



NEWMOA
2019 ANNUAL REPORT

investing in the future

ADVANCING STRATEGIC PRIORITIES

about newmoa

NEWMOA is a non-profit, tax-exempt 501(c)(3), non-partisan, interstate association whose membership is composed of the state environment agency programs that address pollution prevention, toxics use reduction, sustainability, materials management, hazardous waste, solid waste, emergency response, waste site cleanup, underground storage tanks, and related environmental challenges in Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont.





LETTER FROM NEWMOA'S 2019 CHAIR

In Fiscal Year 2019, NEWMOA focused on making progress on several important long-term projects that will come to fruition in FY 2020 and FY 2021. Taking action on emerging contaminants is one of our key strategic priorities, and throughout the year NEWMOA continued its important work to support state actions on per- and polyfluoroalkyl substances (PFAS). These chemicals have been widely used in carpet and fabric protection and food packaging and were key components of aqueous film-forming foams (AFFF) used for firefighting. Communities throughout the Northeast have sites where drinking water and other environmental media are impacted by this class of chemicals.

During FY 2019 (October 1, 2018 - September 30, 2019), NEWMOA made significant progress on planning a regional PFAS Science Conference that was originally planned to take place March 31-April 1, 2020, at the Sheraton Framingham Hotel and Conference Center. It has since been postponed to December 1-2, 2020, due to the COVID-19 crisis. NEWMOA partnered with the Northeast States for Coordinated Air Use Management (NESCAUM), New England Interstate Water Pollution Control Commission (NEIWPCC), and Northeast Recycling Council (NERC) for this Conference. The goals of the Conference are:

- Ensure that local, state, and federal action to address PFAS contamination is informed by the most current and reliable science
- Facilitate networking and information-sharing among key stakeholders on PFAS topics
- Identify important gaps in the science and policy to help inform future research

NEWMOA still expects at least 500 participants at the Conference and received about 140 proposals for presentations in response to its 2019 Call for Presentations, many more than the two-day event can accommodate.

In addition, NEWMOA held well-attended

monthly conference calls of state and federal environmental and health officials to help them share information on PFAS issues as well as periodic training webinars throughout 2019.

NEWMOA also made significant progress in FY 2019 on the development of a High Priority Chemicals Data System (HPCDS). This will be a single online portal for manufacturers to report the presence of high priority chemicals in children's products. The initial version of the HPCDS will help Oregon and Washington State to fulfill the requirements under their children's product disclosure laws. NEWMOA's Interstate Chemicals Clearinghouse (IC2) worked with its information technology (IT) contractor, Eastern Research Group (ERG) to design and build the HPCDS. The System was launched early in FY 2020.

NEWMOA also undertook a major overhaul of the Interstate Mercury Education and Reduction Clearinghouse (IMERC) e-Filing System for mercury-added product reporting. The System, which was originally launched in 2011, requires important software upgrades and improvements. In addition, it will be reconfigured to enable the reporting schedule to align with that of EPA's new Mercury Reporting Rule deadlines and will include



Ron Gagnon

RHODE ISLAND,
DEPARTMENT OF
ENVIRONMENTAL
MANAGEMENT

2019 NEWMOA CHAIR

“As the Chair in 2019, I was able to see firsthand how valuable NEWMOA is to our region. NEWMOA’s staff is dedicated to its mission and to helping its members effectively respond to new challenges.”

Ron Gagnon, 2019 NEWMOA Chair

added functionality to support state product labeling and phase-out requirements. The updated System will be relaunched in calendar year 2020.

NEWMOA began to actively make plans for a regional Brownfields Summit in collaboration with EPA Region 1 and the Technical Assistance to Brownfields (TAB) Communities program at the New Jersey Institute of Technology (NJIT) in FY 2019. The Summit will take place on October 7-8, 2020, at the Devens Commons Center, Devens, MA. The goals of the Summit are to:

- Share information about the financial incentives, liability protections, and technical and other assistance available for brownfields development from federal and state governments
- Promote best practice and lessons learned across states
- Provide an opportunity to increase networking and information-sharing among key stakeholders

In 2019, NEWMOA offered training for waste site cleanup consultants and agency staff with two workshop series covering “Remedy Selection” and “Redevelopment of Contaminated Properties and Resolving Conflicts with Stormwater Requirement.” These successful events provided opportunities for participants to learn about emerging issues in the cleanup field.

NEWMOA also launched a webinar series on Resource Conservation and Recovery Act (RCRA) Compliance at Cleanup sites. The first of these webinars was held early in fiscal year 2020. They were planned by NEWMOA’s Hazardous Waste Steering Committee and Training Workgroup with the goal of providing technical assistance for waste site cleanup consultants and state agency staff on key RCRA compliance issues that can arise at contaminated sites that require remediation.

NEWMOA’s employee Rachel Smith left the staff in 2019 to work in the solid waste program at the Massachusetts Department of Environmental

Protection (MassDEP). Rachel was hired in 2006 to help conduct a variety of projects focused on mercury reduction and to assist with pollution prevention (P2) projects. As a result of her mercury reduction efforts, many schools throughout Massachusetts became mercury-free. She developed the content for NEWMOA’s online database covering mercury legacy products. For more than five years, Rachel managed the Interstate Mercury Education and Reduction Clearinghouse (IMERC). In that role, she led efforts to improve the states’ product notification, labeling, and phase-out activities.

Rachel made substantial contributions to many of NEWMOA’s P2 information resources, including the Green Lodging Calculator and the Wet Cleaning Virtual Trade Show. She also contributed to important solid waste projects, including those focused on reducing the generation of paint waste, bulky waste, and food scraps. She helped to develop training resources for transfer station operators on safety and waste reduction and for municipal officials on pay-as-you-throw. She prepared many of the written materials for these projects and delivered a number of presentations. She made numerous contributions to other projects and activities over her tenure. We greatly appreciate Rachel’s many years of dedication and hard work and wish her well in her new position.

Finally, in FY 2019, NEWMOA strengthened its partnership with the Northeast Recycling Council (NERC) and updated the organizations’ joint Strategic Action Plan that was first developed and approved in FY 2017.

Please check out the other examples of our work in FY 2019 by reviewing the rest of this Report. For a quick overview of our accomplishments, check out “NEWMOA-by-the-Numbers” and “Highlights.”

As the Chair in 2019, I was able to see firsthand how valuable NEWMOA is to our region. NEWMOA’s staff is dedicated to its mission and to helping its members effectively respond to new challenges. As highlighted by this Report, it is critical that we continue to support NEWMOA staff. We must work together to find new and innovative ways to fund NEWMOA, from collaborating on EPA grant opportunities to seeking out new partnerships that reach beyond our region. NEWMOA is a leader in building important partnerships. This leadership and dedication will allow the organization to continue to be at the forefront of helping to address key waste management and pollution prevention issues.



2019 highlights

High Priority Chemicals Data System

NEWMOA's Interstate Chemicals Clearinghouse (IC2) worked on developing a High Priority Chemicals Data System (HPCDS) throughout FY 2019. It is a single online portal for manufacturers to report the presence of high priority chemicals in children's products. The initial version of the HPCDS will help Oregon and Washington to fulfill the requirements under their children's product ingredient disclosure laws. IC2 worked with an information technology (IT) contractor, Eastern Research Group (ERG) to design and build the HPCDS. Version 1 of the System was launched early in FY 2020.

Science of PFAS

PFOA and PFOS are perfluorooctanoic acid and perfluorooctane sulfonic acid, respectively, and belong to the broader class of per- and polyfluoroalkyl substances (PFAS). These chemicals have been widely used in carpet and fabric protection and food packaging and have been key components of aqueous film-forming foams (AFFF) used for firefighting. Communities throughout the Northeast have sites where drinking water and other environmental media are impacted by this class of chemicals. NEWMOA held monthly conference calls of state and federal environmental and health officials to help them share information. In the spring of 2019, NEWMOA held a successful series of five training webinars that were each attended by 125 to 245 consultants and government officials from throughout the U.S. NEWMOA also made significant progress toward planning a regional "The Science of PFAS: Public Health and the Environment" Conference, which will be held late in 2020 at the Sheraton Framingham Hotel and Conference Center in Framingham, MA.

Waste Site Cleanup Workshops

NEWMOA offered training for waste site cleanup consultants and agency staff on two topics, "Remedy Selection for Success" and "Redevelopment of Contaminated Properties and Resolving Conflicts with Stormwater Requirement" in FY 2019. These successful events provided opportunities for participants to learn about emerging issues in the cleanup field.

NEWMOA's "Remedy Selection" Workshop focused on helping cleanup professionals choose a remediation strategy at a site based on a conceptual site model (CSM) and the remedial action objectives.

NEWMOA's "Redevelopment of Contaminated Properties and Resolving Conflicts with Stormwater Requirements" focused on helping cleanup professionals avoid stormwater problems when remediating and redeveloping a contaminated property. Stormwater management is also key to the climate resiliency planning. To mitigate contamination to waterways, stormwater programs promote the use of onsite infiltration. However, at many contaminated properties, the remediation plan allows contamination to remain onsite if it is isolated from direct contact and precipitation. The goals of the two programs can, therefore, be at odds, and the redevelopment plan for a contaminated property can be negatively impacted if the two approaches are not considered early on and reconciled.

