collaboration with energy efficiency organizations to facilitate greater outreach to lamp users. NEWMOA believes that incorporating the message about the need to recycle mercury-added lamps into outreach promoting the use of energy efficient lighting is important. With growing awareness about climate change, businesses and consumers are increasingly turning to fluorescent lights, making it ever more important to

reach out to consumers to ensure that they manage their spent bulbs responsibly.

Several of NEWMOA's Workgroup members collaborated with their energy efficiency organizations in fiscal year 2006. The Maine Department of Environmental Protection (ME DEP) worked with Efficiency Maine to craft language on the need to recycle for some of Efficiency Maine's outreach materials. NYS DEC provided guidance to the New York State Energy Research and Development Authority (NYSERDA) on a brochure the Authority produced entitled *Use It or Lose It*. The brochure promotes consumer use of energy efficient lighting and describes how compact fluorescent lamps must be recycled at the end of their useful life, as well as where to recycle them.

In fiscal year 2006, NEWMOA staff researched the use of ultraviolet lamps at drinking and wastewater treatment plants in the NEWMOA member states. The researchers found that a significant number of wastewater treatment facilities in the region (approximately 28 percent) use ultraviolet disinfection systems. A large number of drinking water treatment facilities in the Northeast also reported that they use ultraviolet disinfection. NEWMOA's Lamp Recycling Workgroup decided to conduct more research on this sector, including the number of lamps used, the frequency of change-out, and current lamp management practices before planning a future outreach campaign.

For more information on lamp recycling, visit: [www.newmoa.org/prevention/mercury/lamprecycle/index.cfm](http://www.newmoa.org/prevention/mercury/lamprecycle/index.cfm).



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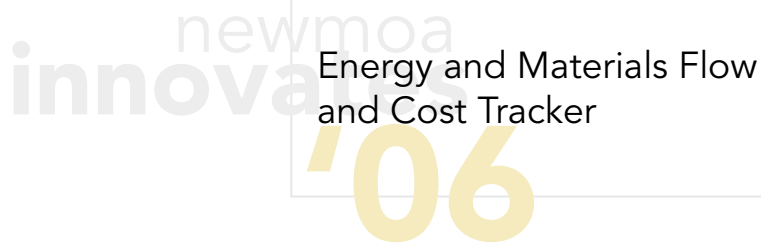
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The header features the text "newmoa innova '06" in a light grey font, with "newmoa" on the top line, "innova" on the second line, and "'06" in a larger yellow font on the third line. To the right of this text is the title "Energy and Materials Flow and Cost Tracker" in a dark grey font. The background of the header is a blue sky with white clouds.

# newmoa innova '06 Energy and Materials Flow and Cost Tracker

**M**any forward-thinking companies throughout the U.S. have demonstrated that significant improvements in the efficient use of materials and energy can be achieved when they closely examine their materials flows and the associated costs and profitability. The science of Environmental Management Accounting (EMA) has emerged in the United States and world wide for the past decade as a systematic approach to materials and cost accounting associated with environmental and energy impacts. EMA is the collection, analysis, reporting, and use of materials and energy flow data and associated cost information for management decision-making within an organization. EMA can be particularly valuable for management initiatives that focus on sustainability, including supply chain management, environmentally preferable purchasing, environmental management systems, and environmental performance reporting.

Although EMA is now widely considered by pollution prevention practitioners as an important cornerstone of sustainable production, it is still not widely practiced in the U.S. Of the many challenges facing companies with implementation of EMA, the lack of a readily available, user friendly, comprehensive, low cost software tool is an important one.

In fiscal year 2005, NEWMOA partnered with the Massachusetts Office of Technical Assistance (MA OTA) to obtain funding from the U.S. EPA Office of Research and Development (ORD) to address this need for improved software tools to support EMA. NEWMOA and MA OTA call the project "Energy and Materials Flow and Cost Tracker" (EMFACT). The EMFACT software tool will build upon the current scientific and engineering applications of environmental management accounting as a critical aspect of sustainable production and pollution prevention. Short term success of this project will be the development and dissemination of, and training on, the EMFACT software tool. The long term success will be the widespread utilization of the tool and associated reductions in emissions and wastes among the users.