Brownfields Summit

In FY 2019, NEWMOA initiated plans for a "Revitalizing New England: Brownfields Summit 2020" to be held on October 7-8, 2020, at the Devens Common Center in Devens, MA. This Summit will bring together key brownfields stakeholders to help advance and accelerate redevelopment of contaminated properties. The goals of the

Summit are to:

- Share information about the financial incentives, liability protections, and technical and other assistance available for brownfields development from federal and state governments
- Promote best practice and lessons learned across states and programs
- Provide an opportunity to increase networking in the region and information-sharing among key stakeholders

The two-day Summit will include plenary and break-out sessions and an exhibit area.

Recycled Content Materials in Road Projects

NEWMOA and the Northeast Recycling Council (NERC) jointly hosted a day-long Workshop to promote the use of recycled materials in road and infrastructure projects in Connecticut in April. The Workshop brought together 60 state, local highway, and public works officials, environmental departments, and others to hear about new opportunities, case studies, and lessons learned from experts in the field. It focused on case studies by peers who have successfully used the compost, glass, ground asphalt shingles, and shredded tires in road and infrastructure projects.

Climate & Materials Fact Sheet

NEWMOA and NERC jointly published a fact sheet, "What We as Consumers Can Do About Climate Change?" and a related blog to help consumers understand the impact they can have. The goal of these materials is to build public awareness about what individual actions consumers can take to have a positive impact on greenhouse gases (GHGs). The fact sheet emphasizes that a significant percentage of GHGs are associated with the production, transportation, and disposal of materials and products. In fact, one recent study has found that GHG releases from consumption are increasing even as those from direct use of energy by consumers in their homes and for transportation are decreasing. The fact sheet includes ten steps that consumers can take to make a difference.

2019 newmoa by the numbers



14 NEWMOA-
SPONSORED
TRAINING WEBINARS
involving more than
1,050 participants

210

NEWMOA WORKGROUP
AND PROJECT
CONFERENCE CALLS
involving more than
1,425 participants



More than
41,800 USER SESSIONS
on NEWMOA-supported
websites and
more than **104,000 page
views** by those visitors

7

NEWMOA-SPONSORED
IN-PERSON
WORKSHOPS
involving more than
270 participants



**22 CONFERENCE
CALLS**
organized by partnering
groups in which NEWMOA
staff participated

7

MEETINGS
of the NEWMOA
Board of Directors
in person or
webinars



**13 NEWMOA
MEETINGS**
involving approximately
110 people

34

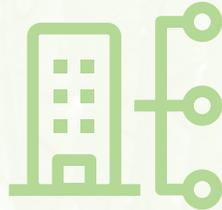
**FACE-TO-FACE
MEETINGS,
CONFERENCES, AND
WEBINARS**
sponsored by other
groups in which NEWMOA
staff participated

4

WEBSITES
supported by
NEWMOA, including
newmoa.org, theic2.org,
erpstates.org, and
greenlodgingcalculator.org



**4 ISSUES OF
NEWS@NEWMOA**
distributed to approximately
2,550 readers each



More than
300 COMPANIES
reporting on their
mercury-added products
through the Interstate
Mercury Education and
Reduction Clearinghouse
(IMERC)

13

IMERC MEMBER STATES
**3 IMERC Supporting
Members**

13

IC2 MEMBERS
including state and
local governments;
**15 IC2 Supporting
Members**

17

**OTHER NEWMOA
PUBLICATIONS OR
DOCUMENTS**
developed and distributed



**32 WORKGROUPS OR
COMMITTEES**
involving approximately
600 participants



8 ONLINE DATABASES
and other downloadable
tools and resources
developed and/or
maintained

8

**NEWMOA
MEMBER STATES**

6

**NEWMOA
STAFF**

For more information,
visit www.newmoa.org.

Solid Waste & Sustainable Materials Management Programs



Peter Pettit

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION,
2019 NEWMOA SOLID WASTE & SMM PROGRAM CHAIR

Overall, discussions among NEWMOA's solid waste program officials throughout FY 2019 focused on food scrap reduction and diversion, overcoming challenges in the markets for recycled materials, extended producer responsibility opportunities, and much more.

NEWMOA conducted a survey of state participants in NEWMOA's FY 2019 Solid Waste and Sustainable Materials Management activities, and 71 percent of the respondents stated that they use the information they learned from those activities. Respondents noted that they apply the knowledge they gained from participating in NEWMOA's solid waste activities in the following ways:

- Compare what other states are doing to coordinate priorities and jointly look

for ways to educate and influence our residents and businesses

- Stay current on how other Northeast states are managing various waste streams to develop consistent public policies and programs
- Assist with rulemaking as states work on similar programs

Climate & Materials

NEWMOA and NERC jointly published a 2019 fact sheet, "What We as Consumers Can Do About Climate Change?" and a related blog to help consumers understand the impact they can make - www.newmoa.org/solidwaste/projects/climate/ClimateChange_brochure.pdf. The goal of these materials is to build public awareness about what individual actions consumers can take to have a positive impact on climate change. The fact sheet emphasizes that a significant percentage of greenhouse gases (GHGs) are associated with the production, transportation, and disposal of materials and products. In fact, one recent study has found that GHG releases from consumption are increasing even as those from direct use of energy by consumers in their homes and for transportation are decreasing. The fact sheet includes ten steps that consumers can take to make a difference. NEWMOA and NERC collaborated with the West Coast Climate and Materials Management Forum on drafting the handout.

This past year NERC and NEWMOA worked together to strengthen their ties with the West Coast Climate and Materials Management Forum (<https://>

westcoastclimateforum.com/), which includes representatives of environmental agencies in California, Oregon, and Washington. The Forum and NEWMOA held several conference calls to share information and tools and to promote each other's events.

Food Waste

EPA estimates that about 20 percent of the municipal solid waste stream is food waste. EPA and USDA have established a national goal to reduce this waste by 50 percent by 2030. Through numerous efforts NEWMOA continues to support actions to help achieve this objective in the Northeast. Under EPA's "Food Recovery Hierarchy," priority should first be on reducing the generation of wasted food at the source. The next best option for unwanted food should be feeding people, then feeding animals, and then directing what's left to composting and anaerobic digestion (AD) facilities.

There are significant opportunities to promote reduction of wasted food and increase diversion of unwanted food from disposal in the Northeast, and many innovative initiatives are underway. Some of NEWMOA's members have achieved significant increases in edible food rescued for donation because of enhanced environmental policies and actions. Furthermore, there is significant interest in expanding composting capacity, and the technologies are rapidly improving and capacity expanding for converting food waste to energy through AD. Many of NEWMOA's members have already permitted new AD and commercial and



Food waste reduction and recovery handout

There are significant opportunities to promote reduction of wasted food and increase diversion of unwanted food from disposal in the Northeast; many innovative initiatives are underway.

municipal composting operations. State environmental agencies are also working with local governments and waste haulers to address their challenges with food waste collection and storage.

Workgroup

The NEWMOA-NERC joint Food Recovery Workgroup is a forum for interstate collaboration and information sharing on methods for diverting wasted food from disposal, siting, and permitting of composting and AD facilities, and sharing other regulatory and policy issues and challenges. Throughout 2019, this joint Workgroup of 26, including staff from EPA Regions 1 and 2, met regularly to share ideas, updates, and information. Some of the Workgroup's efforts are further described below.

Webinar

NEWMOA and NERC held an "Edible Food for Donation" webinar in April for about 140 participants covering successful ideas for expanding opportunities for donating food, particularly from grocery stores and other retailers. Presenters included Sherri Stevens and Nick Lachapelle, Hannaford Supermarkets, and Lorenzo Macaluso, Center for EcoTechnology. Slides and recording: www.newmoa.org/events/event.cfm?m=370.

Project

NEWMOA completed a "Promoting Strategies to Keep Food Waste Out of Landfills" Project in FY 2019. The Project focused on increasing the recovery and donation of excess food from such businesses as grocery stores, restaurants,

and cafeterias. Throughout the Project, NEWMOA assisted rural areas of Maine, New Hampshire, and Vermont with reducing generation of wasted food and expanding backyard composting.

NEWMOA developed and published outreach materials and conducted successful stakeholder workshops. In FY 2019, NEWMOA published "Food Recovery and Donation" handouts for the Androscoggin Valley Council of Governments (AVCOG) in Maine and the Lakes Regional Planning Commission in New Hampshire, as well as a fillable form version that can be used for other locations. All of the publications produced by the project are available at: www.newmoa.org/solidwaste/projects/food/publications.cfm

NEWMOA organized three workshops to promote food recovery and donation for a total 87 participants in the targeted areas of Maine, New Hampshire, and Vermont. NEWMOA surveyed the participants in the workshops. Of the 72 respondents, 100 percent reported that either the workshop gave them ideas to increase food recovery and donation or they made personal connections during the networking time at the workshop that will lead to increased food recovery



2019 SOLID WASTE & SMM PROGRAM AT-A-GLANCE

5 webinars for approximately 280 participants

4 workshops for approximately 147 participants, including 60 participants in a joint NEWMOA - NERC workshop on using recycled content in roadway projects

7 new publications posted on sustainable materials management topics

24 participants in a SMM meeting at EPA Region 2, including officials from NJ, NY, and, for the first time, Puerto Rico, and the Virgin Islands

4 joint Workgroups with NERC on markets for recyclables, food recovery, climate and materials management, and extended producer responsibility

and donation. Presentations from each workshop are available at: www.newmoa.org/solidwaste/projects/food/events.cfm.

NEWMOA partnered with NERC to hold a joint webinar in December for 80 participants that presented the Project's results. Slides and recording: www.newmoa.org/events/event.cfm?m=343.

Recycled Content Materials in Road & Infrastructure Projects Workshop

NEWMOA and NERC jointly hosted a daylong Workshop in April to promote the use of recycled materials in road and infrastructure projects in Connecticut. The Workshop brought together 60 state, local highway, and public works officials, environmental departments, and others to hear about new opportunities, case studies, and lessons learned from experts in the field. It focused on case studies by peers that have successfully used the following materials in road and infrastructure projects:

- Compost
- Glass
- Ground asphalt shingles
- Shredded tires

The workshop received a 100 percent overall rating of excellent or good on 20 evaluation forms; participants reported that they plan to use the information they learned in the following ways:

- Collaborate more with the state Department of Transportation (DOT)
- Investigate what recyclables (if any) may be cost effective and allowable to use in our area in our construction
- Educate my coworkers on what is going on
- Assist solid waste clients with options to help reuse materials and lower costs
- Consider developing a composting facility, and the potential for use in infrastructure projects is a significant positive

Slides: www.newmoa.org/events/agenda.cfm?m=348.



IMPROVING SCHOOL RECYCLING & COMPOSTING

In FY 2019, NEWMOA initiated an education and outreach campaign to increase recycling rates, decrease recycling contamination, and identify waste reduction opportunities in the Wakefield Public Schools in Wakefield, MA. NEWMOA has been working with the Wakefield Environmental Sustainability Committee and the school district on this effort. In addition to an education and outreach campaign, the project seeks to identify opportunities to improve the recycling and waste diversion infrastructure in the schools and devise strategies to increase access to recycling in terms of the types of materials accepted as well as the number and placement of points of collection. The project will wrap-up in FY 2020, when NEWMOA will report on the results.

Disaster Debris Management

Safe, proper, and timely management of debris generated during a disaster is an essential component of emergency response. Disaster debris must be properly managed to protect human health, comply with regulations, conserve disposal capacity, reduce injuries, reuse and recycle as much material as appropriate, and minimize or prevent environmental impacts. It involves advanced planning and coordination among individuals at various levels of government and the private sector with expertise in waste management. Communities often need to designate areas to store, separate, or process the debris before sending it for reuse, recycling, composting, combustion, or disposal. A local disaster debris management plan can aid municipalities in providing this advanced planning and coordination and can help to determine the appropriate management options in anticipation of a disaster to avoid rushed decisions. Many state agencies in the Northeast are assisting communities with development

of these management plans. This past year NEWMOA's Disaster Debris Management Workgroup, which includes representatives of state and federal environmental and state emergency management agencies, shared information, leveraged resources, and promoted strategies that work for local communities.

NEWMOA's Workgroup held a webinar in February for about 40 participants focused on the use of composting as a management tool in response to environmental emergencies. Mark King, Maine Department of Environmental Protection (ME DEP), shared the outcomes and lessons learned from several events, including a fall 2018 unusual mortality event in Maine involving seals, poultry mortalities in the aftermath of Hurricane Florence, and debris management activities in the U.S. Virgin Islands following Hurricanes Irma and Maria in 2017. Mark is a well-respected expert in composting and debris management. Slides: www.newmoa.org/events/event.cfm?m=349.

Extended Producer Responsibility (EPR)

Product stewardship shifts end-of-life financial and management responsibility, with government involvement, upstream to the producer and away from the public sector. A form of product stewardship, called Extended Producer Responsibility (EPR), requires manufacturers to be financially responsible for the end-of-life management of the products and packaging that they produce. Northeast states have enacted more than 30 EPR laws covering electronics, paint, mattresses, mercury thermostats, mercury auto switches, fluorescent lamps, pharmaceuticals, and batteries. Additional EPR proposals for other product categories (for example, household hazardous waste, solar panels, carpet, and packaging and paper products) are also under consideration.

Throughout FY 2019, NEWMOA and NERC worked together to support the Northeast EPR Network that includes about 40 state and local government officials as well as non-governmental organizations that are actively promoting EPR programs. This group convened regularly to share information, updates, and legislative language and strategies and discuss opportunities for regional coordination.

Construction & Demolition (C&D) Materials

Construction and demolition (C&D) materials are a large and diverse waste stream, and capacity for recycling and proper management of these materials remains a significant challenge in the region. Historically, most C&D wastes were disposed in landfills. However, C&D waste disposal capacity is becoming increasingly limited in most NEWMOA states, and public opposition has severely limited the siting of new landfills. Therefore, there is an increased emphasis on recycling and reusing C&D materials.

NEWMOA supported an ongoing Workgroup of about 10 members from state agencies to discuss better management options for C&D materials,

such as use of C&D wood for fuel, reuse of asphalt shingles, and recycling of gypsum wallboard. The Workgroup held several information-sharing conference calls, as well as a webinar in April for about nine participants on gypsum wallboard recycling with USA Gypsum. Slides: www.newmoa.org/events/event.cfm?m=364.

Landfill Post-Closure Care

There are thousands of inactive municipal solid waste landfills (MSWLFs) in the Northeast. Many of these were municipally owned and unlined and stopped receiving waste after states imposed modern construction and operation requirements over 30 years ago. States have developed long-term requirements for the owners of these closed landfills, including maintaining the integrity of the landfill cap; repairing capping when necessary; monitoring water quality, settlement, and methane generation; maintaining the gas control, leachate collection, and storm water management systems; providing financial assurance for the cost of post-closure care; and filing post-closure reports that summarize the condition of the cap and all the other elements of the landfill closure.

NEWMOA formed a Landfill Post-Closure Care Workgroup in 2017 after a workshop of state solid waste management officials identified several important challenges that face agencies tasked with overseeing closed MSWLF sites. These challenges include:

- Overseeing many facilities with very limited resources
- The expiration of the “standard” 30-year post-closure care period for many facilities and the need for ongoing monitoring and maintenance
- Working with municipalities that owned or operated MSWLFs and helping them to implement proper post-closure care
- Enforcing financial assurance plans

The Workgroup of 11 state members met twice in FY 2019 to discuss the programs and to share information and strategies.

Coordination in New York & New Jersey

NEWMOA facilitated information-sharing conference calls and an annual in-person meeting for EPA Region 2, New Jersey, and New York solid waste and SMM staff and managers. In FY 2019, the in-person meeting of 24 people included representatives from the Virgin Islands and Puerto Rico. This was the first time they had been able to attend the regional meeting, and all of the participants benefitted from learning more about their solid waste challenges. The meeting provided an opportunity for updates and coordination on such topics as food waste, solid waste data, disaster debris planning, and product stewardship.

The meeting received a 100 percent overall rating of excellent or good on the evaluations that were submitted. Participants reported that they plan to use the information they learned in the following ways:

- Improve related programs based on information from other states/territories/regions
- Collaborate with other states to further common goals
- Benefit the territory on its solid waste initiatives and to assist with compliance issues

For more information, visit: www.newmoa.org/events/event.cfm?m=323.

NEWMOA’s solid waste and sustainable materials management activities, described above, continue to develop and expand policies in the region to better protect the health of our citizens and our environment. Without the collaboration of state members and NEWMOA’s guidance and coordination, many of these problems would remain unresolved. Much more still needs to be done, but, through these efforts, NEWMOA and member states are tackling these difficult and important issues.

Hazardous Waste Management Programs



Tom Killeen

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION,
2019 NEWMOA HAZARDOUS WASTE PROGRAM CHAIR

Overall, discussions among hazardous waste program officials throughout FY 2019 focused on EPA's

Pharmaceutical Waste Rule, challenges associated with implementation of the federal e-manifest system, Resource Conservation and Recovery Act (RCRA) compliance issues associated with cleanup sites, and RCRA compliance at Treatment, Storage, and Disposal Facilities (TSDFs).

NEWMOA conducted a survey of state participants in NEWMOA's FY 2019 Hazardous Waste activities, and 96 percent of the respondents stated that they use the information they learned from those activities. Respondents noted that they apply the knowledge they gained

2019 HAZARDOUS WASTE PROGRAM AT-A-GLANCE

2 workshops for more than 100 hazardous waste (HW) inspectors and program staff

11 information-sharing conference calls on key HW topics, involving an average of 50 participants

HW Permit Writers Workgroup of **12 members**

from participating in NEWMOA's HW activities in the following ways:

- Improve my inspection techniques
- Help develop potential policies/regulations
- RCRA is full of gray areas, so broad multi-state feedback on program implementation is useful on many fronts, from broadening the knowledge base of newer employees to providing the basis for drafting new state-specific regulations
- As a fairly new RCRA inspector, any new knowledge I gain, especially from others' experiences, helps me to be a better and more confident inspector

Training

NEWMOA's Hazardous Waste Training Workgroup was busy in FY 2019 planning workshops and sharing ideas and providing oversight on training activities. NEWMOA held workshops for about 100 hazardous waste inspectors in EPA Regions 1 and 2 in June. At least one of the workshops covered: Land Disposal Restrictions (LDRs), e-manifest implementation, enforcement targeting, inspecting for RCRA air emissions requirements, listed HW and how it attaches to cleanup sites, interesting enforcement cases, and waste generated by hemp and marijuana growers and processors.