NEWMOA and MA OTA recognize that they will not be able to fully achieve all of their long term objectives for EMFACT with the resources that are currently available under the funding available from the U.S. EPA. As a result, in fiscal year 2006 NEWMOA initiated Phase 1 in the multi-phase long term development of a full EMFACT tool. In this Phase, NEWMOA and MA OTA are focusing on creating a tool that is designed to help users understand and analyze their materials (including water and fuels) and chemical use in their facility. Users may also choose to use the tool to track fuels that they purchase because the Phase 1 tool will be designed to treat these material inputs the same as others used in the entity's operations.

A primary target audience for the EMFACT tool will be environmental health and safety (EHS) managers and staff in small and medium-sized firms. State and local environmental and technical assistance programs, and private sector consultants will benefit from the tool because it will improve their ability to help companies identify pollution prevention (P2) opportunities and quantify the benefits and costs of prevention programs and strategies for key policy makers. The Energy and Materials Flow and Cost Tracker will be user-friendly, well documented, and readily available for download for free via the Internet.

In fiscal year 2006, NEWMOA and MA OTA focused on developing a Request for Proposals (RFP) for vendor support for the EMFACT tool development. This process involved meeting with a variety of interested groups and companies to obtain advice and input on the scope and features of the tool, drafting an initial RFP, holding an information meeting to solicit feedback from potential contractors on the draft RFP, and modifying and finalizing the RFP based on the results of this meeting. NEWMOA plans to select a software development vendor in 2007 and work with the vendor throughout the fiscal year to develop the beta version of the tool.

For more information on EMFACT, visit:  
[www.newmoa.org/prevention/emfact](http://www.newmoa.org/prevention/emfact).

## Training State Hazardous Waste Inspectors to Improve Performance

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Continuing a valued tradition for the NEWMOA member states' hazardous waste programs, U.S. EPA Headquarters, Regions 1 and 2, and the state hazardous waste program managers collaborated through NEWMOA to organize an "Advanced Hazardous Waste Training Workshop" that was held in Edison, New Jersey and Marlborough, Massachusetts in fiscal year 2006. The workshops included presentations by EPA regional and state experts on hazardous waste determinations at treatment, storage, and disposal facilities; as well as hazardous waste generator responsibilities for providing appropriate information about waste characteristics for those facilities. A panel of state and federal permit engineers and compliance inspectors led discussions about what level of diligence concerning waste analysis for hazardous constituents that inspection staff should consider reasonable for various types of waste generating operations and for facilities that receive those wastes for storage treatment and disposal. All of the participants appreciated the opportunity to discuss the requirements and example cases, because the regulations and guidance leave much to "determinations of reasonableness" when judging the adequacy of compliance measures in various site-specific situations.

Other workshop sessions focused on EPA's plans to implement the new hazardous waste manifest regulations, with particular attention paid to training opportunities and materials to be available for the regulated community, and practical aspects such as "rejection of waste loads at hazardous waste facilities." Speakers from EPA Headquarters provided a progress report on efforts to develop and adopt an electronic manifest in the near future.

Finally, U.S. Department of Transportation (U.S.DOT) officials reviewed the recently adopted regulatory requirements that are applicable to transportation-related hazardous waste storage and transfer facilities, including inter-modal facilities, and how the U.S. DOT will interpret and apply the federal regulations. This area of regulation has been of particular



concern to NEWMOA member states because, in the past, some operators claimed that their inter-modal storage and transfer facilities were exempt from state and local environmental requirements because they were considered part of the transportation system subject exclusively to U.S. DOT regulations. Some of their operations have caused significant adverse environmental impacts, including noxious dust and odors and other problematic releases. The new regulations clarified the issue in favor of affirming state and local environmental authority over these facilities, as NEWMOA members and other state environmental agencies had urged during development of the U.S. DOT regulations.