The June hazardous waste (HW) inspectors' workshop for NJ and NY that NEWMOA organized in collaboration with EPA Region 2 received a 97 percent rating of excellent or good on 31 evaluation forms; participants reported

that they plan to use the information they learned in the following ways:

- More accurately inspect for LDRs and air emissions requirements
- Take a clear look at TSDFs' waste analysis plans for LDR compliance
- Good starting point with information to expand on to better understand LDR and air emissions

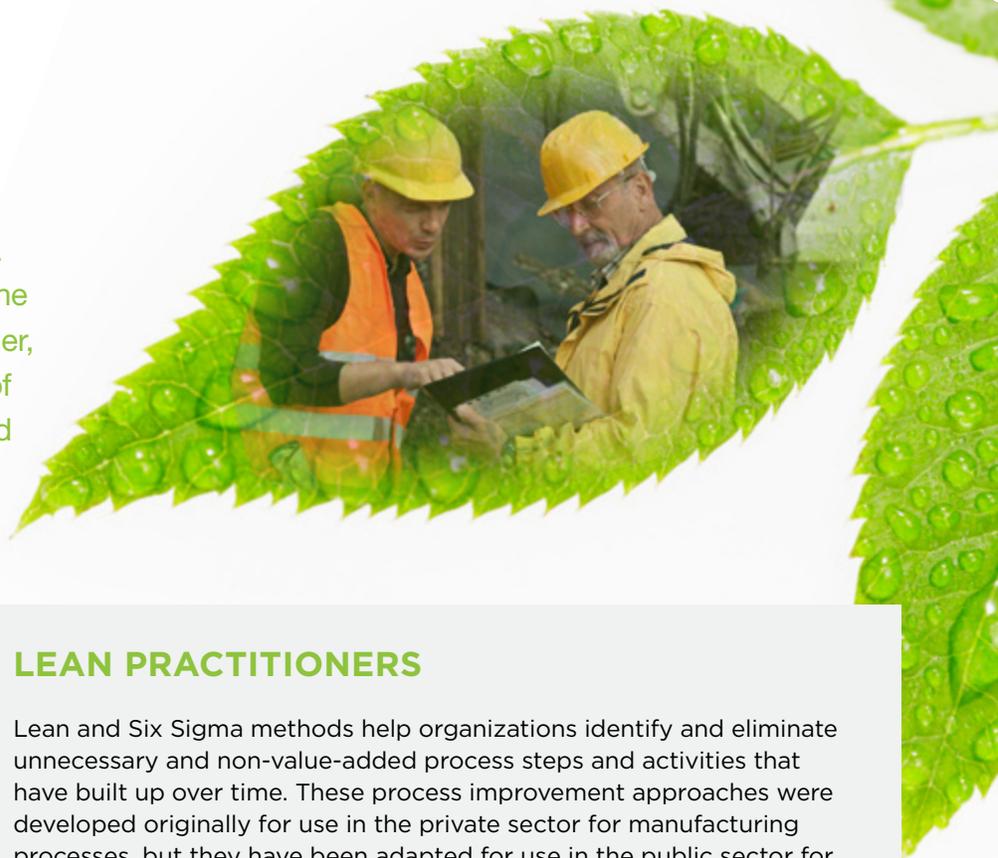
The June HW workshop in New England received a 100 percent rating of excellent or good on 26 evaluation forms; participants reported that they plan to use the information they learned in the following ways:

- Clearer understanding of terminology
- Better understanding of AA, BB, CC, and contaminated sites
- Improving permit language
- Taking the time to learn about processes during inspections

Throughout FY 2019, NEWMOA also provided training for hazardous waste program staff through monthly information-sharing conference calls or webinars. These sessions focused on:

- State requirements for safe closure of generator sites
- Issues raised by a recent enforcement case at a TSDF in Vermont
- Characterization and management of decommissioned photovoltaic solar panels from large scale installations
- Training resources for hazardous waste program staff
- State regulatory approaches to hazardous waste recycling activities
- Used oil management

Most state agencies have only a few staff who are involved in writing RCRA TSDF permits, and the participants in the Workgroup want to learn from each other, particularly as states face retirements of senior program staff and the associated loss of their substantial expertise.



- EPA's Pharmaceutical Waste Rule
- EPA's e-manifest system
- RCRA financial assurance
- EPA's Generator Improvement Rule

On average, about 50 participants from the Northeast states and EPA Regional Offices and Headquarters joined these calls. These workshops and calls are for state and EPA officials in the Northeast who are involved in the hazardous waste and other waste programs.

Permit Writers Workgroup

As a result of a regional meeting on compliance at TSDFs in FY 2018, NEWMOA formed a HW Permit Writers Workgroup in FY 2019. This Workgroup of about 12 members provides permit writers with an ongoing regional forum to share information and discuss ways to address challenges. Most state agencies have only a few staff who are involved in writing RCRA TSDF permits, and the participants in the Workgroup want to learn from each other, particularly as states face retirements of senior program staff and the associated loss of their substantial expertise. In FY 2019, NEWMOA convened the Workgroup for two calls, and the participants shared information on their processes for developing permits and strategies for communicating with facilities.

NEWMOA's hazardous waste services helped our state staff stay informed about federal rules, ways to improve their inspection and field work, emerging HW issues, and much more.

LEAN PRACTITIONERS

Lean and Six Sigma methods help organizations identify and eliminate unnecessary and non-value-added process steps and activities that have built up over time. These process improvement approaches were developed originally for use in the private sector for manufacturing processes, but they have been adapted for use in the public sector for service and administrative processes.

All of the state and federal environmental agencies in the Northeast are using Lean to reduce the time needed in their permitting, enforcement, data gathering and management, administrative review, and other activities. These agencies have found that Lean and other process improvement methods enable them to understand how their processes are working on the ground and to make adjustments that optimize desired outcomes. By making routine activities quicker and more efficient, staff can be freed to focus on higher-value functions.

In FY 2019, NEWMOA supported its Lean Practitioners Workgroup of about 34 members from the Northeast states and EPA to help them learn from each other and exchange technical resources. NEWMOA held three Workgroup conference calls to share information about recent Lean events, new tools and resources, and lessons learned.

INNOVATIVE COMPLIANCE PROGRAMS

NEWMOA has a long history of supporting state efforts to develop and implement innovative approaches to advancing environmental compliance, conducting compliance assurance activities, and measuring performance.

Since 2013, NEWMOA has supported a Workgroup of about 11 members that includes state and EPA Regional enforcement, compliance assistance, and pollution prevention staffs. The group supports state and EPA efforts to develop innovative strategies to advance compliance and measure performance. The group met via conference call three times FY 2019, finalized a write-up on its goals and objectives, and changed its name.

Waste Site Cleanup Challenges



Trish Coppolino

VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION,
2019 WASTE SITE CLEANUP PROGRAM AREA CHAIR

Overall, discussions among NEWMOA's waste site cleanup program officials throughout FY 2019 focused on PFAS and other emerging contaminants, compliance challenges at cleanup sites, and retirements of long-term waste site cleanup program staff.

NEWMOA conducted a survey of state participants in NEWMOA's FY 2019 Waste Site Cleanup (WSC) activities, and 100 percent of the respondents stated that they use the information they learned from those activities. Respondents stated that they apply the knowledge they gained from participating in NEWMOA's WSC activities in the following ways:

- My participation in the annual EPA/ State Brownfields meeting is a great opportunity to exchange ideas with others in the region and learn about

new initiatives and/or current issues that EPA may have for the states

- The information provided in the monthly PFAS calls has been critical in our ability to respond to these emerging contaminants
- I apply the information provided to inform my daily management and supervisory duties in the Site Remediation Program and disseminate information to other program managers

Remedy Selection Workshops

State waste site cleanup programs are facing a wave of retirements and loss of their practical knowledge. To address this challenge, NEWMOA started a series of cleanup workshops in FY 2018 designed to facilitate the sharing of basic information and lessons learned by long-term staff with new staff. In FY 2019, NEWMOA

held the third and final workshop in this series, "Remedy Selection: Planning for Success and Lessons Learned" in three locations in May and June for a total of 173 participants. This workshop series focused on choosing a remediation strategy at a site given the conceptual site model (CSM) and the remedial action objectives. Topics included:

Topics included:

- Setting the remedial action objectives
- Benefits and challenges of technologies
- Feasibility studies
- RCRA requirements at remediation sites
- Moving from remedy selection to implementation
- Case study and lessons learned

The workshops received a 95 percent rating of excellent or good on the evaluation forms that were received; participants reported that they plan to use the information they learned in the following ways:

- Evaluating remediation proposals at regulated sites
- Project management of remediation sites
- Directly applicable to doing feasibility studies for my job

Slides: www.newmoa.org/events/event.cfm?m=356.

Redevelopment of Contaminated Properties & Stormwater Workshops

Stormwater management must be considered by environmental professionals when developing the remediation strategy at a contaminated property. Stormwater can no longer simply be piped off-site into a storm sewer or water body. It



Many communities in the Northeast have drinking water systems that are impacted by PFAS. Understanding fate and transport and remediation and treatment options to meet state and federal drinking water guidelines is challenging.

must be managed onsite – either through containment and infiltration through site soils or through containment and treatment before release. Infiltration requires a large area where the underlying soils are considered mildly contaminated and also where the addition of water to the subsurface will not negatively impact groundwater and downgradient conditions. At some sites, removal of additional contaminated material during remediation can create a suitable location for infiltration. Infiltration trenches, basins, and other configurations also require excavation of contaminated site soils that must be managed. Management of these soils should be included in the site remediation and redevelopment planning.

When site remediation cannot provide a suitable area for infiltration, then stormwater must be collected and treated onsite before being discharged offsite or to a water body. Collection and treatment structures require a large area and significant excavation for their installation. Since these systems are installed as part of the site remediation strategy and leave some residual contamination, excavated soil is impacted and must be managed accordingly. Site managers should include techniques for minimizing and managing these contaminated soils when developing the site remediation strategy. They need to understand the available stormwater containment and treatment options in order to mitigate potential impacts and formulate an appropriate remediation approach.

NEWMOA developed a workshop to educate waste site cleanup professionals about why stormwater management is relevant to their work and to prompt

increased communication with stormwater management professionals so they can design the optimal remediation strategy for their clients that complies with site plans and minimizes soil management and stormwater system costs. Workshop sessions were held at the end of September in Massachusetts and New Hampshire for a total of 75 participants. A third workshop in Connecticut was held in November 2019.

Topics covered include:

- Waste site cleanup fundamentals and potential conflicts with stormwater requirements
- Stormwater fundamentals and potential conflicts with waste site cleanup requirements
- Strategies and technologies to comply with both sets of requirements
- Demonstration of a RI DEM project planning tool that others can use
- Case studies of contaminated property redevelopment projects impacted by stormwater management issues

The Workshops received a 100 percent rating of excellent or good on the evaluation forms received; participants reported that they plan to use the information they learned in the following ways:

- I have more appreciation of the impact of stormwater considerations in remediation planning
- Ask better questions about the impact of contamination on stormwater during plan reviews
- Develop more holistic site plans informed by site/soil contamination issues as they relate to stormwater

Slides: www.newmoa.org/events/event.cfm?m=386.

2019 WASTE SITE CLEANUP PROGRAM AT-A-GLANCE

5 one-day workshops in
3 locations for 248 participants

**9 states and EPA conference
calls** on PFAS, plus 1 webinar

5 public webinars on PFAS for
over 890 participants

Soil Reuse Workgroup of
20 members

PFAS Workgroup, Webinars, & Science Conference

NEWMOA's Waste Site Cleanup Program helped states share information on PFAS issues in FY 2019. PFAS are a large class of chemicals that have been used in numerous consumer products and industrial processes due to their oil and water-resistant properties and their exceptional stability. The products include carpet and fabric protection, food packaging, and aqueous film-forming foams (AFFF) used for firefighting. The same properties that make PFAS so useful in consumer products and for firefighting make them challenging to remove from soil and water, including drinking water supplies. Many communities in the Northeast have drinking water systems that are impacted by PFAS. Understanding fate and transport and remediation and treatment options to meet state and federal drinking water guidelines is challenging.

Workgroup

To support state efforts to understand and address this emerging issue, NEWMOA organized a PFAS States and EPA Working Group in 2016 that includes approximately 70 members from state agencies and EPA Regional offices. The group held 9 monthly information-sharing

conference calls for an average of 35 participants. The calls provide a forum for participants to share developments, including updates on sampling activities and results, analytical methods used, and recently identified PFAS sources. In addition, the group held one webinar for about 53 state and EPA officials on “Atmospheric Deposition as a Source of Contamination at PFAS-impacted Sites.” The presenters include Chris Zevitas, from the U.S. Department of Transportation, and Steve Zemba, from Sanborn Head.

In addition, NEWMOA staff facilitated a session of presentations by representatives of several of the NEWMOA states at the Annual International Conference on Soil, Water, Energy, and Air held at the University of Massachusetts Amherst in October 2018. This session was attended by about 75 people. NEWMOA staff also organized three sessions on PFAS topics for the 2019 conference, which took place in October 2019.

PFAS Webinars

In FY 2019, NEWMOA also held a series of the following five public webinars that were free for participants from EPA and state government agencies in the Northeast (consultants and others from the private sector, non-profits, academic institutions, other federal agencies, and government agencies in states outside the NEWMOA region paid a small fee to participate):

- “PFAS: Case Studies with Wider Implications: AFFF Use at an Airport in Vermont and Impacts at a Dairy Farm in Maine” was held in March and involved more than 185 attendees. Michael Nahmias, Vermont Department of Environmental Conservation, and Kerri Malinowski, Maine Department of Environmental Protection, presented. Slides: www.newmoa.org/events/event.cfm?m=350
- “Analytical Issues Affecting PFAS Data Quality” was held in April and involved more than 245 attendees. Nancy Rothman, New Environmental Horizons, presented.

Slides: www.newmoa.org/events/event.cfm?m=357

- “PFAS: Sampling Challenges in the Field and Michigan’s Industrial Pre-treatment Program Initiative” was held in May and involved more than 125 attendees. Elizabeth Denly, TRC, and Jon Russell, Michigan Department of Environment, Great Lakes, and Energy, presented.

Slides: www.newmoa.org/events/event.cfm?m=369

- “Vermont’s Soil Background Study and the Transformation of PFAS in the Environment” was held in May and involved more than 164 attendees. Dr. Wenyu Zhu, University of Vermont, and Jennifer Field, Oregon State University, presented.

Slides: www.newmoa.org/events/event.cfm?m=371

- “Results of Fish Tissue Studies in New Jersey and New York” was held in June and involved more than 170 attendees. Jesse Becker, New York State Department of Environmental Conservation, and Sandra Goodrow, New Jersey Department of Environmental Protection, presented.

Slides: www.newmoa.org/events/event.cfm?m=351

Science of PFAS Conference

NEWMOA has partnered with the New England Interstate Water Pollution Control Commission (NEIWPC), the Northeast States for Coordinated Air Use Management (NESAUM), the Northeast Recycling Council (NERC), and others to organize a regional science conference on PFAS. The goals of the Conference are:

- Ensure that local, state, and federal action to address PFAS contamination is informed by the most current and reliable science
- Facilitate networking and information-sharing among key stakeholders on PFAS topics
- Identify important gaps in the science and policy to help inform future research

The Conference was scheduled to take place March 31 and April 1, 2020, at the Sheraton Hotel and Conference Center in Framingham, MA but had to be postponed to December 1-2, 2020, because of the COVID-19 crisis. The Conference organizers expect conference attendance to be approximately 500 people, including:

- Local, state, and federal government officials
- Academic researchers and students
- Consultants and vendors
- Companies that use, make, or sell products that contain PFAS
- Non-governmental and environmental organizations

The Conference will have over 120 presentations in five concurrent tracks: environmental behavior; sampling and analysis; toxicity and environmental health; treatment and remediation; and uses and alternatives. In addition, there will be over 25 companies with exhibit tables, and 35 poster presentations.

Brownfields

Cleaning up and redeveloping brownfields facilitates job growth, increases local tax bases, utilizes existing infrastructure, and improves the environment – a win, win, win. In FY 2019, NEWMOA began actively organizing a “Revitalizing New England: Brownfields Summit 2020” to bring together key stakeholders in the region to help advance our understanding of state and federal brownfield programs and opportunities. NEWMOA is working with the Technical Assistance to Brownfield Communities program at the New Jersey Institute of Technology (NJIT) and state and federal partners to organize the regional Summit planned for October 7-8, 2020, at the Devens Common Center in Devens, MA. The goals of the Summit are to:

- Share information about the financial incentives, liability protections, and technical and other assistance available for brownfields development from federal and state governments

- Promote best practice and lessons learned across states and programs
- Provide an opportunity to increase networking in the region and information-sharing among key stakeholders

The two-day Summit will include plenary and break-out sessions and an exhibit area. Organizers expect approximately 300 people to attend, including representatives from:

- State, tribal, and federal government brownfields and waste site cleanup programs
- Local, regional, and state economic development agencies
- Real estate developers, financial institutions, and law firms
- Planning and economic development consulting firms
- Local governments
- Interested citizens and non-governmental organizations
- Job training grantees
- Environmental professionals

More information: www.newmoa.org/brownfields2020.

NEWMOA's Waste Site Cleanup Program provides vital support to help state programs address the challenges they face. The Association enables its members to learn about emerging issues and develop responses more efficiently than they would if they operated separately. Organizing training through NEWMOA is more cost-effective than having each state develop this capacity. Bringing all the state programs together also enhances the training experience by involving people with different perspectives and a broad range of experiences. As resources available for waste site cleanup programs continue to shrink, the efficiencies state programs gain through NEWMOA become even more valuable.



SOIL REUSE

Construction, utility, brownfields, and waste site cleanup projects can generate significant quantities of excess soil that cannot be reused at the project site and can contain contaminants at levels that are below the standards for hazardous waste but are detectable and may still pose a groundwater or human-contact risk. The management of these mildly contaminated soils can significantly increase the cost of a construction or remediation project and therefore impact economic development.

In 2011, NEWMOA's Waste Site Cleanup Program initiated a partnership with NEWMOA's Solid Waste Program to focus on improving the management and reuse of excess soil in the region. In FY 2019, the Soils Reuse Workgroup, which involves about 20 members, held a conference call in February and updated NEWMOA's "Soil Reuse: State Information Resource" webpage (www.newmoa.org/cleanup/projects/soil-info.cfm).

In November 2018, the Workgroup, held a webinar for about 50 participants to provide state programs with an opportunity to present on their activities. NEWMOA invited members of the national Association of State and Territorial Solid Waste Management Officials (ASTSWMO) to join the webinar.

More information: www.newmoa.org/events/event.cfm?m=340.