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## Training State Hazardous Waste Inspectors to Improve Performance (continued)

In addition, NEWMOA initiated monthly web conferences on topics selected by state hazardous waste program managers. Topics covered through these calls in fiscal year 2006 included:

- \* State regulation of household hazardous waste collection events and permanent locations
- \* State and federal policies on generator treatment of hazardous waste in containers and tanks /enclosed systems, including wastewater
- \* EPA's Hazardous Waste Manifest Regulations
- \* State regulation of pesticides and other hazardous wastes at home improvement stores
- \* State regulation of electronic wastes and cathode ray tubes
- \* State programs for removal and management of mercury switches and airbags in cars
- \* State policies on wastes from electric and gas utility operations
- \* State policies and experiences regarding inspection of EPA Performance Track facilities
- \* State policies on organic solvent parts washer/ hazardous waste determinations
- \* State policies concerning the classification of demolition debris as solid/hazardous waste
- \* State policies concerning "toxics along for the ride" in sandblast grit and waste- derived products, such as construction blocks and fence posts



### *National Corrective Action Conference*

The 2006 National RCRA Corrective Action Conference was held in Providence, Rhode Island in June 2006. The theme was "Revitalizing Corrective Action Sites," which tied the Brownfields and RCRA programs together. U.S. EPA Region 1-New England was involved with planning the conference, and NEWMOA was enlisted to co-sponsor the conference, including assisting with planning and running the event. The conference was attended by over 300 regulators, consultants, facility owners, and others. U.S. EPA and the participants reportedly considered the event to be very successful in achieving its objectives.

# RCRA

In fiscal year 2006, NEWMOA focused on measuring the interstate flow of solid waste in the Northeast and on the challenges surrounding construction and demolition (C&D) wastes.

### *Analyzing Solid Waste Generation & Disposal*

In fiscal year 2006, NEWMOA staff worked with the member-state solid waste officials to collect and analyze municipal solid waste (MSW) disposal data for calendar year 2004. NEWMOA prepared various tables and graphs to illustrate the generation and disposal of solid waste, as well as analyze the MSW trends over the prior five years. In most states, the quantity of MSW generated and disposed of has increased, while the overall import and export dynamics changed little over the past six years.

With the exception of New York, where there has been a noticeable decrease, the amount of MSW generated and disposed of in the same state has remained relatively constant over the past six years. Every NEWMOA member state does some importing and/or exporting to its neighbor state(s). Overall, the larger NEWMOA member states – Connecticut, Massachusetts, New Jersey, and New York – export a significant portion of MSW generated in-state to facilities located in states outside the region. Massachusetts and Vermont export a significant portion of the MSW generated in-state to facilities in other NEWMOA-member states.

### *Construction & Demolition Waste*

Construction and demolition (C&D) wastes are a high priority challenge for the NEWMOA member states. The states would prefer for C&D wastes to be reused and recycled where feasible. The economics of C&D waste diversion and processing depends on the availability of markets for the materials that are generated. Typically, the materials generated from a C&D processing facility that can be reused include metals, crushed aggregate (from bricks and concrete), wood chips, and fines. Markets for gypsum wallboard and asphalt shingles, however, are still emerging. Both of these wastes face economic difficulties due to the

logistics of separating materials, and the cost of transporting the materials to recycling facilities.

In February 2006, NEWMOA organized a joint stakeholder meeting with the Northeast Recycling Council (NERC) that focused on reuse and recycling opportunities for gypsum wallboard and asphalt shingles. In addition to state and EPA regulators, companies that process C&D waste were invited to attend. Several vendors that recycle gypsum wallboard and asphalt shingles made presentations. Participants learned that there are several recycling opportunities for wastes from new construction projects; however, the materials from demolition projects present a significant challenge for recycling. Gypsum wallboard recyclers generate ground gypsum that is sold back to wallboard manufacturers, and a paper waste that also has a market. Due to manufacturers' concerns that wallboard from removal and demolition projects could have lead-based paint or contain asbestos in the joint compound, the recyclers can only accept unused wallboard.