NEWMOA's Soil Reuse Workgroup held a webinar in August 2019 on "Management of Limited Reuse Soils" for about 25 participants. Scott Miller, CleanEarth Recycling and Disposal Solutions, presented on their experience working on soil reuse in over 20 states and lessons learned and recommendations for state programs.

Slides: www.newmoa.org/events/event.cfm?m=387.

Interstate Chemicals Clearinghouse (IC₂)



Pam Hadad-Hurst

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION,
2019 IC₂ BOARD CHAIR

In FY 2019, the IC₂ worked on developing a major data system while continuing to support its workgroups, Board, and Council; maintain and update its existing databases; and hold webinars.

High Priority Chemicals Data System

Throughout FY 2019, IC₂ staff worked with Oregon, Washington, Vermont, and other members of the IC₂ Database Workgroup on development of the High Priority Chemicals Data System (HPCDS). The states are collaborating through the IC₂ to develop a single online

portal for manufacturers to report the presence of high priority chemicals in children's products. The HPCDS will facilitate greater efficiency and cost effectiveness for Oregon, Washington, and Vermont to fulfill the requirements under their children's product disclosure laws. It will also reduce reporting burdens and provide better service for manufacturers; increase opportunities for interstate involvement in data analysis and presentation; improve access to robust data for federal, state, and non-governmental stakeholders; and enhance the sharing of reported information with the public.

The HPCDS will set the standard for reporting chemicals-in-products data and create a framework for additional states to implement similar reporting programs at greatly reduced cost. Product manufacturers and distributors will benefit from a reduced burden through "one-stop" reporting that satisfies multiple state requirements. Compared with independent systems in multiple states, a single system is likely to result in fewer reporting errors and inconsistencies and thus a higher-quality dataset.

Ultimately, the HPCDS will provide public access to ingredient data through a flexible, online search interface, enabling enhanced perspectives on the presence of chemicals of concern in products nationally. Analyses of these data could lead to reductions in exposures to chemicals of concern, with resultant benefits to human and ecological health, including reduced potential risk, health

care costs, and preservation of valuable ecosystem services. Finally, a national dataset of this type will help reveal insights regarding the movement of chemicals through manufacturing supply chains.

IC₂'s information technology (IT) contractor, Eastern Research Group (ERG) provided development support for the HPCDS Project throughout the year under the supervision of NEWMOA staff and members of the IC₂'s Database Workgroup. Version 1 of the System was launched in early December 2019.

Initiative on Chemical Ingredient Transparency

Chemical ingredient transparency frequently is a catalyst for companies to develop safer alternatives and avoid toxic chemicals in the first place, and it provides non-governmental organizations (NGOs) and governments with the knowledge of where toxic chemicals are used. In FY 2019, the IC₂ and Clean Production Action (CPA) partnered on the launch of an initiative to find common ground among key stakeholders on chemical ingredient transparency policies and programs.

The diversity of transparency mandates at the state level has been steadily increasing for the past ten years. California, Maine, New York, Oregon, Vermont, and Washington have enacted requirements for public disclosure of chemicals of concern in cleaning and personal care products and/or children's products. Other states,

IC₂ PROGRAM AT-A-GLANCE

Development of the **High Priority Chemicals Data System (HPCDS)**

2 webinars for more than 160 people

1 IC₂ e-Bulletin

6 active Workgroups focused on training, PFAS, alternatives assessment, procurement, governance, and databases

6 IC₂ Board and Council conference calls

Presentations at **2 national conferences**

The HPCDS will facilitate greater efficiency and cost effectiveness for states with reporting programs for children's products and will help Oregon, Washington, and Vermont to fulfill the requirements under their children's product ingredient disclosure laws.

including Connecticut, Louisiana, Maine, Massachusetts, Minnesota, New Hampshire, New York, Rhode Island, Vermont, and Washington have established requirements for reporting on and labeling products and packaging for the presence of mercury. NGOs, including the American Sustainable Business Council, Breast Cancer Prevention Partners, Center for Environmental Health, Clean and Healthy New York, Mind the Store Campaign, Natural Resources Defense Council, Safer States, Toxic-Free Future, Women's Voices for the Earth, and others are advocating for greater disclosure across supply chains. Retailers, including Walmart, have established requirements for ingredient disclosure by their suppliers. Ecolabels, such as EPA's Safer Choice, require chemical ingredient transparency to meet their criteria.

These transparency initiatives confront challenges within and across product categories and sectors. Businesses that operate in multiple jurisdictions find it difficult to participate in or comply with the growing array of requests and requirements. Advocates and the public find it difficult to locate the chemical ingredient information in products when they need it. Businesses and government agencies developing environmentally preferable purchasing specifications are demanding chemical ingredient information and having to navigate and interpret the disclosure information that is available. These stakeholders – governments, businesses,

NGOs, and researchers – could benefit greatly from a set of common principles and data practices.

In FY 2019, the IC2 and CPA began to convene businesses, governments, and NGOs to develop common principles and criteria for chemical transparency policy. By convening these stakeholders, both groups hope to accelerate state and local programs and industry action focused on disclosure of toxic chemicals in products. The IC2 and CPA planned an in-person stakeholder meeting that took place in early December 2019. The groups plan to release a set of Chemical Ingredient Disclosure Principles in calendar year 2020.

Webinars

In October 2018, the IC2 held a joint webinar with the Green Chemistry and Commerce Council (GC3) on "Things You Can do to Select Safer Chemicals for Your Company's Product Formulations" for approximately 80 participants. In this webinar, Joe Rinkevich, the President of Scivera, presented examples of specific steps companies are taking to objectively compare chemicals and formulations to

measure, improve, and track selection and use of safer alternatives. These strategies, when implemented by brands and anticipated by chemical suppliers, can assist all participants in the consumer products supply chain in finding and selecting preferred chemicals. Slides and recording: http://theic2.org/ic2-gc3_webinar_5_things_you_can_do_to_select_safer_chemicals.

In January 2019, the IC2 held a webinar on "The PFAS Universe: Uses, Classification, and Degradation" for approximately 90 participants. Presenters Steve Korzeniowski, BeachEdge Consulting for the FluoroCouncil, and Bob Buck, The Chemours Company, discussed:

- The universe of PFAS
- PFAS chemicals currently in use and their applications
- Degradation pathways (biotic and abiotic)
- Degradation products of PFAS chemicals currently in use

Slides and recording: http://theic2.org/ic2_webinar_the_pfas_universe.





PFAS Report

The IC2 has posted a new report that summarizes the results of a scoping exercise for an alternatives assessment of the use of perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) in aqueous film-forming foam (AFFF), also known as “firefighting foam.” AFFF is used to fight fuel (Class B) fires and typically contains PFAS. AFFF is responsible for many incidents of contamination of groundwater and drinking water. The goal of the report is to:

- Help define the parameters for performance evaluation of firefighting foams
- Identify foams containing short-chain PFAS and fluorine-free foams
- Further inform the scope of any future assessment work to develop alternatives to the use of PFAS in firefighting foams

Report: http://theic2.org/article/download-pdf/file_name/Per_and_Polyfluorinated_Substances_in_Firefighting_Foam_040919.pdf.

Supporting Procurement of Less-Toxic Products

The IC2 Procurement Workgroup brings together an engaged and committed group of its members interested in finding ways to improve state and local government procurement policies and grow markets for manufacturers committed to using safer chemistries, including green chemistry, and in reducing products’ chemical and carbon footprints. The group of 22 members held three conference calls during the year to share information, strategies, and lessons learned.

Alternatives Assessment

The IC2 Alternatives Assessment Workgroup met regularly in FY 2019 to share successes and challenges related to chemical hazard assessment and alternatives assessment. This Workgroup of 29 members oversees the IC2 Chemical Hazard Assessment Database, to which IC2 staff add new GreenScreen assessments as they become available. The

Chemical ingredient transparency frequently pushes companies to ask themselves, “is this chemical necessary?” and can thereby catalyze development of safer alternatives and avoidance of toxic chemicals in the first place.

IC2 contributed to the creation of the Association for the Advancement of Alternatives Assessment (A4), a new professional association solely dedicated to advancing the science, practice, and policy of alternatives assessment and informed substitution.

Chemicals Policy Database

The IC2 Chemicals Policy Database (<http://theic2.org/chemical-policy>) is a searchable database of enacted state-level chemical legislation and policies that was originally developed by the Lowell Center for Sustainable Production. Users can search the Database by state, policy category, chemical, product type (e.g., children’s products, cleaning products), and year.

Outreach

The IC2 published one *e-Bulletin* in 2019 (<http://theic2.org/publications>). IC2 *e-Bulletins* are distributed to more than 400 IC2 Members and Supporting Members, colleagues at EPA and toxics reduction groups, and anyone who expresses an interest in the work of the Clearinghouse.

2019 was even busier and more productive than 2018, and the IC2 has planned even more activities for 2020.

Interstate Mercury Education & Reduction Clearinghouse (IMERC)



Elena Bertocci

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION,
2019 IMERC CHAIR

NEWMOA conducted a survey of state participants in IMERC's groups in 2019, and 100 percent of the respondents stated that they use the information they learned from the Clearinghouse's activities. Respondents noted that they apply the knowledge they gained from participating in NEWMOA's IMERC activities in the following ways:

- Assistance promoting agency interests through work to upgrade IMERC notification portal and coordination among states on challenges to EPA's mercury reporting rule
- Work coordinating agency duties associated with labeling, bans, and notification programs
- Better understanding of mercury and mercury-containing devices

A challenge noted by IMERC's members is the limited staff resources to implement the states' laws. Survey respondents reported that IMERC has helped them learn from the experience of other state programs and organizations. The IMERC model benefits its members because the newer state staff can learn from those with experience, especially when it comes to making unique or complicated decisions, such as when reviewing company requests for product phase-out exemptions.