Post-consumer asphalt shingles (tear-offs) are generated from re-roofing projects. Generally, the material is separated at the job site. The main obstacle to recycling the material is that older roofing materials may contain asbestos, and the cost of performing the necessary testing is expensive for the recyclers.

### *Solid Waste Issues in the Region*

NEWMOA staff organized a series of conference calls for member states that addressed:

- \* Organics recycling;
- \* New technologies for solid waste management; and
- \* Post-closure care of landfills.

The participants shared policies and what each other is doing on the topic during these calls.

For information on NEWMOA's Solid Waste Program activities, visit:

[www.newmoa.org/solidwaste/](http://www.newmoa.org/solidwaste/).

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# Innovations in the Delivery of Information

For the past nine years, NEWMOA has been a part of the Pollution Prevention Resource Exchange (P2Rx™), a national network of eight regional information centers dedicated to improving the dissemination of pollution prevention (P2) information. The national goals of P2Rx are to: (1) serve as the first stop for P2 information; (2) increase the awareness and usability of P2 information; and (3) facilitate dynamic regional P2 networks. In 2006 NEWMOA took on the role of the P2Rx National Program Manager, coordinating the collective efforts of all of the P2Rx Centers.

The P2Rx goals go hand-in-hand with NEWMOA's continuing efforts to promote the adoption of P2 strategies and technologies as an important component of achieving environmental results. NEWMOA continues to identify information needs in this area and develop innovative solutions that address those challenges. To this end, in 2006 NEWMOA continued to expand the P2 resources on its website, including:

- \* P2Rx Topic Hubs™  
[newmoa.org/prevention/topichub](http://newmoa.org/prevention/topichub)
- \* Innovative Pollution Prevention Technology Profiles  
[newmoa.org/prevention/p2tech/](http://newmoa.org/prevention/p2tech/)
- \* Pollution Prevention (P2) News  
[newmoa.org/prevention/p2news/](http://newmoa.org/prevention/p2news/)
- \* Pollution Prevention & Assistance Programs Searchable Directory  
[newmoa.org/prevention/programs](http://newmoa.org/prevention/programs)
- \* Pollution Prevention & Assistance Activities Searchable Database  
[newmoa.org/prevention/activities](http://newmoa.org/prevention/activities)
- \* Mercury Reduction Programs Searchable Database  
[newmoa.org/prevention/mercury/programs](http://newmoa.org/prevention/mercury/programs)

More than 165,000 individuals visited the NEWMOA website in 2006, viewing more than 525,000 pages.

## *NEWMOA Listservs*

Listservs provide email subscribers with a forum to share information and ideas on a particular topic. Participants post messages to the listserv so that other subscribers can respond and/or read each other's comments. To join a NEWMOA listserv, contact Rachel Colella at [rcolella@newmoa.org](mailto:rcolella@newmoa.org).

NEWMOA-sponsored listservs that are open to all interested parties:

- \* Environmental Management Accounting
- \* Green Building
- \* Air List

NEWMOA-sponsored listservs that are open to federal, state, local, and tribal governmental officials only:

- \* Auto Recycling
- \* EMFACT Project Advisory Committee
- \* Lamp Recycling
- \* Marina Outreach and Assistance Workgroup
- \* Mercury Policy and Legislation
- \* Northeast Assistance and Pollution Prevention Roundtable
- \* Pollution Prevention and Compliance Assistance Measurement

## *Training Through Web Conferences*

NEWMOA convened three web conferences involving state and federal assistance and pollution prevention staff in fiscal year 2006. These training events focused on state strategies to address effective survey design techniques, best management practices to address stormwater control requirements, and techniques for improving website utility and design. These events were well attended, attracting approximately 90 participants. Visit [www.newmoa.org/prevention/webconferences/](http://www.newmoa.org/prevention/webconferences/) to view the excellent presentations from these web conferences.



### ***Northeast Assistance & Pollution Prevention News***

NEWMOA published two issues of its newsletter, *Northeast Assistance and Pollution Prevention News* in fiscal year 2006. The Spring 2006 issue featured an in-depth article on efforts by the Northeast states to reduce lead in the environment through pollution prevention and environmental assistance efforts. The Fall 2006 issue included a feature article covering efforts in the Northeast to implement design for the environmental projects through assessment of alternatives to priority toxics. Both issues of the newsletter also covered recent assistance and pollution prevention projects and initiatives underway in the Northeast States and by U.S. EPA Regions 1 and 2. To view these newsletters, visit:

**[www.newmoa.org/prevention/newsletter.cfm](http://www.newmoa.org/prevention/newsletter.cfm)**.

### ***NEWMOA's Fiscal Year 2006 Workgroups & Networking Groups***

Most of NEWMOA's day-to-day efforts are supported by Workgroups and Committees of member state officials. The members of the Workgroups provide advice, assistance, and oversight for the projects described in this Annual Report. The NEWMOA Board of Directors appoint their staff to these Workgroups.

NEWMOA's Fiscal Year 2006 Workgroups included (*in alphabetical order*):

- \* Brownfields Workgroup
- \* Common Measures Workgroup
- \* Construction & Demolition Debris Workgroup
- \* EMFACT Project Advisory Committee
- \* High Production Volume Chemicals Conference Steering Committee
- \* Interstate Mercury Education & Reduction Clearinghouse (IMERC)
  - IMERC Enforcement Subcommittee
  - IMERC Labeling Subcommittee
  - IMERC Notification Subcommittee
  - IMERC Phase-Out Exemption Subcommittee

- \* Improving the Quality of Site Characterization Workgroup
- \* Integrated Chemicals Project Steering Committee
- \* Lamp Recycling Outreach Workgroup
- \* Marina Workgroup
- \* Mercury Workgroup
- \* Northeast States Assistance & Pollution Prevention Roundtable Steering Committee
- \* Open Waste Burning Workgroup
- \* Pollution Prevention & Compliance Assistance Metrics Workgroup
- \* Pollution Prevention Information Dissemination Committee
- \* RCRA Regulations & Policy Workgroup
- \* Solid Waste Metrics Workgroup

### ***Networking Groups***

NEWMOA's networking groups share information and ideas about topics through email, listservs, conference calls, and occasional meetings.

NEWMOA Fiscal 2006 Networking Groups included (in alphabetical order):

- \* Auto Recycling Networking Group
- \* Beneficial Use Determinations Networking Group
- \* Contaminated Sediments Networking Group
- \* Emergency Response Networking Group
- \* Hazardous Materials Transportation Uniform Safety Act Networking Group
- \* Innovative Pollution Prevention Technology Networking Group
- \* Solid Waste Steering Committee
- \* Technology Review Committee (TRC)
- \* Tires Networking Group

To view the current members of NEWMOA's Workgroups and Networking Groups visit:  
**[www.newmoa.org/about/workgroups.cfm](http://www.newmoa.org/about/workgroups.cfm)**.

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newmoa  
innovates  
NEWMOA Funding  
'06

**N**EWMOA relies on dues, grants, and special contributions for funding. The first and original source is state dues. The New England states request that U.S. EPA Region 1-New England make a portion of their RCRA state hazardous waste program assistance funds available as dues and general support, in the form of a grant to NEWMOA. The NEWMOA Board of Directors determines the specific amount each year in consultation with U.S. EPA Region 1-New England. New York and New Jersey elect to pay their annual dues directly to NEWMOA. IMERC member states also pay annual dues directly to NEWMOA to fund IMERC's activities.