In FY 2019, IMERC efforts focused on updating mercury-added product data and the associated fact sheets, updating the online notification system, and managing four Workgroups.

Mercury-added Product Data

IMERC held a webinar in February for 40 participants that focused on IMERC's latest analysis of mercury-added products data reported through its e-filing system, covering calendar year 2016 mercury uses. The participants included federal, state, and local government programs; academic institutions; non-governmental organizations; and/or manufacturers, distributors, and importers of mercury-added products. Slides and recording: www.newmoa.org/events/event.cfm?m=347.

Updated Mercury-added Product Fact Sheets

IMERC updated mercury-added product fact sheets for the following six targeted product categories with 2016 data reported through IMERC's e-filing system.

- Batteries
- Dental amalgam
- Formulated Products
- Lighting
- Measuring Devices
- Thermostats

Fact sheets: www.newmoa.org/prevention/mercury/imerc/factsheets.

These Fact Sheets summarize data provided by manufacturers and distributors of mercury-added products to the IMERC-member states in compliance with the state Notification requirements. They include a trends analysis of mercury use in each product category sold in the U.S. from 2001 to 2016; information about the amount of mercury used in the products;

why mercury has been or continues to be used in the products; state phase-outs and bans on the use of mercury in products; collection and recycling programs (where applicable); and other useful information.

Overall, mercury use in each of the product categories analyzed from 2001 to 2016 declined, with large decreases in mercury-added lighting (e.g., fluorescent lamps) and batteries. Mercury use in new button-cell batteries is expected to be zero after 2016, since new mercury thermostats stopped being manufactured and sold in 2015.

IMERC PROGRAM AT-A-GLANCE

A 92 percent compliance rate with states' 2016 notification requirements

11 companies with expired phase-out exemptions contacted and 6 brought into compliance

Updated fact sheets on 6 categories of mercury-added products and an outreach webinar

2 issues of the *IMERC Alert* e-newsletter

Updates to Online Notification System

The Environmental Protection Agency (EPA) issued its Final National Mercury Inventory and Reporting Rule under the Toxic Substances Control Act (TSCA) in June 2018. This Rule requires manufacturers and importers of mercury and mercury-added products to report on their supply, use, and trade in the U.S. every three years. The first report will cover calendar year 2018 and is due to EPA by July 1, 2019. EPA's rule allows reporters to utilize IMERC's online e-filing system for reporting on applicable mercury-added products sold in the U.S.

In partnership with the Connecticut Department of Energy and Environmental Protection (CT DEEP), NEWMOA successfully applied for funding from EPA Headquarters' National Environmental Information Exchange Network (NEIEN) to enable IMERC to update its online reporting cycle to conform with EPA's timeline and upgrade its e-filing System and Mercury-Added Products Database. The alignment with the national reporting requirements means that EPA will have a more complete, national mercury inventory, which will support the data requirements of TSCA and the International Minamata Convention on Mercury.

The most significant change for companies will be that the next round of triennial notifications will include mercury-added products data for calendar year 2018 – rather than calendar year 2019. Additional upgrades to the System will allow IMERC and its members to track companies' compliance with product labeling laws and phase-outs (i.e., product bans and sales restrictions).

Upgrades to the online Mercury-Added Products Database will improve accessibility and data quality because users will have more options for search queries and data presentation and will be able to download raw data for their analyses more easily. EPA awarded the grant at the end of FY 2018; IMERC started its work in FY 2019. The upgraded reporting system will be launched in 2020.

Efforts to Advance Compliance

IMERC facilitates and coordinates implementation of states' mercury-added product legislation by serving as the contact point for regulated companies' notification of their use of mercury-added products, product labeling, and exemptions to phase-out requirements. IMERC also collaborates with state and federal agencies, NGOs, and other groups to advance mercury education and reduction efforts. Through IMERC, members share responsibilities in implementing their laws by participating in Labeling, Notification, Phase-outs, and Education and Outreach Workgroups.

Labeling

Companies that cannot comply with the "standard" labeling criteria required by the states, must apply for approval of an appropriate alternative labeling plan. IMERC's Labeling Workgroup is diligent in its reviews of these requests and works closely with the manufacturers and distributors of these products to ensure that they comply with the labeling laws. In FY 2019, IMERC contacted the six companies that had expired alternative label plans and received applications from five of them. One was approved, and IMERC is in correspondence with the other four and expects to approve them in 2020.

Notification

IMERC's Notification Workgroup completed its review of virtually all the submitted 2016 mercury-added product triennial notification forms in FY 2019. At the end of the fiscal year, more than 280 companies had reported on their 2016 mercury-added product sales in the U.S. – a compliance rate of more than 92 percent of known companies (i.e., companies that previously reported to IMERC). IMERC members used the e-filing system to review and approve company submissions and track company compliance. The e-filing system was taken offline in February 2019 to make the upgrades described above, and resolution of the remaining 2016 notifications is expected in 2020.

Phase-Out

Laws in many IMERC states require companies to stop manufacturing certain products that contain added mercury. If a company has reason to continue selling a product that contains mercury, it must apply to the state(s) for a phase-out exemption. Approvals must be issued by the individual states; however, IMERC's Phase-out Workgroup coordinates reviews of applications and facilitates information-sharing on decisions. In FY 2019, IMERC contacted 11 companies that had an expired exemption in at least one state and received applications from 6 of them.

Education & Outreach

IMERC's Education and Outreach Workgroup compiled and analyzed the 2016 mercury-added product data collected through the triennial reporting cycle. Using this information, IMERC drafted updates to six fact sheets covering different categories of mercury-added products (see description of the fact sheets above).

IMERC Alerts

IMERC published 2 *IMERC Alerts* in 2019 (www.newmoa.org/prevention/mercury/imerc/alert/index.cfm). This free electronic newsletter was distributed to more than 525 people each.



March 2019 IMERC Alert

Pollution Prevention & Sustainability



Rich Bizzozero

MASSACHUSETTS OFFICE OF TECHNICAL ASSISTANCE,
2019 POLLUTION PREVENTION & SUSTAINABILITY PROGRAM AREA CHAIR

NEWMOA's Northeast Pollution Prevention and Sustainability Roundtable helps state and local government environmental officials implement effective multimedia source reduction and assistance programs to promote sustainability and improvement in public health and the environment. Overall, discussions among NEWMOA's P2 and sustainability program officials throughout FY 2019 focused on sustainable breweries, reducing PFAS uses, P2 for janitorial staffs, and other issues.

NEWMOA conducted a survey of state participants in NEWMOA's 2019 Pollution Prevention and Sustainability groups, and 96 percent of the respondents indicated that they use the information they learned from those activities. Respondents stated that they apply the knowledge they gained from participating in NEWMOA's P2 activities in the following ways:

- To gain insight into regional issues and perspectives
- To network and follow up with individuals who participate in the meetings/calls to get additional details on their work
- To help direct future program development and policymaking
- To inform staff about sustainable actions in the brewery sector

P2 & Sustainability Roundtable

NEWMOA convened a P2 Roundtable meeting in FY 2019 of 14 P2 program managers and staff from the New England

states and EPA Region 1 to discuss future strategic directions, including the role of P2 Programs in addressing emerging contaminants and technical assistance to breweries. States also shared information on ongoing activities in the areas of hospitality, climate resiliency and chemical preparedness, and the food and beverage sector beyond breweries, as well as future planned work. Recurring feedback from the Roundtable participants indicates that more time is needed for face-to-face meetings to foster networking and collaboration.

In March, NEWMOA held a webinar for 16 participants on the Massachusetts Office of Technical Assistance's (MA OTA) "Chemical Safety and Climate Change Preparedness" project. This presentation discussed efforts underway in Massachusetts to mitigate chemical safety risks posed by severe weather events. Recording: <https://youtu.be/tl6W14Jl1ys>.

2019 POLLUTION PREVENTION & SUSTAINABILITY PROGRAM

AT-A-GLANCE

1 Roundtable meeting of state and EPA P2 program staff

Webinar on "Chemical Safety and Climate Change Preparedness"

Overall, FY 2019 began a new phase for NEWMOA's Pollution Prevention and Sustainability Program, focused on convening the states in person and providing direct service to individual states to support their program activities.



newmoa funding

NEWMOA relied on dues, grants, contracts, and special contributions for funding in FY 2019. A foundational source of funding was state dues. The New England states requested that EPA Region 1 make a portion of their RCRA hazardous waste program assistance funds available as dues and general support in the form of a grant to NEWMOA. The NEWMOA Board of Directors determined the specific amount in consultation with EPA Region 1. New York and New Jersey paid their annual dues directly to NEWMOA. IMERC and IC2 members also paid annual dues directly to NEWMOA to fund those activities.

EPA competitive grants supported pollution prevention and sustainable materials management projects. Grants for these activities were awarded by a combination of EPA Region 1 and Headquarters, the U.S. Department of Agriculture (USDA), and occasionally by other agencies and institutions. NEWMOA received grant support from the New York Community Trust in partnership with Clean Production Action in FY 2019 for the first time.

Contributions from member states in the form of contracts make up another important source of funding. Several states contribute directly to fund projects of particular interest, as well as to support NEWMOA's IMERC, IC2, and Brownfields programs.

NEWMOA's Financial Activity

October 1, 2018 to September 30, 2019

Revenues

State Dues, Contracts, Fees, Contributions, & In-Kind Services/Match	\$ 600,600
Federal Grants	184,532
Miscellaneous	356
Total Revenue	\$ 785,488

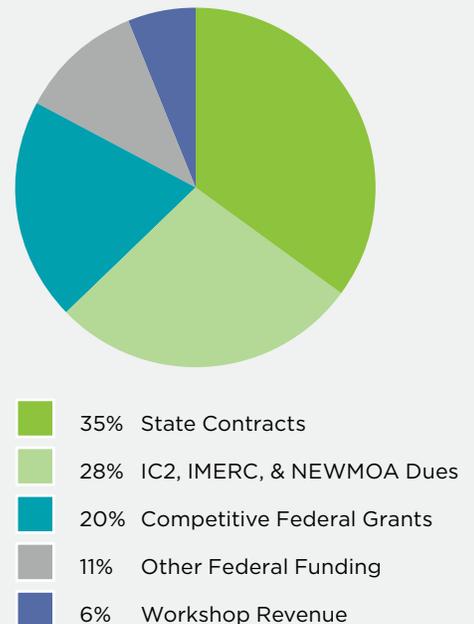
Expenditures

Staff Salaries & Benefits	\$ 516,220
Travel & Meetings	43,784
Other Direct Program Expenses	3,476
General & Administrative*	148,233
Contracts	90,882
Total Expenditures	\$ 802,595

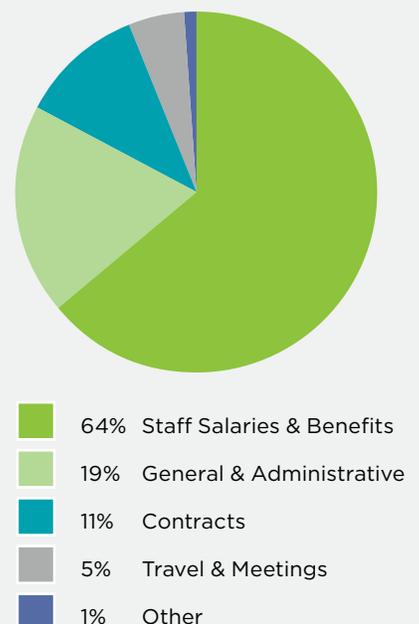
Net Assets

Net Change in Assets**	-\$ 16,107
Net Assets at Beginning of Year	\$ 217,864
Net Assets at End of Year	\$ 201,757

2019 NEWMOA Revenues



2019 NEWMOA Expenses



thank you



NEWMOA greatly appreciates the financial support provided by the following agencies in FY 2019:

California Department of Toxic Substances Control (CA DTSC)
Connecticut Department of Energy and Environmental Protection (CT DEEP)
King County Hazardous Waste Management Program
Louisiana Department of Environmental Quality (LA DEQ)
Maine Department of Environmental Protection (ME DEP)
Massachusetts Department of Environmental Protection (MassDEP)
Metro (Portland, Oregon)
Michigan Department of Environment, Great Lakes, and Energy (MI EGLE)
Minnesota Department of Health (MN DoH)
Minnesota Pollution Control Agency (MPCA)
New Hampshire Department of Environmental Services (NH DES)
New Jersey Department of Environmental Protection (NJ DEP)
New York State Department of Environmental Conservation (NYSDEC)
North Carolina Department of Environment and Natural Resources (NC DENR)
Oregon Department of Environmental Quality (OR DEQ)
Oregon Health Authority (OHA)
Rhode Island Department of Environmental Management (RI DEM)
San Francisco Department of the Environment (SF DoE)
U.S. Department of Agriculture
U.S. Environmental Protection Agency Region 1
U.S. Environmental Protection Agency Headquarters
Vermont Department of Environmental Conservation (VT DEC)
Washington Department of Ecology (WA Ecology)

IC2 Supporting Members:

Center for Environmental Health
Citizens' Environmental Coalition
Clean and Healthy New York
Clean Production Action
Clean Water Action Minnesota
Clean Water Fund
Environmental Health Strategy Center
Lowell Center for Sustainable Production
at UMass Lowell
Maureen Gorsen (Alston & Bird)
National Tribal Toxics Council (NTTC)
New York State Pollution Prevention Institute
North Carolina Conservation Network
Northwest Green Chemistry
Oregon Environmental Council
Walmart

IMERC Supporting Members:

Clean Water Fund - Massachusetts Chapter
Consumers for Dental Choice
Mercury Policy Project

NEWMOA greatly appreciates the support from the sponsors of its 2019 waste site cleanup workshops:

CleanEarth Recycling & Disposal Solutions
Regenesis

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Executive Director

Andy Bray
Project Manager

Topher Buck
Project Manager

Jennifer Griffith
Project Manager

Rachel Smith
Project Manager

Lois Makina
Office Manager

NEWMOA 2019 Board of Directors & Officers

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Nicole Lugli
(2019 Board Vice Chair) Director/Ombudsman, Office of Enforcement Policy & Coordination, CT DEEP

Dave Burns
Director, Bureau of Remediation & Waste Management, ME DEP

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Chief, Bureau of Waste Site Cleanup, MassDEP

Greg Cooper
Director, Business Compliance Division, Bureau of Air & Waste, MassDEP

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Leo Hellested
Chief, Waste Management Division, RI DEM

Chuck Schwer
Director, Waste Management Division, VT DEC

Kim Greenwood
(2019 Finance Committee Member) Director, Environmental Compliance Division, VT DEC

Program & Workgroup Chairs & Officers

Hazardous Waste

Tom Killeen
NYSDEC (2019 Hazardous Waste Program Chair)

Mark Dennen
RI DEM (2019 Hazardous Waste Training Workgroup Chair)

IC2

Pam Hadad-Hurst
NYSDEC (2019 IC2 Chair)

Al Innes
MN PCA (2019 IC2 Vice-Chair)

Nancy Rice
MN DoH (2019 IC2 Treasurer)

Carl Grimm
Metro (2019 IC2 Secretary)

Pam Eliason
Mass TURI (2019 IC2 AA Workgroup Chair)

Ken Zarker
WA Ecology (2019 IC2 Governance & Outreach Workgroup Chair)

Beth Meer
NYSDEC (2019 IC2 Procurement Workgroup Chair)

Kevin Masterson
OR DEQ (2019 IC2 Training Workgroup Chair)

IMERC

Elena Bertocci
ME DEP (2019 IMERC Chair)

Ann Battersby
RI DEM (2019 IMERC Vice-Chair)

Joy Taylor
MI EGLE (2019 IMERC Education & Outreach Workgroup Chair)

Tom Metzner
CT DEEP (2019 IMERC Notification Workgroup Chair)

John Gilkeson
MN PCA (2019 IMERC Labeling Workgroup Chair)

Peter Van Erp
NYSDEC (2019 IMERC Phase-out Workgroup Chair)

Solid Waste & Sustainable Materials Management

Peter Pettit
NYSDEC (2019 Solid Waste & SMM Program Chair)

Buzz Surwilo
VT DEC (2019 C & D Materials Workgroup Chair)

Tom Metzner
CT DEEP (2019 Regional EPR Network Chair)

Josh Kelly
VT DEC (2019 Food Recovery Workgroup Chair)

Waste Site Cleanup

Trish Coppolino
VT DEC (2019 Waste Site Cleanup Program Chair)

Nick Hodgkins
ME DEP (2019 Brownfields Workgroup Chair)

Cross Program

Julie Churchill
ME DEP (2019 Innovative Compliance Strategies Workgroup Chair)

Jennifer Wharf
MassDEP (2019 Soils Reuse Workgroup Chair)

mission

NEWMOA provides a strategic forum for effectively solving environmental problems through collaborative regional initiatives that advance pollution prevention and sustainability, promote safer alternatives to toxic materials in products, identify and assess emerging contaminants, facilitate adaption to climate change, mitigate greenhouse gas sources, promote reuse and recycling of wastes and diversion of organics, support proper management of hazardous and solid wastes, and facilitate clean-up of contaminant releases to the environment.

Goals

NEWMOA's long-term goals are to:

- Support and strengthen state efforts to implement policies, regulations, and programs
- Promote interstate coordination and develop innovative strategies to solve critical and emerging environmental problems
- Develop and enhance the capabilities and knowledge of state officials so that they are well trained, able to adjust to rapid changes in technology, and respond effectively to emerging environmental challenges
- Articulate state program views on federal policy developments, programs, and rulemakings
- Cultivate and enhance relationships among member states, federal agencies, colleges and universities, and stakeholders
- Engage with and educate the regulated community and the public

Challenges

NEWMOA's 2018-2022 priorities are:

- Identifying and assessing emerging contaminants
- Anticipating and mitigating the impacts of climate change
- Building the technical capacity of and ensuring adequate resources for programs

Core Programs

- Hazardous Waste
- Solid Waste and Sustainable Materials Management
- Waste Site Cleanup
- Interstate Mercury Education and Reduction Clearinghouse (IMERC)
- Interstate Chemicals Clearinghouse (IC2)
- Pollution Prevention and Sustainability
- Cross Program Initiatives



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