U.S. EPA grants support general solid waste activities, pollution prevention projects, the open waste burning project, mercury projects, the innovative site assess-

ment technology project, hazardous waste inspector training, and participation in federal regulatory development. Grants for these activities are awarded by a combination of U.S. EPA Region 1-New England, EPA Region 2, and EPA Headquarters, and occasionally by other agencies and institutions. A portion of fiscal year 2006 grant funding was carry-over from the remainder of a federal budget line item supported by U.S. senators and representatives from the NEWMOA states for fiscal year 2005.

Contributions from member states in the form of grants and contracts make up the third source of funding. Several states contribute directly to fund projects of particular interest, as well as to support NEWMOA's solid waste, pollution prevention, IMERC, and waste site cleanup programs.

<i>NEWMOA's Balance Sheet</i>		<i>10/1/05 to 9/30/06</i>	
<b>Revenues</b>			
State Dues, Contracts, Fees, Contributions & In-Kind Services/Match		\$	137,722
Federal Grants*			901,005
Miscellaneous			8,123
<b>Total Revenue</b>		\$	1,046,850
<b>Expenditures</b>			
Staff Salaries & Expenses		\$	634,343
Travel & Meetings			102,331
Office Expenses			292,925
<b>Total Expenditures</b>		\$	1,029,599
<b>Net Assets</b>			
Net Assets at Beginning of Year			291,214
Net Assets at End of Year			308,465
<b>Net Change in Assets (loss)</b>		\$	17,251

*\*Federal grants include \$142,000 in state assistance grants allocated to NEWMOA at the request of the New England states. In addition, \$78,000 resulted from carry-over of a line item in the federal budget during fiscal year 2005. Federal grants also include awards to states that were provided to NEWMOA through state contracts.*

## Northeast Waste Management Officials' Association (NEWMOA)

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**T**he Northeast Waste Management Officials' Association (NEWMOA) is a non-profit, non-partisan interstate association that was established by the governors of the New England states as an official interstate regional organization, in accordance with Section 1005 of the Federal Resource Conservation and Recovery Act (RCRA), to coordinate interstate hazardous and solid waste activities. The organization was formally recognized by the U.S. EPA in 1986. NEWMOA's membership is composed of the state environmental agency directors of the hazardous waste, solid waste, waste site cleanup, emergency response, pollution prevention, and underground storage tank programs in Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont.

NEWMOA's mission is to develop and sustain an effective partnership of states to explore, develop, promote, and implement environmentally sound solutions for the reduction and management of materials and waste, and for the remediation of contaminated sites, in order to achieve a clean and healthy environment. The group fulfills this mission by providing a variety of services that:

- \* facilitate communication and cooperation among member states and between the states and the U.S. EPA, and
- \* support the efficient sharing of state and federal program resources to help avoid duplication of effort and to facilitate development of regional approaches to solving critical environmental problems in the Northeast.



Northeast Waste Management  
Officials' Association

129 Portland Street, 6th floor, Boston, MA 02114  
Telephone: (617) 367-8558 Fax: (617) 367-0449  
[www.newmoa.org](http://www.newmoa.org)

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Meg Wilcox, Project Manager  
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NJ DEP

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NYS DEC

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RI DEM

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VT DEC

Gary Gulka, Director  
Environmental Assistance Division  
VT DEC

#### FY 2006 NEWMOA Board of Directors

Yvonne Bolton, Chief  
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CT DEP  
Robert Kaliszewski, Ombudsman  
Office of Environmental Assistance & Outreach  
CT DEP

Mark Hyland, Director  
Bureau of Remediation & Waste Management  
ME DEP

Julie Churchill, Acting Director  
Office of Innovation & Assistance  
ME DEP

Sarah Weinstein, Deputy Assistant Commissioner  
Bureau of Waste Prevention  
MA DEP

Janine Commerford, Assistant Commissioner  
Bureau of Waste Site Cleanup  
MA DEP

Jay Naparstek, Section Chief  
Bureau of Waste Site Cleanup  
MA DEP

Paul Richard, Director  
Massachusetts Office of Technical Assistance  
MA OEA

